Monthly Progress Report for the month of August, 2020 in compliance with NGT Case O.A. No. 673/2018

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks
1	***Ensure 100% treatment of sewage at least in-situ remediation***	31.03.2020	Bharalu **(Priority –I)**	Guwahati Municipal Corporation(GMC) and Guwahati Metropolitan Development Authority(GMDA)under Guwahati Development Department(GDD)	Report same as the MPR, July 2020.
			Borsola **(Priority –II)**	GDD	GDD through GMDA has prepared scheme for cleaning of Borsola Beel through Bio - remediation measures, Govt. has accorded Administrative Approval of Rs. 181.00 Lakh (Rupees One Crore Eighty One Lakhs) only for the scheme vide No.AA / 72-2019-20(I)-209, dated 29.02.2020. Preparation of RFP document for treatment of polluted water of Borsola Beel through Bio - remediation is under process. As per the Action Plan submitted by Pollution Control Board, Assam, GMDA has taken up a scheme for de- Siltation and cleaning of Borsola Beel for an amount of Rs.75.00 Lakh and the physical progress of the work as on 29.08.2020 is 87%. Govt. has accorded Administrative Approval vide No. AA / 72-2020-21 (I)-325 dated 19.08.2020 for the scheme "De - siltation and cleaning of Borsola Beel amounting to Rs.48.55 Lakh.
			Silsako **(Priority-II)**	GMDA under GDD	Administrative Approval of Rs.921.55 Lakh for Bio - remediation measures for Silsako Beel has been issued on 03.09.2020. Cleaning activities in Silsako water body is being carried by GMDA through removal of water - hyacinths and floating garbage along with de - siltation of the water body with the help of machineries. Govt. has accorded approval for the scheme for an amount of Rs.195.00 Lakhs and the physical progress of the work as on 29.08.2020 is 54%.
			Sarusola **(Priority-II)**	GMDA	Administrative Approval of Rs. 179,84948 Lakhs for Bio-remediation measures, and Rs.47.61 Lakhs for Cleaning for Sarusola Beel has been issued on 03.09. 2020.

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
			Deepor Beel **(Priority-III)**	GMDA		Report same as the MPR submitted for the month of July,2020.
			(Priority-III)	Digboi (BOD-14.0MG/L)	P&RD	Polluted river stretches of Digboi river is identified from IOCL Oil Town to Lakhipathar Reserve Forest.
				Kamalpur (BOD-18.6MG/L)		Survey completed. Preparation of DPR is in progress.
				Panchnai (BOD-11.4MG/L)		Survey is being conducted for ensuring 100% treatment and appropriate actions will be initiated.
			(Priority-IV)	Kharsang (BOD-7.2MG/L)		Survey is being conducted fur ensuring 100% treatment and appropriate actions will be initiated.
				Pagladia (BOD-8.2MG/L)		PCBA vide Letter No. WB/LAB – 310/Pt – I/19-20/219 dated 31.07.2020 has informed that Pagladia river does not come under the identified list of polluted river stretches and thus has been proposed through CPCB for exclusion.
			(Priority-V)	Baroi (BOD-3.6 MG/L)		Survey has been done. Awareness has been made among the public to stop open defecation and to stop dumping garbage. 90% IHHL mission almost completed and remaining is going on.
				Boginadi (BOD-4.2 MG/L)		Sources of polluting agent has been identified. Preparation of action plan for remedial action under process.

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
			(Priority-V)	Dikrong (BOD-3.2 MG/L)	P&RD	Sources of polluting agent has been identified. Preparation of action plan for remedial action under process.
				Diplai (BOD-3.6 MG/L)		Survey for identification of natural rivulet carrying polluting substances has been done.
				Dishang (BOD-4.2 MG/L)		No discharge of sewage to the river.
				Gabharu (BOD-5.4 MG/L)		Survey is in progress for ensuring 100% treatment.
				Holudungia (BOD-4.8 MG/L)		
				Jia bharali (BOD-3.1 MG/L)		
				Killing (BOD-508 MG/L)		
				Kohora (BOD-4.4 MG/L)		

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
			(Priority-V)	Kulsi (BOD-3.6 MG/L)	P&RD	
				Parashali (BOD-4.0 MG/L)		DPR of the scheme for removal of sludge from the bed of Parashali Beel has been prepared and work will be started as soon as the water level recedes.
				Puthimari (BOD-4.8 MG/L)		Survey is in progress. Action will be taken as per DPR.
				Ranga (BOD-3.8 MG/L)		Sources of polluting agent has been identified. Remedial action is under process.
				Samaguri (BOD-4.0 MG/L)		Survey is in progress for ensuring 100% treatment.
				Son (BOD-4.3 MG/L)		
				Tenga Pukhuri(BOD-4.0 MG/L)		No drain falls in the pond.
1.1	***Commencement of setting up of STPs and connecting all the drains and other sources of generation of***	31.03.2020	1. Bharalu 2. Silsako 3. Borsola	Guwahati Jal Board under GDD		For setting up of appropriate STP / FSM, Guwahati Metropolitan Drinking Water Sewerage Board (GMDW&SB) has already earmarked 14 nos of land parcels as follows:- i) Betkuchi, Behind Delicacy Restaurant, Lokhara ii) Borsola, Backside of Meghdut Cinema Hall, Nepali Mandir iii) Near Agriculture Colony, Ulubari iv) Near Ulubari Bazar, Ulubart v) Jonali

<table>
<tr><th>Sl. No.</th><th>Activity to be monitored</th><th>Timeline in NGT Order</th><th>Water bodies</th><th>Name of Agency</th><th>Remarks</th></tr>
<tr><td></td><td>sewage to the STPs must be ensured</td><td></td><td></td><td></td><td>vi) Ulubari Part - 2 (Near EPF Office, Shiva Hotel)
vii) Sahar Ulubari Part - 2 (Near Sarabbhati)
viii) Ulubari 3rd Part (Chabipul)
ix) Bharalumukh Part - 1 (Near Pragiyotish College)
x) Bharalumukh Part 1 (Bharalu)
xi) Ulubari Part - 2 (Near ABCI Infrastructure Pvt. Ltd.)
xii) Ulubari Part 1 (Near ASTC Workshop)
xiii) Fatasil Ambari (Near G.S. Colony)
xiv) Bharalumukh (Near Haryana Bhawan)

Now necessary steps are being taken with District Authority to transfer the aforesaid plot of land to GMDW & SB.</td></tr>
<tr><td></td><td></td><td></td><td>Bharalu</td><td rowspan="3">Guwahati Jal Board

(GDD)</td><td>For disposal of 75 MLD Sewage that the team after survey and inspection reported that there is no suitable land available. Managing Director, Guwahati Jal Board has assured that in consultation with JICA an alternative to STP such as co-treatment of Septage at Sewage Treatment Plant Technology is proposed.</td></tr>
<tr><td></td><td></td><td></td><td>Silsako</td><td>Small plots of Land identified for setting up of smaller STPs at Silsako. Therefore, co-treatment of Septage at Sewage Treatment Plant Technology is proposed.</td></tr>
<tr><td></td><td></td><td></td><td>Borsola</td><td>For setting up of 15 MLD capacity STP, land has been identified at Serabhati under Ulubari Mouza.</td></tr>
<tr><td></td><td></td><td></td><td></td><td>UDD</td><td>In respect of River Stretches Bega, Borak, Kolong, Bhogdoi, Mora- Bharali, the Urban Development Department has propoesd the following timelines.
<table>
<tr><th>Activities to be done</th><th>Timeline</th></tr>
<tr><td>Selection of DPR consultant</td><td>30-09-2020</td></tr>
<tr><td>Completion of DPR</td><td>31-12-2020</td></tr>
</table></td></tr>
</table>

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks	
						Land identification and handover	31-12-2020
						Completion of Tender process(Once fund is tied up)	31-03-2021
						Completion of STPs at % ULBs viz: Tezpur, Nagaon, Jorhat, Silchar and Mangaldai	31-03-2023 (24 months after award of contract)
			(Priority-III)	Digboi	P&RD	Polluted river stretches of Digboi river is identified from IOCL Oil Town to Lakhipathar Reserve Forest.	
				Kamalpur		Survey Completed. Preparation of DPR is in progress. As per Action Plan of PCBA, there is no requirement of STP in Kamalpur stretch. However, installation of mechanical aerator has been suggested by PCBA in its Action Plan.	
				Panchnai		Survey is being conducted fur ensuring 100% treatment and appropriate actions will be initiated.	
			(Priority-IV)	Kharsang		Survey is being conducted fur ensuring 100% treatment and appropriate actions will be initiated.	
				Pagladia		CBA vide Letter No. WB/LAB – 310/Pt – I/19-20/219 dated 31.07.2020 has informed that Pagladia river does not come under the identified list of polluted river stretches and thus has been excluded.	
			(Priority-V)	Baroi		There is no requirement of STP as per Action Plan prepared by PCBA. Other required measures like cleaning, afforestation, awareness generation will be done.	
				Boginadi			
				Dikrong			
				Diplai			
				Dishang			
				Gabharu			
				Holudunga			

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
				Jia Bharali		There is no requirement of STP as per Action Plan prepared by PCBA. Other required measures like cleaning, afforestation, awareness generation will be done.
				Killing		
				Kohora		
				Kulsi		
				Parashali		
				Puthimari		
				Ranga		
				Samaguri		
				Son		
				Tenga Pukhuri		
				Mora Bharali	UDD	Polluted stretches of the river Mora Bharali is identified from Tezpur Town to Dhenukhana Pahar. The task of rejuvenation of this river stretch has been transferred from P & RD to UDD very recently.
2	***Timeline for completing all steps of action plans including completion of setting up of***	31.03.2021		Guwahati Jal Board under GDD		GDD Department has been taking the following action through Guwahati Jal Board. 1. List of shortlisted PMCs for floating of RFP will be sent to JICA on 10.08.2020 for approval. 2. Approval of JICA is awaited.

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
	STPs and their commissioning					3. Upon JICA's approval, all other activities like RFP, bids etc. shall be taken up. 4. EOI is being floated for Consultancy Services to measure flow of 39 drains under Bharalu river, 2 drains under Borsola Beel and 2 drains under Sarusola Beel. Pollution Control Board Assam is being requested to assess the amount of pollution that is being contributed by these drains. 5. DC, Kamrup (M) is taking necessary action to transfer 14 land parcels for construction of STP. Sensitization program is being going on among the inhabitants of the area where these proposed STPs are located has been started from 04.09.2020. The program will continue till 29.09.2020 in all the 14 locations. The program has been conducted by Kamrup (M) District Administration in which officials of the Guwahati Jal Board are also participating to enlighten public on the beneficial aspects of setting up of STP on the environment and public health of the surrounding areas. .
			(Priority-III)	Digboi	P&RD	Polluted river stretches of Digboi river, the polluted river stretch of Digboi river is identified from IOCL Oil Town to Lakhipathar Reserve Forest. The task of rejuvenation of this river stretch has been transferred from P & RD to UDD very recently.
				Kamalpur		DPR preparation for installation of mechanical aerator is under process. **<u>Estimated timeline for completion of the process</u>:** Moving Finance Department for creation of new H/A for NGT related payment of work: September, 2020 Calling of Expression of Interest: To be completed by October, 2020 Calling of Tender for preparation of DPR: To be completed by November, 2020. Preparation of DPR: To be completed by December, 2020

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
						Calling of Tender for allotment of work for installation of mechanical aerator and other work: To be completed by February, 2021 Selection of party and placing of work order by March, 2021 Completion of the installation of Mechanical Aerator by March, 2023.
				Panchnai		No STP is required as per Action Plan prepared by PCB, Assam.
			(Priority-IV)	Pagladia		PCBA vide Letter No. WB/LAB – 310/Pt – I/19-20/219 dated 31.07.2020 has informed that Pagladia river does not come under the identified list of polluted river stretches and thus proposed for exclusion to CPCB.
				Kharsang		As per Action Plan prepared by PCB, Assam, no STP is required.
			(Priority-V)	Baroi		
				Boginadi		
				Dikrong		
				Diplai		
				Dishang		
				Gabharu		
				Holudunga		
				Jia bharali		
				Killing		

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
				Kohora		
				Kulsi		
				Tenga Pukhuri		As per Action Plan prepared by PCB, Assam, no STP is required. Clearance of slit and sludge will be taken up on recession of water level in October/November.
				Parashali		
				Puthimari		
				Ranga		As per Action Plan prepared by PCB, Assam, no STP is required.
				Samaguri		
				Son		
				Mora Bharali	UDD	Polluted stretches of the river Mora Bharali is identified from Tezpur Town to Dhenukhana Pahar. The task of rejuvenation of this river stretch has been transferred from P & RD to UDD very recently.
5	***Chief Secretaries may set up appropriate monitoring mechanism at State level*** • ***Specifying the accountability of nodal authorities not below the***					Same as per report submitted in the MPR for the month of July,2020.

