

COMPLIANCE REPORT
SUBMITTED
TO
HON'BLE NATIONAL GREEN TRIBUNAL (NGT)
PRINCIPAL BENCH, NEW DELHI
FOR THE DIRECTION ISSUED VIDE
ORDER DATED:- 01.09.2020
IN THE MATTER OF
ORIGINAL APPLICATION NO. 105/2019
(AJITSINH BHARUBHA VAGHELA VS. STATE OF GUJARAT)



सत्यमेव जयते

**URBAN DEVELOPMENT & URBAN HOUSING
DEPARTMENT,
GOVERNMENT OF GUJARAT**



GUJARAT POLLUTION CONTROL BOARD

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
ORIGINAL APPLICATION NO. 105/2019**

IN THE MATTER OF:-

Ajitsinh Bharubha Vaghela

Applicant(S)

Versus

State of Gujarat

Respondent(S)

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COMPLIANCE REPORT ON THE DIRECTIONS PASSED IN THE HON'BLE NGT ORDER DATED 01.09.2020 WITH RESPECT TO KHARI RIVER

Background:

The application filed by Ajitsinh Bharubha Vaghela of Kheda District by letter to Hon'ble NGT which states:

“untreated industrial effluents are being discharged in Kharicut Canal which is meeting Khari River in Gujarat affecting irrigation facilities of the inhabitants and the only source of water for irrigation and for consumption by animals like cattles and sheep etc. Borewells have been dug in Bheraj, Pinngloj, Navagaon, Lali etc. villages”

In the hearing on the date 17.01.2020, Hon'ble NGT has issued order dated 17.01.2020 wherein the tribunal appointed Hon'ble Retd. Chief Justice of High Court of Delhi Shri B.C. Patel, to oversee the steps taken by the Authority and submit an independent report to the Hon'ble NGT with a copy to GPCB and AMC. The order relevant portion of the order is reproduced as under and order is annexed herewith as **Appendix - 1**.

“In view of above, further remedial action needs to be taken expeditiously and further report filed by the GPCB as well as the Ahmedabad Municipal Corporation before the next date. We note that a Division Bench of the Gujarat High Court, vide order dated 25.11.2005 in SCA No. 4690/2004 gave directions to the Pollution Board to control industrial pollution and to the Ahmedabad Municipal Corporation to control discharge of sewage. The order refers to several earlier directions. This shows that orders of the courts have not been duly followed and situation remains to be alarming inspite of earlier orders. Having regard to the seriousness of the ground situation and long pending problem, we request Justice B.C. Patel, former Chief Justice of High Court of Delhi, who is available at Ahmadabad, to oversee the steps taken by the authorities. Justice Patel may be assisted by the CPCB and GPCB. The State PCB may provide all requisite facilities to Justice Patel. Justice Patel may send an independent

report in the matter by April 10, 2020 by e-mail at judicial-ngt@gov.in with a copy to State PCB and Ahmadabad Municipal Corporation who may file response before the next date."

In compliance of the Hon'ble NGT order dated 01.09.2020, Hon'ble Retd.Chief Justice of High Court of New Delhi, Shri B.C. Patel, has submitted comprehensive independent detailed report to the Hon'ble NGT on 19.08.2020 with copy to GPCB. The copy of the same report given to AMC.

Hon'ble NGT has passed the order in the matter vide order dated 01.09.2020, upon reviewing the independent report submitted by Hon'ble Retired Chief Justice of High Court New Delhi, Shri B. C. Patel, relevant directions mentioned in the order 01.09.2020 is reproduced as under. The order is annexed herewith as **Appendix -2**.

"Para 08: Observation

It is clear from the above resume of the report furnished by Justice B.C. Patel with due notice to the Municipal Corporation that serious violation of the Water (Prevention and Control of Pollution) Act, 1974 is taking place. Action initiated by the State PCB so far is highly inadequate. Neither compensation for the damage to the environment has been assessed and recovered nor prosecution initiated. This is failure of duty of the State PCB as well as the Irrigation Department."

" Para 10: Direction

In view of above, the joint Committee of CPCB and GPCB must comply with its statutory obligation of initiating action for assessment and recovery of compensation and initiating prosecution against erring officers.

The Municipal Commissioner is directed to initiate action against the erring officers and take immediate further remedial action by preparing a time bound action plan which may be furnished to the State PCB within one month.

This may be overseen by the Secretary Urban Development, Gujarat Govt.

A compliance report may be furnished within two months from today by GPCB, Secretary Urban Development, Gujarat

The Secretary Urban Development, Gujrat, Municipal Commissioner, AMC/MS State PCB may remain present in person/by video conferencing on the next date with action taken reports.”

In compliance with the Hon’ble NGT order dated 01.09.2020, a review meeting was convened on 08.09.2020 under the Chairmanship of Shri Mukesh Puri, IAS, Additional Chief Secretary to Government, Urban Development & Urban Housing Department (ACS UD&DH) with Municipal Commissioner Ahmedabad Municipal Corporation (MC AMC) and Member Secretary Gujarat Pollution Control Board (MS GPCB) along with their officers. Minutes of the Meeting is annexed herewith as **Appendix -3**. Decisions were taken in the said meeting are reproduced as under;

- 1. “AMC shall prepare time bound Action Plan to divert the flow of the sewage coming out from the pipelines to the existing drainage connection.*
- 2. GPCB shall issue notice to Irrigation Department also to close all illegal drainage connection in to Khari cut Canal.*
- 3. Irrigation Department, AMC and GPCB should take action as direction given in Para 10 of Hon’ble NGT order. “*

Thereafter, second review meeting was convened on 15.09.2020 under the Chairmanship of ACS UD & DH with MC AMC & MS GPCB along with concerned department officers. Minutes of the Meeting is annexed herewith as **Appendix - 4**. Decisions were taken in the said meeting are reproduced as under;

- 1. “Ahmedabad Municipal Corporation shall expedite the time bound Action Plan to divert the sewage flowing in to the Kharicut Canal.*
- 2. GPCB shall give direction to the Nodal Officer, Task Force for intensive monitoring of the Canal and Drainage Pipeline network of AMC for illegal effluent discharge.*
- 3. GPCB shall give Direction to the Irrigation Department for the monitoring and compliance of earlier Notice of Direction under Water Act, 1974.*
- 4. GPCB shall monitor the Kharicut Canal and calculate the Environment Damage Compensation.”*

In compliance with the Hon'ble NGT order & decision taken in the review meeting GPCB has taken actions are as under;

1. GPCB issued Legal Notice to Ahmedabad Municipal Corporation under section 4 of Water Act - 1974 on 01.10.2020 with direction to show cause and submit compliance report of the directions dated:- 13-08-2020 with interim Environment Compensation of Rs. 25 Lacs within fifteen days from the receipt of the notice (annexed herewith as **Appendix -5**)
2. GPCB issued Direction u/s 33(A) of Water Act-1974 to Irrigation Department, Ahmedabad on 03.10.2020. (Annexed herewith as **Appendix -6**)
3. GPCB issued letter is issued to Nodal Officer, Task Force of Kharicut Canal and Khari River on 03.10.2020 for intensive monitoring (Annexed herewith as **Appendix - 7**)

Third review meeting was convened on 26.10.2020 under the Chairmanship of Additional Chief Secretary, UD & DH with Municipal Commissioner, AMC & Member Secretary, GPCB along with Chief Engineer of Irrigation Department and officials of concerned departments. Minutes of the Meeting is annexed herewith as **Appendix - 8**.

Decisions were taken in the said meeting are reproduced as under;

1. Irrigation and AMC shall start joint cleaning of Canal from 27.10.2020, as the canal will remain dry up to 15th November 2020, for removing waste, vegetation and debris from the canal.
2. Irrigation will deploy the JCBs and Excavators and AMC will provide their dumpers for the collection of the waste from Kharicut Canal, transport and disposal in solid waste site of AMC.
3. Now onwards, on regular basis work for cleaning, repairing of Kharicut Canal shall be done jointly by Irrigation and AMC, twice every year during the period when canal remains dry. (October-November and April-May)
4. GPCB was requested to explore the possibility of providing fund for utilization for the cleaning of Kharicut Canal collected under Environment Damage Compensation.
5. Irrigation Department and AMC will provide documentation for the work carried out and submit to the GPCB for inclusion of it in the ATR.

6. The Committee members will visit Kharicut Canal to take stock of situation for work carried out on 28.10.2020 and review will be taken during the visit from various stake holder.
7. Regional Officer, GPCB and Officials of AMC should reconcile number of outlets by carrying out a survey of the canal within one day and identify the total outlets in the canal. They should be present it during the visit on 28.10.2020.
8. It was decided to take stringent action by GPCB immediately against industries responsible for disposal of w/w in to the canal and impose heavy fine. This should be informed to the Irrigation Department & AMC also, so that further penal actions may be initiated from their side.

In compliance with the directions of the Hon'ble NGT order and decisions taken during the review meetings report the Action Taken Report submitted by the authorities are as under;

Sr. No.	Details of Action Taken Report	No. of Appendix
1.	Action taken report submitted by Irrigation Department, Government of Gujarat	Appendix -9
2.	Action taken report submitted by Ahmedabad Municipal Corporation	Appendix - 10
3.	Summary of the work carry out by Task Force	Appendix - 11

In view of the action taken report submitted by the concerned authority brief **conclusions are as under;**

1. Additional Chief Secretary, UD & DH has convened three review meetings with the AMC, Irrigation Department and GPCB for implementation of the directions issued by Hon'ble NGT order dated: 01.09.2020.
2. For the Reconciliation of the outlets in the Kharicut Canal survey was carried out by AMC and GPCB on 28-10-2020. Thereafter as per the report submitted by AMC on 31.10.2020; out of 169 outlets as mentioned in the report of Hon'ble Retired Chief Justice of Delhi High Court Shri B C Patel, at present no discharge of sewage was observed from 156 outlets. Out of the remaining for

remaining 13 outlets, 3 are of STPs discharging treated waste water. The work for remaining 10 outlets to divert sewage in to the existing drainage line with overall budget of Rs. 25.81 Crore is under progress.

3. AMC has installed online pH Measurement at the Vinzol trunk main pipeline of Domestic sewage carrying waste water to the Vinzol STP of 35 & 70 MLD in August -2020.
4. For the augmentation and repairing work at Vinzol STP of 70 MLD Rs. 5.50 Cr has been spent for the pumping machineries and pH meter with hooter system at additional cost of 29.47 Lacs installed.
5. 46 manholes are sealed with concrete of main trunk pipeline of Domestic sewage carrying domestic waste water to the Vinzol STP of 35 & 70 MLD.
6. Under Sujalam Sufalam Jal Sanchay Campaign-2018, AMC had taken up the task of cleaning the Kharicut Canal by using number of Machineries like JCBs, Excavators, Tractors, etc. and cleaned approximate 31446 MT. of waste from Kharicut Canal.
7. AMC had installed chain link fencing of about 8308 running meters on both sides of canal and at the crossing points of the canal to prevent direct disposal of solid waste into canal at a cost of Rs. 1.56 Cr. Further 1592 running meter work for installing of grill and fencing work is in progress.
8. AMC has put total 73 warning signage boards with direction to prevent disposal of solid waste in to Kharicut Canal. Furthermore 82 warning signage boards work is under progress with total cost of Rs. 7.69 lacs.
9. AMC had held around 985 awareness meetings with nearby residents for not throwing the garbage into the canal and keep clean the canal.
10. AMC had installed 24 CCTV cameras on the canal.

11. There are total 66 silver trolleys placed at area of Kharicut Canal for collection of solid waste.
12. Along the Kharicut canal, old drainage and illegal connections were regularized under the 'Nal Se Jal' Scheme, old connections are permanently closed and diverted from Kharicut canal outlet to regular drainage network. Under this scheme total 1971 houses connections are regularized. Thus AMC has resolved the issue permanently.
13. Irrigation and AMC started joint cleaning of Canal from 27.10.2020, for repairing, removing waste, vegetation and debris from the canal.
14. Joint visit was carried out on 28.10.2020 by ACS- UD & DH with stake holders to take stock of the ground situation for the work carried out by AMC and Irrigation Department.
15. On regular basis work for cleaning, repairing of Kharicut Canal shall be done jointly by Irrigation and AMC, twice every year during the period when canal remains dry. (October-November and April-May)
16. ACS, UD & DH has directed to install 0.5 MLD Packaged Treatment Plant with MBR technology at Nikol Storm water pumping station and explore more locations after doing technical feasibility survey.
17. Irrigation Department, in phase-wise execution of work, construction of canal lining in 7 km length starting from the Ahmedabad-Vadodara Expressway to Vatva Kotha, new five VRBs, construction of seven deck slabs, installation of cast iron/mild steel grill on the newly constructed parapet on both sides of the canal and decoration of the parapet of the bridge with mild steel architecture of different architectural designs have been completed during the year 2013-14, Thus development work has been executed in the total length of 9.4 km by Irrigation Department.

18. During the year 2020, estimates of jungle cutting and clearing operations in Kharicut Canal from Raipur to Vatva Kotha have been prepared. Accordingly, at present, in Kharicut Canal, Section-1 from chainage 8100 m to 20830 m, work has been started to remove vegetation from the bottom of the canal, side slope, and sides of parapet. Mechanical machineries are deployed in canal for cleaning, desilting and jungle cutting work. For execution of these works, Irrigation Department is working jointly with Ahmedabad Municipal Corporation for dumping of waste from canal to suitable dumping site.
19. From December -2019 to till October-2020, Task force carried out total 417 visits (Days - 313 and Night-104) and collected total 1878 nos. of waste water samples from various locations.
20. GPCB has issued Legal Notice to Ahmedabad Municipal Corporation under section 4 of Water Act – 1974 on 01.10.2020 with direction to show cause and submit compliance report of the directions dated:- 13-08-2020 with interim Environment Compensation of Rs. 25 Lacs.
21. GPCB has issued Direction u/s 33(A) of Water Act-1974 to Irrigation Department, Ahmedabad on 03.10.2020.
22. GPCB has issued letter is issued to Nodal Officer, Task Force of Kharicut Canal and Khari River on 03.10.2020 for intensive monitoring.
23. GPCB and AMC, in the area of Odhav GIDC, where the coloured water was found discharged from the pumping station in to the Canal, identified the defaulting industrial unit and the GPCB has issued Direction of Closure under section 33(A) of Water Act – 1974 with immediate effect on 23.10.2020.
24. For the permanent solution, AMC and GPCB have decided to disconnect the drainage connections of all the industrial unit where CETP connections are provided for discharge of industrial effluent and also disconnect the drainage

connection for the unit having ZLD consent. The work for disconnection of drainage line from industrial unit is under progress.

25. Joint Task Force is formed comprising of officials from Ahmedabad Municipal Corporation (AMC), GPCB, Police Department and Industrial Associations to prevent the illegal acidic/industrial effluent discharge through tankers. Task force started monitoring the suspected locations which have potential of illegal discharge of acidic/industrial effluent & Vinzol Trunk main drainage line since december-2019 during day and night.
26. Since it is long standing issue which started in 1984, it is very difficult to fix individual responsibility for flow of industrial waste water and domestic sewage. In view of the remedial action taken by AMC, Irrigation and GPCB in recent years and on-going execution of upgradation of STPs, better maintenance of canals, monitoring of industrial units etc., it is humbly requested that Hon'ble NGT may consider the request to not take action against individual officer.

Thus, Irrigation Department, AMC and GPCB are jointly making maximum efforts to stop the flow of industrial waste water and domestic Sewage in Kharicut Canal.

APPENDIX -1

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

Original Application No. 105/2019
(With report dated 13.10.2019)

Ajitsinh Bhurubha Vaghela & Inhabitants
of several Villages of Kheda Taluka,
Distt. Kheda

Applicant(s)

Versus

State of Gujarat

Respondent(s)

Date of hearing: 17.01.2020

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

For Applicant(s): None

For Respondent(s): Mr. Maninder Singh, Sr. Advocate, Ms. Ruchi Kohli,
Ms. Nidhi Jaswal and Ms. Manyaa Chandok,
Advocates for GPCB with Mr. T.M. Tabhani, Member
Secretary, GPCB

ORDER

1. This order is being passed in continuation of order dated 11.10.2019. The issue for consideration is the steps to be taken for controlling untreated industrial effluents discharged in *Kharicut* Canal which is a tributary of Khari River in District Khera, Gujarat. According to the applicants, the said river is the source of irrigation and drinking of water by animals. Illegal bore-wells are said to have been dug without permission of the Gujarat Pollution Control Board (GPCB) affecting the water level. Sewage from STPs set up by Ahmadabad Municipal Corporation was overflowing into the river.

2. The Tribunal sought a report from Central Pollution Control Board (CPCB) and Gujarat Pollution Control Board (GPCB). The report dated 29.04.2019 was to the effect that effluents were being discharged in the *Kharicut Canal*, by passing the STP at Vinzol. Industrial effluent was also being discharged but source was not known. Findings and observations in the report are as follows:

“

- *Kharicut canal is entering the industrial area at GIDC Naroda and passing through residential areas of Vatva/ Ring road area of Ahmedabad before entering GIDC of Vatva.*
- *The canal crosses various phases of GICD Vatva before receiving the treated/ untreated wastewater from Vinzol STP at Vinzol Village.*
- *The canal meets the Khari River at Village Ropda under the Railway Bridge.*
- ***During the visit, it was observed that the Kharicut canal is conveying only domestic wastewater in the upstream of Vinzol STP and the discharge from the Vinzol STP and no fresh water flow was observed at any stretch of the canal.***
- ***No flow was observed in the upstream of Khari River until the confluence of Kharicut canal at Village Ropda which means the River Khari at downstream of Ropda village carries only wastewater from the Karicut canal.***
- ***The STP at Vinzol is having capacity to treat 70 MLD of sewage. However, presently the influent flow to the STP is 170 MLD and the excess quantity is being by-passed into the Kharicut canal.***
- ***During the visit, it was observed that the farmers of the land located adjacent to the bank of Khari River and Kharicut canal are fetching the wastewater from Khari River/ Kharicut canal through diesel operated pumps & flexible pipelines for irrigation. Photographs - 1, 2, 3 & 4 shows the lifting of wastewater at various locations for irrigation.***
- ***During the visit, the Khari River at Lali village was found carrying greenish yellow coloured wastewater which was highly acidic (2 to 4 on the pH strip). It is worth mentioning that no industries/ industrial activities were present in the vicinity of the Lali village. Photographs - 4 & 5 shows the greenish yellow coloured wastewater stretch of wastewater in Khari River at Lali Village.***

- **The joint monitoring team made efforts to identify the source of the acidic wastewater and traced the Khari River back along the bank. The banks of the Kahri River near Lali village were completely covered with dense vegetation and unapproachable & unsafe condition. The monitoring team with the help of local villagers used two wheelers and also walked along the bank stretch for few kilometers to track the source of acidic wastewater stream. Photographs - 5 & 6 shows the unsafe approach condition to the banks of Khari River near Lali Village.**
- **It was understood that the acidic wastewater was moving in a patch in the River and hence the exact source could not be identified. It may be envisaged that the acidic wastewater would have been discharged in the upstream of Kharicut canal near the industrial areas of Vatva or near Vinzol STP area or near the Ropda village in the early hours and the patch was moving near the Lali village when the monitoring team approached during noon.**
- **The joint monitoring team again visited the River Khari at Lali village in the evening to check the condition of flow in Khari River and found wastewater with normal pH (about 7 to 8 on pH strip), which means that the acidic wastewater patch observed during the noon in the said location has moved further downstream and would have got diluted. Photographs-6 shows the condition of Khari River during the evening time.**
- **The Kahri River at Navagam Village was filled with wastewater in septic condition and with very slight velocity. Photograph-7 shows the septic condition of Khari River at Navagam Village.**
- **The Khari River at Bherai Village was found filled with dark blackish coloured wastewater and with slight velocity. Photograph-8 shows the septic condition of Khari River at Bherai Village.**
- **The Khari River at Pinglaj Village was found flowing with blackish coloured wastewater. Photograph-9 shows the septic condition of Khari River at Pinglaj Village.**
- **The wastewater from Khari River in above three Villages namely Navagam, Bherai&Pinglaj were being lifted/ taken by farmers for irrigation. Photograph-10 shows the usage of wastewater from Khari River for irrigation in Bherai village and the survival of crops.**
- **The joint committee of CPCB & GPCB carried out sampling at various stretches in Kahri River &Kharicut canal and groundwater from nearby village. The details of the monitoring and the sampling locations are given in the section 4.0 of this report.”**

3. The conclusion in the report was:

“Although majority of the flow in River Khari is domestic wastewater but there is some illegal industrial wastewater discharge in River Khari from upstream of Village Lali.

- 1) Wastewater from River Khari is utilized by Farmers located along the stretch of River Khari and Kharicut Canal.***
- 2) Irrigation crops are noticed along the stretch of River Khari and Kharicut Canal.*
- 3) Damage to the agricultural crops cannot be judged by physical appearance of the crops in the field as many fields adjacent to the Khari River/ Kharicut canals using the wastewater from the River are thriving well. Hence, expert opinion of Agriculture Department is necessary regarding crop damage, if any.*
- 4) Expert opinion of the Irrigation department is necessary regarding lifting of wastewater from River Khari and Kharicut Canal throughout the year.*
- 5) Strict monitoring at regular intervals and during nights/ early hours along the stretch of River Khari and Kharicut Canal is to be carried out by GPCB.***
- 6) Police Department may be asked to strengthen the vigilance for any illegal discharge of wastewater in Kharicut canal/ Khari River through Tankers and to take action on miscreants who discharge wastewater illegally through tankers.***
- 7) Ahmedabad Municipal Corporation may be asked to provide proper sewer system to convey the domestic sewage for treatment so that no discharge on the canal.”***

4. The Tribunal, vide order dated 01.07.2019, observed:

*“5. The report shows that while water pollution is clearly taking place, the joint Committee has not identified the source. It is difficult to accept the plea that the Committee was not competent to do so. **The State PCB has merely shifted responsibility to irrigation and Police Departments without approaching the said departments or the RRC***

constituted by this Tribunal which is under the Chief Secretary. Only inference is lack of sincerity in performing the duty of preventing pollution. If acidic waste water is being dumped which is a hazard to public health, it is surprising that a statutory authority charged with the responsibility of preventing and controlling water pollution should express its helplessness on any ground whatsoever.

6. Accordingly, we direct fresh inspection by a competent team comprising of a senior officer of the CPCB and Member Secretary, State PCB. We also expect the CPCB as well as State PCB to consider the conduct of the officers who have furnished the present unsatisfactory report showing their conduct in poor light. Report of such action may also be filed. We may also note that the RRC already constituted as above should also take stock of the situation and furnish its report through the Chief Secretary about the action taken with regard to the particular stretch.”

5. The Tribunal also considered further report dated 10.10.2019 by order dated 11.10.2019 and observed:

“6. Further report dated 10.10.2019 has been filed during the hearing today which acknowledges the water pollution on account of illegal discharge in domestic pipeline network. There are 100 manholes in the sewerage network of Ahmedabad which had potential for unauthorized discharge at odd hours. Contamination of the water was also due to unauthorized industrial discharges through tankers at odd hours. Action taken against the identified exit points of survey and sealing of the open manholes and monitoring of river and survey around the polluted river stretches are that the AMC was in the process of sealing such manholes. Some manholes had been sealed. Police will strengthen vigilance and patrolling to stop illegal dumping of pollutants.

7. The report is as unsatisfactory as the earlier one. **The SPCB appears to have paid lip sympathy to the mandate of law and direction of this Tribunal.** It has in a way shown inability to perform the functions entrusted to it. **The water pollution is still continuing. Liability is put on the ‘unknown sources’ and ‘unknown persons’.** Even in our earlier order dated 01.07.2019 it was observed that conduct of the officers who furnished the report called for some action. Only action which is said to have been taken is giving of a warning. Thus, it may be difficult to improve the environmental governance in the State unless there is revamping of the machinery of the regulatory body. Let the Chief Secretary, Gujarat review the existing machinery and make suitable changes for ensuring effective environmental governance in the State to enforce the right of the citizens to clean environment and

furnish a report to this Tribunal before the next date. We may also note that Khari river is one of the polluted river stretches which is subject matter of O.A. No. 673/2018. Action in the present case must be consistent with the action plan on the subject.

8. *A joint updated report by the CPCB and the GPCB may be furnished after two months but before 31.12.2019. The Member Secretary of the SPCB may remain present before the Tribunal on the next date.*

A copy of this order be sent to the Chief Secretary, Gujarat by e-mail for compliance.”

6. Accordingly, further reports have been filed on 31.12.2019 by CPCB and on 15.01.2020 by the State of Gujarat. The report filed by CPCB inter alia states as follows:

“RESULT AND DISCUSSION

The grab sample of wastewater collected in the stretch was analyzed at GPCB Gandhinagar Laboratory. The analysis results are depicted in Annexure-3. Sample description, observations based on the findings and analysis results are detailed below;

- The flow in the Khari cut canal increases with the increase of domestic sewage as it passes through areas of Naroda, Odhav and Vatva of Ahmedabad before entering GIDC Vatva. One grab sample was collected from Khari cut canal at Nirma Bridge, GIDC-Vatva. (Upstream part of GIDC-Vatva, reflected as K1). The Khari cut canal crosses GIDC Vatva, one grab sample was collected from Khari cut canal at GIDC Vatva - Vinzol village Road Bridge, near Phase II, GIDC Vatva. (Downstream part of GIDC-Vatva, reflected as location K2). The canal crosses at S.P. Ring road, Railway Bridge at Vinzol Village. **The AMC storm water drain was found meeting the Khari cut canal at above mentioned place.** During visit wastewater was not flowing into Khari cut Canal from this storm water line. A grab Sample from Khari cut canal on the other side of S.P. Ring road Railway Bridge towards TSDF site at Vinzol Village was also collected. (Location K3). Khari cut canal meets the Khari River at Village Ropda under the Railway Bridge. No flow was observed in the upstream of Khari River until the confluence of Khari cut canal at Village Ropda. In other words, the River Khari at downstream of Ropda village carries only wastewater received from the Khari cut canal. Grab sample was collected from River Khari at Ropda foot over bridge, near Railway bridge, Village Ropda (Location K4). Grab sample of wastewater was collected from Khari River stretch i.e. from Chosar Village (location K5) and grab sample of wastewater from Khari River stretch at Lali Village. (Location K6) was collected during visit.*

• During visit in entire stretch of Kharicut Canal and River Khari; no acidic waste water discharge / flow was observed. Analysis results of the sample collected are annexed as (Annexure-3) shows variation of pH from 6.69 to 7.68 in the entire stretch (Location K1 to K6), concentration of **COD and BOD varies from 272 mg/l to 502 mg/l and 87 mg/l to 153 mg/l respectively.** In the overall stretch concentration of COD, BOD, TDS, Iron, Sulphate, Chloride shows increasing trend. It is worth to mention that the stretch of Khari River is under priority I.

• During joint visit and sampling at Location K5 Chosar bridge, a tanker no. GJ-01 ET-3534 was observed. The sampling location being located inside the village, the tanker was suspected and checked. As per records/challan available with the driver of the tanker, the tanker contained Oleum (23 %) and was coming from Madhya Pradesh. As informed, the tanker had filled acid from M/s Krishna Phoschem Ltd (Acid Division) 126A-134, AKVN Industrial area, Meghnagar, Jhabua-Madhya Pradesh-457779 and buyer was M/s Shital Chemicals-C-805/A, Ganesh Maridian, Opp. Kargil Petrol Pump, Near Sola Over Bridge, S.G. Highway, Ahmedabad-Gujarat. M/s Shital Chemicals is a trader having its office at the said address. The driver has informed that, he will be informed on his mobile where the acid has to be delivered. Thereafter entire team of CPCB, GPCB, AMC, Police and representative CETPs along with tanker went to the location where tanker would supposed to be empty. It was found that there exist a unit namely M/s. Surajmani Corporation. On inspection it was found that unit was engaged in manufacturing of Sulpho Tobias Acid. The unit has started manufacturing activities about three months ago. Raw materials for the manufacturing of Sulpho Tobias Acid, like Tobias Acid & Oleum was also observed in the plant premises. The unit has one reactor, 3-dumping vessel, 3-filter nutch and 1-oleum storage tank. The location of the unit is bank of River Khari at Istolabad-Village. **The unit is illegally operating at the premises without obtaining EC/CTE/CCA from GPCB. It was observed that the unit has provided discharge line to Khari River for discharge of acidic wastewater from centrifuge directly into River Khari as the river flows back side of the factory premises.** During visit, lean flow from the line into river Khari was observed. The joint team has collected one grab sample of wastewater having pH of 2.0 on pH strip which the unit was discharging into River Khari without any treatment. Unit has not provided any treatment facility.

• **Analysis results of the sample collected from the premises of the unit reveals highly acidic and concentrated wastewater having concentration of pH: 0.73, Color : 600 Hazen Unit, TSS: 1644 mg/l, NH3-N: 14 mg/l, Acidity as CaCO3: 700000 mg/l, Chloride: 8200mg/l, Sulphate: 320320 mg/l, COD: 17833 mg/l, O&G: 2.3 mg/l, Phenolic Compounds : 3.56mg/l, BOD: 4600 mg/l, Percentage of acid: 56.51% was discharged to Khari River.**

• The GPCB has issued Closure Direction under section 33 A of the Water Act 1974 and under section 5 of E(P)Act 1986 on 17th

December 2019 to M/s Surajmani Corporation. The power supply of the unit is disconnected by Uttar Gujarat Vij Company Ltd (UGVCL) on 24th December 2019.

