GOVERNMENT OF ASSAM
ENVIRONMENT AND FOREST DEPARTMENT
DISPUR, GUWAHATI -6.

No. FRM.171/2018/Pt-II/501 Dated Dispur, the 14th August, 2020

From : Shri I. Kalita, ACS
Addl. Secretary to the Govt. of Assam
Environment and Forest Department.

To : The Secretary to the Govt. of India,
Ministry of Jal Shakti,
Department of Water Resources,
River Development & Ganga Rejuvenation,
Shram Shakti Bhawan , Rafi Marg, New Delhi-110001.

Sub : Submission of Monthly Progress Report (MPR) in Compliance of orders in OA No.673/2018, News Items published in "The Hindu"authorized by Shri Jacob Koshy, titled "More river stretches are now critically polluted; CPCB".

Sir,

With reference to the subject cited above, I am directed to submit herewith the Monthly Progress Report (MPR) for the State of Assam in compliance of orders in OA No.673/2018, News Items published in "The Hindu" authorized by Shri Jacob Koshy, titled "More river stretches are now critically polluted; CPCB" for favour of your kind information and necessary action.

Yours faithfully,

Enclosure: As stated above.

Addl. Secretary to the Govt. of Assam
Environment and Forest Department.

Memo No. FRM.171/2018/Pt-II/501-A Dated Dispur, the 14th August, 2020

Copy to :-

1. The Chairman, Central Pollution Control Board, Parivesh Bhawan, C B D Cum Office Complex, East Arjun Nagar, Shahdara, Delhi-110032. (copy of MPR enclosed herewith).
2. The Consultant Judicial, National Green Tribunal (Principal Bench), New Delhi.

By order etc.,

Addl. Secretary to the Govt. of Assam
Environment and Forest Department

Monthly Progress Report for the month of July, 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)**	GMC	Department of Guwahati Development and Urban Development Department have taken following measures for in situ remediation. GMC has been cleaning the Bharalu river alongwith other water bodies *viz* i)Mora-Bharalu ii) Bahini iii) Lakhimijan iv) Basistha Channel. Cleaning and de-siltating has been carried out by GMC on regular basis. Moreover, GMC has taken steps to create awareness among the people of 31 wards of Guwahati regarding open defecation and discharge of solid waste. Also, disposal of municipal waste, plastic, bio-medical wastes etc. in the river bodies are prohibited and panel provision is incorporated in the GMC Act. Discharge of toilet and sewage to the targeted river is also prohibited. In this regard a total no. of 4697 toilets have been constructed and geo-tagged under Swachh Bharat Mission by GMC to prevent open defecation.
			Borsola **(Priority –II)**	GMDA/ GMC	For bio-remediation of the Borsola Beel, Govt. has already accorded AA and works will begin immediately after the monsoon season. However, the GMDA & GMC are actively engaged in cleaning the Borsola, Silsako, Deepor Beel and the Bharalu river.
			Silsako **(Priority-II)**	GMDA	Govt. is taking up Bio-remediation project through GMDA in the interim period till installation of STPs and Bio-remediation will be done after the monsoon season and the process of bio-remediation will continue till installation of STPs/co-treatment facilities.
			Sarusola **(Priority-II)**	GMDA	A proposal for carrying out Bio-remediation by GMDA is under consideration and sent to Finance Department. Bio-remediation will be done after the monsoon season and the process of bio-remediation will continue till installation of STPs/co-treatment facilities.

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
			Deepor Beel **(Priority-III)**		GMDA	GMDA has taken up schemes to clean Deepor Beel and linked channels through i) Development of Deepor Beel (including excavation of Khanamukh channel) by excavation and cleaning from 2019 ii) De-siltation and cleaning of Pamohi River and N.H. drain.
			(Priority-III)	Digboi (BOD-14.0MG/L)	P&RD	Survey is being conducted for ensuring 100% treatment.
				Kamalpur (BOD-18.6MG/L)		
				Panchnai (BOD-11.4MG/L)		
			(Priority-IV)	Kharsang (BOD-7.2MG/L)		
				Pagladia (BOD-8.2MG/L)		
			(Priority-V)	Baroi (BOD-3.6 MG/L)		
				Boginadi (BOD-4.2 MG/L)		
				Dikrong (BOD-3.2 MG/L)		
				Diplai (BOD-3.6 MG/L)		