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks
	Secretary level				
	• ***Chief Secretaries may have an accountable person attached in their office for this purpose***	22.01.2020			Same as per report submitted in the MPR for the month of July,2020.
	• ***Monitoring at State level must take place***	Fortnightly commencing 21.12.2019			Same as per report submitted in the MPR for the month of July, 2020.
6	***Progress report may be furnished by the States/UTs to*** • ***Secretary, Ministry of Jal Shakti*** • ***Member Secretary, CPCB***	Monthly (Preferably before 20th of every month)			Progress Report for the month of July, 2020 was already submitted by the Environment & Forests Department to the Ministry of Jal Shakti, the CPCB and Shri Ruby Raju(Central Monitoring Committee).

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
6.1	***Progress report may comprise of details along with completion timelines on:*** **i.** ***Identification of polluting sources including drains contributing to river pollution and actions as per NGT order on in-situ treatment.***			PCBA		**a)** Major drain outfalls (Municipal and Commercial waste) and industrial units contributing to pollution in the polluted river stretches under **Priority I - IV** have already been identified and mentioned in the Action Plans. **b)** However, the list of major drain outfalls and industrial details situated in the catchment area of the polluted river stretches under **Priority I - IV** are enclosed **(Annexure A & B)** **c)** There are seven non-complying industrial units situated in the catchment of the polluted river stretches under **Priority I – IV** that do not have ETPs. These industrial units were issued closure notice by Pollution Control Board Assam. In this regard, three (03) Industrial units have installed ETP and one under process. The remaining three (03) Industrial units are ensured closure by PCBA **(Annexure C).** No industrial treatment gaps have been observed in the polluted stretches of **Bharalu River (Priority I), Silsako Beel (Priority I), Deepar Beel (Priority III), Kamalpur Beel (Priority III) & Brahmaputra River (Priority IV)**
			(Priority-III)	Digboi		Polluted river stretches of Digboi river, the polluted river stretch of Digboi river is identified to be from IOCL Oil Town to Lakhipathar Reserve Forest.
				Kamalpur		Major drain contributing to polluting Kamalpur Beel identified.
				Panchnai		Survey is being conducted fur ensuring 100% treatment and appropriate actions will be initiated.
			(Priority-IV)	Kharsang		Survey is being conducted fur ensuring 100% treatment and appropriate actions will be initiated.
				Pagladia		PCBA vide Letter No. WB/LAB – 310/Pt – I/19-20/219 dated 31.07.2020 has informed that Pagladia river does not come under the identified list of polluted river stretches and thus proposed for exclusion to CPCB.
				Baroi		No drain has been found polluting the river.

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
			(Priority-V)	Boginadi	P & RD Deptt.	Sources of polluting agent has been identified. Preparation of action plan for remedial action under process.
				Dikrong		Sources of polluting agent has been identified. Preparation of action plan for remedial action under process
				Diplai		Survey for identification of natural rivulets carrying polluting substances has been done.
				Dishang		Identified and action plan prepared.
				Gabharu		Survey is going on.
				Holudunga		Cleaning is going on Holudunga river.
				Jia bharali		Survey is going on.
			(Priority-V)	Killing		Survey going on and report will be submitted shortly.
				Kohora		Surveyed and identified as Kohora to Mohpara.
				Kulsi		Bengal Kata to Ziakur No.1 stretch identified.
				Parashali		Polluted Parashali Beel and drains contributing to pollution identified.
				Puthimari		Kachuria to Sundarisal stretch identified.

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
				Ranga	P & RD Deptt	Sources of polluting agent has been identified. Preparation of action plan for remedial action under process.
				Samaguri		As per Action Plan the Beel is connected with a set of in flow and outflow channels with Kolong River.
				Son		Identified as Son Beel and Rata Beel.
				Tenga Pukhuri		Contamination of water during October/November is due to decomposition of water lily and other water born weeds
				Mora Bharali	UDD	Polluted stretches of the river Mora Bharali is identified from Tezpur Town to Dhenukhana Pahar.
	ii. Status of STPs, I & D and sewage networks. Details of existing infrastructure, Gap Analysis, proposed along with completion timelines					Same as per report submitted in the MPR for the month of July,2020.

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
	iii. Status of existing CETP and ETP infrastructure, GAP Analysis, proposed along with completion timeline, No of industries and complying status.			PCBA		Status report on closure of industrial units situated in the catchment of the polluted river stretches under **Priority I – IV** to which closure notices were issued on the ground of not having ETPs are enclosed (**Annexure-C**). Also details of industrial units (List of industries, Status of CETP/ETP infrastructure and Gap analysis) are enclosed (**Annexure B**).
			(Priority-III)	Digboi	UDD	Survey is going on.
			(Priority-V)	Dishang	P & RD Deptt.	There is no CETPs, number of industries 17, total industrial waste water generated 3481.55m^3/day which is treated at captive ETPs installed by the industries.
				Son		Survey is going on.
	iv. Status of Solid Waste Management and details of processing facilities – Details of existing infrastructure, proposed along with completion timelines.				P & RD	Awareness programmes were held among the people for the river stretches Kamalpur, Kulsi, Puthimari and Samaguri by P & RD Department.
					GDD UDD	Same as per report submitted in the MPR for the month of July, 2020.
			Digboi (Priority III)	P&RD Deptt.		Survey is going on.
			Killing (Priority V)			There is no SWM Project till now at Killing River but 3 numbers of SWM projects are under process at 3 numbers of notified villages.

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency		Remarks
			Son(Priority V)			Under process.
	v. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river			PCBA		Water Quality of the polluted rivers and beels, major drain outfalls contributing to pollution and ground water of the catchment area of the polluted river stretches under **Priority I - IV** are analysed for the month of august, 2020 and enclosed **(Annexure D, E and F)**. The data generated appears as follows: a) The water quality parameters of the rivers did not indicate any significant changes in the present month though the industrial units and other commercial establishments have been functional as compared to the previous month where the units were closed due to lockdown. Hence industrial and commercial wastes have negligible impact on the water quality of the river and the main contributor of pollution is municipal sewages for the polluted stretches under **Priority I - IV**. b) As far as the water quality of the drains situated in the catchment area of the polluted river stretches under **Priority I - IV** are concerned, in-situ treatment by bioremediation is yet to be done. Hence the water quality of the drains did not reveal any significant changes when compared to the earlier data generated. c) The ground water quality of the catchment of the polluted river stretches are within the norms except for iron in some pockets of the catchment area of polluted stretches of **Bharalu, Borsola Beel & Silsako Beel (Priority I), Sorusala Beel (Priority II) and Deepar Beel (Priority III)** as it was observed slightly above the standard norms (0.30 mg/l).
			(Priority V)	Parashali	P&RD Deptt.	In the drain from Jang Beel and channel from Jagiroad average BOD is 3.17 mg/l and average FC is 622.5 mpn/100 ml.
				Son		At Son Beel average BOD is 2.8 mg/l and average FC is 510 mpn/100 ml.

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks
	vi. Preventing dumping of waste and scientific waste management including bio-medical wastes, plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams, etc			GDD & UDD	Same as report submitted in the MPR for July,2020 In addition GMC Commissioner has been requested to visit the three best practices Ahmedabad in Gujrat, Tirupati in Andhra Pradesh, Nawashahar in Punjub as per MoHUA Solid Waste Landfill/Advisory for taking forward the project for removal of Legacy waste from West Boragaon Dumpsite of approximately 17 Lakhs M.T.
	vii. Ground water regulations			Central Ground Water Authority	**Type** | **Action plan for Restoration for Polluted River stretches under Priority I** | **Organization / Agency Responsible for Execution of the Action plan** | **Time Line** | **Action Taken Report of Central Ground Water Board (CGWB) / Central Ground Water Authority (CGWA)**

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks				
					Industries	No industry will be allowed to operate or continue manufacturing process unless they possess valid permission for ground water extraction from CGWA	PCB, Assam. However, as per decision of the meeting dated 04..02.2020, CGWA have to issue notices to all non compliant industries under Priority I & II		Show Cause Notices issued to all the industries / Infrastructure units under Priority I & II vide this office File No.1553 (1-50) /D 27/CGWA/NER/2019 -20 dated 18.02.2020, except Nemcare Hospital and Nemcare Hospital Pvt. Ltd. As they had already taken NOC from CGWA (Please refer this office letter to the Joint Secy, Env. & Forest Dept, Assam, dated 11.02.2020 & 19.02.2020)
					Ground Water Assessment	a) Conducting survey regarding groundwater usage by category wise such as domestic, community, industries etc. and also identification of over exploited and	PCBA/CGWA	February 2020 to July 2020	As per the latest Estimation Dynamic Groundwater Resources of Assam carried out by CGWB, Kamrup Metro district falls under Safe Category. All the districts of Assam falls under Safe

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks				
						critical blocks in the river stretches			
						b) Carry out assessment of groundwater survey in the catchment area of the identified polluted stretches once in a year to ensure quality			
						C) All Industries should have valid NOC from Central Ground Water Authority			No industrial and Infrastructural unit had applied to CGWA for NOC of groundwater extraction in the river stretches under Priority I & II except Nemcare Hospital and Nemcare Hospital Pvt. Ltd.. As part of its action taken & compliance, this office had issued Show Cause Notices to 50 nos. of Industries /Infrasture Units under **Priority I & II** Lists vide this office File No.1553

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks				
									(1-50) /D 27/CGWA/NER/2019 -20 dated 18.02.2020.
						d) To promote roof top rain water harvesting by the industrial, commercial including individual households thereby recharging the groundwater			In the NOC's issued by Central Ground Water Authority, there is condition to encourage rainwater harvesting and recharge to groundwater by constructing appropriate structures by the Firm. **However, recharge to groundwater should not be practice in areas of shallow water level (i.e. Depth to water level within 5 mbgl) to avoid water logging.**
	viii. Adopting good irrigation practices			Irrigation Deptt.	Same as per report submitted in the MPR for the month of July, 2020.				
	ix. Protection and management of Flood Plain Zones (FPZ)								

Sl. No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks
	x. Rain Water Harvesting				
	xi. Maintaining minimum environment flow of river				
	xii. Plantation on both sides of the river				
	xiii. Setting up biodiversity parks on flood plains by removing encroachment				Same as per report submitted in the MPR for the month of July, 2020.
	xiv. Encroachment				

Monthly progress report from Pollution Control Board Assam for the month of August in compliance with NGT case O.A. No. 673/2018

Reply against 4.1 (i)

a) Major drain outfalls (Municipal and Commercial waste) and industrial units contributing to pollution in the polluted river stretches under **Priority I - IV** have already been identified and mentioned in the Action Plans.

b) However, the list of major drain outfalls and industrial details situated in the catchment area of the polluted river stretches under **Priority I - IV** are enclosed **(Annexure A & B)**

c) There are seven non-complying industrial units situated in the catchment of the polluted river stretches under **Priority I – IV** that do not have ETPs. These industrial units were issued closure notice by Pollution Control Board Assam. In this regard, three (03) Industrial units have installed ETP and one under process. The remaining three (03) Industrial units are ensured closure by PCBA **(Annexure C).** No industrial treatment gaps have been observed in the polluted stretches of **Bharalu River (Priority I), Silsako Beel (Priority I), Deepar Beel (Priority III), Kamalpur Beel (Priority III) & Brahmaputra River (Priority IV)**

Reply against 4.1 (iii)

a) Status report on closure of industrial units situated in the catchment of the polluted river stretches under **Priority I – IV** to which closure notices were issued on the ground of not having ETPs are enclosed (**Annexure-C**). Also details of industrial units (List of industries, Status of CETP/ETP infrastructure and Gap analysis) are enclosed (**Annexure B**).