During visit, the joint team has also visited STP provided in by Ahmedabad Municipal Corporation located at Vinzol which is in eastern part. The Ahmedabad Municipal Corporation (AMC) has provided extensive sewerage network in residential/commercial areas for collection of sewage from the eastern part of the Ahmedabad. Installation of pH meter by AMC on 22 km long network of sewerage line at fixed interval would help in identification of spots at where acidic wastewater is getting illegally discharged. There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Operation and Maintenance of both the STP are carried out by separate agencies hired by AMC. **The STP receives about 170 MLD wastewater. Hence, the excess untreated wastewater is bypassed directly into the final disposal chamber along with treated waste water which ultimately leads to River Khari. Additional STP of capacity 100 MLD is under construction. AMC has obtained CCA for 70 MLD STP and CTE for 35 MLD STP.**

- During visit of Vinzol STP of AMC, 70 MLD STP was found in operation. **In STP system, bypass line provision is provided at inlet of STP line and at the time of visit bypass of wastewater was observed, also the inlet chamber was found broken from the lower side. The new STP 35 MLD was found operational. The records of waste water received at STP was checked. It was found that as per instructions from AMC to the operator of STP, pH of wastewater received is checked on hourly basis manually and when pH is found in acidic range, the wastewater is bypassed and discharged directly to Kharicut canal.** As per records, the STP has received acidic wastewater at the inlet for about 1-2 hours for about 7 different dates till the date of visit in the month of December 2019.

- **During the visit excess untreated wastewater was bypassed from inlet line and discharged into the Kharicut canal which ultimately meets Khari River.**

- During visit, grab samples of wastewater were collected from following locations:

Location	Description	Date/Time(hours)	Lat.	Long.	Color of sample
S1	From Inlet well pumping station of 70 MLD & 35 MLD STP at Vinzol village	13.12.19 09:15	22.93791	72.6453911	Grayish
S2	From	13.12.19	22.93748	72.64393	Light

	Outfall of 70 MLD STP of Ahmedabad Municipal Corporation, Vinzol	09:30			Brownish
S3	From Outfall of 70 MLD + 35 MLD + bypass line of STP	13.12.19 09:45	22.93784	72.64324	Grayish
S4	From Outfall of 35 MLD STP of Ahmedabad Municipal Corporation, Vinzol	13.12.19 09:55	22.93650	72.64424	Grayish

The analysis results are depicted in Annexure-4. The analysis results of the sample collected from inlet (S1) and outlet of 70 MLD (S2) reveals 85.5% and 93.5% reduction in concentration of COD and BOD respectively. The analysis results of the sample collected from inlet (S1) and outlet of 35 MLD (S4) reveals only 31.9% and 34.7% reduction in concentration of COD and BOD respectively. However, the final discharge (S3) from Vinzol STP comprising of outlet from 70 MLD, outlet from 35 MLD and untreated bypass shows only 7.7% and 8.8% reduction in concentration of COD and BOD respectively. Thus, the analysis results of final discharge reveal that the STP is grossly noncomplying.

CONCLUSIONS:

Based on the directions of Hon'ble NGT, updated status of Khari River and Kharicut Canal is prepared based on the monitoring of Kharicut Canal and Khari River, meeting with various stake holders for the status of compliance of action plans on the subject finalised by RRC, steps taken by various stake holders. During present visit, a unit namely M/s. Surajmani Corporation located on the bank of Khari River was found illegally operating and manufacturing Sulpho Tobias Acid without consent/authorisation from GPCB and illegally discharging acidic wastewater into Khari River. GPCB has issued closure directions to the unit. The Vinzol STP found not meeting the discharge standards and found bypassing and discharging untreated/partially treated wastewater to Kharicut Canal. GPCB has issued legal notices to AMC in this regard. Task Force team has started monitoring since 02nd December 2019. It was reported by task force team that the acidic wastewater at the inlet of Vinzol STP was observed once and there after frequency of receiving of acidic wastewater at the inlet of STP was not observed. Acidic wastewater receiving frequency was reportedly reduced however, provision of online pH meter at the inlet and neutralization facility at Vinzol STP as precautionary principle may need to provide so as to ensure no acidic discharge in Khari

Cut canal and Khari River in addition all the action plan suggested by RRC need to be complied by different stake holders on time bound manner as the stretch is under priority I of polluted river stretch. Thus, the action taken in compliance of the directions of Hon'ble NGT in the matter has resulted in decrease in the frequency of acidic wastewater at the Vinzol STP as reported and no acidic wastewater in the stretch of Khari River and Khari cut Canal during recent visits was observed by GPCB and task force committee."

7. The situation emerging from the report based on site visits shows that the action taken by the State PCB is not adequate in terms of taking preventive and remedial action against the polluters particularly recovering compensation on 'Polluter Pays' principle, including from the Ahmedabad Municipal Corporation. The corporation needs to take further remedial action to prevent discharge of pollutants in the river system which has been clearly found in the report. The Corporation has to be made accountable for illegal discharge of pollutants amounting to criminal offence, apart from compensation to bear the cost of restoration.
8. The report filed on behalf of the State on 15.1.2020 is as follows:

"GENERAL REVAMPING OF THE REGULATORY BODY

- a) *For revamping of the regulatory body, GPCB is directed to constitute a committee of Senior Staff and engage experts to carry out a study for improvement of existing mechanism in terms of manpower, infrastructure of the Board and furnish their report within two months to the Government after constitution of committee.*
- b) *GPCB is directed in addition to the rules applicable; the officers who have been found negligent in curbing environment pollution shall be transferred without any notice.*
- c) ***GPCB is directed that few specialized experts from reputed organizations like NEERI, Nagpur; IIT; DDIT; SVNIT etc., in the field of land, air and water pollution shall be appointed on a retainer basis to give expert advice and impart technical knowledge.***

- d) GPCB is directed to collaborate with the local police in order to ensure that no violation of environmental laws takes place in the future.
- e) GPCB is directed to conduct awareness programs so as to make general public aware regarding the environmental laws and their implementation.
- f) The existing engineers, officers and scientists in the organization shall be given sessions on technical and scientific knowledge in light of the improving pollution control mechanisms, techniques, equipment's and environmental laws.”

CASE SPECIFIC MEASURES

As far as the question of the matter related to Khari River Stretch, it is kindly submitted that;

• **Ahmedabad Municipal Corporation (AMC) is directed for augmentation for upgradation of their existing 70 MLD STP. New 35 MLD STP is under trial run and shall be functional by March 2020. New 100 MLD STP by September shall be functional by 2020.**

• RRC constituted since 29th November, 2018, is continuously working to rejuvenate all major polluted rivers of the state. Action plans for the same prepared and being regularly reviewed in the RRC meetings and seven meetings have already organised till the date.

• River Khari stretch separately reviewed in the RRC meetings on 26th August and 5th December 2019 in presence of concerned authority and they were directed to comply action points decided in the meetings.

• **A joint task force team of officers of AMC, RO GPCB ABD-East, Police, Industrial Association, CEO of Mega Pipeline as directed by RRC under the nodal role of AMC Chief Engineer. The team has started continuous monitoring of the stretch during day and night time from December 2019.**

• **Police Department directed for strengthened their vigilance and patrolling to stop illegal discharge through tanker into Kharicut Canal and Khari River. The Police Commissioner, Ahmedabad has published notification to ban on parking of tankers on the Ring Road and surrounding areas to avoid illegal discharge into AMC sewerage network through tankers.**

• **GPCB is also directed to strengthen their existing monitoring & in this regard GPCB Head Office has given additional technical people for strengthening of monitoring.”**

9. In view of above, further remedial action needs to be taken expeditiously and further report filed by the GPCB as well as the Ahmedabad Municipal Corporation before the next date. We note that a Division Bench of the Gujarat High Court, vide order dated 25.11.2005 in SCA No. 4690/2004 gave directions to the Pollution Board to control industrial pollution and to the Ahmedabad Municipal Corporation to control discharge of sewage. The order refers to several earlier directions. This shows that orders of the courts have not been duly followed and situation remains to be alarming inspite of earlier orders. Having regard to the seriousness of the ground situation and long pending problem, we request Justice B.C. Patel, former Chief Justice of High Court of Delhi, who is available at Ahmadabad, to oversee the steps taken by the authorities. Justice Patel may be assisted by the CPCB and GPCB. The State PCB may provide all requisite facilities to Justice Patel. Justice Patel may send an independent report in the matter by April 10, 2020 by e-mail at judicial-ngt@gov.in with a copy to State PCB and Ahmadabad Municipal Corporation who may file response before the next date.

10. The Tribunal may consider the issue of compensation on 'Polluter Pays' principle, direction for prosecution and action against erring officers after considering the reports.

A copy of this order be sent by e-mail to Chief Secretary, Gujarat, CPCB, SPCB, Commissioner, Ahmedabad Municipal Corporation and Justice B.C. Patel, former Chief Justice of Delhi High Court, presently located at Ahmedabad.

List for further consideration on 27.04.2020.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

Dr. Nagin Nanda, EM

Siddhanta Das, EM

January 17, 2020
Original Application No. 105/2019
R



APPENDIX -2

Item No. 06

Court No. 1

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

(By Video Conferencing)

Original Application No. 105/2019
(With report dated 19.08.2020)

Ajitsinh Bhurubha Vaghela & Inhabitants of several
Villages of Kheda Taluka, Distt. Kheda

Applicant(s)

Versus

State of Gujarat

Respondent(s)

Date of hearing: 01.09.2020

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

ORDER

1. The issue for consideration is the steps to be taken for controlling untreated industrial effluents discharged in *Kharicut* Canal which is a tributary of Khari River in District Khera, Gujarat. According to the applicants, the said river is source of irrigation and drinking of water by animals. Illegal bore-wells are said to have been dug without permission of the Gujarat Pollution Control Board (GPCB) affecting the water level. Sewage from STPs set up by Ahmedabad Municipal Corporation was overflowing into the river.

2. The Tribunal has considered the matter on several occasions, including on 01.07.2019, 11.10.2019 and 17.01.2020 in the light of status reports filed by the Central Pollution Control Board (CPCB) and

the State PCB. On the last date, the Tribunal considered the reports of CPCB and the State of Gujarat dated 31.12.2019 and 15.01.2020 respectively and observed:

“6. Accordingly, further reports have been filed on 31.12.2019 by CPCB and on 15.01.2020 by the State of Gujarat. The report filed by CPCB *inter alia* states as follows:

“*RESULT AND DISCUSSION* The grab sample of wastewater collected in the stretch was analyzed at GPCB Gandhinagar Laboratory. The analysis results are depicted in Annexure-3. Sample description, observations based on the findings and analysis results are detailed below;

- **The flow in the Kharicut canal increases with the increase of domestic sewage as it passes through areas of Naroda, Odhav and Vatva of Ahmedabad before entering GIDCVatva.** One grab sample was collected from Kharicut canal at Nirma Bridge, GIDC-Vatva. (Upstream part of GIDC-Vatva, reflected as K1). **The Kharicut canal crosses GIDC Vatva, one grab sample was collected from Kharicut canal at GIDC Vatva - Vinzol village Road Bridge, near Phase II, GIDC Vatva. (Downstream part of GIDCVatva, reflected as location K2).** The canal crosses at S.P. Ring road, Railway Bridge at Vinzol Village. **The AMC storm water drain was found meeting the Kharicut canal at above mentioned place.** During visit wastewater was not flowing into Kharicut Canal from this storm water line. A grab Sample from Kharicut canal on the other side of S.P. Ring road Railway Bridge towards TSDF site at Vinzol Village was also collected. (Location K3). Kharicut canal meets the Khari River at Village Ropda under the Railway Bridge. No flow was observed in the upstream of Khari River until the confluence of Kharicut canal at Village Ropda. In other words, the River Khari at downstream of Ropda village carries only wastewater received from the Kharicut canal. Grab sample was collected from River Khari at Ropda foot over bridge, near Railway bridge, Village Ropda (Location K4). Grab sample of wastewater was collected from Khari River stretch i.e. from Chosar Village (location K5) and grab sample of wastewater from Khari River stretch at Lali Village. (Location K6) was collected during visit.
- During visit in entire stretch of Kharicut Canal and River Khari; no acidic waste water discharge / flow was observed. Analysis results of the sample collected are annexed as (Annexure-3) shows variation of pH from 6.69 to 7.68 in the entire stretch (Location K1 to K6), concentration of **COD and BOD varies from 272 mg/l to 502 mg/l and 87 mg/l to 153 mg/l respectively.** In the overall stretch concentration of COD, BOD, TDS, Iron, Sulphate, Chloride shows increasing trend. It is worth to mention that the stretch of Khari River is under priority I.

- During joint visit and sampling at Location K5 Chosar bridge, a tanker no. GJ-01 ET-3534 was observed. The sampling location being located inside the village, the tanker was suspected and checked. As per records/challan available with the driver of the tanker, the tanker contained Oleum (23 %) and was coming from Madhya Pradesh. **As informed, the tanker had filled acid from M/s Krishna Phoschem Ltd (Acid Division) 126A-134, AKVN Industrial area, Meghnagar, Jhabua-Madhya Pradesh-457779 and buyer was M/s Shital Chemicals-C-805/A, Ganesh Maridian, Opp. Kargil Petrol Pump, Near Sola Over Bridge, S.G. Highway, Ahmedabad-Gujarat.** M/s Shital Chemicals is a trader having its office at the said address. The driver has informed that, he will be informed on his mobile where the acid has to be delivered. Thereafter entire team of CPCB, GPCB, AMC, Police and representative CETPs along with tanker went to the location where tanker would be supposed to be empty. **It was found that there exist a unit namely M/s. Surajmani Corporation. On inspection it was found that unit was engaged in manufacturing of Sulpho Tobias Acid. The unit has started manufacturing activities about three months ago. Raw materials for the manufacturing of Sulpho Tobias Acid, like Tobias Acid & Oleum was also observed in the plant premises.** The unit has one reactor, 3-dumping vessel, 3-filter nutch and 1-oleum storage tank. The location of the unit is bank of River Khari at Istolabad Village. **The unit is illegally operating at the premises without obtaining EC/CTE/CCA from GPCB. It was observed that the unit has provided discharge line to Khari River for discharge of acidic wastewater from centrifuge directly into River Khari as the river flows back side of the factory premises.** During visit, lean flow from the line into river Khari was observed. The joint team has collected one grab sample of wastewater having pH of 2.0 on pH strip which the unit was discharging into River Khari without any treatment. **Unit has not provided any treatment facility.**
- **Analysis results of the sample collected from the premises of the unit reveals highly acidic and concentrated wastewater having concentration of pH: 0.73, Color : 600 Hazen Unit, TSS: 1644 mg/l, NH3-N: 14 mg/l, Acidity as CaCO3: 700000 mg/l, Chloride: 8200mg/l, Sulphate: 320320 mg/l, COD: 17833 mg/l, O&G: 2.3 mg/l, Phenolic Compounds : 3.56mg/l, BOD: 4600 mg/l, Percentage of acid: 56.51% was discharged to Khari River.**
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During visit, the joint team has also visited STP provided in by Ahmedabad Municipal Corporation located at Vinzol which is in eastern part. The Ahmedabad Municipal Corporation (AMC) has provided extensive sewerage network in residential/commercial areas for collection of sewage from the eastern part of the Ahmedabad. Installation of pH meter by AMC on 22 km long network of sewerage line at fixed interval would help in identification of spots at where acidic wastewater is getting illegally discharged. There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Operation and Maintenance of both the STP are carried out by separate agencies hired by AMC. **The STP receives about 170 MLD wastewater. Hence, the excess untreated wastewater is bypassed directly into the final disposal chamber along with treated waste water which ultimately leads to River Khari. Additional STP of capacity 100 MLD is under construction. AMC has obtained CCA for 70 MLD STP and CTE for 35 MLD STP.**

- During visit of Vinzol STP of AMC, 70 MLD STP was found in operation. **In STP system, bypass line provision is provided at inlet of STP line and at the time of visit bypass of wastewater was observed, also the inlet chamber was found broken from the lower side. The new STP 35 MLD was found operational. The records of waste water received at STP was checked. It was found that as per instructions from AMC to the operator of STP, pH of wastewater received is checked on hourly basis manually and when pH is found in acidic range, the wastewater is bypassed and discharged directly to Kharicut canal. As per records, the STP has received acidic wastewater at the inlet for about 1-2 hours for about 7 different dates till the date of visit in the month of December 2019.**
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- During visit, grab samples of wastewater were collected from following locations:

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The analysis results are depicted in Annexure-4. **The analysis results of the sample collected from inlet (S1) and outlet of 70 MLD (S2) reveals 85.5% and 93.5% reduction in concentration of COD and BOD respectively. The analysis results of the sample collected from inlet (S1) and outlet of 35 MLD (S4) reveals only 31.9% and 34.7% reduction in concentration of COD and BOD respectively. However, the final discharge (S3) from Vinzol STP comprising of outlet from 70 MLD, outlet from 35 MLD and untreated bypass shows only 7.7% and 8.8% reduction in concentration of COD and BOD respectively. Thus, the analysis results of final discharge reveal that the STP is grossly noncomplying.**

CONCLUSIONS:

Based on the directions of Hon'ble NGT, updated status of Khari River and Kharicut Canal is prepared based on the monitoring of Kharicut Canal and Khari River, meeting with various stake holders for the status of compliance of action plans on the subject finalised by RRC, steps taken by various stake holders. **During present visit, a unit namely M/s. Surajmani Corporation located on the bank of Khari River was found illegally operating and manufacturing Sulpho Tobias Acid without consent/authorisation from GPCB and illegally discharging acidic wastewater into Khari River. GPCB has issued closure directions to the unit. The Vinzol STP found not meeting the discharge standards and found bypassing and discharging untreated/partially treated wastewater to Kharicut Canal. GPCB has issued legal notices to AMC in this regard. Task Force team has started**

monitoring since 02nd December 2019. **It was reported by task force team that the acidic wastewater at the inlet of Vinzol STP was observed once and there after frequency of receiving of acidic wastewater at the inlet of STP was not observed. Acidic wastewater receiving frequency was reportedly reduced however, provision of online pH meter at the inlet and neutralization facility at Vinzol STP as precautionary principle may need to provide so as to ensure no acidic discharge in Khari Cut canal and Khari River in addition all the action plan suggested by RRC need to be complied by different stake holders on time bound manner as the stretch is under priority I of polluted river stretch.** Thus, the action taken in compliance of the directions of Hon'ble NGT in the matter has resulted in decrease in the frequency of acidic wastewater at the Vinzol STP as reported and no acidic wastewater in the stretch of Khari River and Khari cut Canal during recent visits was observed by GPCB and task force committee.”

7. The situation emerging from the report based on site visits shows that the **action taken by the State PCB is not adequate in terms of taking preventive and remedial action against the polluters particularly recovering compensation on 'Polluter Pays' principle, including from the Ahmedabad Municipal Corporation.** The corporation needs to take further remedial action to prevent discharge of pollutants in the river system which has been clearly found in the report. The Corporation has to be made accountable for illegal discharge of pollutants amounting to criminal offence, apart from compensation to bear the cost of restoration.

8. The report filed on behalf of the State on 15.1.2020 is as follows:

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a) For revamping of the regulatory body, GPCB is directed to constitute a committee of Senior Staff and engage experts to carry out a study for improvement of existing mechanism in terms of manpower, infrastructure of the Board and furnish their report within two months to the Government after constitution of committee.

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d) GPCB is directed to collaborate with the local police in order to ensure that no violation of environmental laws takes place in the future.

e) GPCB is directed to conduct awareness programs so as to make general public aware regarding the environmental laws and their implementation.

f) The existing engineers, officers and scientists in the organization shall be given sessions on technical and scientific knowledge in light of the improving pollution control mechanisms, techniques, equipment's and environmental laws.”

CASE SPECIFIC MEASURES

As far as the question of the matter related to Khari River Stretch, it is kindly submitted that;

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- **GPCB is also directed to strengthen their existing monitoring & in this regard GPCB Head Office has given additional technical people for strengthening of monitoring.”**

9. In view of above, **further remedial action needs to be taken expeditiously and further report filed by the GPCB as well as the Ahmedabad Municipal Corporation before the next date.**

*We note that a Division Bench of the Gujarat High Court, vide order dated 25.11.2005 in SCA No. 4690/2004 gave directions to the Pollution Board to control industrial pollution and to the Ahmedabad Municipal Corporation to control discharge of sewage. The order refers to several earlier directions. **This shows that orders of the courts have not been duly followed and situation remains to be alarming inspite of earlier orders.** Having regard to the seriousness of the ground situation and long pending problem, we request Justice B.C. Patel, former Chief Justice of High Court of Delhi, who is available at Ahmadabad, to oversee the steps taken by the authorities. Justice Patel may be assisted by the CPCB and GPCB. The State PCB may provide all requisite facilities to Justice Patel. Justice Patel may send an independent report in the matter by April 10, 2020 by e-mail at judicial-ngt@gov.in with a copy to State PCB and Ahmadabad Municipal Corporation who may file response before the next date.*

10. The Tribunal may consider the issue of compensation on 'Polluter Pays' principle, direction for prosecution and action against erring officers after considering the reports."

3. Accordingly, a report has been filed by Justice B.C. Patel on 19.08.2020. It is stated that function of *Khari Cut Canal* is to provide water to *Chandola lake* for irrigation in villages. **The canal was totally choked with garbage due to negligence of the civic authorities. Lake bed has become garbage dump and is used for open defecation. Civic authorities have turned a blind eye to the problem. Residents and the Municipal Corporation discharge sewage in the canal which ultimately meets the river Sabarmati. Many illegal buildings have been constructed. Canal is to be looked after by the Irrigation Department. The Irrigation Act provides for punishment to the polluters. The STP does not have sufficient capacity to treat the sewage. Waste water is being bypassed without treatment and is being discharged into the canal. Acidic water is not being utilized.** Water samples from different locations taken on 18.02.2020, 09.03.2020, 18.04.2020, 01.08.2020 establish discharge of untreated sewage by the Municipal Corporation. **Out of 169 outlets, 56 outlets are discharging untreated sewage into the canal.** Even when the industries are closed,

samples taken on 01.08.2020 show huge pollution. The conclusions in the report are:

“In view of what is stated above it is clear that

- 1. That Neither the Department of Irrigation, Government of Gujarat nor its Canal Officer took any action in the matter, either about the piercing of the Canal by the residents or the AMC or Polluting the Canal water by them. They have never tested the quality of the water of the Canal.**
- 2. Even GPCB which took samples of canal water and found that at various places through pipes which were fixed in the canal untreated sewage/Trade effluent was seen being discharged in the canal but has taken no coercive action.**
- 3. The AMC is a public body and it is required to discharge the duties under The Gujarat Municipal Corporation Act and also under the Environmental Laws. It has failed in erecting treatment plants for the sewage generated. **AMC in the eastern part of Ahmedabad is receiving 170-180 MLD sewage and it has two plants to treat only 105 MLD of sewage. The excess sewage is discharged in the canal contrary to the provisions of the law, leaving the poor farmers to the mercy of the almighty God. Even after treatment the sewage was not found on any occasion meeting the norms laid down under the law. It is bounded duty of AMC to treat the sewage and then to discharge the same in accordance with the norms in the river and not in to the Canal.****
- 4. It is very clear that as stated about the various inspection carried by the officers of GPCB, it was found that on several occasions without any treatment the entire sewage was discharged or on some occasions it was partly discharged after treatment. Many defiance has been indicated in the report and despite of various notices given to the AMC, the AMC is not discharging sewage as per norms. Unfortunately, no prosecution has been filed against these authorities indulging in discharging the sewage which is not meeting with the norms. Though its serious crime against people at large as no action is taken, the direction is required to be given to the GPCB to prosecute and not to allow untreated sewage to be discharged. About the beautification of the canal, the same is dealt in the report. For the time being the AMC as well as Department of irrigation are required to be directed to remove the grass growing haphazardly in the canal and both the sides of the canal, so as to protect the water and the Environment.**

5. **The irrigation department and the Commissioner, Ahmedabad Municipal Corporation must close all the outlets opening in to the canal through piercing or otherwise and be securely closed so as to see that no liquid enters and action be taken against concerned person.** Despite the rain much natural water entered the canal, yet there is much difference in the parameters at the initial stage and at subsequent stages as indicated in the report. Therefore, aforesaid action is required to be initiated by the authorities urgently.”

4. The list of locations at which untreated sewage is being discharged is annexed to the report (as a part of inspection report dated 01.08.2020 conducted by the State PCB) as follows:

Sr. No.	Location Name	Total Outlets	Sample Collection Details, if	Operative discharge of untreated sewage during visit
1	Kharicut Canal at Naroda Dehgam Road Bridge	2		
2	Nikol Naroda Pumping Station	1		
3	Sundervan Society New Naroda	1		
4	Vyasvadi Bridge New Naroda	5	01	3
5	Dahyalal Park Society New Naroda	12	02	2
6	Adishwar Police Chowki	1		
7	Adishwar Police Chowki	2		
8	Best English School New Naroda	2		
9	Ashirwad Residency	2		
10	Ashirwad Residency	2		
11	Navyug Pumping Station	1		
12	Navyug Pumping Station	2		
13	Gajanand Park Nikol	1	03	1
14	Avadhesh Park	2		1
15	Prabuddha Ashram Nikol	2		2
16	Bhakti Nagar Nikol	1		1
17	Bhakti Nagar Pumping Station	1		
18	Amardeep Park Nikol	2	04	2
19	SRP Gujarati Prathmik Shala	1		
20	Shyam Vihar Society Nikol	1		1
21	Sarjan Shopping Centre	1	05	1
22	Ashray Apartment	1		1
23	Sargam Park Society Nikol	1		1
24	Nijanand Mansi	1		1
25	Opposite Nijanand Mansi	2		2
26	Sarathi Duplex	3		3
27	Vasundhara Park	1		1
28	Vasundhara Park (Noble English School)	1		1
29	Bhumi Park Society	1	06	1
30	Parshwanath Township	2		
31	Thakkar Nagar Bridge,	2	07	1
32	Rajiv Park SWD Pumping Station, Sardar Chok	2	08	1
33	Sardar Chok Bridge	2		1
34	Narayan Park Nikol	3		1
35	Narayan Park Nikol	1		

36	Nikol Ward Pumping Station	4	09	2
37	Kavya Residency Thakkar	1		1
38	Shree Ram Park Thakkar	2		1
39	Gopal Chok Bridge	2		1
40	Shyam Wadi Bapunagar	1		
41	Narayan Park Pumping	5		1
42	Umang Apartment	1		1
43	Sundervan Apartment Thakkar	1		
44	Shivkrupa Thakkar Nagar	1		
45	Rameshwar Park	1		
46	Nilkanth Multi Speciality	1		1
47	Swami Narayan Society	1		1
48	Ashirwad Park Pumping	3	010	3
49	Hari Villa Pumping Station	3		1
50	Trisha Hospital	2		
51	Ganesh kunj Society	1		
52	Bala Hanuman Mandir	3		
53	Maruti Nagar Co Op Housing So.	7		
54	Ambika Nagar	1		1
55	Ambika Nagar Odhav	7		1
56	Overseas Enterprise	1		
57	Kharicut Canal at Odhav	1		
58	Kharicut Canal Storm Water	10		1
59	Keshav Park Odhav	3		2
60	Bhavani Nagar Soni Ni Chal	2		2
61	Ranchhod Park	1		
62	Krushna Nagar Odhav	3		1
63	Mukesh Nagar Odhav	1		
64	Kharicut Canal at Arbuda Nagar	3		
65	Jogeshwari Bagh Co. Op.	2		
66	Mahavir Smruti Co. Operative	2		
67	Shiv Park Society	5		1
68	Storm Water Pumping Station	2		
69	Sumit Nagar Mahadev Nagar	2		
70	RTO Vastral	2		
71	RTO Vastral	1		
72	RTO Vastral	2		2
73	Ramdev Park Mahadev Nagar	2		
74	Jamfal Wadi	3		
75	Ramol CTM Road Bridge	1		1
76	Ramol Hathijan Highway	2		
77	Outfall of Combined Final	2	011	2
	TOTAL	169		56

5. Brief about action taken against Municipal Corporation has been filed alongwith the report as follows:

“Brief about action taken against Ahmedabad Municipal Corporation (AMC) Vinzol STP 70 MLD & 35 MLD –

Sr. No.	Date of action	Type of Action	Reason of Direction	Remarks
70 MLD				

1.	10/04/2019	Notice of Direction issued u/s 33(A) of the Water (Prevention & Control of Pollution) Act 1974 w.r.to visit dtd.22/11/2018, 24/12/2018, 24/01/2018	<ul style="list-style-type: none"> • STP bypasses total@115 MLD of untreated sewage and only treats @ 70 MLD waste water out of total 185 MLD waste water coming to STP. • Analysis Report of sample collected from final out let of STP as well as from the bypass of STP shows BOD & COD exceeding the norms 	
2.	06/07/2019	Legal Notice under the Water (Prevention & Control of Pollution) Act 1974 w.r.to visit dtd 29/04/2019 30/05/2019	<ul style="list-style-type: none"> • STP bypasses @ 115 MLD of untreated sewage out of @ 185 MLD domestic waste water ultimately going into Khari River • Result of untreated sewage sample collected on 29/04/2019 & 30/05/2019 shows BOD = 140 & 96 mg/l and Suspended Solid (SS) 250 mg/l & 208 mg/l which are higher than limit given. 	
3.	06/08/2019	Direction issued u/s 33(A) of the Water (Prevention & Control of Pollution) Act 1974 w.r.to visit dtd. 27/06/2019, 17/07/2019	<ul style="list-style-type: none"> • Visit on 27/06/2019 STP was not in operation since 04/05/2019 & hence incoming domestic waste water @ 145 MLD of untreated sewage water is discharged into RiverKhari without any treatment • During visit on 27/06/2019 all STP tanks were found empty • Joint visit on 17/07/2019 by CPCB & GPCB w.r.to direction in the Hon'ble NGT matter, observed that STP was not in operation and hence all influent was bypassed and was discharged into River Khari without treatment. • STP found receiving acidic waste water frequently and discharging entire acidic inflow quantity into Khari river by bypassing • STP found receiving acidic waste water frequently and discharging entire acidic inflow quantity into Khari river by bypassing 	<p>Unit has not submitted any compliance w.r.to Notice of</p> <p>Direction dtd 11/04/2019 & legal notice dtd 06/07/2019 hence further Direction</p>
4.	05/11/2019	Legal Notice under the Water (Prevention & Control of	<ul style="list-style-type: none"> • During inspection dtd 21/08/2019, provided STP was found not in operation and all STP units are found empty • Visit on 21/08/2019 STP was found not in operation and all 	

		<p>Pollution) Act 1974 w.r.to visit dtd. 19/07/2019, 29/07/2019, 07/08/2019,21/08/2019</p>	<p>incoming domestic waste water & acidic was Wastewater is bypassed and is discharged into River Khari without any treatment</p> <ul style="list-style-type: none"> • During inspection dtd 21/08/2019 domestic waste water is discharged into Kharicut canal near S.P.Ring Road • During inspection it was observed that 07/08/2019 bypass gate at the inlet waste water tank found broken and due to which part of the waste water is bypassed from the inlet tank only • Visit on 07/08/2019 acidic waste water at the inlet are bypassed the directly to Kharicut canal • As per report dtd 19/07/2019, STP by-passes their untreated waste water, incoming waster water found acidic, incoming waste water flow is in huge quantity • STP frequently receives the acidic waste water and bypasses it without any treatment • STP authority has not submitted proper action plan in compliance of NOD dtd 11/04/2019 • STP authority has not submitted proper compliance of legal notice dtd 06/07/2019 <ul style="list-style-type: none"> • Analysis report of sample shows non-compliance w.r.to the discharge norms of Consolidated Consent & Authorisation (CCA) 	
5.	13/11/2019	<p>Notice of Direction issued u/s 33(A) of the Water (Prevention & Control of</p>	<ul style="list-style-type: none"> • Regular observation shows that STP bypasses the untreated waste water into Khari River indicate continuous non-compliance <ul style="list-style-type: none"> • STP record shows continuous incoming acidic waste water and bypass of waste water into Khari River 	
		<p>Pollution) Act 1974</p>	<ul style="list-style-type: none"> • STP has not submitted any reply w.r.to the Direction dtd 06/08/2019 • AMC was asked to submit Time bound action plan to achieve norms and stop bypass and submit other alternative of disposal of treated/untreated/partially treated waste water apart from Khari river/ Kharicut canal within 15 days 	

6.	13/11/2019	Notice of Intention u/s 27 of Water Act 1974	AMC was asked to submit other alternative of disposal of treated/untreated/partially treated waste water apart from Khari river/ Kharicut canal within 15 days
7.	18/02/2020	Notice of Direction issued u/s 33(A) of the Water (Prevention & Control of Pollution) Act 1974 w.r.to visit dtd. 06/11/2019 21/11/2019	<ul style="list-style-type: none"> • AMC has not taken any steps for stoppage of acidic wastewater coming into STP and bypass the acidic wastewater into River Khari • AMC was asked to submit satisfactory reply with time bound action plan to stop bypass into Khari cut canal/Khari River and upgradation of STP • AMC has not submitted satisfactory action plan to achieve norms • AMC has not submitted any reply w.r.to the Legal Notice dated 05/11/2019
8.	21/03/2020	Notice of Direction issued u/s	<ul style="list-style-type: none"> • Analysis report of sample taken at final outlet of STP shows noncompliance with
		33(A) of the Water (Prevention & Control of Pollution) Act 1974 w.r.to visit dtd. 18/01/2020 29/02/2020	<ul style="list-style-type: none"> • respect to the discharge norms of Consolidated Consent & Authorisation (CCA) Entire quantity of the received domestic wastewater into inlet chamber was bypassed directly into Khari due to maintenance work of valves & pumps at inlet section
9.	14/05/2020	Show Cause Notice issued w.r. to visit dtd. 18/04/2020	<ul style="list-style-type: none"> • Around 70 MLD to 75 MLD wastewater is by pass directly through inlet chamber into final disposal chamber without any treatment ultimately leading to Kharicut cannal. • Excess foaming in both the aeration tanks is observed. Flow meter provided on final outlet of the STP is found non operational. Provided SCADA system is found not in operation. Wastewater simply passing through the STP
10.	13/08/2020	Direction issued u/s 33(A) of the Water (Prevention & Control of Pollution) Act 1974 w.r.to visit dtd. 10/07/2020	<ul style="list-style-type: none"> • STP is receiving @ 180 MLD Sewage Waste water from which 35 MLD is sent to the STP having 35 MLD capacity and rest @ 145 MLD is taken to the STP of 70 MLD in which @ 8590 MLD sewage waste water is bypass from the inlet chamber of 70 MLD STP.