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
			(Priority-V)	Dishang (BOD-4.2 MG/L)	P&RD	Survey is being conducted for ensuring 100% treatment
				Gabharu (BOD-5.4 MG/L)		
				Holudunga (BOD-4.8 MG/L)		
				Jia bharali (BOD-3.1 MG/L)		
				Killing (BOD-508 MG/L)		
				Kohora (BOD-4.4 MG/L)		
				Kulsi (BOD-3.6 MG/L)		
				Mora Bharali (BOD-5.2 MG/L)		
				Parashali (BOD-4.0 MG/L)		
				Puthimari (BOD-4.8		

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
				MG/L)		
				Ranga (BOD-3.8 MG/L)		
				Samaguri (BOD-4.0 MG/L)		
				Son (BOD-4.3 MG/L)		Survey is being conducted for ensuring 100% treatment
				Tenga Pukhuri(BOD-4.0 MG/L)		
1.1	***Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured***	31.03.2020	1. Bharalu 2. Silsako 3. Borsola		GDD	In the initial Action Plan, 5 STPs had been proposed for all the three water bodies and the date of commencement was informed as 31.03.2021. However, due to unavoidable reasons inter alia including COVID pandemic & technical issues such as site selection for STPs & related technology, the implementation has got delayed. **However, in the meantime, the State Government has initiated the process for appointment of Project Management Consultants & requisite survey for selection of site for decentralized STPs having various technologies. The State Government has already signed a loan agreement with the Japan International Cooperation Agency (JICA) for funding these STPs & related sewerage network.** In the present scenario of pandemic due to COVID-19, it may take some more time to start the work for STP construction. **It is expected that the work for STP related Sewage network may start by October, 2021 after the monsoon season is over. Commissioning would further take 2 (two) more years.**

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
			Bharalu		Guwahati Jal Board (GDD)	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.
			Silsako			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.
			Borsola			For setting up of 15 MLD capacity STP, land has been identified at Serabhati under Ulubari Mouza.
			Bega		UDD	STPs have been proposed for the river stretches Bega, Barak, Kolong, Bhogdoi and Mora Bhoroli
			Barak			
			Kolong			
			Bhogdoi			
			Mora Bhoroli			
			(Priority-III)	Digboi	P&RD	Survey is going on as per Action plan of the Pollution Control Board Assam.
				Kamalpur		
				Panchnai		
			(Priority-IV)	Kharsang		
				Pagladia		
			(Priority-V)	Baroi		
				Boginadi		
				Dikrong		
				Diplai		
				Dishang		
				Gabharu		

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
				Holudunga		Survey is going on as per Action plan of the Pollution Control Board Assam.
				Jia Bharali		
				Killing		
				Kohora		
				Kulsi		
				Mora Bharali		
				Parashali		
				Puthimari		
				Ranga		
				Samaguri		
				Son		
				Tenga Pukhuri		
2	***Timeline for completing all steps of action plans including completion of setting up of STPs and their commissioning***	31.03.2021			Guwahati Jal Board	1. List of shortlisted PMCs for floating of RFP will be sent to JICA for approval by 13.08.2020. 2. Approval of JICA by 04.09.2020. 3. Floating of RFP & receipt of bids to be completed by30.10.2020 4. Technical Bid Evaluation to be completed by 20.11.2020. 5. Submission of Technical Bid Evaluation Report (TBER) to JICA for concurrence by 25.11.2020. 6. Concurrence of JICA by 15.12.2020.

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
						7. Financial Bid Evaluation process to be completed by 30.12.2020. 8. Submission of Financial Bid Evaluation report (FBER) to JICA for concurrence by 05.01.2020. 9. Concurrence of JICA by 25.01.2021 10. Award of PMC by 24.02.2021 11. Mobilization of PMC by 28.02.2021 12. Survey works by PMC as per new scope of work and preparation of estimates to be completed by 10.04.2021. 13. Preparation of RFP by PMC to be completed by 25.04.2021 14. Submission of the RFP to JICA for approval by 05.05.2021 15. Concurrence of JICA by 01.06.2021 16. Floating of RFP and receipt of bids to be completed by 30.06.2021 17. Technical Bid Evaluation to be completed by 10.07.2021 18. Submission of the TBER to JICA for approval by 15.07.2021 19. Concurrence of JICA by 31.07.2021 20. Financial Bid evaluation process to be completed by 15.08.2021 21. Submission of FBER to JICA for concurrence by 31.08.2021 22. Concurrence of JICA 21.10.2021 23. Award of contract to be done by 31.10.2021. Finalization of tenders for execution of STPs work in respect of Bega, Barak, Kolong, Bhogdoi and Mora Bhoroli is expected to be completed by 31.12.2020.
			(Priority-III)	Digboi	P&RD	Survey for identification of polluting source is going on. On completion of survey, setting up of STP will be initiated.
				Kamalpur		As per Action Plan prepared by PCB, Assam, no STP is required
				Panchnai		
			(Priority-IV)	Pagladia		Based on the field report, reassessment on the need of setting up of STP is being carried out, in consultation with PCB, Assam
				Kharsang		As per Action Plan prepared by PCB, Assam, no STP is required