Reply against 4.1 (v)

Water Quality of the polluted rivers and beels, major drain outfalls contributing to pollution and ground water of the catchment area of the polluted river stretches under **Priority I - IV** are analysed for the month of august, 2020 and enclosed **(Annexure D, E and F)**. The data generated appears as follows:

a) The water quality parameters of the rivers did not indicate any significant changes in the present month though the industrial units and other commercial establishments have been functional as compared to the previous month where the units were closed due to lockdown. Hence industrial and commercial wastes have negligible impact on the water quality of the river and the main contributor of pollution is municipal sewages for the polluted stretches under **Priority I - IV**.

b) As far as the water quality of the drains situated in the catchment area of the polluted river stretches under **Priority I - IV** are concerned, in-situ treatment by bioremediation

is yet to be done. Hence the water quality of the drains did not reveal any significant changes when compared to the earlier data generated.

c) The ground water quality of the catchment of the polluted river stretches are within the norms except for iron in some pockets of the catchment area of polluted stretches of **Bharalu, Borsola Beel & Silsako Beel (Priority I), Sorusala Beel (Priority II) and Deepar Beel (Priority III)** as it was observed slightly above the standard norms (0.30 mg/l).

Reply against 4.1 (vii)

a) Ground water regulation is not under the purview of Pollution Control Board Assam

Annexure A

Major drains/ outfall contributing to the pollution load of Bharalu River (Priority I)

S.N	Major drains/ outfall	Locality/area	No. of Drains
1	Major outfall at the origin of Bharalu river at Jonali Bridge consists of a) One drain is coming from Refinery, Locoshed area b) Other is coming from Bahini River which itself is a sewarage drain. c) Two drains are from domestic sewerage	Jonali	04 Nos.
2	Another drain just about 300 m away from the origin of Bharalu River. 06 more drains /Sluice gate near Tarun Nagar bridge.	Tarun Nagar	07 Nos.
3	Major drain at Anil Nagar Pump house	Anil Nagar	01 No
4	From Rajgarh Bridge to Kanaklata Bridge	Rajgarh	08 Nos.
5	At Kanaklata Bridge one Major outfall from Bhangagarh area	Rajgarh	01 No.
6	Below Bhangagarh Bridge at GS Road 02 Nos. are from Ulubari end and 01 drain from Bhangagarh end	Bhangagarh	03 Nos.
7	One major commercial outfall from Borthakur Mill area in the backside of ASTC workshop, Rupnagar	Rupnagar	01 Nos.
8	Major commercial outfall near Maajhar, Ulubari from Assam Police Radio Organisatio (APRO)	Ulubari	01 No.
9	One commercial outfall from B K Kakoti Road below Ulubari Agriculture campus wooden bridge. One more outfall from the premises of agriculture campus, Ulubari	Ulubari	02 Nos.
10	Outfall at the starting of R K Mission Road, Ulubari below the bridge	Ulubari	02 Nos.
11	At Sarabbhati Chariali, One outfall from Arya Nagar and another major outfall from Rehabari	Sarabbhati	02 Nos.
12	Major outfall at sarabbhati	Sarabbhati	01 No.
13	Major outfall at Athgaon from Fakirtola inner drain	Athgaon	01 No.
14	Commercial outfall from Kumarpara area	Kumarpara	02 Nos.
15	Major outfall from Shantipur area near Bharalumukh Sluicegate	Bharalumukh	01 No.
16	Major outfall from Kumarpara area near Bharalumukh railway crossing	Bharalumukh	01 No.
17	Major outfall from A T Road at Bharalumukh Chowk	Bharalumukh	01 No.

Annexure A

Major drains contributing to pollution in the polluted stretches under Priority I, II, III & IV

Polluted river Stretch	Drains		
Priority I			
Borsola	Chandmari drain	Rehabari drain	
Silsako	Drain coming through Chachal Area	Drain coming through Panjabari Area	
Priority II			
Sorusala	Drain near KC Das Commerce College	Drain near Chatribari area	
Priority III			
Kamalpur	Drain across the National Highway near the industrial area		
Deepar Beel	Mora Bharalu channel originated at Fatasil Ambari which is abandoned by the Bharalu river		
Digboi river	Two drains originated from Digboi Township at Borbil no.3		
Priority IV			
Brahmaputra	**Brahmaputra river at Dhenukhana pahar**	**Brahmaputra river at Kacharighat**	
	Mora Bharali river at Tezpur town discharges city sewage in to the Brahmaputra river at Dhenukhana Pahar	Drain near Sukleswar temple before confluence with Brahmaputra river	Drain at Fancy Bazar (behind MMCH) before confluence with Brahmaputra river
Pagladia	Drainage outfall at Bhugabeel from Ghograpar area		

Annexure B

Industrial Details under Priority I

List of industry details responsible for pollution in the Bharalu river

S.N	Name of the Industry	Category	Total Water Consumption (KLD)		Waste water generation in KLD	Without consent / Directions issued	ETPs	CETPs		OCEMS	Gaps KLD
			GW	Supplied Water				Existing	Proposed		
1	Guwahati Refinery , IOCL	17 -Category (Petroleum Refinery)	NIL	11283 (River Brahmaputra)	5032	Consent granted	Installed; as per records 5032 KLD of Effluent is treated and reused.	NIL	NIL	Installed	NIL
2	DIESEL SHED, NEW GUWAHATI	RED(Railway Locomotive workshop)	1.1	NIL	1.1	Under process (on query) Inspection to be done.	Functional	NIL	NIL	N/A	NIL
3	Guwahati Medical College & Hospital, Bhangagarh, Guwahati	Red	NIL	350	280	Under Process	STP Functional	NIL	NIL	N/A	NIL
4	Kiranshree, Athgaon.	Green	2	NIL	1.5	Granted	Functional	NA	NA	NA	NIL
5	Monsoon Polymers, City Complex, Kalapahar.	Orange	5	NIL	4	Granted	Functional	NA	NA	NA	NIL
6	Assam Dyeing Works, Cycle Factory, Kalapahar.	Red	2.5	NIL	2	Granted	Functional	NA	NA	NA	NIL

Annexure B

S.N	Name of the Industry	Category	Total Water Consumption (KLD)		Waste water generation in KLD	Without consent / Directions issued	ETPs	CETPs		OCEMS	Gaps KLD
			GW	Supplied Water				Existing	Proposed		
7	Panacea Diagnostic Centre, Rajgarh, Ghy.	Orange	1	NIL	0.8	Not applied	Functional	NA	NA	NA	NIL
8	Hotel Asian Palace, Ulubari, Ghy.	Green	4	NIL	3.2	Under process	Functional	NA	NA	NA	NIL
9	Sanjay Products, Fatashil Ambari.	Orange	1.5	NIL	1	Granted till 31.03.2019	Functional	NA	NA	NA	NIL
10	Goenka Nursing Home, Bharalumukh, Ghy.	Orange	30	NIL	30	Under process	Functional	NA	NA	NA	NIL
11	Kumar's Nursing Home, Kumarpara.	Orange	10	NIL	10	Under process	Functional	NA	NA	NA	NIL
12	Rapid Diagnostics, Sarabhati.	Orange	0.2	NIL	0.16	Not applied	Functional	NA	NA	NA	NIL
13	Rosa Restaurant,	Green	3	NIL	2.4	Under process	Functional	NA	NA	NA	Nil
14	Makhan Bhog, Ulubari.	Green	5	NIL	4.5	Not applied	Functional	NA	NA	NA	NIL
15	Woodland Marriage Hall, Ulubari.	Green	5	NIL	4.5	Not applied	Functional	NA	NA	NA	Nil
16	Signature Estate (Assam Plywood)	Red	120	NIL	100	Granted	STP Provided	NA	NA	NA	NIL

Annexure B

S.N	Name of the Industry	Category	Total Water Consumption (KLD)		Waste water generation in KLD	Without consent / Directions issued	ETPs	CETPs		OCEMS	Gaps KLD
			GW	Supplied Water				Existing	Proposed		
17	RK Life Services Pvt. Ltd. Apollo Clinic, Bora Service.	Orange	1	NIL	1	Under process	Functional	NA	NA	NA	NIL
18	Nemcare Hospital Pvt. Ltd. Bhangagarh, Ghy.	Orange	50	NIL	45	Granted	Functional	NA	NA	NA	NIL
19	Nemcare Hospital, Bhangagarh, Ghy.	Orange	60	NIL	52	Granted	Functional	NA	NA	NA	NIL
20	Pulse Diagnostic, Bhangagarh, Ghy.	Orange	1	NIL	0.8	Under process	Functional	NA	NA	NA	NIL
21	Primus Diagnostic, Bhangagarh, Ghy.	Orange	1	NIL	0.8	Under process	Functional	NA	NA	NA	NIL
22	Alcare Diagnostic, Lalganesh, Guwahati-34	Orange	3	NIL	2.4	Not applied	Functional	NA	NA	NA	NIL
23	Orthodontic Clinic, Bhangagarh, Ghy.	Orange	1	NIL	0.8	Granted	Functional	NA	NA	NA	NIL
24	Health Care Diagnostic, Bhangagarh, Ghy.	Orange	0.6	NIL	0.5	Under process	Functional	NA	NA	NA	NIL
25	Aruna Memorial Hospital, Bhangagarh, Ghy.	Orange	15	NIL	12	Under process	Functional	NA	NA	NA	NIL
26	Apex Diagnostic, Bhangagarh, GMCH Road, Royal Market, Guwahati – 05	Orange	1	NIL	0.8	Under process	Functional	NA	NA	NA	NIL

Annexure B

S.N	Name of the Industry	Category	Total Water Consumption (KLD)		Waste water generation in KLD	Without consent / Directions issued	ETPs	CETPs		OCEMS	Gaps KLD
			GW	Supplied Water				Existing	Proposed		
27	K.N. Baruah (Bids), Roodraksh Mall, Ghy.	Orange	0.4	NIL	0.3	Granted	Functional	NA	NA	NA	NIL
28	Midland Hospital, RG Baruah Road, Ghy.	Orange	10	NIL	9	Under process	Functional	NA	NA	NA	NIL
29	Exotica Greens, RG Baruah Road, Ghy.	Orange	50	NIL	45	Not applied	STP Provided	NA	NA	NA	NIL
30	Hariyana Bhawan, R.K.S. Chowdhury, Narayan Nagar, Bharalumukh, Ghy-9.	Green	5/during marriage party	NIL	5	Not applied	Not installed. Direction issued and ensured closure	NA	NA	NA	NA
31	East India Haemotological Laboratory, Rudraksh Mall, Near Big Bazar, G.S. Road, Bhangagarh, Guwahati-05.	Orange	0.4	NIL	0.3	Under process	Functional	NA	NA	NA	NIL
Total			**384.7 KLD**	**11633 KLD**	**5647.86 KLD**						**Nil**

Annexure B

List of industry details responsible for pollution in the Borsola beel

Sl. No	Name of the Industry	Category	Total Water Consumption (KLD)		Waste water generation in KLD	Without consent / Directions issued	ETPs	CETPs		OCEMS	Gaps KLD
			GW	Supplied Water				Existing	Proposed		
1	Marwari Maternity Hospital, Athgaon, Ghy.	Orange	80	No	70	Granted	Functional	NA	NA	NA	Nil
2	Satribari Christian Hospital, Satribari, Ghy .	Orange	25	No	20	Not applied. Direction issued	Functional	NA	NA	NA	Nil
3	Lions Eye Hospital, Near KC Das Commerce College, Satribari, Ghy-1.	Orange	3	No	2.5	Under process	Functional	NA	NA	NA	Nil
4	Arya Hospital, Opp. Apsara Cinema, Rehabari, Ghy-8.	Orange	30	No	25	Granted	Functional	NA	NA	NA	Nil
5	Hotel Atithi, Paltan Bazar, Ghy.	Green	10	No	8	Under process	Functional	NA	NA	NA	Nil
6	Hotel Rains Inn, Paltan Bazar, Ghy.	Green	25	No	20	Granted	Functional	NA	NA	NA	Nil
7	Hotel Fame City, Paltan Bazar, Ghy.	Green	15	No	12	Direction issued	Not installed	NA	NA	NA	12
8	Hotel Nandan, Paltan Bazar, Ghy-8.	Green	40	No	32	Granted	Functional	NA	NA	NA	Nil
9	Hotel Mahalakshmi, Paltan Bazar, Ghy-8.	Green	20	No	16	Under process	Functional	NA	NA	NA	Nil
10	Hotel Kiranshree Portico, Paltan Bazar, Ghy.	Green	30	No	25	Granted	Functional	NA	NA	NA	Nil
11	Hotel Sagar, Paltan Bazar, Ghy.	Green	10	No	8	Under process	Functional	NA	NA	NA	Nil