			<ul style="list-style-type: none"> ● SCADA system is found not working during inspection. ● Unit has provided flow meter on final outlet line but it was found not in operation. ● Sewage Waste Water sample are collected from outfall for treated sewage w/w of 70 MLD STP of 70 MLD STP. Result sewage shows BOD 80 mg/l, COD 305 mg/l, SS 324 mg/l, Faecal Coliform 4 MPN/100 ml which are not meeting with the prescribed norms. 	
35 MLD STP				
11.	24/06/2019	Show Cause Notice w.r.to visit dtd 30/05/2019	<ul style="list-style-type: none"> ● STP operation without CCA of the board ● Bypassing the sewage wastewater without treatment ● Analysis report more than prescribed norms 	
12.	24/09/2019	Notice of Direction issued u/s 33(A) of the Water (Prevention & Control of Pollution) Act 1974 w.r.to visit dtd 27/06/2019, 17/07/2019, 19/07/2019, 29/07/2019, 07/08/2019, 21/08/2019	<ul style="list-style-type: none"> ● STP has not applied for CCA even after the instructions given by RO officials ● STP has yet not submitted action plan of restart of the plant ● STP is not neutralizing the acidic waste water ● STP has not identified the point source from where the acidic waste water arrives in to their sewage network ● Incoming domestic waste water was found discharged into River Khari without any treatment through Bypass line ● STP units were found not in operation ● As per the observations during visit dtd 21/08/2019 domestic wastewater is discharging into Kharicut Cannel, Near SP Ring road' ● As per the observation visit dtd 17/07/2019, it was noticed that all four SBR tanks are filled with acidic waste water ● As per the observations during visit dtd 19/07/2019, STP by pass their untreated waste water if incoming waste water found acidic or incoming wastewater flow is in huge quantity STP frequently the acidic waste water ● As per the observations during visit dtd 07/08/2019, observed that by providing flexible pipe at the SBR tank-2, emptying into the waste water in to the Kharicut Canal 	

			<ul style="list-style-type: none"> • Analysis report of samples collect non-compliance with respect to the prescribed Discharge norms
13.	13/01/2020	Notice of Direction	<ul style="list-style-type: none"> • The STP has not obtained CCA of the Board.
		<p>issued u/s 33(A) of the Water (Prevention & Control of Pollution) Act 1974 w.r.to visit 23/09/2019 05/10/2019 06/11/2019 21/11/2019</p>	<ul style="list-style-type: none"> • STP is bypassing the domestic wastewater directly into the Kharicut canal without any treatment. • Installation of aerator in equalization tank is not done and chlorination system is not fully operated stage. • The received sewage is simply pass from all the units with no treatment and discharged in to the Kharicut Canal. • Provided SCADA system is also not working. • As per visit dated 21-11-2019, no inlet sewage is taken into the Plant as the inlet pipeline • flange at the equalization tank is broken and so that the STP is not in operation since 17/11/2019. <p>Analysis report of samples taken from final outlet is not complying with norms.</p>
14.	21/03/2020	<p>Notice of Direction issued u/s 33(A) of the Water (Prevention & Control of Pollution) Act 1974 w.r. to visit dtd. 18/01/2020 29/02/2020</p>	<ul style="list-style-type: none"> • STP has not applied for CCA of the board. • Analysis Reports of sample taken from final outlet of STP shows non-compliance with respect to STP discharge norms
15.	13/08/2020	<p>Direction issued u/s 33(A) of the Water (Prevention & Control of Pollution) Act 1974 w.r.to visit dtd. 10/07/2020</p>	<ul style="list-style-type: none"> • STP is receiving @ 180 MLD Sewage Waste water from which 35 MLD is sent to the STP having 35 MLD capacity and rest @ 145 MLD is taken to the STP of 70 MLD in which @ 85- 90 MLD sewage waste water is bypass from the inlet chamber of 70 MLD STP. • SCADA system is found not working during inspection. • Unit has provided flow meter on final outlet line but it was

			<p><i>found not in operation.</i></p> <ul style="list-style-type: none"> • Sewage Waste Water sample are collected from outfall for treated • sewage w/w of 70 MLD STP of 70 MLD STP. Result sewage shows BOD 80 mg/l, COD 305 mg/l, SS 324 mg/l, Faecal Coliform 4 MPN/100 ml which are not meeting with the prescribed norms.
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6. The report also annexes a letter dated 09.06.2020 from the Municipal Corporation to the State PCB giving the following plan:

“

Sr. No.	Location	Planning
1	Gajanand Park Nikol	Minor water discharge found. This residential area
2	Avadhesh Park	is low laying about 3 to 5 feet from Canal service road. Laying of new 180 running
3	Prabuddha Ashram Nikol	meter pipeline from Avdhesh Park to Gajanand Park via Narayani School to divert the flow is planned.
4	Amardeep Park Nikol	Minor water discharge found. This residential area is low laying about 3 to 5 feet from Canal service road. laying of new 120 running meter Pipeline from Amardeep Park to Bhaktinagar to divert
5	Sarjan Shopping Centre	De-silting work is completed and Laying of new 200 running meter Pipeline from Shyam Vihar to Canal culvert to divert the flow is planned.
6	Sardar Chok Bridge	It is planned to divert this flow to recently installed Drainage trunk main line on SP ring road.
7	Narayan Park Nikol	Laying of new 180 running meter pipeline from Narayan Park to Rajiv Park to divert the flow is planned.
8	Nikol Ward Pumping Station	Augmentation of Jivanwadi Drainage Pumping with new network is planned.
9	Kavya Residency Thakkar Nagar	
10	Ashirwad Park Pumping Station	Technical consultant is appointed to work out the techno-economical survey.

11	Ambika Nagar	Drainage pumping stations like (1) Rabari DPS (2) Chotalal DPS discharge is planned to divert to Vinzol Main trunk line by laying new Rising line. As a long term permanent solution, Microtunneling work is taken up from Jashodanagar to Pirana to overcome the drainage backing in Pirana trunk main line.
12	Keshav Park Odhav	

7. The report also annexes letter of the State PCB dated 13.08.2020 as follows:

“DIRECTION UNDER SECTION 33(A) OF THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974 (HEREINAFTER REFERRED TO AS THE “WATER ACT”) AS AMENDED FROM TO TIME.

- (1) *WHEREAS Ahmedabad Municipal Corporation (AMC) having the Sewage Treatment Plant (STP) for the treatment of domestic waste water (Sewage) located at Plot No. 93, 10,113, 115, 117(p), 118, 92, 104, 105, 109, 111, 112, 116, 120 near Vinoba Bhave Nagar, Village – Vinzol, Ahmedabad.*
- (2) *AND WHEREAS the Gujarat Pollution Control Board has granted you Consolidated Consent and Authorization (CC&A) under the provisions of the Environmental Acts/Rules by its Consent Order No. W-100525 dated 04.04.2029 which is valid up to 30.06.2023 for the treatment of domestic waste water (Sewage) subject to the conditions mentioned therein.*
- (3) *AND WHEREAS there is a matter Original Application No. 105/2019 in the Hon’ble National Green Tribunal (Principal Bench), New Delhi, regarding pollution in the Kharicut Canal and Khari River.*
- (4) *AND WHEREAS the monitoring of Kharicut Canal stretch from GIDC Naroda to downstream of Vatva GIDC was carried out on 18.02.2020, and it was observed that untreated domestic waste water is being discharged in to Kharicut canal at different locations.*
- (5) *AND WHEREAS it was also observed on 18.02.2020 that many outlet have been created by Ahmedabad Municipal Corporation (AMC) for discharge of untreated domestic waste water and storm water discharge.*
- (6) *AND WHEREAS the Kharicut Canal Stretch from Muthiya Village at Naroda to Village Lali was visited on 09.03.2020 with Hon’ble Chairman appointed by the Hon’ble NGT, with the officials of Ahmedabad Municipal Corporation, GPCB and Irrigation Department and various discussion took place to solve the problem with the Chairperson to concerned Departments.*
- (7) *AND WHEREAS action plan was asked vide letter dated 18.03.2020 w.r.t. observation during the visit dated 18.02.2020 and 09.03.2020 and the various discussion took place with the Chairperson with concerned Departments.*

- (8) *AND WHEREAS AMC has submitted reply w.r.t. the letter dated 18.03.2020 shows compliance not made completely.*
- (9) *AND WHEREAS Regional Office GPCB has visited your STP was visited on 10.07.2020 under Section 23 of the Water (Prevention and Control of Pollution) Act, 1974 by authorized officers of the Board, during the said visit it was observed that:*
- *STP is receiving total @180 MLD sewage waste water from which 35 MLD is sent to the STP having 35 MLD capacity and rest @ 145 MLD is taken to the STP to 70 MLD in which @85-90 MLD sewage waste water is bypass from the inlet chamber of 70 MLD STP.*
 - *SCADA system is found not working during inspection.*
 - *Unit has provided flow meter on final outlet line but it was found not in operation.*
 - *Sewage waste water sample are collected from outfall for treated sewage w/w of 70 MLD STP of 70 MLD STP. Result of sewage shows BOD 80 mg/l, COD 306 mg/l, SS 324 mg/l, Fecal Coliform of 4 MPN/100 ml, which are not meeting with the prescribed norms.*
- (10) *AND WHEREAS looking to the observation during the said visit you have violated provisions of the Environmental laws and you are in non-compliance of the conditions granted to you.*

UNDER THE CIRCUMSTANCES, I Rajesh Kumar Parmar, Environmental Engineer of the Gujarat Pollution Control Board issue the direction under Section 33(A) of the Water (Prevention and Control of Pollution) Act, 1974 as under:

- 1) *To submit compliance of the observation and instruction were given during the above said joint visits.*
- 2) *To stop discharge of untreated domestic waste water into Kharicut Canal ultimately goes in to Khari River.*
- 3) *To update, improvement in treatment of STP to achieve prescribed norms.*
- 4) *To submit the time bound action for to remove drainage connection into the Kharicut canal.*
- 5) *To submit compliance for above directions within 15 days.*

If the above directions are not complied, you are liable for prosecution under Section 41(2) of the Water (Prevention and Control of Pollution) Act, 1974 which provides punishment with imprisonment for a term not less than one year and six months and may extend to six years and with fine.

This order is issued after approval of competent authority.”

8. It is clear from the above resume of the report furnished by Justice B.C. Patel with due notice to the Municipal Corporation that serious violation of the Water (Prevention and Control of Pollution) Act, 1974 is taking place. Action initiated by the State PCB so far is highly inadequate. Neither compensation for the damage to the environment

has been assessed and recovered nor prosecution initiated. This is failure of duty of the State PCB as well as the Irrigation Department. Such failure is actionable as it is resulting in denial of basic right of clean environment. The Hon'ble Supreme Court in *Paryavaran Suraksha Samiti Vs. Union of India*¹ observed :

“10. Given the responsibility vested in municipalities under Article 243-W of the Constitution, as also, in Item 6 of Schedule XII, wherein the aforesaid obligation, pointedly extends to “public health, sanitation conservancy and solid waste management”, we are of the view that the onus to operate the existing common effluent treatment plants, rests on municipalities (and/or local bodies). Given the aforesaid responsibility, the municipalities (and/or local bodies) concerned, cannot be permitted to shy away from discharging this onerous duty. In case there are further financial constraints, the remedy lies in Articles 243-X and 243-Y of the Constitution. It will be open to the municipalities (and/or local bodies) concerned, to evolve norms to recover funds, for the purpose of generating finances to install and run all the “common effluent treatment plants”, within the purview of the provisions referred to hereinabove. Needless to mention that such norms as may be evolved for generating financial resources, may include all or any of the commercial, industrial and domestic beneficiaries, of the facility. The process of evolving the above norms, shall be supervised by the State Government (Union Territory) concerned, through the Secretaries, Urban Development and Local Bodies, respectively (depending on the location of the respective common effluent treatment plant). The norms for generating funds for setting up and/or operating the “common effluent treatment plant” shall be finalised, on or before 31-3-2017, so as to be implemented with effect from the next financial year. In case, such norms are not in place, before the commencement of the next financial year, the State Governments (or the Union Territories) concerned, shall cater to the financial requirements, of running the “common effluent treatment plants”, which are presently dysfunctional, from their own financial resources.

11. Just in the manner suggested hereinabove, for the purpose of setting up of “common effluent treatment plants”, the State Governments concerned (including, the Union Territories concerned) will prioritise such cities, towns and villages, which discharge industrial pollutants and sewer, directly into rivers and water bodies.

¹ (2017) 5 SCC 326

12. We are of the view that in the manner suggested above, the malady of sewer treatment, should also be dealt with simultaneously. We, therefore, hereby direct that “sewage treatment plants” shall also be set up and made functional, within the timelines and the format, expressed hereinabove.

13. We are of the view that mere directions are inconsequential, unless a rigid implementation mechanism is laid down. We, therefore, hereby provide that the directions pertaining to continuation of industrial activity only when there is in place a functional “primary effluent treatment plants”, and the setting up of functional “common effluent treatment plants” within the timelines, expressed above, shall be of the Member Secretaries of the Pollution Control Boards concerned. **The Secretary of the Department of Environment, of the State Government concerned (and the Union Territory concerned), shall be answerable in case of default. The Secretaries to the Government concerned shall be responsible for monitoring the progress and issuing necessary directions to the Pollution Control Board concerned, as may be required, for the implementation of the above directions.** They shall be also responsible for collecting and maintaining records of data, in respect of the directions contained in this order. The said data shall be furnished to the Central Ground Water Authority, which shall evaluate the data and shall furnish the same to the Bench of the jurisdictional **National Green Tribunal.**

(emphasis supplied)

9. To comply with the mandate in the above judgement, this Tribunal vide order dated 21.05.2020 in *Paryavaran Suraksha Samiti Vs. Union of India*, OA 593/2017, issued directions as follows:

“26. Summary of directions:

- i. All States/UTs through their concerned departments such as Urban/Rural Development, Irrigation & Public Health, Local Bodies, Environment, etc. may ensure formulation and execution of plans for sewage treatment and utilization of treated sewage effluent with respect to each city, town and village, adhering to the timeline as directed by Hon'ble Supreme Court. STPs must meet the prescribed standards, including faecal coliform.**

CPCB may further continue efforts on compilation of River Basin-wise data. Action plans be firmed up with Budgets/Financial tie up. Such plans be overseen by Chief Secretary and forwarded to CPCB

before 30.6.2020. CPCB may consolidate all action plans and file a report accordingly.

Ministry of Jal Shakti and Ministry of Housing and Urban Affairs may facilitate States/UTs for ensuring that water quality of rivers, lakes, water bodies and ground water is maintained.

As observed in para 13 above, 100% treatment of sewage/effluent must be ensured and strict coercive action taken for any violation to enforce rule of law. Any party is free to move the Hon'ble Supreme Court for continued violation of its order after the deadline of 31.3.2018. This order is without prejudice to the said remedy as direction of the Hon'ble Supreme Court cannot be diluted or relaxed by this Tribunal in the course of execution. PCBs/PCCs are free to realise compensation for violations but from 1.7.2020, such compensation must be realised as per direction of this Tribunal failing which the erring State PCBs/PCCs will be accountable.

- ii. The CPCB may study and analyse the extent of reduction of industrial and sewage pollution load on the environment, including industrial areas and rivers and other water bodies and submit its detailed report to the Tribunal.**
- iii. During the lockdown period there are reports that the water quality of river has improved, the reasons for the same may be got studied and analysed by the CPCB and report submitted to this Tribunal. If the activities reopen, the compliance to standards must be maintained by ensuring full compliance of law by authorities statutorily responsible for the same.**
- iv. Accordingly, we direct that States which have not addressed all the action points with regard to the utilisation of sewage treated water may do so promptly latest before 30.06.2020, reducing the time lines in the action plans. The timelines must coincide with the timelines for setting up of STPs since both the issues are interconnected. The CPCB may compile further information on the subject accordingly.**
- v. Needless to say that since the issue of sources of funding has already been dealt with in the orders of the Hon'ble Supreme Court, the States may not put up any excuse on this pretext in violation of the judgment of the Hon'ble Supreme Court."**

10. In view of above, the joint Committee of CPCB and GPCB must comply with its statutory obligation of initiating action for assessment and recovery of compensation and initiating prosecution against erring officers. The Municipal Commissioner is directed to initiate action against the erring officers and take immediate further remedial action by preparing a time bound action plan which may be furnished to the State PCB within one month. This may be overseen by the Secretary Urban Development, Gujrat Govt. A compliance report may be furnished within two months from today by GPCB, Secretary Urban Development, Gujrat by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF, failing which this Tribunal may have to consider action personally against all the above concerned senior officers which may include stopping of salary till they perform their statutory duty and initiating prosecution personally. The Secretary Urban Development, Gujrat, Municipal Commissioner, AMC/MS State PCB may remain present in person/by video conferencing on the next date with action taken reports.

List for further consideration on 20.11.2020.

A copy of this order be sent to CPCB, GPCB, Secretary Urban Development, Gujrat and Commissioner, Ahmedabad Municipal Corporation by e-mail for compliance.

Adarsh Kumar Goel, CP

S. P. Wangdi, JM

Dr. Nagin Nanda, EM

September 01, 2020
Original Application No. 105/2019
DV

APPENDIX -3

Minutes of First Review Meeting held on 08-09-2020 in the reference of Hon'ble NGT order dated: 01-09-2020 under the Chairmanship of Shri Mukesh Puri, IAS, Additional Chief Secretary to Government, Urban Development & Urban Housing Department at 3:00 PM at Block no. 14/9, New Sachivalay, Gandhinagar.

A meeting was held on 08.09.2020 with regard to the matter of Original Application No.105/2019 of Ajitsinh Bhurubha Vaghela V/s. State of Gujarat issue of Kharicut canal and Khari River and the recent order dtd. 01.09.2020 by the Hon'ble NGT (PB), New Delhi.

In the meeting, Municipal Commissioner, Ahmedabad Municipal Corporation(AMC), Member Secretary Gujarat Pollution Control Board (MS, GPCB) remained present.

Hon'ble NGT issued order dtd 01.09.2020, after submission of an independent report prepared by Hon'ble Retd. Chief Justice of High Court Shri B.C. Patel. Hon'ble Retd. Chief Justice of High Court Shri B.C. Patel was appointed by Hon'ble NGT vide order dated: 17.01.2020 to oversee the steps taken by the Authority and submit independent report.

MS, GPCB has emphasized the observations and conclusion of the report submitted by the Hon'ble Retd. Chief Justice of High Court B.C. Patel, to the Hon'ble NGT on 19.08.2020, with copy to GPCB & AMC. MS, GPCB elaborate directions of Hon'ble NGT in the order dtd 01.09.2020. Brief of the same are mentioned as below;

A. Conclusion of the Hon'ble Retd. Chief Justice of High Court B.C. Patel Report, which is also mentioned in the Hon'ble NGT Order dated 01.09.2020.

- 1. That Neither the Department of Irrigation, Government of Gujarat nor its Canal Officer took any action in the matter, either about the piercing of the Canal by the residents or the AMC or Polluting the Canal water by them. They have never tested the quality of the water of the Canal.*
- 2. Even GPCB which took samples of canal water and found that at various places through pipes which were fixed in the canal untreated sewage/Trade effluent was seen being discharged in the canal but has taken no coercive action.*
- 3. The AMC is a public body and it is required to discharge the duties under The Gujarat Municipal Corporation Act and also under the Environmental Laws. It has failed in erecting treatment plants for the sewage generated. AMC in the eastern part of Ahmedabad is receiving 170-180 MLD sewage and it has two plants to treat only 105 MLD of sewage. The excess sewage is discharged in the canal contrary to the provisions of the law, leaving the poor farmers to the mercy of the almighty God.*

Even after treatment the sewage was not found on any occasion meeting the norms laid down under the law. It is bounded duty of AMC to treat the sewage and then to discharge the same in accordance with the norms in the river and not in to the Canal.

4. *It is very clear that as stated about the various inspection carried by the officers of GPCB, it was found that on several occasions without any treatment the entire sewage was discharged or on some occasions it was partly discharged after treatment. Many defiance has been indicated in the report and despite of various notices given to the AMC, the AMC is not discharging sewage as per norms. Unfortunately, no prosecution has been filed against these authorities indulging in discharging the sewage which is not meeting with the norms. Though its serious crime against people at large as no action is taken, the direction is required to be given to the GPCB to prosecute and not to allow untreated sewage to be discharged. About the beautification of the canal, the same is dealt in the report. For the time being the AMC as well as Department of irrigation are required to be directed to remove the grass growing haphazardly in the canal and both the sides of the canal, so as to protect the water and the Environment.*
5. *The irrigation department and the Commissioner, Ahmedabad Municipal Corporation must close all the outlets opening in to the canal through piercing or otherwise and be securely closed so as to see that no liquid enters and action be taken against concerned person. Despite the rain much natural water entered the canal, yet there is much difference in the parameters at the initial stage and at subsequent stages as indicated in the report. Therefore, aforesaid action is required to be initiated by the authorities urgently.*

- B. In the order dated 01.09.2020; in para 10, directions were issued by the Hon'ble NGT as follow;

Para 08: Observation

It is clear from the above resume of the report furnished by Justice B.C. Patel with due notice to the Municipal Corporation that serious violation of the Water (Prevention and Control of Pollution) Act, 1974 is taking place. Action initiated by the State PCB so far is highly inadequate. Neither compensation for the damage to the environment has been assessed and recovered nor prosecution initiated. This is failure of duty of the State PCB as well as the Irrigation Department.

Para 10: Direction

In view of above, the joint Committee of CPCB and GPCB must comply with its statutory obligation of initiating action for assessment and recovery of compensation and initiating prosecution against erring officers.

Para 10: Direction

The Municipal Commissioner is directed to initiate action against the erring officers and take immediate further remedial action by preparing a time bound action plan which may be furnished to the State PCB within one month.

This may be overseen by the Secretary Urban Development, Gujarat Govt.

Para 10: Direction

A compliance report may be furnished within two months from today by GPCB, Secretary Urban Development, Gujarat.

Para 10: Direction

The Secretary Urban Development, Gujrat, Municipal Commissioner, AMC/MS State PCB may remain present in person/by video conferencing on the next date with action taken reports. Next hearing on 20-11-2020.

After detailed discussion, it was decided to take following steps/actions.

1. AMC shall prepare time bound Action Plan to divert the flow of the sewage coming out from the pipelines to the existing drainage connection.
2. GPCB shall issue notice to Irrigation Department also to close all illegal drainage connection in to Khari cut Canal.
3. Irrigation Department, AMC and GPCB should take action as direction given in Para 10 of Hon'ble NGT order.

The meeting ended with thanks to the Chairman of the meeting

APPENDIX -4

Minutes of Second Review Meeting held on 15-09-2020 in the reference of Hon'ble NGT order dated: 01-09-2020 under the Chairmanship of Shri Mukesh Puri, IAS, Additional Chief Secretary to Government, Urban Development & Urban Housing Department at 5:00 PM at Block no. 14/9, New Sachivalay, Gandhinagar.

The Second review meeting was held under the chairmanship of Shri Mukesh Puri, IAS, Additional Chief Secretary to Government, Urban Development & Urban Housing Department (ACS, UD & UHD) at 5:00 PM at Block No. 14/9, New Sachivalay, Gandhinagar to discuss the progress and action taken regarding the matter of Original Application No.105/2019 of Ajitsinh Bhurubha Vaghela V/s. State of Gujarat issue of Kharicut canal and Khari River and the recent order dtd. 01.09.2020 by the Hon'ble NGT (PB), New Delhi.

In the meeting Municipal Commissioner, Ahmedabad Municipal Corporation(AMC); Member Secretary, Gujarat Pollution Control Board(MS,GPCB) remained present.

MS, GPCB briefed about the details prepared in this regards and concise the order given by the Hon'ble NGT on 01.09.2020 in Para 8 and Para 10.

ACS, UD & UHD has reviewed the progress made in the regards of the Action Plan prepared by AMC. He instructed the AMC and GPCB to take action and make quick progress as per the direction given by Hon'ble NGT. He also informed to both authorities to submit the Action Taken Report as per the timeline given by Hon'ble NGT. He further instructed the Commissioner, AMC to prepare the detailed report with photographs on/or before 30th September,2020, so that further actions may be initiated by GPCB in time.

Commissioner AMC, presented the Action Plan to divert the sewage which is entering in the Kharicut Canal from different 12 locations. From these 12 locations the sewage will be diverted in the main drainage pipeline system of AMC which flow to the respective STPs. He informed that the total project cost is approximately Rs. 25.75 Crores and the same will be completed between 31st October, 2020 and 30th June,2021. Commissioner, AMC has pointed out that ownership of Kharicut Canal is of Irrigation Department, so further action should be initiated by Irrigation Department to stop the piercing made by the societies on the bank of the Canal and also the monitoring of the Canal should be done by the Irrigation Department. MS, GPCB has informed that the Board has already issued Notice of Direction under section 33(A) of Water Act, 1974 to Irrigation Department in this regards on dated: 13.08.2020. ACS, UD & UHD has instructed to give further direction to the Irrigation Department to actively monitor the canal.

ACS, UD & UHD noted that as per Hon'ble NGT order dated 01.09.2020 mentioned that the Vinzol STP of 70 & 35 MLD is not efficiently performing and bypass from the STP is observed and sometimes untreated sewage from the same is discharged in the Kharicut Canal. In this regards, Commissioner, AMC submitted that 70 & 35 MLD STPs at Vinzol are in operation. Additional STP of 100 MLD capacity is already in construction stage and in progress with time line. He further added that whenever acidic waste water containing industrial effluent received at the inlet of the STP, the sewage waste water is bypass from

the inlet tank only. This is essential to protect the machineries of the STP from extensive damage if acidic water enters the STP.