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
			(Priority-V)	Baroi		As per Action Plan prepared by PCB, Assam, no STP is required
				Boginadi		
				Dikrong		
				Diplai		
				Dishang		
				Gabharu		
				Holudunga		
				Jia bharali		
				Killing		
				Kohora		
				Kulsi		
				Tenga Pukhuri		
				Parashali		
				Puthimari		
				Ranga		
				Samaguri		

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
				Son		
				Mora Bharali		Based on the field report, reassessment on the need of setting up of STP is being carried out, in consultation with PCB, Assam.
5	***Chief Secretaries may set up appropriate monitoring mechanism at State level*** • ***Specifying the accountability of nodal authorities not below the Secretary level***					A River Rejuvenation Committee was constituted vide Notification No.FRM.171/2018/34 dated 24.12.2018 with following members for overall supervision and coordination for bringing all the polluted river stretches to be fit at least for bathing purposes etc i. Secretary, Environment & Forest Department ii. Secretary, Urban Development Department iii. Commissioner, Industries & Commerce iv. Member Secretary, Pollution Control Board, Assam Special Environment Surveillance Task Force was constituted with the following members for ensuring that no illegal mining take place in river beds of polluted stretches. (i) Nominees of District Magistrate (ii) SP (iii) Regional officer of SPCB (iv) One person to be nominated by District Judge Sri Avinash Joshi, IAS, Principal. Secretary, E & F Deptt was nominated as Nodal Officer on behalf of the C.S. in OA No. 673/2018 vide Office Order No. FRM.171/2018/661 dated 24.02.2020 A committee is formed under chairmanship of the Secretary, UDD, Govt. of Assam to monitor the progress vide Notification No.UDD(M)19/2019/222 dated 18.07.2020.

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks
	• ***Chief Secretaries may have an accountable person attached in their office for this purpose***	22.01.2020			Environment & Forest Deptt was notified as Nodal Department.
	• ***Monitoring at State level must take place***	Fortnightly commencing 21.12.2019			Implementation of Action Plans and its progress for rejuvenation of the polluted river stretches have been regularly reviewed by the Chief Secretary, Assam at the state level. The Principal Secretary, Environment & Forest Department has also been reviewing the progress regularly with senior officers of GDD, UDD, P&RD and other stakeholders. Last Review meeting on the matter was held on 21.07.2020 under the Chairmanship of the Chief Secretary. The progress of implementation of action plans is also reviewed by the River Rejuvenation Committee under the chairmanship of Secretary, E& F Department.
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 May, 2020 was submitted by the Guwahati Development Department to the Ministry of Jal Shakti and the CPCB. But due lockdown/curfew for containment of Covid-19 pandemic, MPR for the month of June could not be submitted.
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.***				a) Major drain outfalls (Municipal and Commercial waste) and industrial units contributing to pollution in the polluted river stretches under **Priority I** and **II** have already been identified and mentioned in the Action Plan. b) The list of major drain outfalls and industrial details situated in the catchment area of the polluted river stretches are enclosed **(Annexure A and B)** c) There are five non-complying industrial units situated in the catchment of Bharalu River, Borsola /Sorusala beel. These industrial units were issued closure notice by Pollution Control Board Assam and ensured closure **(Annexure C).**