Annexure B

Sl. No	Name of the Industry	Category	Total Water Consumption (KLD)		Waste water generation in KLD	Without consent / Directions issued	ETPs	CETPs		OCEMS	Gaps KLD
			GW	Supplied Water				Existing	Proposed		
12	Hotel Rajmahal, Paltan Bazar, Ghy.	Green	15	No	12	Not applied. Direction issued	Functional	NA	NA	NA	Nil
13	Hotel Vishwaratna, AT Road, Paltan Bazar, Ghy.	Green	40	No	32	Granted	Functional	NA	NA	NA	Nil
14	Hotel Trimurty, Paltan Bazar, Ghy.	Green	20	No	16	Granted	Functional	NA	NA	NA	Nil
15	Hotel Darbar, Paltan Bazar, Ghy.	Green	10	No	8	Direction issued	Not installed	NA	NA	NA	8
16	Hotel Biswanath, Paltan Bazar, Ghy.	Green	30	No	25	Not applied	Functional	NA	NA	NA	Nil
17	Hotel Geetanjali, Paltan Bazar, Ghy.	Green	10	No	8	Direction issued	Not installed	NA	NA	NA	8
18	Hotel Azolla, Paltan Bazar, Ghy.	Green	10	No	8	Under process	PETP installed	NA	NA	NA	Nil
19	Hotel Prince, Paltan Bazar, Ghy.	Green	15	No	12	Under process	Functional	NA	NA	NA	Nil
20	Hotel Maharaja, Paltan Bazar, Ghy.	Green	20	No	15	Under process	Functional	NA	NA	NA	Nil
Total			**458 KLD**	**NIL**	**374.5 KLD**						**28 KLD**

Annexure B

List of industry details responsible for pollution in the Silsako beel

Sl. No	Name of the Industry	Category	Total Water Consumption (KLD)		Waste water generation in KLD	Without consent / Directions issued	ETPs	CETPs		OCEMS	Gaps KLD
			GW	Supplied Water				Existing	Proposed		
1	Hotel Ginger, VIP Road, Ghy.	Green	40	No	32	Not applied. Direction issued	Functional	NA	NA	NA	Nil

Annexure B

Industrial Details under Priority II

List of industry details responsible for pollution in the Sorusala beel

Sl. No	Name of the Industry	Category	Total Water Consumption (KLD)		Waste water generation in KLD	Without consent / Directions issued	ETPs	CETPs		OCEMS	Gaps KLD
			GW	Supplied Water				Existing	Proposed		
1	Marwari Maternity Hospital, Athgaon, Ghy.	Orange	80	No	70	Granted	Functional	NA	NA	NA	Nil
2	Satribari Christian Hospital, Satribari, Ghy .	Orange	25	No	20	Not applied. Direction issued	Functional	NA	NA	NA	Nil
3	Lions Eye Hospital, Near KC Das Commerce College, Satribari, Ghy-1.	Orange	3	No	2.5	Under process	Functional	NA	NA	NA	Nil
4	Arya Hospital, Opp. Apsara Cinema, Rehabari, Ghy-8.	Orange	30	No	25	Granted	Functional	NA	NA	NA	Nil
5	Hotel Atithi, Paltan Bazar, Ghy.	Green	10	No	8	Under process	Functional	NA	NA	NA	Nil
6	Hotel Rains Inn, Paltan Bazar, Ghy.	Green	25	No	20	Granted	Functional	NA	NA	NA	Nil
7	Hotel Fame City, Paltan Bazar, Ghy.	Green	15	No	12	Direction issued	Not installed	NA	NA	NA	12
8	Hotel Nandan, Paltan Bazar, Ghy-8.	Green	40	No	32	Granted	Functional	NA	NA	NA	Nil
9	Hotel Mahalakshmi, Paltan Bazar, Ghy-8.	Green	20	No	16	Under process	Functional	NA	NA	NA	Nil
10	Hotel Kiranshree Portico, Paltan Bazar, Ghy.	Green	30	No	25	Granted	Functional	NA	NA	NA	Nil
11	Hotel Sagar, Paltan Bazar, Ghy.	Green	10	No	8	Under process	Functional	NA	NA	NA	Nil

Annexure B

Sl. No	Name of the Industry	Category	Total Water Consumption (KLD)		Waste water generation in KLD	Without consent / Directions issued	ETPs	CETPs		OCEMS	Gaps KLD
			GW	Supplied Water				Existing	Proposed		
12	Hotel Rajmahal, Paltan Bazar, Ghy.	Green	15	No	12	Not applied. Direction issued	Functional	NA	NA	NA	Nil
13	Hotel Vishwaratna, AT Road, Paltan Bazar, Ghy.	Green	40	No	32	Granted	Functional	NA	NA	NA	Nil
14	Hotel Trimurty, Paltan Bazar, Ghy.	Green	20	No	16	Granted	Functional	NA	NA	NA	Nil
15	Hotel Darbar, Paltan Bazar, Ghy.	Green	10	No	8	Direction issued	Not installed	NA	NA	NA	8
16	Hotel Biswanath, Paltan Bazar, Ghy.	Green	30	No	25	Not applied	Functional	NA	NA	NA	Nil
17	Hotel Geetanjali, Paltan Bazar, Ghy.	Green	10	No	8	Direction issued	Not installed	NA	NA	NA	8
18	Hotel Azolla, Paltan Bazar, Ghy.	Green	10	No	8	Under process	PETP installed	NA	NA	NA	Nil
19	Hotel Prince, Paltan Bazar, Ghy.	Green	15	No	12	Under process	Functional	NA	NA	NA	Nil
20	Hotel Maharaja, Paltan Bazar, Ghy.	Green	20	No	15	Under process	Functional	NA	NA	NA	Nil
Total			**458 KLD**	**NIL**	**374.5 KLD**						**28 KLD**

Industrial Details under Priority III

Annexure B

Table I: Industry details as per the following of Deepar Beel polluted stretch											
Sl. No	**Name of the Industry**	**Category**	**Total Water Consumption (KLD)**		**Waste Water /waste Generation (KLD)**	**Without consent/Directions issued**	**ETPs**		**CETPs**	**OCEMS**	**Gaps in KLD**	**Proposed CETP**
			Ground Water/ Surface water	**Supply Water**			**Functional**	**Non-Functional**				
1	NE RMC, Pamohi, Garchuk	Orange	3	-	ZLD	Consent Granted	Functional	-	**Nil**	Nil	**Nil**	**Nil**
2	Tantia Construction Company, Pamohi, Garchuk		5	-	ZLD	Consent Granted	Functional	-			**Nil**	
3	Radisson Blue, Near NH-37, Gotanagar		100	-	80	Consent Granted	Functional				**Nil**	
4	Ayurvedic College Hospital, Jalukbari, Guwahati		30	-	24	Closure notice issued	Functional				**Nil**	
5	Excelcare Hospital, NH-37, Guwahati		80	-	62	Consent Granted	Functional				**Nil**	
6	Akangsha Hospital, NH-37, Guwahati		30	-	22	Consent Granted	Functional				**Nil**	
7	Jyoti Industry, Pamohi, Garchuk	Green	3	-	2.3	Consent Granted	Functional				**Nil**	
8	JNS Enterprise, Pamohi, Garchuk		5	-	3.2	Consent Granted	Functional				**Nil**	
9	Maheswari Industries, Khanamukh, Guwahati		-	-	ZLD	Consent Granted	Functional				**Nil**	
Total			**258**	-	**193.5**	-	-				**Nil**	

Industrial Details under Priority III

Annexure B

Industry details as per the following of Digboi polluted stretch

Sl. No	Name of the Industry	Category	Total Water Consumption (KLD)		Waste Water /waste Generation (KLD)	Without consent/Directions issued	ETPs		CETPs	OCEMS	Gaps	Proposed CETP
			Ground Water/ Surface water	Supply Water			Functional	Non-Functional				
1	Digboi refinery, IOCL, AOD, Digboi, Tinsukia		14232		8790.8	Consent Granted	Functional	-	Nil	Nil	Nil	Nil
2	AOD Hospital, Digboi, Tinsukia		6		4	Consent Applied	Functional	-			Nil	
Total			14238		8794.8	-	-				Nil	

Industrial Details under Priority III

Annexure B

Industry details as per the following of Kamalpur Beel polluted stretch

Sl. No	Name of the Industry	Category	Total Water Consumption (KLD)		Waste Water /waste Generation (KLD)	Without consent/Directions issued	ETPs		CETPs	OCEMS	Gaps	Proposed CETP
			Ground Water	Surface/ Supplied Water			Functional	Non-Functional				
1	M/S ECO Tech Papers, Kamalpur, Pubpar, Kamrup (R)	**Red**	811	-	649	CTO obtained	Functional (Waste water reused in the system. No discharge outside to the premise)	-	**Nil**	**Nil**	**Nil**	Nil
2	M/S Ashoka kraft paper, Mill LLP, Baihata, Kamalpur, Kamrup (R)		275	-	220	CTO obtained	Recycled	-				
3	M/S Alliance India, Dinkar, Baihata, Kamalpur, Kamrup (R)	**Orange**	12	-	06	CTO obtained	Functional	-				
4	M/S Parksons Packaging Ltd., Dinkar, Baihata, Kamalpur, Kamrup (R)		4	-	3.2	CTO obtained	Functional	-				

Industrial Details under Priority III

Annexure B

5	M/S York Print Pvt. Ltd. (Unit-4), Dinkar, Baihata, Kamalpur, Kamrup (R)		0.6	-	0.10	CTO obtained	Functional	-				
6	M/S York Print Pvt. Ltd. (Unit-5), Dinkar, Baihata, Kamalpur, Kamrup (R)		0.6	-	0.10	CTO obtained	Functional	-				
7	M/S R.K. Dispo products, Dolma, Kamalpur, Kamrup (R)		0.4	-	0.32	CTO obtained	Recycled	-				
Total			**1103.6**		**878.72**	**-**	**-**	**-**			**Nil**	

Industrial Details under Priority IV

Annexure B

Industrial details as per the following of Brahmaputra river at Dhenukhana Pahar polluted stretch

Sl. No	Name of the Industry	Category	Total Water Consumption (KLD)		Waste Water /waste Generation (KLD)	Without consent/Directions issued	ETPs		CETPs	OCEMS	Gaps	Proposed CETP
			Ground Water	Surface Water			Functional	Non-Functional				
1	M/S Sunshine Fibre Industry, Tezpur	Red	2.0		ZLD	Consent applied	Functional				**Nil**	
2	M/S Brahmaputra Paper Pvt. Ltd, Tezpur	Orange	2.0		ZLD	Consent applied	Functional				**Nil**	
3	M/S Star Paper Mill, Tezpur		2.5		ZLD	Consent applied	Functional		**Nil**	**Nil**	**Nil**	Nil
4	M/S Sonitpur Solvex Ltd, Parua Chariali, Tezpur		2.0		ZLD	Without consent	Functional				**Nil**	
Total			**8.5**		**Nil**	**-**	**-**	**-**			**Nil**	

Industrial Details under Priority IV

Annexure B

Table II: Industrial details as per the following of Brahmaputra river at Kacharighat polluted stretch

Sl. No.	Name of the Industry	Category	Total Water Consumption/ (KLD)		Waste Generation (KLD)	Without consent/ Directions issued	ETPs		CETPs	OCEMS	Gaps	Proposed CETP
			Ground Water	Supply water			Functional	Non-Functional				
1	Mahendra Mohan Choudhury Hospital, Panbazar, Guwahati-1	Red	Nil	100	80	-	Functional	-	Nil	Nil	Nil	Nil
2	Jalan Bros. (India) Pvt. Ltd., MG Road, Fancy Bazar, Guwahati	Orange	3.0	Nil	1.5	Closure Notice issued	Functional	-				
3	Rapicure Diagnostic Centre, Panbazar, Guwahati-1		Nil	0.3	0.24		Functional	-			Nil	
4	Sarvoday Health Care, Panbazar, Guwahati-1		1.0	Nil	0.8		Functional	-			Nil	
5	Brahmaputra Diagnostic, Panbazar, Guwahati-1					Closure Notice issued	-	-			-	
6	Diagnostic Lab, Guwahati-1					Closure Notice issued	-	-			-	
Total			**4.0**	**100.3**	**82.54**	**-**	**-**	**-**			**Nil**	