ACS, UD & UHD instructed for intensive monitoring has to be start to prevent the acidic/chemical waste water in to the drainage pipeline of the STP. MS, GPCB submitted that a Task Force consisting of officials from AMC, GPCB, Police Department and Industrial Association is formed to prevent Acidic Discharge in the drainage pipeline of AMC and Kharicut Canal. Task force team is monitoring the situation since last December, 2019. With reference to that Chairman (ACS, UD & UHD), directed for the intensive round the clock monitoring of Task Force and for that GPCB may give direction to the Task Force. Progress and Action Taken by the Task Force will be reviewed in the Next Meeting.

It was also decided to invite Secretary, Irrigation Department in next meeting.

After detailed discussion, it was decided to take following steps/actions.

1. Ahmedabad Municipal Corporation shall expedite the time bound Action Plan to divert the sewage flowing in to the Kharicut Canal.
2. GPCB shall give direction to the Nodal Officer, Task Force for intensive monitoring of the Canal and Drainage Pipeline network of AMC for illegal effluent discharge.
3. GPCB shall give Direction to the Irrigation Department for the monitoring and compliance of earlier Notice of Direction under Water Act, 1974.
4. GPCB shall monitor the Kharicut Canal and calculate the Environment Damage Compensation.

The meeting ended with thanks to the Chairman of the meeting

APPENDIX -5



GPCB

GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 010

Phone : (079) 23226295

Fax : (079) 23232156

Website : www.gpcb.gov.in

Legal Notice

No: GPCB/LGL/NGT:KH:142

Date:

To,

1. **Ahmedabad Municipal Corporation - Vinzol STP 70 MLD**
Vinoba Bhav Nagar, Vill- Vinzol
Ahmedabad - 382445
2. **The Chief Engineer**
Ahmedabad Municipal Corporation(AMC)
Mahanagar Seva Sadan
Sardar Patel Bhavan
Danapith
Ahmedabad - 380001

Sir,

Gujarat Pollution Control Board (hereinafter referred to as the Board) a statutory body constituted under Section 4 of the Water (Prevention and Control of Pollution) Act-1974 (hereinafter referred to as the Water Act-1974) and its Head Office situated at Section: 10-A, Gandhinagar: 382 010 issue this notice as under:

AND WHEREAS the Board has issued direction under section 33 A of Water Act 1974 to AMC on 13.08.2020 due to reasons:

- STP is receiving @ 180 MLD Sewage Waste water from which 35 MLD is sent to the STP having 35 MLD capacity and rest @ 145 MLD is taken to the STP of 70 MLD in which @ 75 MLD sewage waste water is bypass from the inlet chamber of 70 MLD STP.
- SCADA system is found not working during inspection.
- Unit has provided flow meter on final outlet line but it was found not in operation.
- Sewage Waste Water sample are collected from outfall for treated sewage w/w of 70 MLD STP of 70 MLD STP. Result sewage shows BOD 80 mg/l, COD 305 mg/l, SS 324 mg/l, Faecal Coliform 4 MPN/100 ml which are not meeting with the prescribed norms.

AND WHEREAS during inspection dated: 15-08-2020 & 07-09-2020, it was observed that;

- Around 70 -75 MLD of waste water is bypass hence discharged without any treatment from STP.
- During Inspection SCADA System is not found in operation.
- Flow meter on final outlet of the STP is not in operation.

Clean Gujarat Green Gujarat

ISO - 9001 - 2008 & ISO - 14001 - 2004 Certified Organisation

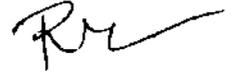
AND WHEREAS in the matter of Original Application No.105/2019 of Ajitsinh Bhurubha Vaghela V/s. State of Gujarat Respondent hearing was held on 01.09.2020 and issued various directions.

AND WHEREAS one of the direction in the para 10 of the order 01.09.2020 "assessment and recovery of compensation"

You no. 1 & 2 are in charge of No. 1 and responsible for the aforesaid conduct of the Operation of No.1 for STP of Ahmedabad Municipal Corporation-70 MLD STP and hence deemed to be liable for the aforesaid offences.

Under the circumstances you are directed to show cause and submit point wise compliance report of the directions dated: - 13-08-2020 with Interim Environment Compensation of Rs. 25 Lacs within fifteen days from the receipt of this notice.

**For and on behalf of
Gujarat Pollution Control Board**


**(R.R.Panchal)
Law Officer**

Copy to:

- 1) The Regional Officer, R.O, GPCB, R.O. Ahmedabad (East), Vatva, Ahmedabad.
- 2) The Vigilance Officer, H.O, GPCB, Sector 10-A, Gandhinagar.
- 3) Legal Cell, H.O, GPCB, Sector 10-A, Gandhinagar.
- 4) Unit Head, Ahmedabad (East), H.O, GPCB, Sector 10-A, Gandhinagar.

Outward No:568956, 01/10/2020

APPENDIX -6



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 010

Phone : (079) 23226295

Fax : (079) 23232156

Website : www.gpcb.gov.in

R.P.A.D.

DIRECTION UNDER SECTION 33(A) OF THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT-1974 (HEREINAFTER REFERRED TO AS THE 'WATER ACT') AS AMENDED FROM TIME TO TIME.

- (1) AND WHEREAS there is a matter Original Application No.105/2019 in the Hon'ble National Green Tribunal (Principal Bench), New Delhi, regarding pollution in the Kharicut Canal and Khari River.
- (2) AND Whereas the monitoring of Kharicut Canal stretch from GIDC Naroda to downstream of Vatva GIDC was carried out on 18-02-2020, and it was observed that untreated domestic waste water is being discharged in to Kharicut canal at different Locations.
- (3) AND WHEREAS the Kharicut Canal Stretch from Muthiya Village at Naroda to Village Lali was visited on 09-03-2020 with the Chairperson appointed by the Hon. NGT, with the officials of Ahmedabad Municipal Corporation, GPCB and Irrigation Department and various discussion took place to solve the problem with the concerned Departments.
- (4) AND WHEREAS action plan was asked vide letter dated 18-03-2020 w.r.to observation during the visit dated 18-02-2020 and 09-03-2020 and the various discussion took place with the Chairperson to concerned Departments.
- (5) AND WHEREAS the reply received vide letter dated: 16.09.2020 not containing any concrete actions.
- (6) AND WHEREAS the Board has issued Notice of Direction under section 33 (A) of Water Act- 1974 vide order dated: - 13-08-2020.
- (7) AND WHEREAS During the visit on 18.02.2020, 09.03.2020, 18.04.2020 & 01.08.2020 drainage connection in the Chandola lake and Khari Cut Canal for disposal sewage were observed from private society.
- (8) AND WHEREAS Report prepared by Hon'ble Retired Chief Justice of High Court, appointed by Hon'ble NCT (New Delhi) was forwarded to Additional Chief Engg. Irrigation Department through mail on 19-09-2020 for necessary actions.

(P.T.O)

Clean Gujarat Green Gujarat

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UNDER THE CIRCUMSTANCES, I, Rajesh Kumar Parmar, Environmental Engineer of the Gujarat Pollution Control Board issue the direction under Section 33(A) of The Water (Prevention and Control of Pollution) Act-1974 as under:

1. To stop discharge of domestic waste water in to the Chandola lake and Kharicut canal
2. To submit time bound action plan to stop discharge of domestic waste water into the Kharicut canal.

You are hereby directed to reply with respect to above points within 15 days on receipt of this notice of direction failing to which directions as proposed above will be deemed to be passed without further reference to you.

This order is issued after approval of competent authority.

**For and on behalf of
Gujarat Pollution Control Board**


**(Rajesh Kumar Parmar)
Environmental Engineer**

NO: GPCB/ABD-VT-C-259/569087

Date: 03/10/2020

Issued to:

**The Superintending Engineer,
Ahmedabad Irrigation Project Circle (AIPC),
9th floor, 'A' block,
Vastrapur, Bahumali Bhavan,
Opp. Of Himalaya Mall, Ahmedabad.**

Copy to:

**Regional officer,
Regional Office, GPCB, Ahmedabad (East)for kind information.**

APPENDIX -7



GPCB

GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 010

Phone : (079) 23226295

Fax : (079) 23232156

Website : www.gpcb.gov.in

No: GPCB/LGL/NGT:KH:142 / 569085

Date: 03/10/2020

To,

**The City Engineer
Ahmedabad Municipal Corporation(AMC)
Mahanagar Seva Sadan
Sardar Patel Bhavan
Danapith
Ahmedabad - 380001**

Sub: Intensive monitoring of Task Force for River Khari and Kharicut Canal Monitoring
Ref:- Minutes of Meeting Dated:- 15-09-2020

Sir,

The meeting was held under the chairmanship of Shri Mukesh Puri, Additional Chief Secretary, Urban Development Department on 15-09-2020 regarding actions to be taken for the direction given by Hon'ble National Green Tribunal in the matter of Original Application No.105/2019 of Ajitsinh Bhurubha Vaghela V/s. State of Gujarat issue of Kharicut canal and Khari River and the recent order dtd. 01.09.2020.

In the said meeting it was decided to direct for the intensive round the clock monitoring of Task Force. The Progress and Action Taken by the Task Force will be reviewed in the Next Meeting. Minutes of meeting was sent through mail to your office on 25.09.2020. (Copy Enclosed)

A joint Task force under the nodal officer of AMC City Engineer comprising of Officers of AMC, Regional Office GPCB Ahmedabad (East), Police Department, representative of Industrial Association, CEO of Mega Pipeline, GIDC was decided to constitute in RRC meeting dated: 26-08-2019.

In these regards, you are required to initiate intensive 24 X 7 round the clock monitoring of Kharicut Canal and Drainage Pipeline network of AMC for illegal effluent discharge by Task force constituted by AMC with the officials of GPCB, Police Department & Industrial Associations. Nodal Officer shall co-ordinate with Task Force officials for necessary actions of this direction.

The Progress and Action Taken by the Task Force will be reviewed in the Next Meeting to be conducted under Chairmanship of Hon'ble ACS, UDD.

(P.T.O)

Clean Gujarat Green Gujarat

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You are directed to comply as per above and submit the action taken report before next meeting.

This letter is issued after necessary permission from competent authority.

**For and on behalf of
Gujarat Pollution Control Board**



**(Rajeshkumar Parmar)
Environment Engineer**

Copy to:

1. Regional Officer- Ahmedabad (East).....follow up with Nodal Officer, AMC for the compliance of above.

APPENDIX -8

Minutes of third review meeting held on 26-10-2020 with reference to the Hon'ble NGT order dated: 01-09-2020 under the Chairmanship of Shri Mukesh Puri, IAS, Additional Chief Secretary to Government, Urban Development & Urban Housing Department at 3:00 PM at Block no. 14/9, New Sachivalay, Gandhinagar.

The third review meeting was held under the chairmanship of Shri Mukesh Puri, IAS, Additional Chief Secretary to Government, Urban Development & Urban Housing Department (ACS, UD & UHD) at 3:00 PM at Block No. 14/9, New Sachivalay, Gandhinagar to discuss the progress and action taken regarding the matter of Original Application No.105/2019 of Ajitsinh Bhurubha Vaghela V/s. State of Gujarat issue of Kharicut canal and Khari River and the recent order dtd. 01.09.2020 by the Hon'ble NGT (PB), New Delhi.

In the meeting Municipal Commissioner, Ahmedabad Municipal Corporation (MC, AMC), Member Secretary, Gujarat Pollution Control Board (MS, GPCB), Chief Engineer and officials from Irrigation Department, Officer from CPCB Zonal Office and officials of GPCB remained present. List of participant attached herewith as Annexure - I.

Shri Rajesh Parmar, Environmental Engineer (EE), Unit Head, Ahmedabad (East) explained about directions issued by the Hon'ble NGT in the order dated 01.09.2020, purpose of review meeting to prepare action taken report (ATR) to be submitted to the Hon'ble NGT and review of the actions/decisions taken by the concerned authority subsequent to the meetings held on 08.09.2020 & 15.09.2020.

Shri H U Kalyani, Chief Engineer from Irrigation Department informed that various work done by the irrigation department for cleaning, repairing, maintenance since 2015 and it is continuous process which is going on. He emphasized that Kharicut Canal, passing from Ahmedabad City catchments area has approximately 16 Kms length and the fresh water inducted from Narmada Canal through Daskroi Branch canal enters in from Muthiya Village of Naroda in to the Kharicut Canal and the water flowing through the Kharicut Canal is given for the agriculture activity in the downstream village of Ahmedabad. He informed that every year, during two time period i.e. from 30th September to 15th November & April to May, Kharicut Canal remains dry and during that time cleaning of canal is carried out by Irrigation Department. This year due to COVID-19 the same work couldn't be performed in the April and May. Official of Irrigation Department presented photographs of the work started for cleaning in the recent past week.

ACS, UD & UHD, instructed officials of Irrigation Department to prepare document of work done and submit to the Committee. Municipal Commissioner, AMC informed the Committee that in 2018, under Swachh Bharat Abhiyan more than @ 35,000 MT of waste and debris was removed from the Kharicut Canal and the work was praised

by the State Government. ACS directed that Irrigation and AMC shall jointly start the work of cleaning of canal from 27.10.2020 as the canal will remain dry up to 15th November 2020, removing waste and debris from the canal. Irrigation Department will deploy the JCBs and Excavators in to the canal and AMC will provide their dumpers for the collection of the waste from Kharicut Canal, transport and disposal of dump in to the solid waste site of AMC. It was agreed that proper documentation shall also be done of the work carried out. It was agreed that now onwards, on regular basis, work for cleaning, repairing of Kharicut Canal shall be done jointly by Irrigation Dept. and AMC, twice in every year during the period when canal remains dry.

It was agreed that the Committee would request to GPCB for the utilization of fund for the cleaning of Kharicut Canal form the penalty collected under Environment Damage Compensation.

On further discussion, Commissioner, AMC submitted that as per the Hon'ble NGT Order dated 01.09.2020, it is very difficult to fix responsibility of the erring officer because the issue of Kharicut Canal is continuing since 1984 and lot of work done by the AMC & Irrigation Department of State Government till now under various schemes to mitigate the problem. In the situation the Committee may request Hon'ble NGT that it is not possible to fix individual responsibility of individual officer.

The Commissioner AMC, presented the work done by the AMC for de-silting, removal of the MSW and cleaning of the canal in last 2 years. He highlighted the work done for the fencing on the canal bank for prevention of dumping of MSW and signage boards giving statutory warning to the public against throwing any waste in to the canal. ACS, UD & UHD instructed the Commissioner to continue such type of works and instructed that if any rectification or any damage in these to the fencing, it should be rectified immediately.

AMC Commissioner, informed that storm water pumping stations provided on to the Kharicut Canal required to discharge the water from the low-lying area in the monsoon season. Further, at 12 locations the work has already started for the diverting the sewage which was discharge in the Kharicut Canal from the societies on the bank of the Canal. Further he emphasized that work carried out under "Nal se Jal Yojana" of State Government for the drainage connection and water supply management will help in reducing any domestic sewage flow discharge in to the canal. It was pointed out that as per the Hon'ble B.C. Patel report there are 169 outlets in the canal whereas as per the report by AMC there are 75 outlets. Regional Officer, GPCB and Officials of AMC should reconcile the survey of the canal and identify the total outlets in the canal and present it during the field visit on 28.10.2020.

Member Secretary, GPCB described the recent work carried out by GPCB and AMC in the area of Odhav GIDC where the coloured water was found discharged from the pumping station in to the Canal. He informed the committee that GPCB and AMC has identified the industrial unit and issued Closure Direction with immediate effect on 23.10.2020. He also informed that to find out solution to stop such occurrence in Odhav GIDC, meeting was conducted by AMC and GPCB and decided to disconnect the drainage connections of all the industrial unit where CETP connections are provided for discharge of industrial effluent and unit having ZLD consent. ACS, UD & UHD instructed MS, GPCB that action taken against such industry shall be informed to Irrigation Department & AMC, so that penal actions may be initiated from their side also. ACS further directed all authorities present that in cases of such violation, stringent case should be initiated immediately with imposition of heavy fine. He further informed Chief Engineer Irrigation Department that Task force is already formed and AMC, GPCB and Police Department are part of this Task Force, hence one officer from Irrigation Department should be appointed for immediate coordination with the Task force for illegal activities found, so that joint quick action can be initiated.

Regional Officer (RO), GPCB explained the work carried out by the Task force in last two months. ACS directed RO to make detailed report for the same and submit to the Committee in two days.

After the detailed discussion, it was decided that the Committee members will visit Kharicut Canal to take stock of work carried out and review will be taken during the visit from stake holders.

Decisions taken in the meeting summarised in brief as below;

1. Irrigation and AMC shall start joint cleaning of Canal from 27.10.2020, as the canal will remain dry up to 15th November 2020, for removing waste, vegetation and debris from the canal.
2. Irrigation will deploy the JCBs and Excavators and AMC will provide their dumpers for the collection of the waste from Kharicut Canal, transport and disposal in solid waste site of AMC.
3. Now onwards, on regular basis work for cleaning, repairing of Kharicut Canal shall be done jointly by Irrigation and AMC, twice every year during the period when canal remains dry. (October-November and April-May)
4. GPCB was requested to explore the possibility of providing fund for utilization for the cleaning of Kharicut Canal collected under Environment Damage Compensation.

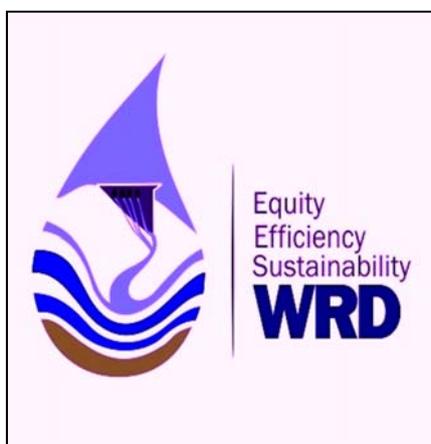
5. Irrigation Department and AMC will provide documentation for the work carried out and submit to the GPCB for inclusion of it in the ATR.
6. The Committee members will visit Kharicut Canal to take stock of situation for work carried out on 28.10.2020 and review will be taken during the visit from various stake holder.
7. Regional Officer, GPCB and Officials of AMC should reconcile number of outlets by carrying out a survey of the canal within one day and identify the total outlets in the canal. They should be present it during the visit on 28.10.2020.
8. It was decided to take stringent action by GPCB immediately against industries responsible for disposal of w/w in to the canal and impose heavy fine. This should be informed to the Irrigation Department & AMC also, so that further penal actions may be initiated from their side.

The meeting ended with thanks to the Chair.

APPENDIX -9

A brief report on the Actions taken by Irrigation Department

In reference to the report submitted by Hon'ble Chief Justice
Shri B. C. Patel in pursuance of the judgment of Hon'ble
National Green Tribunal (Application No. 105/2019: The issue
of pollution in Kharicut Canal and Khari River)



Ahmedabad Irrigation Project Circle, Ahmedabad

A-Block, M/S Building, Vastrapur, Ahmedabad -380052

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Work during beautification of Kharicut Canal

The rain water coming into the Khari River was diverted into Kharicut Canal by a weir built on the Khari river passing near Raipur village in Gandhinagar. Irrigation in major villages of Daskroi Taluka is being carried out by Kharicut Canal passing through eastern part of Ahmedabad. The planning of this canal is more than 100 years old. Due to the large-scale development of residential settlements and industrial units in this urban area around the canal from time to time, polluted water and untreated water from the residential society as well as the surrounding industrial units are discharged into Kharicut canal which leads to the serious problems. At the same time, locals living along the entire length from Naroda to Vatva Kotha also dumped their daily household waste into the canal. Therefore, the issue of frequent cleaning of the canal also came up and due to lack of discipline from the locals in dumping garbage in Kharicut canal, a huge amount of garbage would accumulate in the canal in a very short period after cleaning the canal. In this regard, representations were made by public servants and people's representatives. There is a need to improve the Kharicut canal to address these sensitive issues.

The suggestion to develop the canal as an open water body was made during a high level committee to the then Hon'ble Chief Minister Shri Narendrabhai Modi. In line with this suggestion, the decision to rehabilitate the Kharicut Canal by developing the Kharicut Canal as open water bodies as an architecturally decorated, scenic tourist destination was finalized.

Under the rejuvenation work of Kharicut Canal, a stretch model has been constructed in different phases in Naroda area from Naroda-Dahegam road bridge to Pushpakunj VRB having the length of 2.4 km. During the year 2010, various operations have been carried out along the length of the expressway downstream to Vatva Kotha.

Kharicut Canal, Section-1 Ch. 9850 m



Kharicut Canal, Section-1 Ch. 9850 m



Kharicut Canal, Section-1 Ch. 9750 m



Kharicut Canal, Section-1 Ch. 9850 m



Kharicut Canal, Section-1 Ch. 9800 m



Kharicut Canal, Section-1 Ch. 9850 m



Kharicut Canal, Section-1 Ch. 9850 m



Kharicut Canal, Section-1 Ch. 9900 m



Kharicut Canal, Section-1 Ch. 20830 m



In phase-wise execution of work, construction of canal lining in 7 km length starting from the Ahmedabad-Vadodara Expressway to Vatva Kotha, new five VRBs, construction of seven deck slabs, installation of cast iron/mild steel grill on the newly constructed parapet on both sides of the canal and decoration of the parapet of the bridge with mild steel architecture of different architectural designs have been completed during the year 2013-14.

Kharicut Canal, Section-1 Ch. 23830 m



Kharicut Canal, Section-1 Ch. 22560 m



Kharicut Canal, Section-1 Ch. 23530 m



Kharicut Canal, Section-2 Ch. 550 m



Kharicut Canal, Section-2 Ch. 1750 m



Kharicut Canal, Section-2 Ch. 1800 m



Kharicut Canal, Section-1 Ch.22530 m



In this way , in stretch of 20 km starting from Naroda to Vatva Kotha, development work executed in the length of 2.4 km from Naroda-Dahegam road to Pushpakunj VRB in Naroda area and 7.00 km from the expressway to Vatva Kotha. Thus, development work has been executed in the total length of 9.4 km.

Remarks and Compliance

(Minutes of meeting held on Dt. 08/09/2020 and Dt. 15/09/2020 under the chairmanship of Shri Mukesh Puri, IAS, Additional Chief Secretary, Urban Development and Urban Housing Department.)

Sr No	Meeting	Remarks	Compliance
1	First Review Meeting held on 08-09-2020: Conclusion no. 1	That Neither the Department of Irrigation, Government of Gujarat nor its Canal Officer took any action in the matter, either about the piercing of the Canal by the residents or the AMC or Pollution the Canal water by them. They have never tested the quality of the water of the Canal.	Irrigation department had done a detailed survey to identify the damages in canal lining, parapets, grill. Work of cleaning, desilting, jungle cutting in canal has been started. Provision of grill, and repairing work of damaged lining and parapets will be initiated in short time.
2	First Review Meeting held on 08-09-2020:	It is very clear that as stated about the various inspection carried by the officers of GPCB, it was found that on several occasions without any treatment the entire sewage was discharge or some occasions it was partly discharged after treatment. Many defiance has been indicated in the report and despite of various notice given to the AMC, the AMC is not discharging sewage as per norms. Unfortunately, no prosecution has been filed against these authorities indulging in discharging the sewage which is not meeting with the norms. Though its serious crime against people at large as no action is taken, the direction is required to be given to the GPCB to prosecute and not to allow untreated sewage to be discharge. About the beautification of the canal, the same is dealt in the report. For the time being the AMC as well as department of irrigation are required to be directed to remove the grass growing haphazardly in the canal and both the sides of the canal, so as to protect the water and the environment.	Work for removing the vegetation from the bed and slopes of canal, surrounding structures and parapets has been started.
3	First Review	The irrigation department and the commissioner, AMC must close all the	Irrigation department has informed the concerned

	Meeting held on 08-09-2020:	outlets opening into the canal through piercing or otherwise and be securely close so as to see that no liquid enters and action be taken against concerned person. Despite the rain much natural water entered the canal, yet there is much difference in the parameters at the initial stage and at subsequent stages has indicated in the report therefore, aforesaid action in required to be initiated by the authorities urgently.	officials of Ahmedabad Municipal Corporation, Ahmedabad for immediately stopping the discharge of chemical effluent from the MEGA Pipeline into the Kharicut Canal passing from Viratnagar to Odhav and Vinzol Drain. In this regard, Ahmedabad Municipal Corporation has started closing illegal outlets.
4	First Review Meeting held on 08-09-2020:	It is a clear from above resume of the report furnished by justice B.C.Patel with due notice to the Municipal Corporation that serious violation of the water. (prevention and control of pollution) Act, 1974 taken place. Action initiated by the state PCB so far is highly inadequate. Neither compensation for the damage to the environment has been assessed and recovered nor prosecution incited. This is a failure of duty of the state PCB as well as the irrigation department.	It is necessary to mention that the sole responsibility of Irrigation Department is only distribution, operation & maintenance of the Kharicut Canal system. The actions related with the prevention/stoppage of pollution in Kharicut canal is to be dealt with Ahmedabad Municipal Corporation, Gujarat Pollution Control Board, GIDC, and Industry associations.
5	Second Review Meeting held on 15-09-2020: 5 th paragraph	Commissioner AMC, presented the Action Plan to divert the sewage which is entering in the Kharicut Canal from different 12 locations. From these 12 locations the sewage will be diverted in the main drainage pipeline system of AMC which flow to the respective STPs. He informed that the total project cost is approximately Rs. 25.75 Crores and the same will be completed between 31 st October, 2020 and 30 th June, 2021. Commissioner, AMC has pointed out that ownership of kharicut canal is of irrigation Department, so further action should be initiated by Irrigation Department to stop the piercing made by the societies on the bank of the Canal and also the monitoring of the Canal should be done by	Due to development of residential societies & Industrial units around the Canal, unauthorized connection for residential & industrial Sewer connections has been made and the sewage water as well as the chemical/effluent water from the industries are being discharged into the Kharicut canal. Highlighting this matter, such 122 spots were identified discharging (Domestic + Industrial)

	<p>the Irrigation Department. MS, GPCB has informed that the Board has already issued Notice of Direction under section 33(A) of water Act, 1974 to Irrigation Department in this regards on dated: 13.08.2020. ACS, UD & UHD has instructed to give further direction to the Irrigation Department to actively monitor the canal.</p>	<p>water into the Kharicut Canal and the concerned officials of Ahmedabad Municipal Corporation, Ahmedabad have been informed by this office to take an immediate action for the same.</p>
--	--	--

Action Taken Report based on the order of Hon'ble National Green Tribunal, Principal Branch, New Delhi (Application No. 105/2019)

In pursuance of the judgment of Hon'ble National Green Tribunal, Principal Branch, New Delhi (Application No. 106/2018: Ajit Singh Bhurubha Vaghela and residents of Kheda Taluka v. State of Gujarat: Kharikat Canal and Khari River). The issue of Khari River and Kharicut Canal was discussed on Dt. 08/09/2020 and Dt. 15/09/2020 under the chairmanship of Shri Mukesh Puri, IAS, Additional Chief Secretary, Urban Development and Urban Housing Department. In this regard, the following operations are in progress by the Irrigation Department

(1) Removal of overgrown bushes in Kharicut canal:

In order to maintain maximum carrying capacity of Kharicut Canal as well as to prevent damage to the lining of the canal, cleaning, desilting and jungle cutting are carried out in the canal from time to time by Irrigation Department. Jungle cutting work had been carried out on large scale bases with the help of mechanical machineries in year 2015-16. During the year 2020, estimates of jungle cutting and clearing operations in Kharicut Canal from Raipur to Vatva Kotha have been prepared. Accordingly, at present, in Kharicut Canal, Section-1 from chainage 8100 m to 20830 m, work has been started to remove vegetation from the bottom of the canal, side slope, and sides of parapet. Photographs of ongoing work are attached herewith (Annexure-I). Mechanical machineries are deployed in canal for cleaning, desilting and jungle cutting work. For execution of these works, Irrigation Department is working jointly with Ahmedabad Municipal Corporation for dumping of waste from canal to suitable dumping site.

(2) Restoration of damaged lining in Kharicut canal:

Restoration work of damaged lining of canal has been done on chainage 8630 m of Section 1 and chainage 1700 m to 1860 m of Section 2 of Kharicut Canal. Photographs of restoration work are attached herewith (Annexure-II). In addition, during the monsoon season of the current year, there were damages in lining at chainage 400 m and 450 m of Vinzol Vehla. In order to maintain the required water supply efficiency of the canal during the current irrigation season, jute bags were temporarily filled. The work of restoration of lining at these places as well as at other places of canal where the existing lining work is damaged is under the process of approval. It is planned to start the work in Kharicut Canal in very short time.

(3) Construction of parapet and grill in Kharicut canal:

Parapet walls have been constructed on both the sides of the canal during the various stages of beautification in the year 2010 and 2012. Cast iron grill has been installed on it from 8152 m (Naroda-Dahegam VRB) to 10400 m (Pushpakunj VRB). The estimate of repairing the broken parapet and provision of grill above the parapet at downstream of chainage 10400 m in a phase-

wise manner as per grant provision is under the process of approval. It is planned to start the work in Kharikat canal in very short time.

(4) Prevention of polluted water in Kharicut canal:

The water received through the canal of Narmada Nigam in Kharikat Canal is conveyed for irrigation in the command area under Daskroi and Mahemdavad talukas of Ahmedabad district by the Irrigation Department. The work of safe disposal of the domestic waste water caused by surrounding residential units is under the jurisdiction of Ahmedabad Municipal Corporation and the work to control the pollution caused by the industrial units is under the jurisdiction of Gujarat Pollution Control Board. However, from time to time pollution control operations are carried out by the Irrigation Department. At present, there are several storm water inlets in Kharicut Canal for disposal of domestic waste water. However, polluted as well as untreated waste water is being discharged in canal through several illegal connections made in storm water inlets by surrounding residential as well as industrial units without knowledge of Ahmedabad Municipal Corporation. To eliminate this issue, if these connections are closed as per the guidelines of the Hon'ble National Green Tribunal, the question of backwater in the surrounding area may arise. For this, the work of laying a new pipeline parallel to the canal by the Ahmedabad Municipal Corporation has been initiated.