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
			(Priority-III)	Digboi	P & RD Deptt.	The polluting sources are namely Katcha Drain from Digboi Town Committee area, Drains from 3 No. Boribil Paddy Field, Drains from IOCL Treatment plant amd Camals from OIL India Ltd., Digboi. Out of these polluting sources, 3 No. Boribil Paddy Field falls under the jurisdiction of Panchayat & Rural Development Department. While the major portions of other polluting sources falls under Digboi Town Area. Detail Survey for identification of polluting source is going on.
				Kamalpur		Major drain contributing to polluting Kamalpur Beel identified.
				Panchnai		Survey going on for identification of Panchnai River.
			(Priority-IV)	Kharsang		Surveyed and no polluting source identified in Assam. Polluting source found in Arunachal Pradesh.
				Pagladia		Yet to be done.
			(Priority-V)	Baroi		Survey going on for identification of polluting source.
				Boginadi		Survey going on for identification of polluting source.
				Dikrong		Survey going on for identification of polluting source.
				Diplai		Survey going on for identification of polluting source.
				Dishang		Identified and action plan prepared accordingly.
				Gabharu		Survey going on for identification of polluting source.
				Holudunga		Surveyed and identified.
				Jia bharali		Survey going on for identification of polluting source.

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
			(Priority-V)	Killing	P & RD Deptt	Survey going on for identification of polluting source.
				Kohora		Surveyed and identified as Kohora to Mohpara
				Kulsi		Bangal Kata to Ziakur No. 1 stretch identified.
				Mora Bharali		Survey going on for identification of polluting source.
				Parashali		Polluted Parashali Beel and the drains contributing to pollution identified
				Puthimari		Kachuria to Sundarisal stretch identified.
				Ranga		Survey going on for identification of polluting source.
				Samaguri		Survey going on for identification of polluting source.
				Son		Identified as 'Sonbeel' and 'Ratabeel'.
				Tenga Pukhuri		Contamination of water during October/November is due to decomposition of water Lily and other water born weeds.
	ii. Status of STPs, I & D and sewage networks. Details of existing infrastructure, Gap Analysis, proposed along with completion timelines					There is no existing Sewage Network in the state. However, the Sewage system operates through collection of sewage from household by GMC in cesspool vehicles on payment from the existing septic tanks, soak pits of households. Therefore, modern method of STP and co-treatment of Septage at Sewage Treatment Plant Technology is being implemented. At present, GMC has 12 cesspools vehicles in operation. (6 private + 6 GMC). The process of preparation of DPRs for STPs is under Assam Urban Water supply and Sewage Board. The STPs have been proposed for the river stretches of Bega, Barak, Kolong, Bhogdoi and Mora Bhoroli by UDD. Another STP is proposed Digboi by P&RD Department.

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.					a) Status report on closure of industries 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).** b) There is only one major industry namely, Guwahati Refinery, IOCL and it has online monitoring system. c) Step shall be taken to insure Zero Liquid Discharge (ZLD) in the major polluting industrial units. (**Annexure-C).**
			(Priority-III)	Digboi	P & RD Deptt.	Survey is going on.
			(Priority-V)	Dishang		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.
	iv. Status of Solid Waste Management and details of processing facilities – Details of existing infrastructure, proposed along with completion timelines.				GMC (GDD)	(i) Disposal of municipal waste, bio-medical waste, plastic etc. in the river bodies are prohibited by the Guwahati Municipal Corporation. (ii) GMC has set up 2 nos. of decentralized processing plants one at Bhangagarh & another at Chatribari Beelpar locality for Solid Waste Management. The Bhangagarh Site is currently in operation. The work of Chatribari Beelpar site is at present closed due to lockdown. (iii) For establishment of proposed Integrated Solid Waste Management Plant/waste to energy plant, a plot of land measuring 28 Bigha at Byrnihat, Sonapur Circle has already been allocated to GMC by Revenue Deptt. The D.C., Kamrup (M) will hand over the said plot of land to GMC immediately. Fund for setting up of Integrated Solid Waste Management Plant at Byarnihat will be arranged from the 15th Finance Grant, Guwahati Smart City Ltd., & SOPD of State Government. (iv) GMC will prepare an Inception report for the Integrated Solid Waste Management Plant to be installed at the newly acquired Byrnihat site. However, a request has been made by GDD to the district administration, Kamrup Metro to allocate another 60 Bigha of land to GMC for this purpose from the Goat Research Centre.