Annexure C

Status Report of non-complying Industrial units of the Bharalu river stretch (Priority I)

Name of Unit	Status
Rosa Restaurant, G.S. Road, Paltan Bazar, Guwahati - 8	Installed ETP functional
Woodland Marriage Hall, Ulubari, Guwahati - 781007	Installed ETP functional
Haryana Charitable Trust, Harayana Bhawan, Narayan Nagar, Kumarpara, Guwahati-9	Closed and ensured

Status Report of non-complying Industrial units of the Borsola/Sorusala Wetland (Priority I &II)

Name of Unit	Status
Hotel Fame City, Paltanbazar, Guwahati-8	Closure notice issued. Steps are being taken to ensure closure
Hotel Darbar, Paltanbazar, Guwahati-8	Closure notice issued. Steps are being taken to ensure closure
Hotel Geetanjali , Paltanbazar, Guwahati-8	ETP Installation under progress

Status Report of non-complying Industrial units of the Deepar beel Wetland (Priority III)

Name of Unit	Status
Ayurvedic College Hospital, Jalukbari, Guwahati	Installed ETP functional

Annexure D

Latest analysis report of Bharalu River Polluted Stretch – August, 2020

Parameter	Value
D.O. (mg/L)	Nil
pH	7.6
Cond(µS/cm)	572
BOD(mg/L)	38.6
COD(mg/L)	128.5
NO_3 -N (mg/L)	2.4
TSS (mg/L)	80
Turbidity (NTU)	11
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	94
Hardness (mg/L)	146
Calcium as $CaCO_3$(mg/L)	104
Magnesium as $CaCO_3$ (mg/L)	42
Chloride as Cl- (mg/L)	34
Sulphate as SO_4^{-2} (mg/L)	66.8
Phosphate as PO_4 (mg/L)	0.38
TKN (mg/L)	10.2
NH_4-N (mg/L)	3.2
Total Dissolved Solids (mg/L)	364
TFS (mg/L)	90
Fluoride (mg/l)	0.62
Boron (mg/l)	0.031
Na (mg/L)	54.3
K (mg/L)	13.3
Total Iron (mg/L)	0.49
Lead (mg/L)	0.016
Zinc (mg/L)	0.049
Copper (mg/L)	0.006
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	0.01
Total Coliform (MPN/100ml)	5300
Faecal Coliform (MPN/100ml)	3500

Annexure D

Latest analysis report of Borsola Beel Polluted Stretch- August, 2020

Parameter	Value
D.O. (mg/L)	Nil
pH	7.4
Cond(µS/cm)	436
BOD(mg/L)	28.8
COD(mg/L)	92.4
NO_3 -N (mg/L)	2.3
TSS (mg/L)	60
Turbidity (NTU)	07
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	126
Hardness (mg/L)	154
Calcium as $CaCO_3$(mg/L)	106
Magnesium as $CaCO_3$ (mg/L)	48
Chloride as Cl- (mg/L)	24
Sulphate as SO_4^{-2} (mg/L)	33.1
Phosphate as PO_4 (mg/L)	1.3
TKN (mg/L)	9.4
NH_4-N (mg/L)	2.9
Total Dissolved Solids (mg/L)	276
TFS (mg/L)	66
Fluoride (mg/l)	0.66
Boron (mg/l)	0.023
Na (mg/L)	25.3
K (mg/L)	13.1
Total Iron (mg/L)	0.22
Lead (mg/L)	0.024
Zinc (mg/L)	0.043
Copper (mg/L)	0.003
Total Chromium (mg/L)	BDL
Nickel (mg/L)	0.017
Cadmium (mg/L)	0.003
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	4400
Faecal Coliform (MPN/100ml)	2800

Annexure D

Latest analysis report of Silsako Beel at Chachal - August, 2020

Parameter	Value
D.O. (mg/L)	Nil
pH	7.6
Cond(µS/cm)	522
BOD(mg/L)	15.2
COD(mg/L)	54.2
NO_3 -N (mg/L)	1.8
TSS (mg/L)	62
Turbidity (NTU)	06
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	62
Hardness (mg/L)	142
Calcium as $CaCO_3$(mg/L)	94
Magnesium as $CaCO_3$ (mg/L)	48
Chloride as Cl- (mg/L)	20
Sulphate as SO_4^{-2} (mg/L)	35.3
Phosphate as PO_4 (mg/L)	0.16
TKN (mg/L)	0.82
NH_4-N (mg/L)	0.26
Total Dissolved Solids (mg/L)	332
TFS (mg/L)	80
Fluoride (mg/l)	0.58
Boron (mg/l)	0.011
Na (mg/L)	66.2
K (mg/L)	17.0
Total Iron (mg/L)	0.27
Lead (mg/L)	0.027
Zinc (mg/L)	0.043
Copper (mg/L)	0.004
Total Chromium (mg/L)	BDL
Nickel (mg/L)	0.017
Cadmium (mg/L)	0.004
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	3500
Faecal Coliform (MPN/100ml)	2800

Annexure D

Latest analysis report of Sorusala Beel near Paltan bazar - August, 2020

Parameter	Value
D.O. (mg/L)	Nil
pH	7.3
Cond(µS/cm)	488
BOD(mg/L)	27.4
COD(mg/L)	92.6
NO_3 -N (mg/L)	1.8
TSS (mg/L)	72
Turbidity (NTU)	07
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	152
Hardness (mg/L)	162
Calcium as $CaCO_3$(mg/L)	108
Magnesium as $CaCO_3$ (mg/L)	54
Chloride as Cl- (mg/L)	26
Sulphate as SO_4^{-2} (mg/L)	33.7
Phosphate as PO_4 (mg/L)	1.6
TKN (mg/L)	9.4
NH_4-N (mg/L)	2.8
Total Dissolved Solids (mg/L)	308
TFS (mg/L)	74
Fluoride (mg/l)	0.69
Boron (mg/l)	0.027
Na (mg/L)	32.5
K (mg/L)	13.0
Total Iron (mg/L)	0.33
Lead (mg/L)	0.021
Zinc (mg/L)	0.038
Copper (mg/L)	0.003
Total Chromium (mg/L)	BDL
Nickel (mg/L)	0.019
Cadmium (mg/L)	0.003
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	4200
Faecal Coliform (MPN/100ml)	2300

Annexure D

Latest analysis report of Deepar Beel at two locations- August, 2020

Parameter	Deepor Beel near Dharapur Chariali	Deepor Beel near IASST, Boragaon
D.O. (mg/L)	7.8	7.7
pH	7.9	7.8
Cond(µS/cm)	224	230
BOD(mg/L)	3.4	3.6
COD(mg/L)	16.8	18.8
NO_3 -N (mg/L)	1.6	1.8
TSS (mg/L)	68	62
Turbidity (NTU)	05	06
p-Alkalinity (mg/L)	Nil	Nil
m-Alkalinity (mg/L)	88	92
Hardness (mg/L)	52	60
Calcium as $CaCO_3$(mg/L)	34	40
Magnesium as $CaCO_3$ (mg/L)	18	20
Chloride as Cl- (mg/L)	12	10
Sulphate as SO_4^{-2} (mg/L)	26.3	28.9
Phosphate as PO_4 (mg/L)	0.33	0.37
TKN (mg/L)	1.88	1.82
NH_4-N (mg/L)	0.62	0.66
Total Dissolved Solids (mg/L)	140	146
TFS (mg/L)	34	34
Fluoride (mg/l)	0.62	0.73
Boron (mg/l)	0.022	0.026
Na (mg/L)	25.7	26.8
K (mg/L)	6.8	7.4
Total Iron (mg/L)	0.33	0.39
Lead (mg/L)	BDL	BDL
Zinc (mg/L)	0.048	0.057
Copper (mg/L)	0.003	0.004
Total Chromium (mg/L)	BDL	BDL
Nickel (mg/L)	BDL	BDL
Cadmium (mg/L)	BDL	BDL
Mercury (mg/L)	BDL	BDL
Arsenic(mg/L)	BDL	BDL
Total Coliform (MPN/100ml)	1500	1400
Faecal Coliform (MPN/100ml)	360	360

Annexure D

Latest analysis report of Digboi river- August, 2020

Parameter	Value
D.O. (mg/L)	4.8
pH	7.3
Cond(µS/cm)	284
BOD(mg/L)	2.7
COD(mg/L)	12.9
NO_3 -N (mg/L)	1.6
TSS (mg/L)	56
Turbidity (NTU)	06
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	66
Hardness (mg/L)	94
Calcium as $CaCO_3$(mg/L)	60
Magnesium as $CaCO_3$ (mg/L)	34
Chloride as Cl- (mg/L)	12
Sulphate as SO_4^{-2} (mg/L)	24.1
Phosphate as PO_4 (mg/L)	0.12
TKN (mg/L)	0.94
NH_4-N (mg/L)	0.29
Total Dissolved Solids (mg/L)	180
TFS (mg/L)	44
Fluoride (mg/l)	0.23
Boron (mg/l)	0.017
Na (mg/L)	13.1
K (mg/L)	4.8
Total Iron (mg/L)	0.27
Lead (mg/L)	0.004
Zinc (mg/L)	0.043
Copper (mg/L)	0.003
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	2100
Faecal Coliform (MPN/100ml)	730

Annexure D

Analysis report of Kamalpur beel at Kamalpur- August 2020

Parameter	Value
D.O. (mg/L)	Nil
pH	7.3
Cond(µS/cm)	1142
BOD(mg/L)	28.2
COD(mg/L)	96.4
NO_3 -N (mg/L)	1.6
TSS (mg/L)	84
Turbidity (NTU)	06
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	292
Hardness (mg/L)	324
Calcium as $CaCO_3$(mg/L)	218
Magnesium as $CaCO_3$ (mg/L)	106
Chloride as Cl- (mg/L)	98
Sulphate as SO_4^{-2} (mg/L)	102.3
Phosphate as PO_4 (mg/L)	0.56
TKN (mg/L)	7.6
NH_4-N (mg/L)	2.4
Total Dissolved Solids (mg/L)	732
TFS (mg/L)	180
Fluoride (mg/l)	0.62
Boron (mg/l)	0.33
Na (mg/L)	88.3
K (mg/L)	22.5
Total Iron (mg/L)	0.24
Lead (mg/L)	0.004
Zinc (mg/L)	0.047
Copper (mg/L)	0.003
Total Chromium (mg/L)	BDL
Nickel (mg/L)	0.011
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	0.004
Total Coliform (MPN/100ml)	3500
Faecal Coliform (MPN/100ml)	110

Annexure D

Latest analysis report of Polluted stretches of Brahmaputra river

Parameter	Bogibeel (Aug 2020)	Nimatighat (Aug 2020)	Dhenukhana pahar (Aug 2020)	Chandrapur (Aug 2020)	Kacharighat (Aug 2020)	Sualkuchi (Aug 2020)
D.O. (mg/L)	8.1	7.5	7.6	9.0	8.8	9.1
pH	7.5	7.6	7.4	7.7	7.8	7.8
Cond(µS/cm)	144	168	142	178	184	142
BOD(mg/L)	2.2	2.3	1.8	2.0	2.1	2.0
COD(mg/L)	7.5	7.8	6.5	7.1	7.2	7.0
NO_3 -N (mg/L)	0.6	1.2	0.6	1.0	1.4	1.9
TSS (mg/L)	62	46	84	56	54	68
Turbidity (NTU)	5	6	5	6	6	6
p-Alkalinity (mg/L)	Nil	Nil	Nil	Nil	Nil	Nil
m-Alkalinity (mg/L)	48	62	74	46	44	52
Hardness (mg/L)	50	54	48	66	68	44
Calcium as $CaCO_3$(mg/L)	34	34	30	44	52	30
Magnesium as $CaCO_3$ (mg/L)	16	20	18	22	16	14
Chloride as Cl- (mg/L)	8	10	8	12	10	10
Sulphate as SO_4^{-2} (mg/L)	18.8	18.4	16.2	16.8	17.8	15.6
Phosphate as PO_4 (mg/L)	0.20	0.09	0.21	0.07	0.08	0.06
TKN (mg/L)	0.76	0.82	0.90	0.90	0.84	0.84
NH_4-N (mg/L)	0.24	0.24	0.26	0.28	0.32	0.28
Total Dissolved Solids (mg/L)	92	106	90	114	118	90
TFS (mg/L)	22	24	22	26	28	22
Fluoride (mg/l)	0.25	0.24	0.24	0.22	0.24	0.24
Boron (mg/l)	0.010	0.012	0.009	0.009	0.009	0.011
Na (mg/L)	8.6	7.4	8.2	9.2	14.9	8.2
K (mg/L)	2.2	2.4	2.6	2.8	3.4	2.0