Annexure: I

Kharicut Canal, Section-1 Ch.8150 m



Kharicut Canal, Section-1 Ch.13500 m



Kharicut Canal, Section-1 Ch.17900 m



Kharicut Canal, Section-1 Ch.17900 m



Kharicut Canal, Section-1 Ch.20300 m



Annexure: II

Kharicut Canal, Section-1 Ch.8630 m



Kharicut Canal, Section-2 Ch.1700 m



Kharicut Canal, Section-2 Ch.1730 m



Kharicut Canal, Section-2 Ch.1830 m



Kharicut Canal, Section-2 Ch.1830 m



Kharicut Canal, Section-2 Ch.1830 m



Vinzol Vehla Ch.400 m,
Temporary restoration during monsoon season



Vinzol Vehla Ch.450 m
Temporary restoration during monsoon season



Remarks and Compliance of meeting Dated 26/10/2020

Sr No	Meeting	Remarks	Compliance
1	Third Review Meeting held on 26-10-2020:	It is suggested to appoint nodal officer from Irrigation Department and to clean the Kharicut Canal jointly with AMC twice a year	<p>Deputy Executive Engineer, Ahmedabad Irrigation Sub Division is appointed as a nodal officer to look after the problems of pollution in Kharicut Canal. Whenever any problem of pollution arises in Kharicut Canal, nodal officer will bring it to the knowledge of task force member (Regional Officer, GPCB) to overcome the issue.</p> <p>For cleaning and desilting of canal, mechanical machineries and man-power are deployed to complete the work before initiation of the next Rabi Season (Dt. 15/11/2020).</p> <p>As discussed in meeting, the work of cleaning the canal will be executed jointly with AMC, twice a year</p>

**Time to Time preventonary and Cleaning Measures Taken at Kharicut Canal
by Irrigation Department**

Upstream of Ramol VRB



Downstream of Ramol VRB



Upstream of Jamfalwadi VRB



Downstream of Jamfalwadi VRB



Downstream of FB (Santadev Society near Jamfalwadi)



Upstream of FB (Santadev Society near Jamfalwadi)



Downstream of Shardaba FB



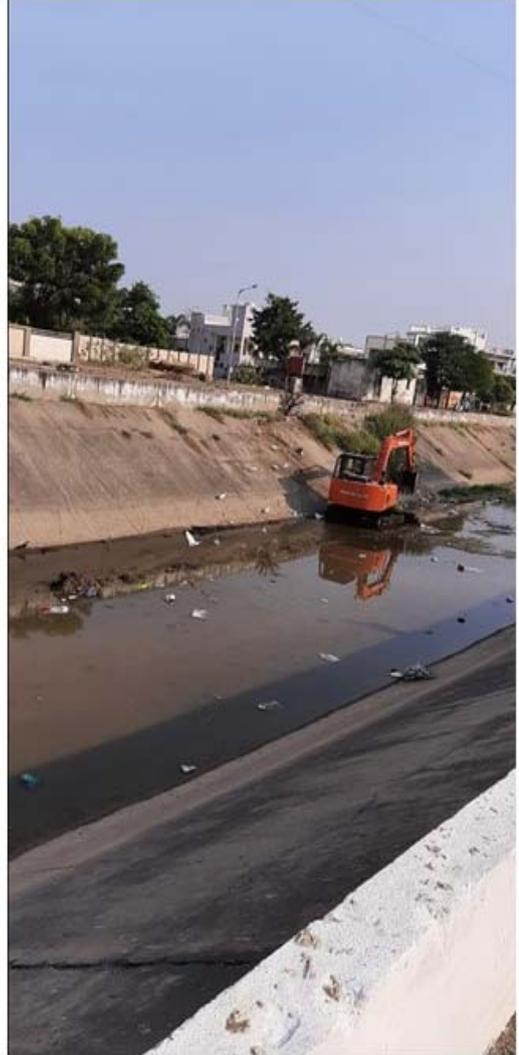
400 mt U/S Hathijan CR



200 mt U/S Hathijan CR



Near Odhav & Viratnagar



Upstream of Vastral VRB



Downstream of Vastral VRB



Upstream of Maruti VRB near Shivalay Complex, Vastral



Downstream of Vinzol Vehla Ch.20830 Section 1 KCC



APPENDIX -10

**ACTION TAKEN REPORT REGARDING HEARING OF HON'BLE
NATIONAL GREEN TRIBUNAL (NGT) APPLICATION NO:
105/2019,"UNTREATED INDUSTRIAL EFFLUENTS ARE BEING
DISCHARGED IN KHARICUT CANAL WHICH IS MEETING KHARI
RIVER", DATED 01/09/2020**



Ahmedabad Municipal Corporation

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List of Abbreviations

Abbreviations	Explanation
NGT	National Green Tribunal
AMC	Ahmedabad Municipal Corporation
GIDC	Gujarat Industrial Development Corporation
HDPE	High Density Poly Ethylene
LDPE	Low Density Poly Ethylene
AUDA	Ahmedabad Urban Development Authority
GPCB	Gujarat Pollution Control Board
DPS	Drainage Pumping Station
TSPS	Terminal Sewage Pumping Station
STP	Sewage Treatment Plant
CCA	Consolidated Consent & Authorisation
CTE	Consent to Establish
MLD	Million Litre per Day
COD	Chemical Oxygen Demand
BOD	Biochemical Oxygen Demand
MLSS	Mixed Liquor Suspended Solids
RAP	River Action Plan
RRC	River Rejuvenation Committee
CPHEEO	Central Public Health & Environmental Engineering Organisation
RMT	Running Meter
CETP	Common Effluent Treatment Plant

Report regarding Hearing of **Hon'ble National Green Tribunal (NGT) Application No : 105/2019,"Untreated industrial effluents are being discharged in Kharicut Canal which is meeting Khari River"**, done on dated 01/09/2020 in reference to report dated 19/8/20 done by Ret. Chief Justice, Shri B. C. Patel, High Court of Delhi

Details:

NGT Application No: 105/2019

Applicant(s)

Ajitsinh Bhurubha Vaghela & Inhabitants of several Villages of Kheda Taluka, Distt. Kheda

Versus

Respondent(s)

State of Gujarat

With Report dated 19/8/20, Date of hearing: 01.09.2020

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON

HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER

HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

In context to order dated 01.09.2020, AMC hereby clarify and submit the point-wise Action taken report with respect to Hon'ble NGT order dated: 01.09.2020 which includes the report of CPCB & GPCB Report to NGT dated : 31/12/19, 15/1/20 and Report of Ret. Chief Justice, Shri B. C. Patel, High Court of Delhi dated: 19.08.2020.

Part A: AMC Compliances on Report of CPCB & GPCB Report to NGT dated: 31/12/19, 15/1/20.

- 1. The flow in the Kharicut canal increases with the increase of domestic sewage as it passes through areas of Naroda, Odhav and Vatva of Ahmedabad before entering GIDC Vatva.** (NGT Order dated-01.09.2020, Page No. 2, Para- 4)

Compliance:

- Ahmedabad Municipal Corporation (AMC) had already developed the drainage network on both the Side of Kharicut Canal.
- Eastern of kharicut – Naroda to Pirana 22 Km length Trunk main Drainage line
- Western of kharikat – Naroda Dehagam Circle to Vinzol 22 km length of Trunk main drainage line was laid by Ahmedabad Urban Development Authority(AUDA).
- As Population is towards in increasing mode in this area, AMC Planned out to upgrade existing Sewage Network Facilities for current & future requirements.
- As per Planning, 24 Km long eastern drainage trunk main line with T-rib technology which provides HDPE-LDPE liners inside the pipe for the protection against acidic wastewater to some extent from eastern Nana Chiloda to Vinzol on S.P.Ring Road at an

expenditure of 55 Crore & 100 MLD Sewage Pumping Station at an expense of 28 Crore at Odhav on S.P. Ring Road already executed & Started in 2019.

- AMC also set up 1 Decentralized TTPs at Nikol Storm water pumping station of 1.13 Cr. Rs. Cost & 500KLD capacity along Kharicut in Odhav Area.
- AMC also Plans to install Decentralized TTPs of 500 KLD capacity at Odhav & at Pushpakunj, Naroda at the cost of total 2.00 Cr. Rs.
- Reference to above Drainage Infrastructure AMC Planned Sewage Treatment Plant of 100 MLD capacity at Vinzol & presently its Work In Progress & STP will be completed on May – 2021. IT was delayed because of COVID -19 Pandemic.
- Gujarat Pollution Control Board (GPCB) has submitted the report regarding Outlets in Kharicut Canal on 18.02.2020.
- According to GPCB Report, 83 locations were surveyed & out of them, samples were taken from 8 locations from the Kharicut canal flow. Other 75 locations are of the Outlets of Drainage/Storm Water in Kharicut Canal.
- Justice Shri B.C.Patel, Former Chief Justice, High Court of Delhi carried out the visit on 09.03.2020 along with officials of AMC, GPCB & Irrigation Department. With respect to his Visit, AMC has submitted the report to GPCB on Dt: 11/6/20 regarding total 75 outlets as below :

Sr. No.	Type of drain	No. of Total Outlets in Kharicut Canal				No of Outlets Having Domestic Wastewater Discharge							
						Status on 18.02.2020 as per GPCB report				Status on 11.06.2020			
		NZ	EZ	SZ	Total	NZ	EZ	SZ	Total	NZ	EZ	SZ	Total
1	SWD	21	28	09	58	02	03	00	05	00	01	00	01
2	Drainage	12	05	00	17	12	05	00	17	07	04	00	11
	Total	33	33	09	75	14	08	00	22	07	05	00	12

- As per above report, out of total 75 Locations 58 are Storm Water Outlets Locations & 17 are Drainage outlet Locations.
- Out of which, as per GPCB report, 5 Storm Water locations & 17 Drainage locations, Hence Total 22 locations' outlets were discharging untreated drainage to Kharicut Canal.
- AMC took the works on war footing basis for closing Drainage Discharge on above mentioned 22 locations and successfully closed 10 outlets prior to pandemic condition. As the remaining 12 locations need extensive infrastructure work, the consultant was appointed for survey, designing, planning, estimating and tendering the work. But due to lockdown and thereafter situation arises it was delayed. AMC has taken up this and planned to close the outlets of these 12 locations and submitted the planning to stop Drainage discharge into the canal was as below:

Sr. No.	Location	Planning
1	Gajanand Park Nikol	Minor water discharge found. This residential area is low laying about 3 to 5 feet from Canal service road.
2	Avadhesh Park	

3	Prabuddha Ashram Nikol	Laying of new 180 running meter pipeline from Avdhesh Park to Gajanand Park via Narayani School to divert the flow is planned.
4	Amardeep Park Nikol	Minor water discharge found. This residential area is low laying about 3 to 5 feet from Canal service road. laying of new 120 running meter Pipeline from Amardeep Park to Bhaktinagar to divert the flow is planned.
5	Sarjan Shopping Centre	De-silting work is completed and Laying of new 200 running meter Pipeline from ShyamVihar to Canal culvert to divert the flow is planned.
6	SardarChok Bridge	It is planned to divert this flow to recently installed Drainage trunk main line on SP ring road.
7	Narayan Park Nikol	Laying of new 180 running meter pipeline from Narayan Park to Rajiv Park to divert the flow is planned.
8	Nikol Ward Pumping Station	Augmentation of Jivanwadi Drainage Pumping with new network is planned.
9	Kavya Residency Thakkar Nagar	
10	Ashirwad Park Pumping Station	Technical consultant is appointed to work out the techno-economical survey.
11	Ambika Nagar	Drainage pumping stations like (1) Rabari DPS (2) Chotalal DPS discharge is planned to divert to Vinzol Main trunk line by laying new Rising line.
12	Keshav Park Odhav	As a long term permanent solution, Microtunneling work is taken up from Jashodanagar to Pirana to overcome the drainage backing in Pirana trunk main line.

(Source: NGT order dated: 01.09.2020, Page No. 17-18)

- Latest progress of the above planned works is as below:

National Green Tribunal Original Application No. 105/2019, Order Dated-01.09.2020										25-09-2020
ACTION PLAN TO STOP THE INCOMING DRAINAGE INTO KHARICUT CANAL WITH RESPECT TO PARA 3-SUBPARA 6 (PAGE NO.17)										
Sr. No.	Location	Action Plan (Type of Work)	Dia of Pipeline (mm)	Lengh (RMT)	Cost in Lakhs (Rs.)	Probable Date of Completion of work	Pipeline laid till Date (RMT)	Physical % of Work Completed	Status	Remark
1	Gajanand Park Nikol	New RCC NP3 gravity pipeline	300mm	95	10.00	31.10.2020	52	55%	WIP	
2	Avadhesh Park									
3	Prabuddha Ashram Nikol	Desilting of Connecting line		1150		31.10.2020	725	63%	WIP	
4	Amardeep Park Nikol	New RCC NP3 gravity pipeline	300mm	130	12.00	31.10.2020	130	100%	Work Completed	Connection work comp.
5	Sarjan Shopping Centre									
6	Sardar Chok Bridge	New RCC NP3 gravity pipeline	600mm	1920	110.00	31.1.2021	0	0%	WIP	Survey work done. pipe procured onsite. (bapasitaram chouk to satyam SPS)
		New DI rising line	500mm	3500	350.00	31.1.2021	55	2%	WIP	Rising line Procurement is under progress.

		Naroda Satyam DPS Pumping AUG.	--	--	145.00	31.05.2021	--	--	Tender Invited	Short Tender notice for new pumping machinaries on 16.09.2020.
7	Narayan Park Nikol	Desilting Drainage pipe line	300mm	190	8.00	31.10.2020	190	80%	WIP	6.0 Nos. of MH of Existing line have been raised and put in function and desilting of existing sump is in progress.
8	Nikol Ward Pumping Station	New RCC NP4 gravity pipeline	600mm	2938	277.00	31.01.2021	132.5	5%	WIP	Existing Drainage line Breakdown on upstream side. excavation work from S.P. ring road (downstream side) Started but as depth of laying pipe is 8 m, hence excavation is very deep & carried out in two stages.
9	Kavya Residency Thakkar Nagar									
10	Ashirwad Park Pumping Station	New Rising Line	900mm	850	261.00	31-03-2021	0	0%	WIP	To gear up the work MC sir approval received for laying pipeline from water project tender.
		Viratnagar Pumping station Augmentation	--	--	187.00	31-10-2021	--	10%	WIP	NEW Pump machinaries 450 m3/Hr. 15 mt. head HNC pumps 02 nos. 300 m3/Hr. 15 mt. head HNC pumps 02 nos. 350m3/Hr. 15 mt. head subpumps 04 nos., L.T. panel., suction & delivery valves, EMFM
11	Ambika Nagar	(1) Rabari Vasahat DPS Rising Line	400mm	3100	226.00	30-06-2021	0	0%	WIP	

		Rabari Vasahat Pumping station Augmentation	--	--	150.00	30-06-2021	--	--	Tender Invited	Short Tender notice on 16.09.2020 for new Pump machinaries 225 m3/Hr. 28 mt. head HNC pumps 02 nos. 350 m3/Hr. 28 mt. head subpump 03 nos. L.T. panel., suction & delivery valves, EMFM
		(2) Chhotalal DPS Rising Line	500mm	1500	168.00	30-06-2021	1073	72%	WIP	
		Chhotalal Pumping station Augmentation	--	--	160.00	30-06-2021	--	--	Tender Invited	Short Tender notice on 16.09.2020 for new Pump machinaries 360 m3/Hr. 21 mt. head HNC pumps 02 nos. 250 m3/Hr. 21 mt. head HNC pumps 02 nos. 360 m3/Hr. 21 mt. head subpump 02 nos. L.T. panel., suction & delivery valves, EMFM
12	Keshav Park Odhav	(3) Ambicanagar DPS Rising Line	500mm	2700	364.00	30-06-2021	1073	40%	WIP	
		Ambicanagar Pumping station Augmentation	--	--	150.00	30-06-2021	--	--	Tender Invited	Short Tender notice on 16.09.2020for new Pump machinaries 260 m3/Hr. 24 mt. head HNC pumps 02 nos. 400m3/Hr.24mt. head subpump 03 nos. L.T. panel., suction & delivery valves, EMFM
		Total		18073	2578.00		3430.50			

- Hence, Works of Rs. 25.78 Cr. are planned and put in progress for diverting sewage flow from Kharicut canal to drainage lines as a permanent solution.

- Photograph of the work execution on above outlets are as under:



Pipeline laying of 300 mm. dia to divert the drainage and stop the discharge from outlets located at Gajanand Park Nikol, Avadhesh Park and Prabuddha Ashram Nikol



Pipeline laying of 300 mm. dia to divert the drainage and stop the discharge from outlets located at Amardeep Park Nikol and sarjan shopping center.



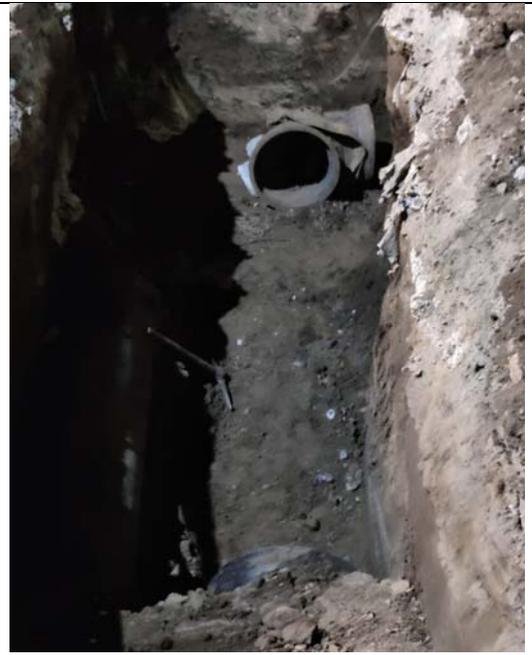
Laying of 600 mm. dia gravity line and 500 mm. dia rising line to divert the drainage and stop the discharge from outlet located at Sardar Chok Bridge.



Pipeline laying to divert the drainage and stop the discharge discharge from outlet located at Narayan Park Nikol.



Pipeline laying of 600 mm. dia to divert the drainage and stop the discharge from the outlet located at Nikol Ward Pumping Station and Kavya Residency Thakkar Nagar



Laying 500 mm dia Rising line for chhotala ni chali Drainage Pumping Station In Odhav Ward



Laying 500 mm dia Rising line for Ambikangar Drainage pumping Station In Odhav Ward



Laying 500/400 mm dia Rising line for Rabari vasahat Drainage Pumping Station In Odhav Ward

2. **During visit, the joint team has also visited STP provided in by Ahmedabad Municipal Corporation located at Vinzol which is in eastern part. The Ahmedabad Municipal Corporation (AMC) has provided extensive sewerage network in residential/commercial areas for collection of sewage from the eastern part of the Ahmedabad. Installation of pH meter by AMC on 22 km long network of sewerage line at fixed interval would help in identification of spots at where acidic wastewater is getting illegally discharged. (NGT Order dated-01.09.2020, Page No. 4, Para- 1)**

Compliance:

- Installation of the pH meter in the manholes is an exclusive work so that after checking feasibility, electric supply availability and safety of the instruments. As all the manholes are road side and the turbulence is very high in the manhole, it was Difficult Task to provide Ph sensor in manhole of Drainage line.
- So, after concerning many pH sensor supplying agencies, one of the agency agreed & it has manufactured & Supply of pH sensor for Manhole. AMC has installed pH sensor meter in the manhole of the Vinzol Trunk main line located near Ramol-Hathijan Urban Health Centre on trial basis on Aug-2020. Photograph of the same is as under.

Laying of Pipeline through which pH sensor is connected from Manhole to pH measurement unit



Pipeline inserted in Manhole through which the pH sensor is being passed



pH sensor is inserted in the Manhole



pH measurement Unit



Installation of pH measurement system at Ramol-Hathijan UHC



Installation of pH measurement system covered for safety



3. **There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Operation and Maintenance of both the STP are carried out by separate agencies hired by AMC. The STP receives about 170 MLD wastewater. Hence, the excess untreated wastewater is bypassed directly into the final disposal chamber along with treated waste water which ultimately leads to River Khari. Additional STP of capacity 100 MLD is under construction. AMC has obtained CCA for 70 MLD STP and CTE for 35 MLD STP. (NGT Order dated-01.09.2020, Page No. 4, Para- 1)**

Compliance:

- At present, the average flow of 150-160 Million Litre per Day (MLD) is received at Vinzol Terminal Sewage Pumping Station (TSPS). Presently there are two Sewage Treatment Plants (STPs) in the same premises, old STP having 70 MLD design capacity and new STP having 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP of 103.49 Cr. Cost is under construction which was planned to complete by Dec-20 but due to lockdown and pandemic condition it is delayed and it is planned to complete by May-2021 and trial run shall be started thereafter. Thus, there shall be no bypass then after.
 - AMC has obtained Consolidated Consent & Authorisation (CCA) for both the working STPs of 70 MLD and 35 MLD & Consent to Establish (CTE) for 100 MLD which is under construction from GPCB. (Annexure-1)
4. **During visit of Vinzol STP of AMC, 70 MLD STP was found in operation. In STP system, bypass line provision is provided at inlet of STP line and at the time of visit bypass of wastewater was observed, also the inlet chamber was found broken from the lower side. The new STP 35 MLD was found operational. The records of waste water received at STP was checked. It was found that as per instructions from AMC to the operator of STP, pH of wastewater received is checked on hourly basis manually and when pH is found in acidic range, the wastewater is bypassed and discharged directly to Kharicut canal. As per records, the STP has received acidic wastewater at the inlet for about 1-2 hours for about 7 different dates till the date of visit in the month of December 2019. (NGT Order dated-01.09.2020, Page No. 4, Para- 2)**

Compliance:

- Since May-2019, due to excessive illegal industrial acidic influent, the STP and the pumping station which is carrying sewage to STP got severely damaged. Inlet chamber was found broken from the lower side due to acidic sewage issue only. To repair the same, plants needs a shut down for at least 15 days.
- Since this STP is built to treat domestic sewage, only once acidic industrial effluent comes it damages STP extensively which will take months to reinstate the biological process then. Thus, AMC has no option then to bypass acidic waste water.
- Vinzol TSPS Pumping machineries were repaired at the cost of 5.50 Cr. For further prevention, pH meter with hooter system is installed at the cost of 29.47 lakh to bypass acidic wastewater automatically. Also 70 MLD STP augmentation work has been completed at the cost of 7 cr. In January 2019.

5. **During the visit excess untreated wastewater was bypassed from inlet line and discharged into the Kharicut canal which ultimately meets Khari River. (NGT Order dated-01.09.2020, Page No. 4, Para- 3)**

Compliance:

- The average flow of 150-160 MLD is received at Vinzol STP. There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which was planned to complete by Dec-20 but due to lockdown and pandemic condition it is delayed and it is planned to complete by May-2021 and trial run shall be started thereafter. Thus, there shall be no bypass then after.

6. **During visit, grab samples of wastewater were collected from following locations:**

Location	Description	Date/Time(hours)	Lat.	Long.	Color of sample
S1	From Inlet well pumping station of 70 MLD & 35 MLD STP at Vinzol village	13.12.19 09:15	22.93791	72.6453911	Grayish
S2	From Outfall of 70 MLD STP of Ahmedabad Municipal Corporation, Vinzol	13.12.19 09:45	22.93784	72.64324	Brownish
S3	From Outfall of 70 MLD + 35 MLD + bypass line of STP	13.12.19 09:45	22.93784	72.64324	Grayish
S4	From Outfall of 35 MLD STP of Ahmedabad Municipal Corporation, Vinzol	13.12.19 09:55	22.93650	72.64424	Grayish

The analysis results are depicted in Annexure-4. The analysis results of the sample collected from inlet (S1) and outlet of 70 MLD (S2) reveals 85.5% and 93.5% reduction in concentration of COD and BOD respectively. The analysis results of the sample collected from inlet (S1) and outlet of 35 MLD (S4) reveals only 31.9% and 34.7% reduction in concentration of COD and BOD respectively. However, the final discharge (S3) from Vinzol STP comprising of outlet from 70 MLD, outlet from 35 MLD and untreated bypass shows only 7.7% and 8.8% reduction in concentration of COD and BOD respectively. Thus, the analysis

results of final discharge reveal that the STP is grossly noncomplying. (NGT Order dated- 01.09.2020, Page No. 5, Para- 1)

Compliance:

- As stated above, 70 MLD STP is achieving 85.5% and 93.5% reduction in concentration of Chemical Oxygen Demand (COD) and Biochemical Oxygen Demand (BOD) respectively which is complying with its norms in given CCA (BOD-20 mg/l, Suspended Solids- less than 30 mg/l and Residual Chlorine- minimum 0.5 mg/l)
- At the time of visit 35 MLD STP was under trial run and Mixed Liquor Suspended Solids (MLSS) in aeration tank were under development.
- AMC has worked hard for 100 % process of sewage which is coming to 70 MLD and 35 MLD STPs.
- However, after commissioning of the new 100 MLD STP same, bypass issue shall be resolved which eventually improve final outlet quality.
- Due to the final combined outlet of both 70 MLD STP & 35 MLD STP and surplus bypass sewage, it is noncomplying.

Part: B Action Taken Report on CONCLUSIONS of Order Dated 17/1/20:

1. Based on the directions of Hon'ble NGT, updated status of Khari River and Kharicut Canal is prepared based on the monitoring of Kharicut Canal and Khari River, meeting with various stake holders for the status of compliance of action plans on the subject finalised by RRC, steps taken by various stake holders. (NGT Order dated- 01.09.2020, Page No. 5, Para- 2)

Compliance:

- AMC submitted Khari River Action Plan (RAP) on 24.01.2019 vide letter inward no. STP/5175 to GPCB & it is already finalized by River Rejuvenation Committee (RRC) & submitted to NGT
- Khari RAP current status is as below :
- Municipal Sewage Management – NGT – Khari River Action Plan :

Table: A

Sewage generation (MLD)	Existing STPs				Gap (MLD)
	Location	Capacity (MLD)	STP performance as per standards (upto standards or not)	Time limit (If STP performance not upto standards then please provide time limits for its upgradation)	
160	Vinzol	70	No	Mar-2021	55
	Vinzol	35	No	Mar-2021	
	Total	105			

Table: B

Proposed STPs					
Location	Capacity (MLD)	Status	Time Line given in the River Acton Plan	Expected Date of Completion	Cost in Cr. (Without O&M)
Vinzol	100	Under construction	Dec. 2019	May-2021	103.49
Total	100				

- 2. The Vinzol STP found not meeting the discharge standards and found bypassing and discharging untreated/partially treated wastewater to Kharicut Canal. GPCB has issued legal notices to AMC in this regard. (NGT Order dated-01.09.2020, Page No. 5, Para- 2)**

Compliance:

- The average flow of 150-160 MLD is received at Vinzol TSPS. There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which was planned to complete by Dec-20 but due to lockdown and pandemic condition it is delayed and it is planned to complete by May-2021 and trial run shall be started thereafter. Thus, there shall be no bypass then after.
- 3. Task Force team has started monitoring since 02nd December 2019. It was reported by task force team that the acidic wastewater at the inlet of VinzolSTP was observed once and there after frequency of receiving of acidic wastewater at the inlet of STP was not observed. Acidic wastewater receiving frequency was reportedly reduced. (NGT Order dated-01.09.2020, Page No. 6, Para-1)**

Compliance:

- Joint team of GPCB Ahmedabad(E) regional office and AMC has already surveyed the suspected manholes of trunk main line from Vinzol to Ramol Tollbooth on 29.08.2019 and submitted the report regarding 46 open manholes. Details of the same are submitted to GPCB vide letter No. NRCP inward No.549, 16.09.19.
- As planned and decided, AMC has already sealed **46** manholes as per the said survey. AMC verifies the sealed manholes and seals again if found disturbed somehow. Manhole beside Alpha hotel near entrance of express way from SP ring road is sealed again by AMC. Hole was found in sealed manhole located within Shradha Estate which was filled by AMC and reported to GPCB. Photograph of the manholes sealing are as under:



Before



After

Latitude:- 22°59'12.2"N, Longitude:- 72°39'50.2"E



Before



After

Latitude:- 22°59'10.9"N, Longitude:- 72°39'50.1"E



Before



After

Latitude:- 22°59'09.4"N, Longitude:- 72°39'49.9"E



Before



After

Latitude:- 22°59'03.8"N, Longitude:- 72°39'49.0"E



Before



After

Latitude:- 22°58'55.8"N, Longitude:- 72°39'47.5"E



Before



After

Latitude:- 22°58'53.3"N, Longitude:- 72°39'47.1"E



Before



After

Latitude:- 22°58'50.9"N, Longitude:- 72°39'46.6"E



Before



After

Latitude:- 22°58'40.4"N, Longitude:- 72°39'44.7"E



Before



After

Latitude:- 22°58'34.9"N, Longitude:- 72°39'43.9"E



Before



After

Latitude:- 22°58'31.4"N, Longitude:- 72°39'43.3"E



Before



After

Latitude:- 22°58'23.3"N, Longitude:- 72°39'41.1"E



Before



After

Latitude:- 22°58'04.2"N, Longitude:- 72°39'32.5"E



Before



After

Latitude:- 22°58'03.3"N, Longitude:- 72°39'31.1"E



Before



After

Latitude:- 22°58'01.8"N, Longitude:- 72°39'29.8"E

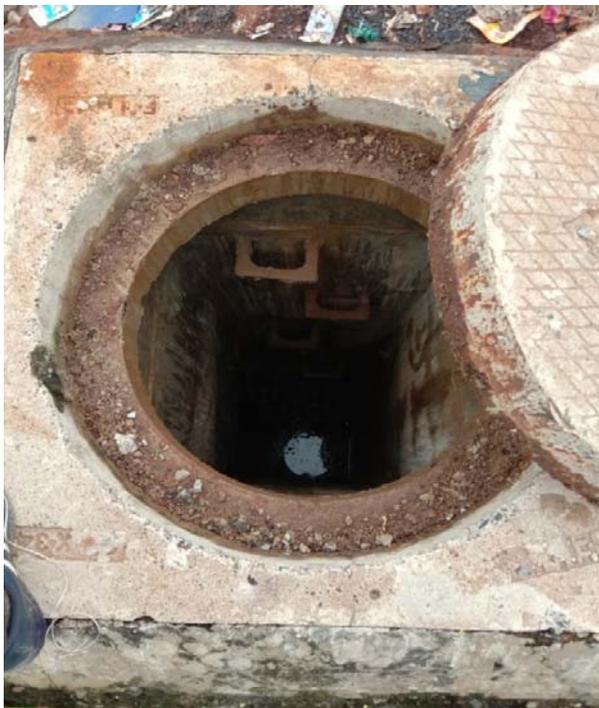


Before



After

Latitude:- 22°58'01.1"N, Longitude:- 72°39'28.7"E



Before



After

Latitude:- 22°58'00.3"N, Longitude:- 72°39'27.9"E



Before



After

Latitude:- 22°57'56.9"N, Longitude:- 72°39'35.3"E



Before



After

Latitude:- 22°57'52.9"N, Longitude:- 72°39'34.2"E



Before



After



Before



After



Before



After

Latitude:- 22°57'36.1"N, Longitude:- 72°39'30.5"E



Before



After

Latitude:- 22°57'26.9"N, Longitude:- 72°39'22.4"E



Before



After

Latitude:- 22°57'22.3"N, Longitude:- 72°39'19.6"E



Before



After

Latitude:- 22°57'20.2"N, Longitude:- 72°39'17.4"E



Before



After

Latitude:- 22°57'07.9"N, Longitude:- 72°39'08.6"E



Before



After

Latitude:- 22°56'55.9"N Longitude:- 72°38'59.9"E



Before



After

Latitude:- 22°56'28.8"N, Longitude:- 72°38'27.1"E



Before



After

Latitude:- 22°56'45.6"N, Longitude:- 72°38'51.6"E

- A joint task force of AMC officers, Regional Office-GCB officers and Industrial Association officers is formed and it has already started the monitoring since 02.12.2019 on the Vinzol trunk main line. As a result acidic wastewater at the inlet of STP is mostly stopped. Due to lockdown monitoring activity was stopped from 25.03.2020 and again started from 15.06.2020. Since unlock, Vinzol STPs haven't received acidic wastewater.

4. however, provision of online pH meter at the inlet and neutralization facility at Vinzol STP as precautionary principle may need to provide so as to ensure no acidic discharge in Khari Cut canal and Khari River in addition all the action plan suggested by RRC need to be complied by different stake holders on time bound manner as the stretch is under priority I of polluted river stretch. (NGT Order dated-01.09.2020, Page No. 6, Para-1)

Compliance:

- All the STPs of AMC is constructed to treat only domestic wastewater as per Central Public Health & Environmental Engineering Organisation (CPHEEO) manual So that the compatibility of all the pumping machineries and STP infrastructure is for the treatment of domestic wastewater only. Thus they cannot withstand against acidic wastewater.
- Since May-2019, due to excessive illegal industrial acidic influent, the STP and the pumping station which is carrying sewage to STP got severely damaged. Inlet chamber was found broken from the lower side due to acidic sewage issue only. To repair the same, plants needs a shut down for at least 15 days.
- Since this STP is built to treat domestic sewage, acidic industrial effluent treatment damages STP extensively which will take months to reinstate the biological process then. Thus, AMC has no option then to bypass acidic waste water.
- Vinzol Pumping machineries were repaired at the cost of 5.50 Cr. For further prevention, pH meter with hooter system is installed at the cost of 29.47 lakh to bypass acidic wastewater automatically. 70 MLD STP augmentation work has been completed at the cost of 7 cr. in January 2019.
- The main trunk line was laid by AUDA several years ago. Due to industrial acidic discharge in this line, it was damaged badly so that AMC has to lay drainage trunk main line with T-rib technology which provides HDPE-LDPE liners inside the pipe for the protection against acidic wastewater to some extent from eastern Nana Chiloda to Vinzol on S.P.Ring Road at an expence of 55 Crore.

5. Thus, the action taken in compliance of the directions of Hon'ble NGT in the matter has resulted in decrease in the frequency of acidic wastewater at the Vinzol STP as reported and no acidic wastewater in the stretch of Khari River and Khari cut Canal during recent visits was observed by GPCB and task force committee." (NGT Order dated-01.09.2020, Page No. 6, Para-1)

Compliance:

- Suspected Manholes were sealed to prevent direct illegal tanker discharge in September-19. Task force monitoring has started to prevent illegal acidic discharge since December-2019. pH sensor meter is installed in the manhole of Vinzol Trunk main line. AMC is installing 100 MLD STP. AMC has stopped untreated drainage discharge into Kharicut canal from 10 outlets. For remaining 12, AMC has started to providing new pipelines and pumping machineries.

6. The situation emerging from the report based on site visits shows that the action taken by the State PCB is not adequate in terms of taking preventive and remedial action against the polluters particularly recovering compensation on 'Polluter Pays' principle, including from the Ahmedabad Municipal Corporation. The corporation needs to take further remedial action to prevent discharge of pollutants in the river system which has been clearly found in the report. The Corporation has to be made accountable for illegal discharge of pollutants amounting to criminal offence, apart from compensation to bear the cost of restoration. der priority I of polluted river (NGT Order dated-01.09.2020, Page No. 6, Para- 2)

Compliance:

- Suspected Manholes were sealed to prevent direct illegal tanker discharge in September-19. Task force monitoring has started to prevent illegal acidic discharge since December-2019. pH meter is installed in the manhole of Vinzol Trunk main line. AMC has stopped untreated drainage discharge into Kharicut canal from 10 outlets. For remaining 12, AMC has started to providing new pipelines and pumping machineries.

Part: C SPECIFIC MEASURES (NGT Order dated-01.09.2020, Page No. 7)

As far as the question of the matter related to Khari River Stretch, it is kindly submitted that;

1 Ahmedabad Municipal Corporation (AMC) is directed for augmentation for upgradation of their existing 70 MLD STP. New 35 MLD STP is under trial run and shall be functional by March 2020. New 100 MLD STP by September shall be functional by 2020. (NGT Order dated-01.09.2020, Page No. 7, Para- 4)

Compliance:

- The average flow of 150-160 MLD is received at Vinzol TSPS. There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which was planned to complete by Dec-20 but due to lockdown and pandemic condition it is delayed and it is planned to complete by May-2021 and trial run shall be started thereafter. Thus, there shall be no bypass then after. 70 MLD STP augmentation work has been completed at the cost of 7 cr. In January 2019.
- AMC has obtained CCA for both the working STPs of 70 MLD and 35 MLD & CTE for 100 MLD which is under construction.

- 2 River Khari stretch separately reviewed in the RRC meetings on 26th August and 5th December 2019 in presence of concerned authority and they were directed to comply action points decided in the meetings. (NGT Order dated-01.09.2020, Page No. 7, Para- 6)**

Compliance:

- As per the instruction given to AMC, Suspected Manholes were sealed to prevent direct illegal tanker discharge in September-19. Task force monitoring has started to prevent illegal acidic discharge since December-2019. pH meter is installed in the manhole of Vinzol Trunk main line. AMC is installing 100 MLD STP. AMC has stopped untreated drainage discharge into Kharicut canal from 10 outlets. For remaining 12, AMC has started to providing new infrastructure of pipelines and pumping machineries at the cost of Rs. 25.78 cr.

- 3 A joint task force team of officers of AMC, RO GPCB ABD East, Police, Industrial Association, and CEO of Mega Pipeline as directed by RRC under the nodal role of AMC Chief Engineer. The team has started continuous monitoring of the stretch during day and night time from December 2019.(NGT Order dated-01.09.2020, Page No. 7, Para- 7)**

Compliance:

- A joint task force of AMC officers, Regional Office-GPCB officers and Industrial Association officers is formed and it has already started the monitoring since 02.12.2019 on the Vinzol trunk main line. As a result frequency of receiving of receiving acidic wastewater at the inlet of STP is decreased. Due to lockdown monitoring activity was stopped from 25.03.2020 and again started from 15.06.2020.
- After starting the monitoring of joint task force, only 6 times acidic waste water have been received at Vinzol TSPS on dates of 02.12.2019, 10.12.2019 15.12.2020, 17.12.2020 19.12.2020 and 10.02.2020. Since unlock, Vinzol TSPS hasn't received acidic wastewater. Hence, STPs are operated efficiently and effectively the treatment parameters are obtained.
- As per the notification issued by Police Commissioner, Ahmedabad City, No.G/UPK/Traffic/28/2019,date-21/12.2019 of no parking zone of suspected area for the tankers looks also effective so that Police department needs to strengthen the vigilance for any illegal discharge of wastewater in Karicut canal/ Khari River through Tankers.

Part D: AMC Compliances on Report filed by Justice Shri B.C. Patel on 19.08.2020. (NGT Order dated-01.09.2020, Page No. 8, Para- 2)

1. **It is stated that function of KhariCut Canal is to provide water to Chandola lake for irrigation in villages. The canal was totally choked with garbage due to negligence of the civic authorities. Lake bed has become garbage dump and is used for open defecation. Civic authorities have turned a blind eye to the problem. (NGT Order dated-01.09.2020, Page No. 8, Para- 2)**

Compliance:

- Under Sujalam Sufalam Jal Sanchay Campaign-2018, AMC had taken up the task of cleaning the Kharicut Canal by using number of Machineries like JCBs, Excavators, Tractors, etc. and cleaned approximate 31446 MT. of waste from Kharicut Canal.
- AMC had installed chain link fencing of about 3500 running meter on both the side of canal and at the crossing points of the canal to prevent the direct discharge of solid waste into the canal.
- AMC had held around 985 awareness meetings with nearby residents for not throwing the garbage into the canal and keep clean the canal.
- AMC had installed 24 CCTV cameras on the canal.
- There are total 66 silver trolleys placed at area of Kharicut Canal for collection of solid waste.
- Action Plan of installation of Grill fencing and Signboards on the canal crossings and the other places which have potential for direct dump of Solid waste into the canal is as under:

ACTION PLAN FOR INSTALLATION OF GRILL FENCING TO PREVENT DIRECT DUMP OF SOLID WASTE INTO KHARICUT CANAL WITH RESPECT TO PARA 3 - (PAGE NO.8)

Zone	Existing (No.)	Planned (No.)	Total (Nos.)	Length of Existing Grill (RMT)	Length of New Grill to be Fixed (RMT)	New Grill Fixed till date (RMT)	Physical % of Work Completed	Cost in Lakhs (Rs.)	Probable Date of Completion of work	Remarks
EAST	11	11	22	758	1247	1009	81%	24.33	30-09-2020	Nikol and viratnagar ward WIP
NORTH	0	15	15	2153	1444	33	2%	49.77	10.11.2020	Chain link fancing work to be about 900Rmt . estimate of this work in under approval & tendre is invited for this work Date of opening of this tender is 24.09.2020
SOUTH	10	28	38	747	3552	0	0%	81.79	15.11.2020	-- Short Notice for 3 tender invited for remaing 3552 Rmt fencing works under TSC Approval. --Existing chainlink fencing repairing and colour work completed.
Total	21	54	75	3658	6243	1042	17%	155.89	--	--

ACTION PLAN OF SIGN BOARDS TO PREVENT DIRECT DUMP OF SOLID WASTE INTO KHARICUT CANAL WITH RESPECT TO PARA 3 - (PAGE NO.8)

Zone	Existing (No.)	Planned (No.)	Total (Nos.)	Board installed till date (Nos)	Physical % of Work Completed	Cost in Lakhs(Rs.)	Probable Date of Completion of work	Remarks
EAST	7	33	40	15	45%	1.32	31.10.20	viratnagar ward WIP
NORTH	0	30	30	0	0%	4.5	31.10.20	
SOUTH	0	75	75	0	0%	1.87	31.10.20	Tender are in TSC Approval
Total	7	138	145	15	11%	7.69	--	--

CCTV Camera Status

Locations	No. of CCTV Cameras	Working	Under Maintanance	Probable Date of Starting all the CCTV Cameras	Remarks
12	24	24	0	--	All Working

- Photographs of the sign boards & grill fencing installation work under progress are as under:

Sample of the Sign board

Kharikat Poster_4x3 -

જાહેર ચેતવણી

અમદાવાદ શહેરમાંથી પસાર થતી ખારીકટ કેનાલમાં કોઈપણ વ્યક્તિએ ઘન-કચરો/કેમિકલયુક્ત કચરો કે અન્ય કોઈપણ પ્રકારના કચરાનો નિકાલ કરવો નહિ. આ પ્રમાણેનો નિકાલ IPC ધારા નં.- ૨૬૮, ૨૬૯, ૨૭૦ તથા ૪૩૧ મુજબ **સજાને પાત્ર છે.**



હુકમથી...
અમદાવાદ મ્યુનિસિપલ કોર્પોરેશન



અમદાવાદ
મ્યુનિસિપલ
કોર્પોરેશન



Location: Shivangi Intercity-Left side



Location: Shivangi Intercity-Right side



Location: Shivaji Chowk Service Road



Location: Shyamvadi Canal Service Road



Location: Rajendra park canal



Location: Jivanvadi Canal



Location: Maruti canal



Location: Ashirwad iron bridge canal culvert



Location: Bhagwati Park Canal culvert



Location: Swaminarayan nagar (torrent power) canal culvert



Location: canal approach near Bhavna School



Location: work in progress from Gebansha pir to Sadani dhabi



Location: Rajiv Park culvert



Location: Adishwar Canal Culvert



Location: Dehgam Road Canal Culvert



Location: Kathvada GIDC Culvert



Location: Madhuvan Culvert



Location: Navyug Canal Culvert



Location: Navyug Steel Foot over MS bridge



Location: Radhika Foot over bridge culvert



Location: Vyasvadi Canal Culvert



2. **Residents and the Municipal Corporation discharge sewage in the canal which ultimately meets the river Sabarmati.** (NGT Order dated-01.09.2020, Page No. 8, Para-2)

Compliance:

- Existing Situation, Works already done, Action taken Report & Future Planning Activities narrated in Part A, Sr. No:1 compliance.

3. **Many illegal buildings have been constructed.** (NGT Order dated-01.09.2020, Page No. 8, Para- 2)

Compliance:

- Actions under provisions of The Gujarat Provincial Municipal Corporation Act, 1949 are being taken by AMC for illegal construction on private land, whereas for illegal construction on canal land, the actions are being taken by irrigation department of Government of Gujarat.

4. **The STP does not have sufficient capacity to treat the sewage. Waste water is being bypassed without treatment and is being discharged into the canal. Acidic water is not being utilized. Water samples from different locations taken on 18.02.2020, 09.03.2020, 18.04.2020, 01.08.2020 establish discharge of untreated sewage by the Municipal Corporation. Out of 169 outlets, 56 outlets are discharging untreated sewage into the canal. Even when the industries are closed, samples taken on 01.08.2020 show huge pollution.** (NGT Order dated-01.09.2020, Page No. 8, Para- 2)

Compliance:

- The average flow of 150-160 MLD is received at Vinzol TSPS. There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which was planned to complete by Dec-20 but due to lockdown and pandemic condition it is delayed and it is planned to complete by May-2021 and trial run shall be started thereafter. Thus, there shall be no bypass then after. 70 MLD STP augmentation work has been completed at the cost of 7 cr. In January 2019.
- Justice Shri B.C.Patel, Former Chief Justice, High Court of Delhi carried out the visit on 09.03.2020 along with officials of AMC, GPCB & Irrigation Department. With respect to his Visit, AMC has submitted the report to GPCB on Dt: 11/6/20 regarding total 75 outlets as below :

Sr. No.	Type of drain	No. of Total Outlets in Kharicut Canal				No of Outlets Having Domestic Wastewater Discharge							
						Status on 18.02.2020 as per GPCB report				Present Status			
		NZ	EZ	SZ	Total	NZ	EZ	SZ	Total	NZ	EZ	SZ	Total
1	SWD	21	28	09	58	02	03	00	05	00	01	00	01
2	Drainage	12	05	00	17	12	05	00	17	07	04	00	11
	Total	33	33	09	75	14	08	00	22	07	05	00	12

- As per above report , out of total 75 Locations 58 are Storm Water Outlets Locations & 17 are Drainage outlet Locations .
- Out of which, as per GPCB report , 5 Storm Water locations & 17 Drainage Locations , Hence Total 22 Locations Outlets were discharging untreated Drainage to Kharicut Canal.
- But after that, AMC works for closing Drainage Discharge from 10 Locations , Hence 12 locations were discharging Drainage from Outlets in Kharicut canal. hence AMC submits Planning to stop Drainage discharge to canal . Planning was as below:

Sr. No.	Location	Planning
1	Gajanand Park Nikol	Minor water discharge found. This residential area is low laying about 3 to 5 feet from Canal service road. Laying of new 180 running meter pipeline from Avdhesh Park to Gajanand Park via Narayani School to divert the flow is planned.
2	Avadhesh Park	
3	Prabuddha Ashram Nikol	
4	Amardeep Park Nikol	Minor water discharge found. This residential area is low laying about 3 to 5 feet from Canal service road. laying of new 120 running meter Pipeline from Amardeep Park to Bhaktinagar to divert the flow is planned.
5	Sarjan Shopping Centre	De-silting work is completed and Laying of new 200 running meter Pipeline from ShyamVihar to Canal culvert to divert the flow is planned.
6	SardarChok Bridge	It is planned to divert this flow to recently installed Drainage trunk main line on SP ring road.
7	Narayan Park Nikol	Laying of new 180 running meter pipeline from Narayan Park to Rajiv Park to divert the flow is planned.
8	Nikol Ward Pumping Station	Augmentation of Jivanwadi Drainage Pumping with new network is planned.
9	Kavya Residency Thakkar Nagar	
10	Ashirwad Park Pumping Station	Technical consultant is appointed to work out the techno-economical survey.
11	Ambika Nagar	Drainage pumping stations like (1) Rabari DPS (2) Chotalal DPS discharge is planned to divert to Vinzol Main trunk line by laying new Rising line. As a long term permanent solution, Microtunneling work is taken up from Jashodanagar to Pirana to overcome the drainage backing in Pirana trunk main line.
12	Keshav Park Odhav	

- Latest progress of the above planned works is as below:

National Green Tribunal Original Application No. 105/2019, Order Dated-01.09.2020										25-09-2020
ACTION PLAN TO STOP THE INCOMING DRAINAGE INTO KHARICUT CANAL WITH RESPECT TO PARA 3-SUBPARA 6 (PAGE NO.17)										
Sr. No.	Location	Action Plan (Type of Work)	Dia of Pipeline (mm)	Lengh (RMT)	Cost in Lakhs (Rs.)	Probable Date of Completion of work	Pipeline laid till Date (RMT)	Physical % of Work Completed	Status	Remark
1	Gajanand Park Nikol	New RCC NP3 gravity pipeline	300mm	95	10.00	31.10.2020	52	55%	WIP	
2	Avadhesh Park									
3	Prabuddha Ashram Nikol	Desilting of Connecting line		1150		31.10.2020	725	63%	WIP	
4	Amardeep Park Nikol	New RCC NP3 gravity pipeline	300mm	130	12.00	31.10.2020	130	100%	Work Completed	Connection work comp.
5	Sarjan Shopping Centre									
6	Sardar Chok Bridge	New RCC NP3 gravity pipeline	600mm	1920	110.00	31.1.2021	0	0%	WIP	Survey work done. pipe procured onsite. (bapasitaram chouk to satyam SPS)
		New DI rising line	500mm	3500	350.00	31.1.2021	55	2%	WIP	Rising line Procurement is under progress.

		Naroda Satyam DPS Pumping AUG.	--	--	145.00	31.05.2021	--	--	Tender Invited	Short Tender notice for new pumping machinaries on 16.09.2020.
7	Narayan Park Nikol	Desilting Drainage pipe line	300mm	190	8.00	31.10.2020	190	80%	WIP	6.0 Nos. of MH of Existing line have been raised and put in function and desilting of existing sump is in progress.
8	Nikol Ward Pumping Station	New RCC NP4 gravity pipeline	600mm	2938	277.00	31.01.2021	132.5	5%	WIP	Existing Drainage line Breakdown on upstream side. excavation work from S.P. ring road (downstream side) Started but as depth of laying pipe is 8 m, hence excavation is very deep & carried out in two stages.
9	Kavya Residency Thakkar Nagar									
10	Ashirwad Park Pumping Station	New Rising Line	900mm	850	261.00	31-03-2021	0	0%	WIP	To gear up the work MC sir approval received for laying pipeline from water project tender.
		Viratnagar Pumping station Augmentation	--	--	187.00	31-10-2021	--	10%	WIP	NEW Pump machinaries 450 m3/Hr. 15 mt. head HNC pumps 02 nos. 300 m3/Hr. 15 mt. head HNC pumps 02 nos. 350m3/Hr. 15 mt. head subpumps 04 nos., L.T. panel., suction & delivery valves, EMFM
11	Ambika Nagar	(1) Rabari Vasahat DPS Rising Line	400mm	3100	226.00	30-06-2021	0	0%	WIP	

		Rabari Vasahat Pumping station Augmentation	--	--	150.00	30-06-2021	--	--	Tender Invited	Short Tender notice on 16.09.2020 for new Pump machinaries 225 m3/Hr. 28 mt. head HNC pumps 02 nos. 350 m3/Hr. 28 mt. head subpump 03 nos. L.T. panel., suction & delivery valves, EMFM
		(2) Chhotalal DPS Rising Line	500mm	1500	168.00	30-06-2021	1073	72%	WIP	
		Chhotalal Pumping station Augmentation	--	--	160.00	30-06-2021	--	--	Tender Invited	Short Tender notice on 16.09.2020 for new Pump machinaries 360 m3/Hr. 21 mt. head HNC pumps 02 nos. 250 m3/Hr. 21 mt. head HNC pumps 02 nos. 360 m3/Hr. 21 mt. head subpump 02 nos. L.T. panel., suction & delivery valves, EMFM
12	Keshav Park Odhav	(3) Ambicanagar DPS Rising Line	500mm	2700	364.00	30-06-2021	1073	40%	WIP	
		Ambicanagar Pumping station Augmentation	--	--	150.00	30-06-2021	--	--	Tender Invited	Short Tender notice on 16.09.2020for new Pump machinaries 260 m3/Hr. 24 mt. head HNC pumps 02 nos. 400m3/Hr.24mt. head subpump 03 nos. L.T. panel., suction & delivery valves, EMFM
		Total		18073	2578.00		3430.50			

• Hence, Works of Rs. 25.78 Cr. are planned and put in progress for diverting sewage flow from Kharicut canal to drainage lines as a permanent solution.

“In view of what is stated above it is clear that

- 1. The AMC is a public body and it is required to discharge the duties under The Gujarat Municipal Corporation Act and also under the Environmental Laws. It has failed in erecting treatment plants for the sewage generated. AMC in the eastern part to Ahmedabad is receiving 170-180MLD sewage and it has two plants to treat only 105 MLD of sewage. The excess sewage is discharged in the canal contrary to the provisions of the law, leaving the poor farmers to the mercy of the almighty God. (NGT Order dated-01.09.2020, Page No. 9, Para- 3)**

Compliance:

- The average flow of 150-160 MLD is received at Vinzol TSPS. There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which was planned to complete by Dec-20 but due to lockdown and pandemic condition it is delayed and it is planned to complete by May-2021 and trial run shall be started thereafter. Thus, there shall be no bypass then after.
- 2. Even after treatment the sewage was not found on any occasion meeting the norms laid down under the law. It is bounded duty of AMC to treat the sewage and then to discharge the same in accordance with the norms in the river and not into the Canal. (NGT Order dated-01.09.2020, Page No. 9, Para- 3)**

Compliance

- The average flow of 150-160 MLD is received at Vinzol TSPS. There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD. Outlet of these two STPs are meeting the outlet of excess sewage bypass from 102 MLD pumping station hence the ultimate discharge in Khari Nala is not meeting the standards. Another 100 MLD STP is under construction which was planned to complete by Dec-20 but due to lockdown and pandemic condition it is delayed and it is planned to complete by May-2021 and trial run shall be started thereafter. Thus, there shall be no bypass then after and hence the discharge norms shall be achieved.
- 3. It is very clear that as stated about the various inspection carried by the officers of GPCB, it was found that on several occasions without any treatment the entire sewage was discharged or on some occasions it was partly discharged after treatment. Many defiance has been indicated in the report and despite of various notices given to the AMC, the AMC is not discharging sewage as per norms. Unfortunately, no prosecution has been filed against these authorities indulging in discharging the sewage which is not meeting with the norms. Though its serious crime against people at large as no action is taken, the direction is required to be given to the GPCB to prosecute and not to allow untreated sewage to be discharged. (NGT Order dated-01.09.2020, Page No. 9, Para- 4)**

Compliance

- The average flow of 150-160 MLD is received at Vinzol TSPS. There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD. Outlet of these two STPs are meeting the outlet of excess sewage bypass from 102 MLD pumping station hence the ultimate discharge in Khari Nala is not meeting the standards. Another 100 MLD STP is under construction which was planned to complete by Dec-20 but due to lockdown and pandemic condition it is delayed and it is planned to complete by May-2021 and trial run shall be started thereafter. Thus, there shall be no bypass then after and hence the discharge norms shall be achieved.
- Since this STP is built to treat domestic sewage which is under purview of AMC, acidic/industrial effluent treatment damages STP pumping station/pipeline extensively in terms of equipments and machinery damages as well as biological process damages which will take months to reinstate. Thus, AMC has no option then to bypass acidic waste water.

4. About the beautification of the canal, the same is dealt in the report. For the time being the AMC as well as Department of irrigation are required to be directed to remove the grass growing haphazardly in the canal and both the sides of the canal, so as to protect the water and the Environment. (NGT Order dated-01.09.2020, Page No. 9, Para- 4)

Compliance

- It is already Narrated in Part : D, Sr.No 1 Compliance status.
- AMC also Planned pilot project to rejuvenate Kharicutcanal at Narol Naroda NH-8 to railway Line at Gor na Kuva Area having approx. 800 Rmt length & 15.21 Cr. Cost .
- Major Components of the Project are : Dismantling of the existing lining of canal, constructing Reinforced Cement Concrete (RCC) box (4.282.35 – 2 cells), road, footpath, New Sewerage lines on Either of Side of the RCC Boxes, catch pits with pipe connection to RCC Box.
- Work order is given. After stopping the irrigation water supply in October-2020, work will be started.

5. The irrigation department and the Commissioner, Ahmedabad Municipal Corporation must close all the outlets opening into the canal through piercing or otherwise and be securely closed so as to see that no liquid enters and action be taken against concerned person. Despite the rain much natural water entered the canal, yet there is much difference in the parameters at the initial stage and at subsequent stages as indicated in the report. Therefore, aforesaid action is required to be initiated by the authorities urgently.” (NGT Order dated-01.09.2020, Page No. 10, Para- 1)

Compliance

The Issue is already complied in Part A , Para : 1

6. The list of locations at which untreated sewage is being discharged is annexed to the report (as a part of inspection report dated 01.08.2020 conducted by the State PCB) as follows: (NGT Order dated-01.09.2020, Page No. 10)

Sr. No.	LocationName	Total Outlets	Sample Collection Details,if	Operative dischargeofuntreated sewage during visit
1	KhariCutCanal at NarodaDehgamRoad Bridge	2		
2	NikolNarodaPumping Station	1		
3	Sundervan Society New Naroda	1		
4	Vyasvadi BridgeNewNaroda	5	01	3
5	DahyalalParkSocietyNewNaroda	12	02	2
6	AdishwarPolice Chowki	1		
7	AdishwarPolice Chowki	2		
8	Best English School New Naroda	2		
9	Ashirwad Residency	2		
10	Ashirwad Residency	2		
11	NavyugPumping Station	1		
12	NavyugPumping Station	2		
13	Gajanand Park Nikol	1	03	1
14	AvadheshPark	2		1
15	Prabuddha Ashram Nikol	2		2
16	Bhakti Nagar Nikol	1		1
17	Bhakti Nagar PumpingStation	1		
18	AmardeepPark Nikol	2	04	2
19	SRP Gujarati PrathmikShala	1		
20	ShyamViharSocietyNikol	1		1
21	SarjanShopping Centre	1	05	1
22	AshrayApartment	1		1
23	Sargam Park Society	1		1
24	NijanandMansi	1		1
25	Opposite NijanandMansi	2		2
26	SarathiDuplex	3		3
27	VasundharaPark	1		1
28	VasundharaPark(Noble English School)	1		1
29	BhumiPark Society	1	06	1
30	ParshwanathTownship	2		
31	Thakkar Nagar Bridge,	2	07	1
32	Rajiv Park SWD Pumping Station, SardarChok	2	08	1
33	SardarChok Bridge	2		1
34	Narayan Park Nikol	3		1
35	Narayan Park Nikol	1		

36	NikolWard Pumping	4	09	2
37	KavyaResidency Thakkar	1		1
38	Shree Ram Park Thakkar	2		1
39	GopalChok Bridge	2		1
40	ShyamWadiBapunagar	1		
41	Narayan Park Pumping	5		1
42	Umang Apartment	1		1
43	Sundervan Apartment Thakkar	1		
44	ShivkrupaThakkarNagar	1		
45	RameshwarPark	1		
46	NilkanthMulti Speciality	1		1
47	SwamiNarayanSociety	1		1
48	AshirwadPark Pumping	3	010	3
49	Hari Villa Pumping Station	3		1
50	Trisha Hospital	2		
51	Ganeshkunj Society	1		
52	BalaHanumanMandir	3		
53	MarutiNagar Co Op Housing So.	7		
54	AmbikaNagar	1		1
55	AmbikaNagar Odhav	7		1
56	Overseas Enterprise	1		
57	KhariCutCanal at Odhav	1		
58	KhariCutCanal StormWater	10		1
59	KeshavPark Odhav	3		2
60	BhavaniNagar SoniNiChal	2		2
61	RanchhodPark	1		
62	KrushnaNagar Odhav	3		1
63	MukeshNagar Odhav	1		
64	KhariCutCanal at ArbudaNagar	3		
65	JogeshwariBaghCo.Op.	2		
66	MahavirSmrutiCo.Operative	2		
67	Shiv Park Society	5		1
68	Storm Water Pumping Station	2		
69	SumitNagar MahadevNagar	2		
70	RTO Vastral	2		
71	RTO Vastral	1		
72	RTO Vastral	2		2
73	RamdevPark MahadevNagar	2		
74	JamfalWadi	3		
75	RamolCTMRoadBridge	1		1
76	RamolHathijanHighway	2		
77	OutfalofCombinedFinal	2	011	2
	TOTAL	169		56

Compliance:

- GPCB has submitted the report of 18.02.2020. In this report GPCB has mentioned total 83 locations from which samples of 8 locations were taken from the Kharicut canal flow. Other 75 locations are of the Outlets. Than after Hon'ble Shri B. C. Patel carried out the visit on 09.03.2020 along with officials of AMC, GPCB. With respect to said report and the visit, AMC has submitted the

report regarding total 75 outlets, Out of which 58 are of Storm water and 17 are of drainage. As per the report dated 18.02.2020 carried out by Regional Office, Ahmedabad (East), GPCB, there were total 22 outlets having drainage discharge. Out of these, 10 outlets were already stopped discharging by AMC. It was necessary to facilitate new infrastructure of drainage pipelines and pumping machineries for the prevention of untreated drainage going into Kharicut canal from remaining 12 outlets. For these 12 locations, planning was submitted in this report.