Annexure D

Parameter	Bogibeel (Aug 2020)	Nimatighat (Aug 2020)	Dhenukhana pahar (Aug 2020)	Chandrapur (Aug 2020)	Kacharighat (Aug 2020)	Sualkuchi (Aug 2020)
Total Iron (mg/L)	0.22	0.12	0.16	0.22	0.20	0.24
Lead (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Zinc (mg/L)	0.028	0.031	0.037	0.022	.030	0.030
Copper (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Total Chromium (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Nickel (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Mercury (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic(mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Total Coliform (MPN/100ml)	1100	1500	3500	2000	2000	1400
Faecal Coliform (MPN/100ml)	720	300	1500	610	730	360

Annexure D

Latest analysis report of Kharsang river- August, 2020

Parameter	Value
D.O. (mg/L)	8.5
pH	7.2
Cond(µS/cm)	142
BOD(mg/L)	1.7
COD(mg/L)	6.4
NO_3 -N (mg/L)	1.5
TSS (mg/L)	72
Turbidity (NTU)	03
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	72
Hardness (mg/L)	48
Calcium as $CaCO_3$(mg/L)	30
Magnesium as $CaCO_3$ (mg/L)	18
Chloride as Cl- (mg/L)	08
Sulphate as SO_4^{-2} (mg/L)	17.9
Phosphate as PO_4 (mg/L)	0.07
TKN (mg/L)	0.64
NH_4-N (mg/L)	0.21
Total Dissolved Solids (mg/L)	92
TFS (mg/L)	22
Fluoride (mg/l)	0.22
Boron (mg/l)	0.013
Na (mg/L)	6.7
K (mg/L)	2.3
Total Iron (mg/L)	0.23
Lead (mg/L)	BDL
Zinc (mg/L)	0.033
Copper (mg/L)	BDL
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	1500
Faecal Coliform (MPN/100ml)	730

Annexure D

Latest analysis report of Pagladia river- August 2020

Parameter	Value
D.O. (mg/L)	7.2
pH	7.6
Cond(µS/cm)	176
BOD(mg/L)	1.6
COD(mg/L)	6.2
NO_3 -N (mg/L)	1.4
TSS (mg/L)	68
Turbidity (NTU)	03
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	78
Hardness (mg/L)	64
Calcium as $CaCO_3$(mg/L)	40
Magnesium as $CaCO_3$ (mg/L)	24
Chloride as Cl- (mg/L)	08
Sulphate as SO_4^{-2} (mg/L)	17.3
Phosphate as PO_4 (mg/L)	0.08
TKN (mg/L)	0.78
NH_4-N (mg/L)	0.26
Total Dissolved Solids (mg/L)	112
TFS (mg/L)	28
Fluoride (mg/l)	0.23
Boron (mg/l)	0.017
Na (mg/L)	7.3
K (mg/L)	2.2
Total Iron (mg/L)	0.17
Lead (mg/L)	BDL
Zinc (mg/L)	0.039
Copper (mg/L)	BDL
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	1400
Faecal Coliform (MPN/100ml)	720

Annexure D

Latest analysis report of Panchnoi river- August - 2020

Parameter	Value
D.O. (mg/L)	6.2
pH	7.7
Cond(µS/cm)	82
BOD(mg/L)	1.4
COD(mg/L)	7.4
NO_3 -N (mg/L)	1.2
TSS (mg/L)	58
Turbidity (NTU)	03
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	48
Hardness (mg/L)	28
Calcium as $CaCO_3$(mg/L)	20
Magnesium as $CaCO_3$ (mg/L)	8
Chloride as Cl- (mg/L)	06
Sulphate as SO_4^{-2} (mg/L)	5.7
Phosphate as PO_4 (mg/L)	0.11
TKN (mg/L)	0.82
NH_4-N (mg/L)	0.27
Total Dissolved Solids (mg/L)	54
TFS (mg/L)	14
Fluoride (mg/l)	0.24
Boron (mg/l)	0.012
Na (mg/L)	5.3
K (mg/L)	2.4
Total Iron (mg/L)	0.21
Lead (mg/L)	BDL
Zinc (mg/L)	0.032
Copper (mg/L)	BDL
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	2000
Faecal Coliform (MPN/100ml)	730

Annexure E

Analysis report of the major drains contributing to pollution in the Borsola Beel for the month of August, 2020

Parameter	Drain 1 (Chandmari	Drain 2 (Rehabari
D.O. (mg/L)	Nil	Nil
pH	7.3	7.2
Cond(µS/cm)	526	442
BOD(mg/L)	42.4	46.1
COD(mg/L)	139.6	148.4
NO_3 -N (mg/L)	2.1	2.2
TSS (mg/L)	128	142
Turbidity (NTU)	08	11
p-Alkalinity (mg/L)	Nil	Nil
m-Alkalinity (mg/L)	226	224
Hardness (mg/L)	162	142
Calcium as $CaCO_3$(mg/L)	110	94
Magnesium as $CaCO_3$ (mg/L)	52	48
Chloride as Cl- (mg/L)	48	38
Sulphate as SO_4^{-2} (mg/L)	28.7	28.1
Phosphate as PO_4 (mg/L)	2.4	1.9
TKN (mg/L)	13.6	11.2
NH_4-N (mg/L)	4.4	3.6
Total Dissolved Solids (mg/L)	338	284
TFS (mg/L)	82	72
Fluoride (mg/l)	0.52	0.58
Boron (mg/l)	0.029	0.036
Na (mg/L)	34.5	28.2
K (mg/L)	13.9	14.1
Total Iron (mg/L)	0.48	0.62
Lead (mg/L)	0.033	0.032
Zinc (mg/L)	0.049	0.059
Copper (mg/L)	0.003	0.003
Total Chromium (mg/L)	BDL	BDL
Nickel (mg/L)	0.021	0.029
Cadmium (mg/L)	0.003	0.004
Mercury (mg/L)	BDL	BDL
Arsenic(mg/L)	BDL	BDL
Total Coliform (MPN/100ml)	9300	15000
Faecal Coliform (MPN/100ml)	3600	3600

Annexure E

Analysis report of the major drains contributing to pollution in the Silsako Beel for the month of August, 2020

Parameters	Drain 1 (Chachal drain)	Drain 2 (Panjabari drain)
D.O. (mg/L)	Nil	Nil
pH	7.3	7.5
Cond(µS/cm)	570	546
BOD(mg/L)	46.2	52.8
COD(mg/L)	172.2	176.8
NO_3 -N (mg/L)	2.4	2.2
TSS (mg/L)	122	132
Turbidity (NTU)	11	10
p-Alkalinity (mg/L)	Nil	Nil
m-Alkalinity (mg/L)	134	168
Hardness (mg/L)	158	144
Calcium as $CaCO_3$(mg/L)	106	96
Magnesium as $CaCO_3$ (mg/L)	52	48
Chloride as Cl- (mg/L)	48	46
Sulphate as SO_4^{-2} (mg/L)	42.6	44.1
Phosphate as PO_4 (mg/L)	1.9	1.8
TKN (mg/L)	12.2	11.2
NH_4-N (mg/L)	3.8	3.6
Total Dissolved Solids (mg/L)	366	352
TFS (mg/L)	92	86
Fluoride (mg/l)	0.46	0.58
Boron (mg/l)	0.066	0.048
Na (mg/L)	54.9	56.2
K (mg/L)	18.2	16.4
Total Iron (mg/L)	0.96	1.2
Lead (mg/L)	0.031	0.034
Zinc (mg/L)	0.052	0.049
Copper (mg/L)	0.004	0.004
Total Chromium (mg/L)	BDL	BDL
Nickel (mg/L)	0.038	0.033
Cadmium (mg/L)	0.003	0.004
Mercury (mg/L)	BDL	BDL
Arsenic(mg/L)	BDL	BDL
Total Coliform (MPN/100ml)	5300	6400
Faecal Coliform (MPN/100ml)	3600	2300

Annexure E

Analytical data of the drains outfalling in Bharalu River for the month of August, 2020

Source	D.O. (mg/L)	pH	Cond(µS/L)	BOD(mg/L)	COD(mg/L)	NO_3 -N (mg/L)	TSS (mg/L)	Turbidity (NTU)	p-Alkalinity (mg/L)	m-Alkalinity (mg/L)	Total Hardness (mg/L)	Calcium as $CaCO_3$(mg/L)	Magnesium as $CaCO_3$ (mg/L)	Chloride as Cl^- (mg/L)	Sulphate as SO_4^{-2} (mg/L)	Phosphate as PO_4 (mg/L)	TKN (mg/L)	NH_4-N (mg/L)	Total Dissolved Solids (mg/L)	TFS (mg/L)	Fluoride (mg/l)	Boron (mg/l)	Na (mg/L)	K (mg/L)	T-Fe (mg/L)	Lead as Pb (mg/L)	Zinc as Zn (mg/L)	Copper as Cu (mg/L)	Chromium as Cr(T) (mg/L)	Nickel as Ni (mg/L)	Cadmium as Cd (mg/L)	Mercury as Hg (mg/L)	Arsenic as As (µg/L)	Total Coliform (MPN/100ML)	Faecal Coliform (MPN/100ML)
Water from refinery locoshed area drain before confluence with Bharalu river at Jonali	Nil	7.2	736	48	146	3.8	114	8	Nil	210	224	152	72	84	42.6	1.6	11.6	3.8	472	116	0.44	0.039	52.6	12.4	0.49	0.026	0.062	0.006	BDL	BDL	BDL	BDL	0.008	29000	7500
Water from drain at Jonali before confluence with Bharalu river.	Nil	7.2	546	54.2	154.1	3.6	128	8	Nil	266	198	130	68	62	32.4	1.6	12.1	3.8	412	98	0.56	0.033	50.6	16.2	0.62	0.021	0.054	0.005	BDL	BDL	BDL	BDL	0.006	95000	21000
Water from drain after confluence with Bharalui River at Jonali	Nil	7.3	622	56.1	158	3.6	114	9	Nil	244	168	114	54	64	34.6	1.6	10.8	3.3	398	96	0.52	0.029	54.1	16.4	0.69	0.029	0.067	0.006	BDL	BDL	BDL	BDL	0.008	15000	3600
water from drain before confluence with Bharalu river at Ulubari Mazar	Nil	7.4	774	52.4	146.2	3.4	126	8	Nil	294	244	174	70	82	39.4	1.8	12.1	4	494	122	0.52	0.022	53.6	15.6	0.48	0.021	0.054	0.008	BDL	BDL	BDL	BDL	0.005	7500	2300
Water from Sarabbhati drain before confluence with Bharalu river at Sarabbhati	Nil	7.6	526	54.8	152.2	2.6	122	8	Nil	174	140	96	44	56	32.4	2.2	11.8	3.8	338	82	0.56	0.028	48.4	18.5	0.57	0.027	0.063	0.006	BDL	BDL	BDL	BDL	0.004	29000	7500
Water from Bishnupur drain after confluence with Bharalu river at Bishnupur	Nil	7.6	522	52.6	148.4	2.2	122	6	Nil	192	152	104	48	54	28.2	1.6	12.9	4	336	82	0.46	0.031	45.1	13.4	0.43	0.021	0.055	0.004	BDL	BDL	BDL	BDL	0.008	110000	29000

Annexure E

Analysis report of the major drains contributing to pollution in the Sorusola Beel for the month of August, 2020

Parameter	Drain near KC Das Commerce college	Drain from Chatribari area
D.O. (mg/L)	Nil	Nil
pH	7.2	7.4
Cond(µS/cm)	432	428
BOD(mg/L)	43.8	41.6
COD(mg/L)	142.6	138.4
NO_3 -N (mg/L)	2.1	2.2
TSS (mg/L)	132	136
Turbidity (NTU)	09	10
p-Alkalinity (mg/L)	Nil	Nil
m-Alkalinity (mg/L)	184	176
Hardness (mg/L)	142	140
Calcium as $CaCO_3$(mg/L)	94	102
Magnesium as $CaCO_3$ (mg/L)	48	40
Chloride as Cl- (mg/L)	42	40
Sulphate as SO_4^{-2} (mg/L)	24.6	26.9
Phosphate as PO_4 (mg/L)	1.4	2.1
TKN (mg/L)	12.4	13.6
NH_4-N (mg/L)	3.8	4.4
Total Dissolved Solids (mg/L)	278	276
TFS (mg/L)	68	68
Fluoride (mg/l)	0.48	0.52
Boron (mg/l)	0.033	0.042
Na (mg/L)	23.4	26.4
K (mg/L)	10.6	11.2
Total Iron (mg/L)	0.42	0.54
Lead (mg/L)	0.034	0.033
Zinc (mg/L)	0.046	0.052
Copper (mg/L)	0.003	0.003
Total Chromium (mg/L)	BDL	BDL
Nickel (mg/L)	0.026	0.027
Cadmium (mg/L)	0.004	0.005
Mercury (mg/L)	BDL	BDL
Arsenic(mg/L)	BDL	BDL
Total Coliform (MPN/100ml)	21000	29000
Faecal Coliform (MPN/100ml)	7500	15000

Annexure E

Water quality of the Mora Bharalu rivulet contributing to pollution in the Deepar Beel wetland (August 2020)

Parameter	Value
D.O. (mg/L)	4.1
pH	7.2
Cond(µS/cm)	176
BOD(mg/L)	4.6
COD(mg/L)	28.7
NO_3 -N (mg/L)	2.6
TSS (mg/L)	46
Turbidity (NTU)	07
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	92
Hardness (mg/L)	60
Calcium as $CaCO_3$(mg/L)	42
Magnesium as $CaCO_3$ (mg/L)	18
Chloride as Cl- (mg/L)	10
Sulphate as SO_4^{-2} (mg/L)	15.1
Phosphate as PO_4 (mg/L)	0.22
TKN (mg/L)	1.58
NH_4-N (mg/L)	0.52
Total Dissolved Solids (mg/L)	114
TFS (mg/L)	28
Fluoride (mg/l)	0.28
Boron (mg/l)	0.027
Na (mg/L)	13.7
K (mg/L)	4.9
Total Iron (mg/L)	0.27
Lead (mg/L)	BDL
Zinc (mg/L)	0.042
Copper (mg/L)	BDL
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(µg/L)	BDL
Total Coliform (MPN/100ml)	21000
Faecal Coliform (MPN/100ml)	1400

Annexure E

Analysis report of the major drains contributing to pollution in the Digboi river-August, 2020

Parameter	Drain 1 (Borbil No. 3)	Drain 2 (Borbil No.3)
D.O. (mg/L)	Nil	Nil
pH	7.1	7.1
Cond(µS/cm)	342	338
BOD(mg/L)	18.2	18.8
COD(mg/L)	48.7	52.4
NO_3 -N (mg/L)	2.4	2.8
TSS (mg/L)	66	64
Turbidity (NTU)	07	08
p-Alkalinity (mg/L)	Nil	Nil
m-Alkalinity (mg/L)	132	136
Hardness (mg/L)	136	114
Calcium as $CaCO_3$(mg/L)	94	84
Magnesium as $CaCO_3$ (mg/L)	42	30
Chloride as Cl- (mg/L)	16	16
Sulphate as SO_4^{-2} (mg/L)	34.1	27.6
Phosphate as PO_4 (mg/L)	0.54	0.64
TKN (mg/L)	10.9	12.2
NH_4-N (mg/L)	3.4	3.9
Total Dissolved Solids (mg/L)	216	218
TFS (mg/L)	54	54
Fluoride (mg/l)	0.42	0.46
Boron (mg/l)	0.032	0.042
Na (mg/L)	22.8	27.6
K (mg/L)	8.2	8.4
Total Iron (mg/L)	0.36	0.47
Lead (mg/L)	0.005	0.008
Zinc (mg/L)	0.046	0.047
Copper (mg/L)	0.005	0.005
Total Chromium (mg/L)	BDL	BDL
Nickel (mg/L)	BDL	BDL
Cadmium (mg/L)	BDL	BDL
Mercury (mg/L)	BDL	BDL
Arsenic(µg/L)	BDL	BDL
Total Coliform (MPN/100ml)	4300	7500
Faecal Coliform (MPN/100ml)	1500	2700

Annexure E

Analysis report of the major drains contributing to pollution in the Kamalpur Beel – August, 2020

Parameter	value
D.O. (mg/L)	Nil
pH	6.9
Cond(µS/cm)	1232
BOD(mg/L)	42.8
COD(mg/L)	132.6
NO_3 -N (mg/L)	3.6
TSS (mg/L)	134
Turbidity (NTU)	09
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	266
Hardness (mg/L)	262
Calcium as $CaCO_3$(mg/L)	170
Magnesium as $CaCO_3$ (mg/L)	92
Chloride as Cl- (mg/L)	92
Sulphate as SO_4^{-2} (mg/L)	122.4
Phosphate as PO_4 (mg/L)	2.4
TKN (mg/L)	13.8
NH_4-N (mg/L)	4.2
Total Dissolved Solids (mg/L)	786
TFS (mg/L)	134
Fluoride (mg/l)	0.38
Boron (mg/l)	0.044
Na (mg/L)	146.2
K (mg/L)	56.1
Total Iron (mg/L)	0.61
Lead (mg/L)	0.006
Zinc (mg/L)	0.048
Copper (mg/L)	0.004
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	24000
Faecal Coliform (MPN/100ml)	2700

Annexure E

Analysis report of the Mora Bharali river contributing to pollution in the Brahmaputra river at Dhenukhana Phar (August, 2020)

Parameter	Value
D.O. (mg/L)	5.1
pH	7.3
Cond(µS/cm)	182
BOD(mg/L)	2.4
COD(mg/L)	9.4
NO_3 -N (mg/L)	1.8
TSS (mg/L)	52
Turbidity (NTU)	08
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	68
Hardness (mg/L)	68
Calcium as $CaCO_3$(mg/L)	44
Magnesium as $CaCO_3$ (mg/L)	24
Chloride as Cl- (mg/L)	08
Sulphate as SO_4^{-2} (mg/L)	13.9
Phosphate as PO_4 (mg/L)	0.12
TKN (mg/L)	1.24
NH_4-N (mg/L)	0.38
Total Dissolved Solids (mg/L)	118
TFS (mg/L)	28
Fluoride (mg/l)	0.36
Boron (mg/l)	0.023
Na (mg/L)	11.9
K (mg/L)	4.1
Total Iron (mg/L)	0.28
Lead (mg/L)	BDL
Zinc (mg/L)	0.042
Copper (mg/L)	0.004
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(µg/L)	BDL
Total Coliform (MPN/100ml)	3500
Faecal Coliform (MPN/100ml)	1100

Annexure E

Analysis report of the major drains contributing to pollution in the Brahmaputra river at Kacharighat (August, 2020)

Parameter	Water from drain near Sukleswar temple before confluence with Brahmaputra river	Water from drain at Fancy Bazar (behind MMCH) before confluence with Brahmaputra river
D.O. (mg/L)	1.2	1.2
pH	7.4	7.2
Cond(µS/cm)	264	352
BOD(mg/L)	17.2	18.9
COD(mg/L)	46.2	52.4
NO_3 -N (mg/L)	2.7	2.6
TSS (mg/L)	66	74
Turbidity (NTU)	09	08
p-Alkalinity (mg/L)	Nil	Nil
m-Alkalinity (mg/L)	124	128
Hardness (mg/L)	84	118
Calcium as $CaCO_3$(mg/L)	56	86
Magnesium as $CaCO_3$ (mg/L)	28	32
Chloride as Cl- (mg/L)	18	22
Sulphate as SO_4^{-2} (mg/L)	21.6	23.1
Phosphate as PO_4 (mg/L)	0.77	0.72
TKN (mg/L)	10.8	10.4
NH_4-N (mg/L)	3.6	3.4
Total Dissolved Solids (mg/L)	168	224
TFS (mg/L)	42	54
Fluoride (mg/l)	0.47	0.44
Boron (mg/l)	0.034	0.027
Na (mg/L)	21.4	25.7
K (mg/L)	5.8	8.4
Total Iron (mg/L)	0.41	0.39
Lead (mg/L)	0.006	0.006
Zinc (mg/L)	0.042	0.047
Copper (mg/L)	0.004	0.005
Total Chromium (mg/L)	BDL	BDL
Nickel (mg/L)	BDL	BDL
Cadmium (mg/L)	BDL	BDL
Mercury (mg/L)	BDL	BDL
Arsenic(µg/L)	BDL	BDL
Total Coliform (MPN/100ml)	2000	7500
Faecal Coliform (MPN/100ml)	730	2000

Annexure E

Analysis report of the major drains contributing to pollution in the Pagladia river – August, 2020

Parameter	Bhugabeel at Ghograpar
D.O. (mg/L)	1.4
pH	6.6
Cond(µS/cm)	322
BOD(mg/L)	18.2
COD(mg/L)	52.6
NO_3 -N (mg/L)	2.6
TSS (mg/L)	60
Turbidity (NTU)	08
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	144
Hardness (mg/L)	130
Calcium as $CaCO_3$(mg/L)	90
Magnesium as $CaCO_3$ (mg/L)	40
Chloride as Cl- (mg/L)	18
Sulphate as SO_4^{-2} (mg/L)	26.4
Phosphate as PO_4 (mg/L)	0.69
TKN (mg/L)	12.4
NH_4-N (mg/L)	4.2
Total Dissolved Solids (mg/L)	208
TFS (mg/L)	50
Fluoride (mg/l)	0.44
Boron (mg/l)	0.031
Na (mg/L)	15.1
K (mg/L)	4.4
Total Iron (mg/L)	0.36
Lead (mg/L)	0.005
Zinc (mg/L)	0.046
Copper (mg/L)	0.004
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	6400
Faecal Coliform (MPN/100ml)	2000

Annexure F

Latest analysis report of Groundwater from Shantipur area (Catchment area of Bharalu River and Borsola Wetland) - August 2020

Parameter	Value
pH	6.6
Cond(µS/cm)	190
BOD(mg/L)	1.9
COD(mg/L)	5.0
NO_3 -N (mg/L)	1.0
TSS (mg/L)	18
Turbidity (NTU)	6
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	80
Hardness (mg/L)	60
Calcium as $CaCO_3$(mg/L)	40
Magnesium as $CaCO_3$ (mg/L)	20
Chloride as Cl- (mg/L)	20
Sulphate as SO_4^{-2} (mg/L)	14.1
Phosphate as PO_4 (mg/L)	0.5
Total Dissolved Solids (mg/L)	114
TFS (mg/L)	26
Fluoride (mg/l)	0.56
Boron (mg/l)	0.024
Na (mg/L)	1.2
K (mg/L)	0.4
NH4-N (mg/L)	0.18
TKN (mg/L)	0.40
Total Iron (mg/L)	0.54
Lead (mg/L)	BDL
Zinc (mg/L)	0.136
Copper (mg/L)	0.004
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	0.004
Total Coliform (MPN/100ml)	Nil
Faecal Coliform (MPN/100ml)	Nil

Annexure F

Latest analysis report of Groundwater quality of Satgaon area (catchment of Silsako Beel)-August 2020

Parameter	Value
pH	7.5
Cond(µS/cm)	310
BOD(mg/L)	1.8
COD(mg/L)	6.8
NO_3 -N (mg/L)	1.3
TSS (mg/L)	24
Turbidity (NTU)	4
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	116
Hardness (mg/L)	96
Calcium as $CaCO_3$(mg/L)	72
Magnesium as $CaCO_3$ (mg/L)	24
Chloride as Cl- (mg/L)	16.2
Sulphate as SO_4^{-2} (mg/L)	6.8
Phosphate as PO_4 (mg/L)	0.6
Total Dissolved Solids (mg/L)	198
TFS (mg/L)	42
Fluoride (mg/l)	0.12
Boron (mg/l)	0.010
Na (mg/L)	60.8
K (mg/L)	8.4
NH4-N (mg/L)	0.14
TKN (mg/L)	0.42
Total Iron (mg/L)	0.64
Lead (mg/L)	BDL
Zinc (mg/L)	0.330
Copper (mg/L)	0.004
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	0.003
Total Coliform (MPN/100ml)	Nil
Faecal Coliform (MPN/100ml)	Nil