- AMC has already started the work to stop drainage from above 12 locations.
- As per Latest updates for Above Work Planned Status is mention in Part A Para :
1

7. Brief about action taken against Municipal Corporation has been filed alongwith the report as follows: "Brief about action taken against Ahmedabad Municipal Corporation (AMC) Vinzol STP 70 MLD & 35 MLD – (Point on page No. 11 of NGT Order dated-01.09.2020)

Compliance:

70 MLD STP

Sr.No.	Page No.	Details pertaining to AMC	Compliance/Action Taken till now
1	12	STP bypasses total@115 MLD of untreated sewage and only treats @ 70 MLD waste water out of total 185 MLD waste water coming to STP. Analysis Report of sample <ul style="list-style-type: none"> • collected from final out let of STP as well as from the bypass of STP shows BOD & COD exceeding the norms 	There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which shall be finished by May 2021. Thus, there shall be no bypass then after. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
2	12	STP bypasses @ 115 MLD of untreated sewage out of @ 185 MLD domestic waste water ultimately going into Khari River Result of untreated sewage sample <ul style="list-style-type: none"> • Collected on 29/04/2019 & 30/05/2019 shows BOD = 140 & 96 mg/l and Suspended Solid (SS) 250 mg/l & 208 mg/l which are higher than limit given. 	There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which shall be finished by May 2021. Thus, there shall be no bypass then after. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
3	12	Visit on 27/06/2019 STP was not in operation since 04/05/2019 & hence incoming domestic waste water @ 145	Since May-2019, due to excessive illegal industrial acidic influent, the STP and the pumping station which is carrying sewage to

		<p>MLD of untreated sewage water is discharged into RiverKhari without any treatment During visit on 27/06/2019 all STP</p> <ul style="list-style-type: none"> tanks were found empty Joint visit on 17/07/2019 by CPCB & GPCB w.r.to direction in the Hon'ble NGT matter, observed that STP was not in operation and hence all influent was bypassed and was discharged into River Khari without treatment. STP found receiving acidic waste water frequently and discharging entire acidic inflow quantity into Khari river by bypassing STP found receiving acidic 	<p>STP got severely damaged. All pumps in the 102 MLD pumping station and rising line were corroded and needed replacement. Thus, entire pumping station was taken under augmentation and this entire project was completed in August 2020.</p> <p>Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19</p>
4	12	<p>During inspection dtd 21/08/2019, provided STP was found not in operation and all STP units arc found empty Visit on 21/08/2019 STP was</p> <ul style="list-style-type: none"> found not in operation and all incoming domestic waste water & acidic was Wastewater is bypassed and is discharged into River Khari without any treatment During inspection dtd 21/08/2019 domestic waste water is discharged into Kharicut canal near S.P.Ring Road During inspection it was observed that 07/08/2019 bypass gate at the inlet waste water tank found broken and due to which part of the waste water is bypassed from the inlet tank only Visit on 07/08/2019 acidic waste water at the inlet are bypassed the directly to Kharicut canal As per report dtd 19/07/2019, STP by-passes their untreated waste water, incoming waster water found acidic, incoming waste water flow is in huge quantity STP frequently receives the acidic waste water and bypasses it without any treatment STP authority has not submitted proper action plan in compliance of NOD dtd 11/04/2019 STP authority has not submitted <p>proper compliance of legal notice dtd 06/07/2019 Analysis report of sample shows non-compliance w.r.to the discharge norms of Consolidated Consent & Authorisation (CCA)</p>	<p>Since May-2019, due to excessive illegal industrial acidic influent, the STP and the pumping station which is carrying sewage to STP got severely damaged. All pumps in the 102 MLD pumping station and rising line were corroded and needed replacement. Thus, entire pumping station was taken under augmentation and this entire project was completed in August 2020.</p> <p>Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19</p>
5	13	<p>Regular observation shows that STP</p>	<p>There are presently two Sewage Treatment</p>

		bypasses the untreated waste water into Khari River indicate continuous non-compliance STP record shows continuous incoming acidic waste water and bypass of waste water into Khari River	Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which shall be finished by May 2021. Thus, there shall be no bypass then after. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
6	14	STP has not submitted any reply w.r.to the Direction dtd 06/08/2019 AMC was asked to submit Time bound action plan to achieve norms and stop bypass and submit other alternative of disposal of treated/untreated/partially treated waste water apart from Khari river/ Kharicut canal within 15 days	There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which shall be finished by May 2021. Thus, there shall be no bypass then after. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
7	14	AMC was asked to submit other alternative of disposal of treated/untreated/partially treated waste water apart from Khari river/ Kharicut canal within 15 days	Noted and shall be explored. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
8	14	AMC has not taken any steps for stoppage of acidic wastewater coming into STP and bypass the acidic wastewater into River Khari AMC was asked to submit satisfactory reply with time bound action plan to stop bypass into Khari cut canal/Khari River and upgradation of STP AMC has not submitted satisfactory action plan to achieve norms AMC has not submitted any reply w.r.to the Legal Notice dated 05/11/2019	There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which shall be finished by May 2021. Thus, there shall be no bypass then after. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
9	14	Analysis report of sample taken at final outlet of STP shows noncompliance with	Since May-2019, due to excessive illegal industrial acidic influent, the STP and the pumping station which is carrying sewage to STP got severely damaged. All pumps in the 102 MLD pumping station and rising line were corroded and needed replacement. Thus, entire pumping station was taken under augmentation and this entire project was completed in August 2020. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19

10	14	respect to the discharge norms of Consolidated Consent & Authorisation (CCA) Entire quantity of the received domestic wastewater into inlet chamber was bypassed directly into Khari due to maintenance work of valves & pumps at inlet section	Since May-2019, due to excessive illegal industrial acidic influent, the STP and the pumping station which is carrying sewage to STP got severely damaged. All pumps in the 102 MLD pumping station and rising line were corroded and needed replacement. Thus, entire pumping station was taken under augmentation and this entire project was completed in August 2020. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
11	14	Around 70 MLD to 75 MLD wastewater is by pass directly through inlet chamber into final disposal chamber without any treatment ultimately leading to Kharicut canal. Excess foaming in both the aeration tanks is observed. Flow meter provided on final outlet of the STP is found non operational. Provided SCADA system is found not in operation. Wastewater simply passing through the STP	Since May-2019, due to excessive illegal industrial acidic influent, the STP and the pumping station which is carrying sewage to STP got severely damaged. All pumps in the 102 MLD pumping station and rising line were corroded and needed replacement. Thus, entire pumping station is taken under augmentation and this entire project shall be completed by May 2020. Foaming issue was resolved by increasing aeration. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
12	14	STP is receiving @ 180 MLD Sewage Waste water from which 35 MLD is sent to the STP having 35 MLD capacity and rest @ 145 MLD is taken to the STP of 70 MLD in which @ 8590 MLD sewage waste water is bypass from the inlet chamber of 70 MLD STP.	There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which shall be finished by May 2021. Thus, there shall be no bypass then after. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
13	15	SCADA system is found not working during inspection. Unit has provided flow meter on final outlet line but it was found not in operation. Sewage Waste Water sample are collected from outfall for treated sewage w/w of 70 MLD STP of 70 MLD STP. Result sewage shows BOD 80 mg/l, COD 305 mg/l, SS 324 mg/l, Faecal Coliform 4 MPN/100 ml which are not meeting with the prescribed norms.	This 70 MLD STP was built in year 2009 which did not have SCADA system. However it was incorporated in centralised SCADA system in 2016-17 and the output of the same is being monitored by centralised SCADA command control center of AMC which is working properly. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19

35 MLD STP

1	15	STP operation without CCA of the board Bypassing the sewage wastewater without treatment Analysis report more than prescribed norms	STP has obtained CCA. Copy of the same is attached herewith Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
2	15	STP has not applied for CCA even after the instructions given by RO officials STP has yet not submitted action plan of restart of the plant STP is not neutralizing the acidic waste water STP has not identified the point source from where the acidic waste water arrives in to their sewage network Incoming domestic waste water was found discharged into River Khari without any treatment through Bypass line STP units were found not in operation As per the observations during visit dtd 21/08/2019 domestic wastewater is discharging Into Kharicut Cannel, Near S P' Ring road' As per the observation visit dtd 17/07/2019, it was noticed that all four SBR tanks are filled with acidic waste water As per the observations during visit dtd 19/07/2019, STP by pass their untreated waste water if incoming waste water found acidic or incoming wastewater flow is in huge quantity STP frequently the acidic waste water As per the observations during visit dtd 07/08/2019, observed that by providing flexible pipe at the SBR tank-2, emptying into the waste water in to the Kharicut Canal Analysis report of samples collect non-compliance with respect to the prescribed Discharge norms	STP has obtained CCA. Copy of the same is attached herewith. After installation of pH meter at 102 MLD pumping station, improvement in treatment process is observed. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
3	16	The STP has not obtained CCA of the Board.	STP has obtained CCA. Copy of the same is attached herewith. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
4	16	STP is bypassing the domestic wastewater directly into the Kharicut canal without any treatment.	There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35

		Installation of aerator in equalization tank is not done and chlorination system is not fully operated stage. The received sewage is simply pass from all the units with no treatment and discharged in to the Kharicut Canal. Provided SCADA system is also not working. As per visit dated 21-11-2019, no inlet sewage is taken into the Plant as the inlet pipeline flange at the equalization tank is broken and so that the STP is not in operation since 17/1/2019. Analysis report of samples taken from final outlet is not complying with norms.	MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which shall be finished by May 2021. Thus, there shall be no bypass then after. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
5	16	STP has not applied for CCA of the board. Analysis Reports of sample taken from final outlet of STP shows noncompliance with respect to STP discharge norms	STP has obtained CCA. Copy of the same is attached herewith. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19
6	16	STP is receiving @ 180 MLD Sewage Waste water from which 35 MLD is sent to the STP having 35 MLD capacity and rest @ 145 MLD is taken to the STP of 70 MLD in which @ 85- 90 MLD sewage waste water is bypass from the inlet chamber of 70 MLD STP. SCADA system is found not working during inspection. Unit has provided flow meter on final outlet line but it was found not in operation. Sewage Waste Water sample are collected from outfall for treated sewage w/w of 70 MLD STP of 70 MLD STP. Result sewage shows BOD 80 mg/l, COD 305 mg/l, SS 324 mg/l, Faecal Coliform 4 MPN/100 ml which are not meeting with the prescribed norms.	There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which shall be finished by May 2021. Thus, there shall be no bypass then after. SCADA system is working properly. Compliance sent to GPCB vide letter no. STP outward no. 2801 dated 14.8.19 , 4806-1 and 4806-2 dated 5.12.19 and 2801 dated 14.8.19 and 5344 dated 17.12.19

8. The report also annexes a letter dated 09.06.2020 from theMunicipal Corporation to the State PCB giving the following plan: (NGT Order dated-01.09.2020, Page No. 17)

Sr. No.	Location	Planning
1	Gajanand Park Nikol	Minor water discharge found. This residential area is low laying about 3 to 5 feet from Canal service
2	Avadhesh Park	

3	Prabuddha Ashram Nikol	road. Laying of new 180 running meter pipeline from Avdresh Park to Gajanand Park via Narayani School to divert the flow is planned.
4	Amardeep Park Nikol	Minor water discharge found. This residential area is low laying about 3 to 5 feet from Canal service road. laying of new 120 running meter Pipeline from Amardeep Park to Bhaktinagar to divert the flow is planned.
5	Sarjan Shopping Centre	De-silting work is completed and Laying of new 200 running meter Pipeline from ShyamVihar to Canal culvert to divert the flow is planned.
6	SardarChok Bridge	It is planned to divert this flow to recently installed Drainage trunk main line on SP ring road.
7	Narayan Park Nikol	Laying of new 180 running meter pipeline from Narayan Park to Rajiv Park to divert the flow is planned.
8	Nikol Ward Pumping Station	Augmentation of Jivanwadi Drainage Pumping with new network is planned.
9	Kavya Residency Thakkar Nagar	
10	Ashirwad Park Pumping Station	Technical consultant is appointed to work out the techno-economical survey.
11	Ambika Nagar	Drainage pumping stations like (1) Rabari DPS (2) Chotalal DPS discharge is planned to divert to Vinzol Main trunk line by laying new Rising line. As a long term permanent solution, Microtunneling work is taken up from Jashodanagar to Pirana to overcome the drainage backing in Pirana trunk main line.
12	Keshav Park Odhav	

Compliance:

- AMC has taken up this and planned to close the outlets of these 12 locations and submitted the planning to stop Drainage discharge into the canal as above.
- Latest progress of the above planned works is as below:

- Latest progress of the above planned works is as below:

National Green Tribunal Original Application No. 105/2019, Order Dated-01.09.2020										25-09-2020
ACTION PLAN TO STOP THE INCOMING DRAINAGE INTO KHARICUT CANAL WITH RESPECT TO PARA 3-SUBPARA 6 (PAGE NO.17)										
Sr. No.	Location	Action Plan (Type of Work)	Dia of Pipeline (mm)	Lengh (RMT)	Cost in Lakhs (Rs.)	Probable Date of Completion of work	Pipeline laid till Date (RMT)	Physical % of Work Completed	Status	Remark
1	Gajanand Park Nikol	New RCC NP3 gravity pipeline	300mm	95	10.00	31.10.2020	52	55%	WIP	
2	Avadhesh Park									
3	Prabuddha Ashram Nikol	Desilting of Connecting line		1150		31.10.2020	725	63%	WIP	
4	Amardeep Park Nikol	New RCC NP3 gravity pipeline	300mm	130	12.00	31.10.2020	130	100%	Work Completed	Connection work comp.
5	Sarjan Shopping Centre									
6	Sardar Chok Bridge	New RCC NP3 gravity pipeline	600mm	1920	110.00	31.1.2021	0	0%	WIP	Survey work done. pipe procured onsite. (bapazitaram chouk to satyam SPS)
		New DI rising line	500mm	3500	350.00	31.1.2021	55	2%	WIP	Rising line Procurement is under progress.

		Naroda Satyam DPS Pumping AUG.	--	--	145.00	31.05.2021	--	--	Tender Invited	Short Tender notice for new pumping machinaries on 16.09.2020.
7	Narayan Park Nikol	Desilting Drainage pipe line	300mm	190	8.00	31.10.2020	190	80%	WIP	6.0 Nos. of MH of Existing line have been raised and put in function and desilting of existing sump is in progress.
8	Nikol Ward Pumping Station	New RCC NP4 gravity pipeline	600mm	2938	277.00	31.01.2021	132.5	5%	WIP	Existing Drainage line Breakdown on upstream side. excavation work from S.P. ring road (downstream side) Started but as depth of laying pipe is 8 m, hence excavation is very deep & carried out in two stages.
9	Kavya Residency Thakkar Nagar									
10	Ashirwad Park Pumping Station	New Rising Line	900mm	850	261.00	31-03-2021	0	0%	WIP	To gear up the work MC sir approval received for laying pipeline from water project tender.
		Viratnagar Pumping station Augmentation	--	--	187.00	31-10-2021	--	10%	WIP	NEW Pump machinaries 450 m3/Hr. 15 mt. head HNC pumps 02 nos. 300 m3/Hr. 15 mt. head HNC pumps 02 nos. 350m3/Hr. 15 mt. head subpumps 04 nos., L.T. panel., suction & delivery valves, EMFM
11	Ambika Nagar	(1) Rabari Vasahat DPS Rising Line	400mm	3100	226.00	30-06-2021	0	0%	WIP	

		Rabari Vasahat Pumping station Augmentation	--	--	150.00	30-06-2021	--	--	Tender Invited	Short Tender notice on 16.09.2020 for new Pump machinaries 225 m3/Hr. 28 mt. head HNC pumps 02 nos. 350 m3/Hr. 28 mt. head subpump 03 nos. L.T. panel., suction & delivery valves, EMFM
		(2) Chhotalal DPS Rising Line	500mm	1500	168.00	30-06-2021	1073	72%	WIP	
		Chhotalal Pumping station Augmentation	--	--	160.00	30-06-2021	--	--	Tender Invited	Short Tender notice on 16.09.2020 for new Pump machinaries 360 m3/Hr. 21 mt. head HNC pumps 02 nos. 250 m3/Hr. 21 mt. head HNC pumps 02 nos. 360 m3/Hr. 21 mt. head subpump 02 nos. L.T. panel., suction & delivery valves, EMFM
12	Keshav Park Odhav	(3) Ambicanagar DPS Rising Line	500mm	2700	364.00	30-06-2021	1073	40%	WIP	
		Ambicanagar Pumping station Augmentation	--	--	150.00	30-06-2021	--	--	Tender Invited	Short Tender notice on 16.09.2020for new Pump machinaries 260 m3/Hr. 24 mt. head HNC pumps 02 nos. 400m3/Hr.24mt. head subpump 03 nos. L.T. panel., suction & delivery valves, EMFM
		Total		18073	2578.00		3430.50			

• Hence, Works of Rs. 25.78 Cr. are planned and put in progress for diverting sewage flow from Kharicut canal to drainage lines as a permanent solution.

9. "DIRECTION UNDER SECTION 33(A) OF THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974 (HEREINAFTER REFERRED TO AS THE "WATER ACT") AS AMENDED FROM TIME TO TIME. (NGT Order dated-01.09.2020, Page No. 18, Para-01)

- (1) WHEREAS Ahmedabad Municipal Corporation (AMC) having the Sewage Treatment Plant (STP) for the treatment of domestic waste water (Sewage) located at Plot No. 93, 10, 113, 115, 117(p), 118, 92, 104, 105, 109, 111, 112, 116, 120 near Vinoba Bhave Nagar, Village – Vinzol, Ahmedabad.
- (2) AND WHEREAS the Gujarat Pollution Control Board has granted you Consolidated Consent and Authorization (CC&A) under the provisions of the Environmental Acts/Rules by its Consent Order No. W-100525 dated 04.04.2029 which is valid up to 30.06.2023 for the treatment of domestic waste water (Sewage) subject to the conditions mentioned therein.
- (3) AND WHEREAS there is a matter Original Application No. 105/2019 in the Hon'ble National Green Tribunal (Principal Bench), New Delhi, regarding pollution in the Kharicut Canal and Khari River.
- (4) AND WHEREAS the monitoring of Kharicut Canal stretch from GIDC Naroda to downstream of Vatva GIDC was carried out on 18.02.2020, and it was observed that untreated domestic waste water is being discharged in to Kharicut canal at different locations.
- (5) AND WHEREAS it was also observed on 18.02.2020 that many outlets have been created by Ahmedabad Municipal Corporation (AMC) for discharge of untreated domestic waste water and storm water discharge.
- (6) AND WHEREAS the Kharicut Canal Stretch from Muthiya Village at Naroda to Village Lali was visited on 09.03.2020 with Hon'ble Chairman appointed by the Hon'ble NGT, with the officials of Ahmedabad Municipal Corporation, GPCB and Irrigation Department and various discussions took place to solve the problem with the Chairperson to concerned Departments.
- (7) AND WHEREAS action plan was asked vide letter dated 18.03.2020 w.r.t. observation during the visit dated 18.02.2020 and 09.03.2020 and the various discussions took place with the Chairperson with concerned Departments.
- (8) AND WHEREAS AMC has submitted reply w.r.t. the letter dated 18.03.2020 shows compliance not made completely.
- (9) AND WHEREAS Regional Office GPCB has visited your STP was visited on 10.07.2020 under Section 23 of the Water (Prevention

and Control of Pollution) Act, 1974 by authorized officers of the Board, during the said visit it was observed that:

- STP is receiving total @180 MLD sewage waste water from which 35 MLD is sent to the STP having 35 MLD capacity and rest @ 145 MLD is taken to the STP to 70 MLD in which @85-90 MLD sewage waste water is bypass from the inlet chamber of 70 MLD STP.

- SCADA system is found not working during inspection.

- Unit has provided flow meter on final outlet line but it was found not in operation.

- Sewage waste water sample are collected from outfall for treated sewage w/w of 70 MLD STP of 70 MLD STP. Result of sewage shows BOD 80 mg/l, COD 306 mg/l, SS 324 mg/l, Fecal Coliform of 4 MPN

Compliance:

- The average flow of 150-160 MLD is received at Vinzol TSPS. There are presently two Sewage Treatment Plant (STPs) in the same premises, old STP having 70 MLD design capacity and new STP 35 MLD. Total installed capacity is 105 MLD and another 100 MLD STP is under construction which was planned to complete by Dec-20 but due to lockdown and pandemic condition it is delayed and it is planned to complete by May-2021 and trial run shall be started thereafter. Thus, there shall be no bypass then after.
- This 70 MLD STP was built in year 2009 which did not have SCADA system. However it was incorporated in centralised SCADA system in 2016-17 and the output of the same is being monitored by centralised SCADA command control center of AMC which is working properly.
- Flow meter was under maintenance and working properly now.
- Average results taken by AMC central laboratory and plant laboratory shows BOD: 20-30 mg/l, COD: 80-90 mg/l, SS: 40-50 mg/l. also, average GPCB results show trend of BOD : 20-40 mg/l, COD: 30-100 mg/l, SS: 20-50 mg/l. these might be unexpected circumstances.

10 **Given the responsibility vested in municipalities under Article 243-W of the Constitution, as also, in Item 6 of Schedule XII, wherein the aforesaid obligation, pointedly extends to “public health, sanitation conservancy and solid waste management”, we are of the view that the onus to operate the existing common effluent treatment plants, rests on municipalities (and/or local bodies). Given the**

aforesaid responsibility, the municipalities (and/or local bodies) concerned, cannot be permitted to shy away from discharging this onerous duty. In case there are further financial constraints, the remedy lies in Articles 243-X and 243-Y of the Constitution. It will be open to the municipalities (and/or local bodies) concerned, to evolve norms to recover funds, for the purpose of generating finances to install and run all the “common effluent treatment plants”, within the purview of the provisions referred to hereinabove. Needless to mention that such norms as may be evolved for generating financial resources, may include all or any of the commercial, industrial and domestic beneficiaries, of the facility. The process of evolving the above norms, shall be supervised by the State Government (Union Territory) concerned, through the Secretaries, Urban Development and Local Bodies, respectively (depending on the location of the respective common effluent treatment plant). The norms for generating funds for setting up and/or operating the “common effluent treatment plant” shall be finalized, on or before 31-3-2017, so as to be implemented with effect from the next financial year. In case, such norms are not in place, before the commencement of the next financial year, the State Governments (or the Union Territories) concerned, shall cater to the financial requirements, of running the “common effluent treatment plants”, which are presently dysfunctional, from their own financial resources. (NGT Order dated-01.09.2020, Page No. 20, Para-02)

Compliance:

- Along TheKharicut Canal Area, There are major Three GIDC exist. Namely, Naroda, Odhav & Vatva
- Infrastructure facilities of GIDC developed by GIDC Department.
- These GIDC formed their own Industrial Association operated by CEO.
- All Three GIDCs having their (Common Effluent Treatment Plants) CETPs & it is Operated & maintained by Industrial association. They are discharging their treated effluents through Mega line passing through Naroda ,Odha, Vatav to Pirana . This megaline is parallel to kharicut canal starting point at Naroda & crosses kharicut at Express way. There are also Manhole raised in Kharicut at Arbudanagar Area.
- As per MOU between GIDC & AMC , AMC refund 75% of Tax to GIDC for their Infrastructure maintenance .
- Hence, AMC is not responsible for operating & maintaining CETP.
- For further clarification regarding CETP construction, GPCB may approach to GIDC & submit details regarding their grant, & other funding.

Part F: Addition in above action taken report and Status as on 29.10.2020 with respect to review meeting held on 26.10.2020 under the chairmanship of ACS shri, Urban Development & Urban Housing Department.

With respect to meeting held on date: 26.10.2020 to review the above action taken report submitted by AMC under the chairmanship of Additional Chief Secretary Shri, Urban Development & Urban Housing Department, Addition in the action taken report and current status as on 29.10.2020 are as under:

1. Action taken and current status as on 29.10.2020 for 169 Kharicut outlets.

- Ahmedabad Municipal Corporation has developed the drainage network on both eastern (kharikat to Narol-Naroda BRTS route) and western(kharikat to Sardar Patel ring road) sides of kharicut canal. Trunk main lines are provided on eastern side from Naroda to Pirana with pumping stations and on western side from Naroda to Vinzol with pumping stations to convey the drainage to Sewage treatment plants.
- Since last two decades, urban area has developed all along Kharicut canal, the flood water during heavy rain spread into the residential, industrial and commercial area, adjoining the Kharicut canal which were originally agriculture fields.
- The top section width of canal is 10.0 to 35.0 mts. And bottom width is 7.0 to 12.0 mts. Rain water is to be discharged through pumping only as canal embankments are at higher level 2-3 mt. from surrounding areas. So that AMC has developed the infrastructure to lift and dispose the storm water into kharicut canal by sumps/pumping stations. Thus during monsoon storm water pumping is the only solution to prevent flood havoc in the surrounding area.
- Kharicut canal is around 110 years old having legacy issue of around 30-35 years, AMC has taken up the works on war foot basis for management of liquid waste and solid waste in coordination with GPCB and irrigation department.
- Hon'ble Justice Shri B.C.Patel, Former Chief Justice, High Court of Delhi carried out the visit on 09.03.2020 along with officials of AMC, GPCB & Irrigation Department. With respect to his report, There are 77 locations of the total 169 outlets mentioned in the report. Present status of the all outlets is as below.

Sr. No.	Location No.	Location Name	Outlets			Domestic wastewater discharge (Yes/No)	No. of Operative Discharge	Remarks
			Total	Outlet No.	Type of Outlet (SWD/ Drainage/ Other)			
1	L1	Kharicut Canal at Naroda Dehgam Road Bridge	2	L101	SWD	No	0	SWD Pumping
				L102	SWD	No		SWD GIDC
2	L2	Nikol Naroda Pumping Station	1	L201	SWD	No	0	TP 2 SWD Pumping

3	L3	Sundervan Society New Naroda	1	L301	SWD	No	0	Gravity SWD
4	L4	Vyasvadi Bridge New Naroda	5	L401	SWD	No	0	Vyasvadi SWD Sump
				L402	SWD	No		Vyasvadi SWD Sump
				L403	SWD	No		Vyasvadi SWD Sump
				L404	SWD	No		Vyasvadi SWD Sump
				L405	SWD	No		Vyasvadi SWD Sump
	L5	Dahyalal Park Society New Naroda	12	L501	SWD	No	0	Canal Service road Storm water Outlet
				L502	SWD	No		
				L503	SWD	No		
				L504	SWD	No		
				L505	SWD	No		
				L506	SWD	No		
				L507	SWD	No		
				L508	SWD	No		Gravity SWD
				L509	SWD	No		Gravity SWD
				L5010	SWD	No		Gravity SWD
				L5011	SWD	No		Gravity SWD
				L5012	Drainage	No		Sealed
6	L6	Adishwar Police Chowki	1	L601	SWD	No	0	Gravity SWD
7	L7	Adishwar Police Chowki	2	L701	SWD	No	0	Gravity SWD
				L702	SWD	No		Gravity SWD
8	L8	Best English School New Naroda	2	L801	SWD	No	0	Gravity SWD
				L802	SWD	No		Gravity SWD
9	L9	Ashirwad Residency	2	L901	SWD	No	0	Gravity SWD
				L902	SWD	No		Gravity SWD
10	L10	Ashirwad Residency	2	L1001	SWD	No	0	Gravity SWD
				L1002	SWD	No		Gravity SWD
11	L11	Navyug Pumping Station	1	L1101	SWD	No	0	Navyug SWD

								Pumping
12	L12	Navyug Pumping Station	2	L1201	SWD	No	0	Pushpak SWD Pumping
				L1202	SWD	No		
13	L13	Gajanand Park Nikol	1	L1301	Drainage	No	0	Sealed as per the Action Plan, Sr. No. 1,2 & 3
14	L14	Avadhesh Park	2	L1401	Drainage	No	0	
				L1402	Drainage	No		
15	L15	Prabuddha Ashram Nikol	2	L1501	Drainage	No	0	
				L1502	Drainage	No		
16	L16	Bhakti Nagar Nikol	1	L1601	Drainage	No	0	Sealed
17	L17	Bhakti Nagar Pumping Station	1	L1701	SWD	No	0	Gravity SWD
18	L18	Amardeep Park Nikol	2	L1801	Drainage	No	0	Sealed as per the Action Plan, Sr. No.4
				L1802	Drainage	No		
19	L19	SRP Gujarati Prathmik Shala	1	L1901	SWD	No	0	Gravity SWD
20	L20	Shyam Vihar Society Nikol	1	L2001	Drainage	No	0	Sealed
21	L21	Sarjan Shopping Centre	1	L2101	Drainage	Yes	1	Work in progress as per action plan, Sr. No. 5 and 6
22	L22	Ashray Apartment	1	L2201	Drainage	No	0	Sealed
23	L23	Sargam Park Society Nikol	1	L2301	SWD	No	0	Gravity SWD
24	L24	Nijanand Mansi	1	L2401	Drainage	No	0	Sealed
25	L25	Opposite Nijanand Mansi	2	L2501	Drainage	No	0	Sealed
				L2502	Drainage	No		Sealed
26	L26	Sarathi Duplex	3	L2601	Drainage	No	0	Sealed
				L2602	Drainage	No		Sealed
				L2603	Drainage	No		Sealed
27	L27	Vasundhara Park	1	L2701	Drainage	No		Sealed
28	L28	Vasundhara Park (Noble English School)	1	L2801	Drainage	No		Sealed
29	L29	Bhumi Park Society	1	L2901	SWD	No	0	Gravity SWD
30	L30	Parshwanath Township	2	L3001	SWD	No	0	Rajiv Park SWD Pumping

				L3002	SWD	No		
31	L31	Thakkar Nagar Bridge, Sardar Chowk	2	L3101	SWD	No	0	Gravity SWD
				L3102	SWD	No		Gravity SWD
32	L32	Rajiv Park SWD Pumping Station, Sardar Chok Bridge, Thakkar Nagar	2	L3201	SWD	No	1	Rajiv Park SWD Sump
				L3202	Drainage	Yes		Work in progress as per action plan, Sr. No. 6
33	L33	Sardar Chok Bridge	2	L3301	SWD	No	0	Gravity SWD
				L3302	Drainage	No		Sealed
34	L34	Narayan Park Nikol	3	L3401	Drainage	No	0	Sealed as per the Action Plan, Sr. No.7
				L3402	Drainage	No		
				L3403	Drainage	No		
35	L35	Narayan Park Nikol	1	L3501	SWD	No	0	Narnarayan SWD Sump
36	L36	Nikol Ward Pumping Station	4	L3601	SWD	No	2	Gravity SWD
				L3602	SWD	No		Gravity SWD
				L3603	SWD	Yes		Work in progress as per action plan, Sr. No. 8
				L3604	PTP	Yes		Package Treatment Plant (PTP) Outlet
37	L37	Kavya Residency Thakkar Nagar	1	L3701	SWD	Yes	1	Work in progress as per action plan, Sr. No. 9
38	L38	Shree Ram Park Thakkar Nagar	2	L3801	Drainage	No	0	Sealed
				L3802	SWD	No		Canal Service road Storm water Outlet

39	L39	Gopal Chok Bridge	2	L3901	SWD	No	0	Gravity SWD
				L3902	SWD	No		Gravity SWD
40	L40	Shyam Wadi Bapunagar	1	L4001	SWD	No	0	Gravity SWD
41	L41	Narayan Park Pumping Station	5	L4101	SWD	No	0	Madhuli SWD Pumping
				L4102	Drainage	No		Sealed
				L4103	Drainage	No		Sealed
				L4104	Cavity in Canal Lining	No		Cavity in Canal Lining
				L4105		No		
42	L42	Umang Apartment	1	L4201	SWD	No	0	Gravity SWD
43	L43	Sundervan Apartment Thakkar Nagar	1	L4301	SWD	No	0	Gravity SWD
44	L44	Shivkrupa Thakkar Nagar	1	L4401	SWD	No	0	Gravity SWD
45	L45	Rameshwar Park	1	L4501	SWD	No	0	Gravity SWD
46	L46	Nilkanth Multi Speciality Hospital	1	L4601	SWD	No	0	SWD Sump
47	L47	Swami Narayan Society	1	L4701	SWD	No	0	Gravity SWD (Sealed)
48	L48	Ashirwad Park Pumping Station	3	L4801	SWD	Yes	1	Work in progress as per action plan, Sr. No. 10
				L4802	SWD	No		
				L4803	SWD	No		
49	L49	Hari Villa Pumping Station	3	L4801	SWD	No		SWD Pumping
				L4802	SWD	No		SWD Pumping
				L4803	SWD	No		SWD Pumping
50	L50	Trisha Hospital	2	L5001	SWD	No		SWD Pumping
				L5002	SWD	No		SWD Pumping
51	L51	Ganesh kunj Society	1	L5101	SWD	No		SWD Sump
52	L52	Bala Hanuman Mandir	3	L5201	SWD	No		SWD Pumping
				L5202	SWD	No		SWD Pumping
				L5203	SWD	No		SWD

								Pumping	
53	L53	Maruti Nagar Co Op Housing So. Li	7	L53O1	SWD	No		SWD Pumping	
				L53O2	SWD	No		SWD Pumping	
				L53O3	SWD	No		Canal Service road Storm water Outlet	
				L53O4	SWD	No			
				L53O5	SWD	No			
				L53O6	SWD	No			
				L53O7	SWD	No			
54	L54	Ambika Nagar	1	L54O1	Drainage	No	0		
55	L55	Ambika Nagar Odhav	7	L55O1	SWD	No	2	Gravity SWD	
				L55O2	SWD	Yes		Work in progress as per action plan, Sr. No. 11	
				L55O3	SWD	Yes			
				L55O4	SWD	No			SWD Pumping
				L55O5	SWD	No			SWD Pumping
				L55O6	SWD	No			Canal Service road Storm water Outlet
				L55O7	SWD	No			
56	L56	Overseas Enterprise	1	L56O1	SWD	NO		Gravity SWD	
57	L57	Kharicut Canal at Odhav Kathwada Bridge	1	L57O1	SWD	No		Gravity SWD	
58	L58	Kharicut Canal Storm Water Pumping Station	10	L58O1	Drainage	Yes	1	Work in progress as per action plan, Sr. No. 13	
				L58O2	SWD	No		SWD Pumping	
				L58O3	SWD	No		SWD Pumping	
				L58O4	Cable Trench	No		Cable Trench	
				L58O5		No			

				L5806		No		
				L5807		No		
				L5808	SWD	No		Canal Service road Storm water Outlet
				L5809	SWD	No		
				L58010	SWD	No		
59	L59	Keshav Park Odhav	3	L5901	SWD	Yes	1	Work in progress as per action plan, Sr. No. 12
				L5902	SWD	No		Gravity SWD
				L5903	SWD	No		Gravity SWD
60	L60	Bhavani Nagar Soni Ni Chal	2	L6001	SWD	No	0	Gravity SWD (Sealed)
				L6002	SWD	No		
61	L61	Ranchhod Park	1	L6101	Drainage	No	0	Sealed
62	L62	Krushna Nagar Odhav	3	L6201	Drainage	Yes	1	Work in progress as per action plan, Sr. No. 14
				L6202	SWD	No		Gravity SWD
				L6203	SWD	No		Gravity SWD
63	L63	Mukesh Nagar Odhav	1	L6301	SWD	No	0	Gravity SWD
64	L64	Kharicut Canal at Arbuda Nagar	3	L6401	SWD	No	0	Gravity SWD
				L6402	SWD	No		Canal Service road Storm water Outlet
				L6403	SWD	No		
65	L65	Jogeshwari Bagh Co. Op. Housing So. Li.	2	L6501	SWD	No	0	Gravity SWD
				L6502	SWD	No		Gravity SWD
66	L66	Mahavir Smruti Co. Operative Housing So. Li.	2	L6601	SWD	No	0	Gravity SWD
				L6602	SWD	No		Gravity SWD
67	L67	Shiv Park Society	5	L6701	SWD	No	0	Gravity SWD
				L6702	SWD	No		Gravity SWD

				L67O3	SWD	No		Gravity SWD
				L67O4	SWD	No		Gravity SWD
				L67O5	SWD	No		Gravity SWD
68	L68	Storm Water Pumping Station Mahadev Nagar	2	L68O1	SWD	No	0	SWD Sump
				L68O2	SWD	No		SWD Sump
69	L69	Sumit Nagar Mahadev Nagar Metro Station	2	L69O1	SWD	No	0	Gravity SWD
				L69O2	SWD	No		Gravity SWD
70	L70	RTO Vastral	2	L70O1	SWD	No	0	SWD Pumping
				L70O2	SWD	No		SWD Pumping
71	L71	RTO Vastral	1	L71O1	SWD	No	0	Gravity SWD
72	L72	RTO Vastral	2	L72O1	SWD	No	0	Gravity SWD
				L72O2	SWD	No		Gravity SWD
73	L73	Ramdev Park Mahadev Nagar Tekra	2	L73O1	SWD	No	0	SWD Sump
				L73O2	SWD	No		Gravity SWD
74	L74	Jamfal Wadi	3	L74O1	SWD	No	0	SWD Sump
				L74O2	SWD	No		Gravity SWD
				L74O3	SWD	No		Gravity SWD
75	L75	Ramol CTM Road Bridge	1	L75O1	SWD	No	0	Gravity SWD
76	L76	Ramol Hathijan Highway Pumping Station	2	L76O1	SWD	No	0	SWD Pumping
				L76O2	SWD	No	0	Gravity SWD
77	L77	Outfall of Combined Final outlet (70 MLD & 35 MLD)of STP	2	L77O1	STP	Yes	2	Outlets of 70 MLD & 35 MLD
				L77O2	STP	Yes		
		Total	169				10 + 3 (STP/PTP)	

- Summary of all the outlets are as under:

Summary of 169 Kharicut Canal Outlets					
Sr. No.	Type of drain	No. of Total Outlets	No Discharge	No of Outlets Having Domestic Wastewater Discharge	Remarks
1	SWD Gravity	65	61	4	Work in progress as per the action plan, Sr. No. 9, 11 and 12
2	SWD Pumping Station	26	25	1	Work in progress as per the action plan, Sr. No. 8
3	SWD Sump	16	15	1	Work in progress as per the action plan, Sr. No. 10
4	SWD Canal Service road	20	20	0	--
5	SWD GIDC	1	1	0	--
6	Drainage	32	28	4	Work in progress as per the action plan, Sr. No. 5, 6 & 14
7	STP/PTP	3	0	3 (Treated Wastewater is discharged)	--
8	Cable Trench	4	4	0	--
9	Canal Cavity	2	2	0	--
	Total	169	156	10 + 3(STP/TTP)	--

- There are total 127 outlets provided for the disposal of storm water during monsoon. Out of these, 121 are discharging only storm water in monsoon. For remaining 6 outlets, work is in progress for diversion of the drainage as per the action plan and then there will be discharged only storm water during monsoon only.
- Remaining 4 outlets of drainage discharge will be stopped after completion of the work as per the action plan.

- Photograph of the Outlets of Storm Water Pumping stations along the Kharicut Canal.

SWD Gravity outlet sample photograph



SWD Sump sample photograph



SWD Pumping Station sample photograph



01.Naroda NEPL



02.Naroda Hanspura SWD



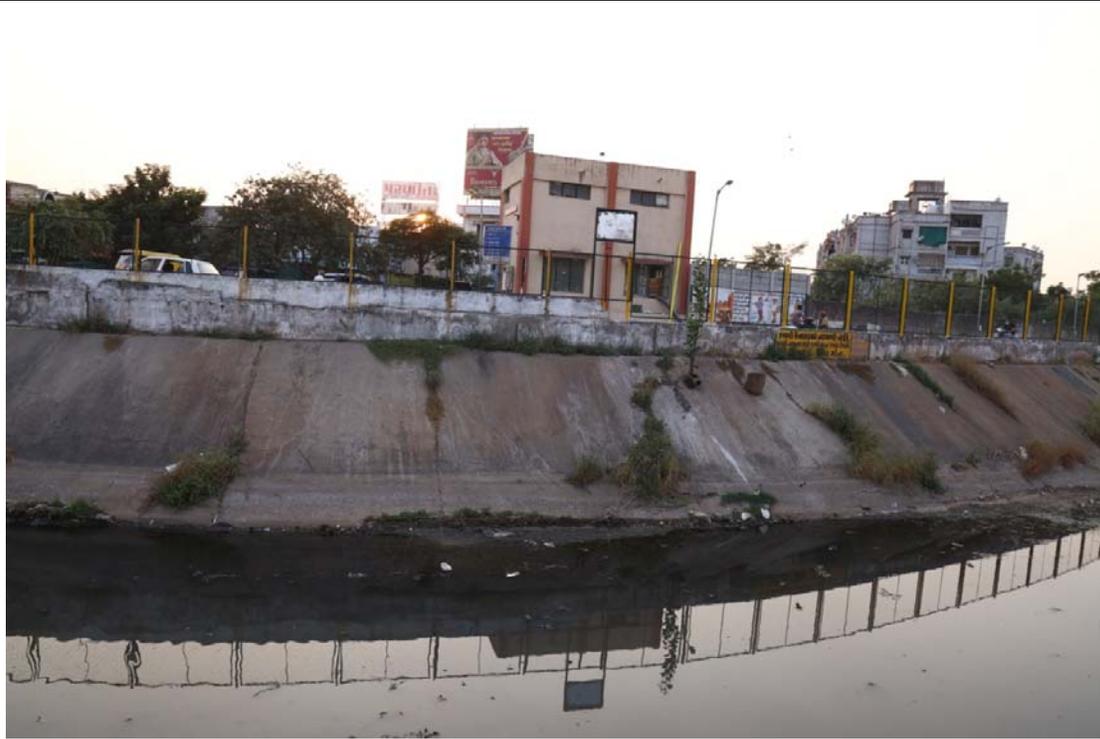
03. Navyug SWD



04. Pushpkunj SWD



05. Rajivpark SWD



06. Bapa sitaram Madhyli SWD



07. Nikol SWD



08. Harivilla SWD



09. Viratnagar SWD



10. Krishna park SWD



11. Ambika nagar SWD



12. Odhav Fire Station SWD



13. Arbuda SWD



14. Vastral SWD



15. Sureliya SWD



16. Matla Circle SWD



17. Vyayamshala SWD



18. Smruti mandir SWD



19. Ghodasar SWD



20. Avkar Hall SWD



21. Bhairavnath SWD



22. Nirmanala SWD



23. Gebanshah SWD



24. Noor Nagar SWD



25. Devimata SWD



26. Guruji Bridge SWD



- Latest progress of the time bound action plan to stop the discharge is as below:

National Green Tribunal Original Application No. 105/2019, Order Dated-01.09.2020									Status as on 29-10-2020	
Sr. No.	Location	Action Plan (Type of Work)	Dia of Pipeline (mm)	Lengh (RMT)	Cost in Lakhs (Rs.)	Probable Date of Completion of work	Pipeline laid till Date (RMT)	Physical % of Work Completed	Status	Remark
1	Gajanand Park Nikol	New RCC NP3 gravity pipeline	300mm	95	10.00	31.10.2020	95	100%	WC	
2	Avadhesh Park									
3	Prabuddha Ashram Nikol	De-silting of Connecting line	450mm	725		31.10.2020	725	100%	WC	
4	Amardeep Park Nikol	New RCC NP3 gravity pipeline	300mm	130	12.00	31.10.2020	130	100%	WC	
5	Sarjan Shopping Centre									
6	Sardar Chok Bridge	New RCC NP3 gravity pipeline	600mm	2000	110.00	31.1.2021	1085	54.25%	WIP	
		New DI rising line	500mm	3500	350.00	31.1.2021	2749.79	78.57%	WIP	

		Naroda Satyam DPS Pumping AUG.	--	--	145.00	31.05.2021	--		TUS	Tender under Sanction for Pump machinaries 240 m3/Hr. 26 mt. head HNC pumps 02 nos. 350 m3/Hr. 26 mt. head HNC pumps 01 nos. 350 m3/Hr. 26 mt. head subpump 02 nos. L.T. panel., suction & delivery valves, Flowmeter
7	Narayan Park Nikol	Desilting Drainage pipe line	300mm	110	8.00	31.10.2020	110	100%	WC	
8	Nikol Ward Pumping Station	New RCC NP4 gravity pipeline	600mm	2938	277.00	31.03.2021	772.5	26.29%	WIP	R.C.C. M.H Construction work in progress 132 K.V. Power Line is in alignment of this Drainage line work. Hence is under Approval.
9	Kavya Residency Thakkar Nagar									
10	Ashirwad Park Pumping Station	New Rising Line	900mm	850	261.00	31-03-2021	66	8%	WIP	
		Viratnagar Pumping station Augmentation	--	--	187.00	31-10-2021	--	10%	WIP	NEW Pump machinaries 450 m3/Hr. 15 mt. head HNC pumps 02 nos. 300 m3/Hr. 15 mt. head HNC pumps 02 nos. 350m3/Hr. 15 mt. head subpumps 04 nos., L.T. panel., suction & delivery valves, Flow meter.
11	Ambika Nagar	(1) Rabari Vasahat DPS Rising Line	500mm	1178	226.00	30-06-2021	1178	100%	WIP	
			400	1522			1033.5	67.90%		

		Rabari Vasahat Pumping station Augmentation	--	--	150.00	30-06-2021	--		TUS	Tender under Sanction for new Pump machinaries 225 m3/Hr. 28 mt. head HNC pumps 02 nos. 350 m3/Hr. 28 mt. head subpump 03 nos. L.T. panel., suction & delivery valves, Flow meter.
		(2) Chhotalal DPS Rising Line	500mm	1500	168.00	30-06-2021	1317.5	87.83%	WIP	
		Chhotalal Pumping station Augmentation	--	--	160.00	30-06-2021	--		TUS	Tender under Sanction for new Pump machinaries 360 m3/Hr. 21 mt. head HNC pumps 02 nos. 250 m3/Hr. 21 mt. head HNC pumps 02 nos. 360 m3/Hr. 21 mt. head subpump 02 nos. L.T. panel., suction & delivery valves, Flow meter.
12	Keshav Park Odhav	(3) Ambicanagar DPS Rising Line	500mm	3100	364.00	30-06-2021	958	31%	WIP	
13	Kharcut Canal Storm Water Pumping Station (Odhav fire station)	Ambicanagar Pumping station Augmentation	--	--	150.00	30-06-2021			TUS	Tender under Sanction for new Pump machinaries 260 m3/Hr. 24 mt. head HNC pumps 02 nos. 400m3/Hr.24mt. head subpump 03 nos. L.T. panel., suction & delivery valves, Flow meter.

14	Krushna Nagar Odhav	New RCC NP3 gravity pipeline	300 mm	200	3	01-11-2020	10	0.05	WIP
		Total		17648	2581.00		10177.29		

- Hence, Works of Rs. 25.81 Cr. are planned and put in progress for diverting sewage flow from Kharicut canal to drainage lines as a permanent solution.

2. Details of illegal connections converted into legal under Nal Se Jal Scheme

- To have a permanent solution along the Kharicut canal, old drainage and illegal connections under the 'Nal Se Jal' Scheme, AMC has regularised the old connections permanently and diverted from Kharicut canal outlet to regular drainage network.
- Under the 'Nal se Jal' Yojana, AMC has regularised connections of total 1971 houses in the surrounding area of Kharicut canal. Details of the same are as under:

Sr. No.	Zone	Ward	Name of Residency	No. of Houses
1	North	Thakkar Nagar	Gajanand Park	93
2	North	Thakkar Nagar	Avdshesh Park	82
3	North	Thakkar Nagar	Madhav Avenue near Amardeep Society	70
4	North	Thakkar Nagar	Pushp Residency	175
5	North	Thakkar Nagar	Amardeep Park	99
6	North	Thakkar Nagar	Parshwanath Township	16
7	North	Thakkar Nagar	Krushna Elegance	106
8	North	Thakkar Nagar	Giriraj Residency	60
9	North	Thakkar Nagar	Bharwad vas, Canal Service road, Near Part-1	1
10	North	Thakkar Nagar	Bharwad vas, Canal Service road, Near Part-1	1
11	North	Thakkar Nagar	Hare Krushna Nagar, Canal Service road, Near Part-7	1
12	North	Thakkar Nagar	Parshwanath Township, Canal Service road, Near Part-B/2	1
13	East	Odhav	Rameshwar Flat	56
14	East	Odhav	Indravihar	107
15	East	Odhav	Tejabhai Dodia ni chali	1
16	East	Odhav	Tejabhai Dodia ni chali	1
17	East	Odhav	Vishv Bunglow	30
18	East	Odhav	Amarjyot Bunglow	40
19	East	Odhav	Gokulpark Tenament	12
20	East	Odhav	Gokulpark Raw house	52
21	East	Odhav	Manav mandir Apartment	30
22	East	Odhav	Bhadrasila Apartment	20
23	East	Odhav	chamunda park soc., beside shivdhara	90
24	East	Odhav	Jaldeep park	36
25	East	Odhav	Rushabh Flat	36
26	East	Odhav	Manmohan park	103

27	East	Odhav	Harikrupa Soc	10
28	East	Odhav	Shaktinagar Vibhag-2	1
29	East	Odhav	Shaktinagar Vibhag-1	1
30	East	Odhav	Shaktinagar Vibhag-2	1
31	East	Odhav	Shaktinagar Vibhag-2	1
32	East	Odhav	Mahavirnagar Society	29
33	East	Odhav	Vrundavan park soc.	67
34	East	Odhav	Amarnath park soc.	18
35	East	Viratnagar	Shrinathpark Vibhag- A and B	74
36	East	Viratnagar	Pavitrakunj Soc	24
37	East	Nikol	Pruthvi Apartment - B	24
38	East	Nikol	Pruthvi Apartment - C	16
39	East	Nikol	Pruthvi RAW House	5
40	East	Nikol	Pruthvi Duplex	3
41	East	Nikol	Shreyansh Park-1 to 10	10
42	East	Nikol	Sreyansh Park-10 to 20	10
43	East	Nikol	Sreyansh Park-20 to 30	10
44	East	Nikol	Sreyansh Park-30 to 40	10
45	East	Nikol	Pruthavi raw House	26
46	East	Nikol	Dwarkesh soc. Bapa sitaram chauk	87
47	East	Nikol	Danev Park Vibhag-1	96
48	East	Nikol	Danev park vibhag-2 House no.1 to 28	28
49	East	Nikol	Danev park vibhag-3 House no.1 to 28	28
50	South	Indrapuri	Kailash Nagar	13
51	South	Indrapuri	Radhe Park	60
			Total	1971

3. Meeting was held among the officials from GPCB, AMC, Odhav industrial association (OIA) and Odhav Enviro Project Ltd. (OEPL) on 22.10.2020 regarding the issue of industrial wastewater discharge in Ambikanagar Pumping Station, Odhav. Below decisions were taken in the meeting:

- OEPL will disconnect of their members' drainage connection within 15 days and dispose it by constructing the septic tank or developing the infrastructure to discharge in CETP.
- GPCB will prepare and provide the list of OEPL's members, members having Zero Liquid Discharge (ZLD) permission located within GIDC and surrounding GIDC to AMC.

- OIA will take action against member units on the basis of coloured and acidic wastewater samples collected by AMC.
- GPCB and AMC will monitor the units which are not the members of OEPL.

4. On 28.10.2020, Joint round under the chairmanship of ACS-UD & UH with GPCB, AMC and Irrigation department

- They have visited Nikol Storm Water Pumping Station. There were 3 outlets in Kharicut. Out of which one is SWD outlet and no discharge found. One is 0.5 MLD packaged treatment plant (PTP) outlet which was discharging and one is drainage outlet which is taken in action taken plan to stop discharging. ACS shri has suggested to install package treatment plant at several locations after doing technical feasibility survey.





5. Action taken for Kharicut cleaning and prevention of solid waste disposal

- Irrigation department has started cleaning the solid waste from the canal by placing four Hitachi machines and removing the grass growing from the canal. AMC has provided dumpers for the collection, transportation and disposal of this solid waste from 28.10.2020.
- Photograph of the same is as under:



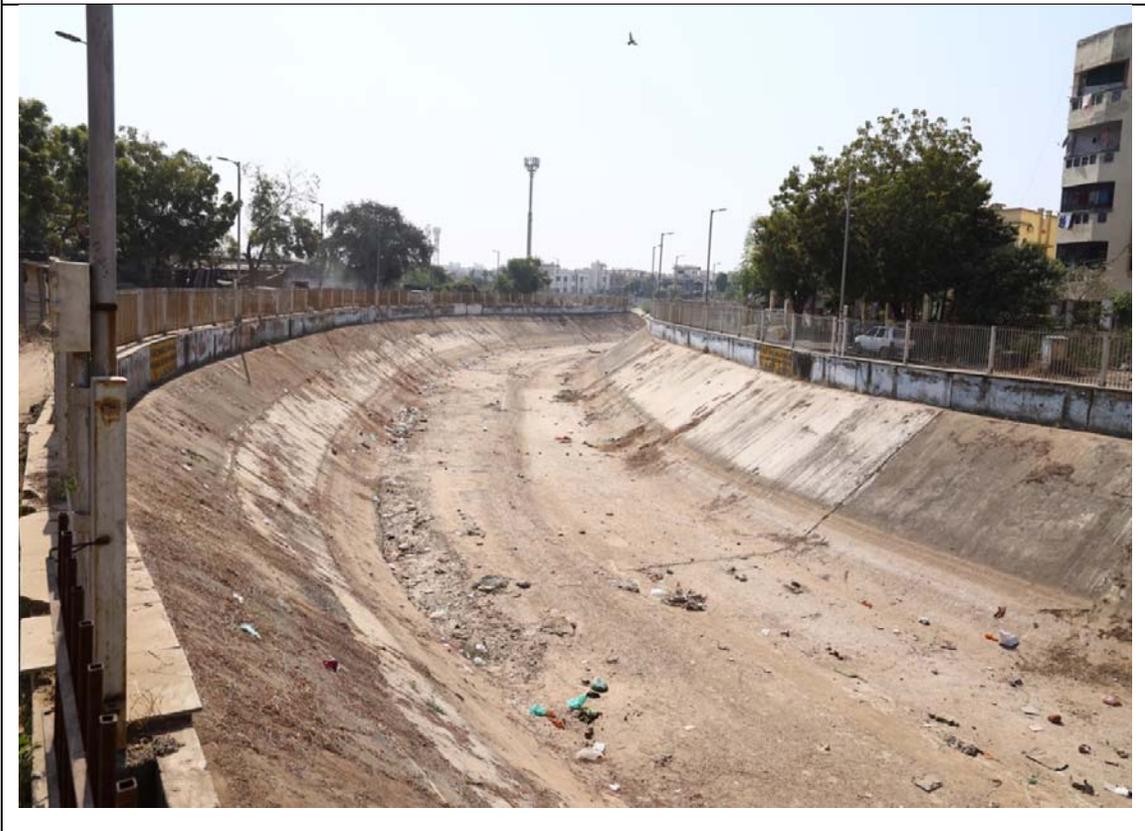
Hitachi Machine removing Solid Waste near Nikol SWD Pumping station



Hitachi Machine removing Solid Waste near Prabudhdha Ashram



Hitachi Machine removing Solid Waste near Nikol Canal Bridge



Grass removal work from the canal





- AMC has started installation of Grill fencing and Signboards on the canal crossings and the other places to prevent direct dump of Solid waste into the canal. Present Progress status of the same is as below:

ACTION PLAN FOR INSTALLATION OF GRILL FENCING TO PREVENT DIRECT DUMP OF SOLID WASTE INTO KHARICUT CANAL WITH RESPECT TO PARA 3 - (PAGE NO.8)										Status as on 29-10-2020
Zone	Existing (No.)	Planned (No.)	Total (Nos.)	Length of Existing Grill (RMT)	Length of New Grill to be Fixed (RMT)	New Grill Fixed till date (RMT)	Physical % of Work Completed	Cost in Lakhs (Rs.)	Probable Date of Completion of work	Remarks
EAST	11	11	22	758.10	1247.45	1247.45	100%	24.33	30.09.2020	Work Completed
NORTH	15	15	30	2152.8	1443.55	1443.55	100%	49.77	10.11.2020	Work Completed
SOUTH	10	28	38	747	3552	1960	55%	81.79	15.11.2020	Work in Progress
Total	36	54	90	3657.90	6243	4651	--	155.89	--	--

**ACTION PLAN OF SIGN BOARDS TO PREVENT DIRECT DUMP OF SOLID WASTE INTO KHARICUT CANAL WITH RESPECT TO PARA 3 -
(PAGE NO.8)**

Status as on 29-10-2020

Zone	Existing (No.)	Planned (No.)	Total (Nos.)	Board installed till date (Nos)	Physical % of Work Completed	Cost in Lakhs(Rs.)	Probable Date of Completion of work	Remarks
EAST	7	33	40	33	100%	1.32	31.10.20	Work Completed
NORTH	0	40	40	40	100%	4.5	10.11.20	Work in Progress
SOUTH	0	75	75	0	0%	1.87	15.11.20	Preparation of boards is in progress
Total	7	148	155	73	--	7.69	--	--

CCTV Camera Status

Locations	No. of CCTV Cameras	Working	Under Maintanance	Probable Date of Starting all the CCTV Cameras	Remarks
12	24	24	0	--	All Working

APPENDIX -11

Appendix -11

Summary of the work carry out by Task Force

A joint task force team of officers of AMC, RO GPCB ABD-East, Police, Industrial Association, CEO of Mega Pipeline as directed by RRC under the nodal role of AMC Chief Engineer. The team has started continuous monitoring of the stretch during day and night time from December 2019 and also by collecting samples from the vulnerable locations. The monitoring details and probable number of samples collected are as under:

Sr. No.	Month	No. of Visits		Total Sample Collected
		Day	Night	
1.	December, 2019	31	-	186
2.	January, 2020	31	31	186
3.	February, 2020	30	30	180
4.	March, 2020	24	24	144
5.	April, 2020	15	-	90
6.	May, 2020	31	-	186
7.	June, 2020	30	-	180
8.	July, 2020	31	-	186
9.	August, 2020	29	-	174
10.	September, 2020	30	-	180
11.	October, 2020	31	19	186
	TOTAL	313	104	1878