Annexure F

Latest analysis report of Groundwater from Shantipur area (Catchment of Sorusala Wetland) - August 2020

Parameter	Value
pH	6.6
Cond(µS/cm)	190
BOD(mg/L)	1.9
COD(mg/L)	5.0
NO_3 -N (mg/L)	1.0
TSS (mg/L)	18
Turbidity (NTU)	6
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	80
Hardness (mg/L)	60
Calcium as $CaCO_3$(mg/L)	40
Magnesium as $CaCO_3$ (mg/L)	20
Chloride as Cl- (mg/L)	20
Sulphate as SO_4^{-2} (mg/L)	14.1
Phosphate as PO_4 (mg/L)	0.5
Total Dissolved Solids (mg/L)	114
TFS (mg/L)	26
Fluoride (mg/l)	0.56
Boron (mg/l)	0.024
Na (mg/L)	1.2
K (mg/L)	0.4
NH4-N (mg/L)	0.18
TKN (mg/L)	0.40
Total Iron (mg/L)	0.54
Lead (mg/L)	BDL
Zinc (mg/L)	0.136
Copper (mg/L)	0.004
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	0.004
Total Coliform (MPN/100ml)	Nil
Faecal Coliform (MPN/100ml)	Nil

Annexure F

Latest analysis report of Groundwater from MSW dumping site at Boragaon (Catchment of Deepar Beel) -August 2020

Parameter	Value
pH	7.3
Cond(µS/cm)	172
BOD(mg/L)	1.5
COD(mg/L)	4.6
NO_3 -N (mg/L)	2.3
TSS (mg/L)	6
Turbidity (NTU)	2
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	178
Hardness (mg/L)	54
Calcium as $CaCO_3$(mg/L)	38
Magnesium as $CaCO_3$ (mg/L)	16
Chloride as Cl- (mg/L)	8.2
Sulphate as SO_4^{-2} (mg/L)	8.6
Phosphate as PO_4 (mg/L)	0.05
Total Dissolved Solids (mg/L)	108
TFS (mg/L)	26
Fluoride (mg/l)	0.30
Boron (mg/l)	0.011
Na (mg/L)	21.8
K (mg/L)	5.1
NH4-N (mg/L)	0.16
TKN (mg/L)	0.44
Total Iron (mg/L)	1.6
Lead (mg/L)	BDL
Zinc (mg/L)	0.420
Copper (mg/L)	0.003
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	Nil
Faecal Coliform (MPN/100ml)	Nil

Annexure F

Latest groundwater quality of Kamalpur area (catchment of Kamalpur Beel) - August 2020

Parameter	Value
pH	7.1
Cond(µS/cm)	250
BOD(mg/L)	1.5
COD(mg/L)	5.0
NO_3 -N (mg/L)	1.8
TSS (mg/L)	6
Turbidity (NTU)	2
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	82
Hardness (mg/L)	74
Calcium as $CaCO_3$(mg/L)	52
Magnesium as $CaCO_3$ (mg/L)	22
Chloride as Cl- (mg/L)	18
Sulphate as SO_4^{-2} (mg/L)	21.8
Phosphate as PO_4 (mg/L)	0.06
Total Dissolved Solids (mg/L)	160
TFS (mg/L)	38
Fluoride (mg/l)	0.30
Boron (mg/l)	0.011
Na (mg/L)	27.8
K (mg/L)	6.6
NH4-N (mg/L)	0.18
TKN (mg/L)	0.52
Total Iron (mg/L)	0.20
Lead (mg/L)	BDL
Zinc (mg/L)	0.050
Copper (mg/L)	0.004
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	Nil
Faecal Coliform (MPN/100ml)	Nil

Annexure F

Latest analysis report of Groundwater at Digboi (Catchment of Digboi River) -August 2020

Parameter	Value
pH	7.2
Cond(µS/cm)	350
BOD(mg/L)	1.5
COD(mg/L)	4.4
NO_3 -N (mg/L)	1.9
TSS (mg/L)	6
Turbidity (NTU)	2
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	128
Hardness (mg/L)	86
Calcium as $CaCO_3$(mg/L)	64
Magnesium as $CaCO_3$ (mg/L)	22
Chloride as Cl- (mg/L)	30
Sulphate as SO_4^{-2} (mg/L)	12.9
Phosphate as PO_4 (mg/L)	0.05
Total Dissolved Solids (mg/L)	224
TFS (mg/L)	50
Fluoride (mg/l)	0.21
Boron (mg/l)	0.011
Na (mg/L)	56.4
K (mg/L)	26.4
NH4-N (mg/L)	0.16
TKN (mg/L)	0.44
Total Iron (mg/L)	0.30
Lead (mg/L)	BDL
Zinc (mg/L)	0.042
Copper (mg/L)	0.004
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	Nil
Faecal Coliform (MPN/100ml)	Nil

Annexure F

Latest analysis report of Ground water of the catchment area of polluted stretch of River Brahmaputra- August 2020

Parameter	Bogibeel gaon (catchment of River Brahmaputra at Bogibeel)	Kumar gaon (catchment of River Brahmaputra at Nimatighat)	Tezpur (catchment of River Brahmaputra at Dhenukhana Pahar)	Chandrapur (catchment of River Brahmaputra at Chandrapur)	Fancy Bazar (catchment of River Brahmaputra at Kachari Ghat)	Sualkuchi (catchment of River Brahmaputra at Sualkuchi)
pH	7.2	6.9	7.2	7.3	7.2	7.3
Cond(µS/cm)	94	238	94	280	146	144
BOD(mg/L)	1.4	1.4	1.3	1.5	1.3	1.3
COD(mg/L)	4.6	4.6	4.7	4.6	5.1	5.2
NO_3 -N (mg/L)	2.2	3.1	2.4	2.1	2.2	2.6
TSS (mg/L)	6	6	8	6	8	6
Turbidity (NTU)	2	2	2	2	2	2
p-Alkalinity (mg/L)	Nil	Nil	Nil	Nil	Nil	Nil
m-Alkalinity (mg/L)	84	128	90	110	90	92
Hardness (mg/L)	28	70	28	82	42	40
Calcium as $CaCO_3$(mg/L)	20	48	18	60	30	30
Magnesium as $CaCO_3$ (mg/L)	8	22	10	22	12	10
Chloride as Cl- (mg/L)	6	20	10	20	12	12
Sulphate as SO_4^{-2} (mg/L)	3.4	22.8	4.2	7.2	7.6	7.2
Phosphate as PO_4 (mg/L)	0.05	0.06	0.05	0.07	0.08	0.06
Total Dissolved Solids (mg/L)	60	152	62	180	92	90
TFS (mg/L)	14	36	14	42	22	20
Fluoride (mg/l)	0.30	0.40	0.31	0.52	0.35	0.34
Boron (mg/l)	0.009	0.008	0.011	0.009	0.022	0.023

Annexure F

Parameter	Bogibeel gaon (catchment of River Brahmaputra at Bogibeel)	Kumar gaon (catchment of River Brahmaputra at Nimatighat)	Tezpur (catchment of River Brahmaputra at Dhenukhana Pahar)	Chandrapur (catchment of River Brahmaputra at Chandrapur)	Fancy Bazar (catchment of River Brahmaputra at Kachari Ghat)	Sualkuchi (catchment of River Brahmaputra at Sualkuchi)
Na (mg/L)	9.6	10.1	10.6	49.4	12.8	12.4
K (mg/L)	2.3	3.6	3.2	10.8	5.2	5.1
NH4-N (mg/L)	0.13	0.15	0.14	0.18	0.19	0.18
TKN (mg/L)	0.48	0.49	0.46	0.50	0.48	0.44
Total Iron (mg/L)	0.26	0.26	0.28	0.26	0.28	0.26
Lead (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Zinc (mg/L)	0.054	0.042	0.051	0.048	0.042	0.043
Copper (mg/L)	0.004	0.003	0.004	0.004	0.003	0.003
Total Chromium (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Nickel (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Mercury (mg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic(µg/L)	BDL	BDL	BDL	BDL	BDL	BDL
Total Coliform (MPN/100ml)	Nil	Nil	Nil	Nil	Nil	Nil
Faecal Coliform (MPN/100ml)	Nil	Nil	Nil	Nil	Nil	Nil

Annexure F

Latest analysis report of Groundwater at Garubandha Khankhata, Mazbat (Catchment of Panchnoi River) - August 2020

Parameter	Value
pH	6.9
Cond(µS/cm)	120
BOD(mg/L)	1.4
COD(mg/L)	4.6
NO_3 -N (mg/L)	1.6
TSS (mg/L)	6
Turbidity (NTU)	2
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	54
Hardness (mg/L)	48
Calcium as $CaCO_3$(mg/L)	30
Magnesium as $CaCO_3$ (mg/L)	18
Chloride as Cl- (mg/L)	6
Sulphate as SO_4^{-2} (mg/L)	5.8
Phosphate as PO_4 (mg/L)	0.05
Total Dissolved Solids (mg/L)	76
TFS (mg/L)	18
Fluoride (mg/l)	0.30
Boron (mg/l)	0.010
Na (mg/L)	6.5
K (mg/L)	2.0
NH4-N (mg/L)	0.16
TKN (mg/L)	0.50
Total Iron (mg/L)	0.22
Lead (mg/L)	BDL
Zinc (mg/L)	0.030
Copper (mg/L)	BDL
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	Nil
Faecal Coliform (MPN/100ml)	Nil

Annexure F

Latest analysis report of Groundwater at Kharsang (Catchment of Kharsang River), August 2020

Parameter	Value
pH	6.5
Cond(µS/cm)	224
BOD(mg/L)	1.5
COD(mg/L)	4.6
NO_3 -N (mg/L)	1.3
TSS (mg/L)	6
Turbidity (NTU)	2
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	115
Hardness (mg/L)	52
Calcium as $CaCO_3$(mg/L)	34
Magnesium as $CaCO_3$ (mg/L)	18
Chloride as Cl- (mg/L)	12
Sulphate as SO_4^{-2} (mg/L)	9.6
Phosphate as PO_4 (mg/L)	0.06
Total Dissolved Solids (mg/L)	138
TFS (mg/L)	30
Fluoride (mg/l)	0.20
Boron (mg/l)	0.011
Na (mg/L)	16.2
K (mg/L)	8.8
NH4-N (mg/L)	0.14
TKN (mg/L)	0.40
Total Iron (mg/L)	0.20
Lead (mg/L)	BDL
Zinc (mg/L)	0.082
Copper (mg/L)	0.004
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	Nil
Faecal Coliform (MPN/100ml)	Nil

Annexure F

Latest analysis report of Groundwater at Nalbari (Catchment of Pagladia river), August 2020

Parameter	Value
pH	6.9
Cond(µS/cm)	280
BOD(mg/L)	1.3
COD(mg/L)	4.5
NO_3 -N (mg/L)	1.8
TSS (mg/L)	6
Turbidity (NTU)	2
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	64
Hardness (mg/L)	102
Calcium as $CaCO_3$(mg/L)	76
Magnesium as $CaCO_3$ (mg/L)	26
Chloride as Cl- (mg/L)	12
Sulphate as SO_4^{-2} (mg/L)	17.8
Phosphate as PO_4 (mg/L)	0.05
Total Dissolved Solids (mg/L)	180
TFS (mg/L)	40
Fluoride (mg/l)	0.30
Boron (mg/l)	0.010
Na (mg/L)	21.5
K (mg/L)	6.4
NH4-N (mg/L)	0.14
TKN (mg/L)	0.40
Total Iron (mg/L)	0.20
Lead (mg/L)	BDL
Zinc (mg/L)	0.038
Copper (mg/L)	BDL
Total Chromium (mg/L)	BDL
Nickel (mg/L)	BDL
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	Nil
Faecal Coliform (MPN/100ml)	Nil