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
					UDD	The initial Action Plan for disposal of 500 MT of Solid Waste with 4 decentralized Solid Waste Management Plants has been delayed due to unavoidable reasons including COVID 19 pandemic and complications in taking over the identified land. However, now land has been identified and is in the process of being handed over to Guwahati Municipal Corporation (GMC) and also the GMC has been instructed to initiate the process of approval of PMC for setting up of integrated Solid Waste Management Plant with funds from Guwahati Smart City Ltd/SOPD/14th Finance Commission etc. The process of taking over of and is under process by the Guwahati Municipal Corporation. Thereafter, EoI for PMC would be floated. It is estimated that tender of award of works should be completed by October, 2021 and completion & commissioning to take another 2 years. A total of 587 TPD is generated in the other Urban Local Bodies of Assam out of which 329 TPD are processed. There is a Gap of 44% i. 8 nos. of waste to compost plant is operational with total capacity of 274. 14TPD and 3 are under construction with total capacity of 130 tons. ii. 1 no. waste to energy plant with total capacity of 100 MTD is operational in Tezpur ULB. iii. Capacity of SWM decentralized plant of 208.13 TPD
			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.
			Son(Priority V)			Under process.

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies		Name of Agency	Remarks
	v. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river				GDD	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** and **II** are analysed by PCBA for the month of July, 2020and enclosed **(Annexure D, E and F)**. The data generated appears as follows: a) No significant changes have been observed in the water quality parameters for the river Bharalu, Borsola, Silsako and Sorusala Beel as compared to the previous data. Hence it indicates that although the industrial units and other commercial establishments were closed due to lockdown, the 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** and **II**. b) As far as the water quality of the drains are concerned, in-situ treatment by bioremediation is yet to be done. Hence the water quality 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 as it was observed slightly above the standard norms (0.30 mg/l).
			(Priority V)	Parashali	P&RD Deptt.	In 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.
	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	Disposal of municipal waste, bio-medical waste, plastic etc in the river bodies are prohibited by the Urban Local Bodies. Action plan has already been prepared for solid waste management in Guwahati City for segregation, collection and transportation. Accordingly, Primary Collection of Waste from source is done engaging NGOs which include Street Sweeping. 90 NGOs are involved in 31 Wards. NGOs use auto tipper and tricycle & Carts for collection of Waste. Segregation of waste is done at Household, Dustbin and Dumpsite.

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks
					Secondary Collection & Transportation is done by GMC - 170 BINs, 20 Garbage Compactor, 15 Excavator cum Loader, 6 Mini Loaders and 25 Dumpers of various Capacity are used. Further, GMC has constructed 4 Transfer Station and Dry Waste Purchase Centre to remove Dustbin from road and GS Road, RGB Road are declared as bin free roads. Disposal of Waste – For treatment of Wet waste, GMC has installed one OWC of 2 TPD capacities behind GMCH and one Bio-Methenation Plant of 5 TPD capacities is installed at Paltan Bazar. <u>Legacy Waste Disposal –</u> a) For efficient bio-mining/bio-remediation of legacy waste and setting up of infrastructure for the same, internal roads and drainage network of the dumpsite at West Boragaon have been constructed. The present progress is about 65%. b) As a part of reclamation, tree plantation prgoramme has been started at Boragaon. **c)** Entry of Animals into the dumpsite has been prohibited. 1.State has strengthen Door to Door collection system by covering 693 wards out of 912 wards in the ULBs of Assam. 2. 506 nos. of bulk waste generators have been identified and they are directed to do in situ waste management. 3. State has provided 15 nos. of Organic waste converters to 9 model towns and has taken steps to provide another 40 nos. of Organic Waste convertors (500 KG/day each) to major ULBs of Assam. 4. 144 nos. of Material Recovery facilities have been established for effective sorting, channelizing and processing of recyclable & non-recyclable fractions of plastic waste. 5. Adopted decentralized model for processing of wet waste to minimize environmental impacts entailed with its transportation.

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks
					There is one Bio Medical Waste Common treatment facility at Assam Medical College, Dibrugarh. The Govt. is undertaking programmes under P &RD Deptt to aware the villagers to construct Soak Pit, artificial pond. Construction of dumping ground is under process in the 3 notified villages in Morigaon district.
	vii. Ground water regulations				PCBA has been requested by the Regional Director, Central Ground Water Board North-east Region for providing communication details of the identified industries /infrastructure projects those who are extracting Ground Water without NOC from CGWA. PCBA has already provided the list of industrial details to CGWB **(Annexure G).** The list of industries has already been sent to government in compliance to the first monthly Progress report for the month of February, 2020. The Assam Ground Water Control and Regulation Act, 2012 was passed on 14th May, 2012 and 'Assam State Ground Water Authority' was constituted under Section 3 of the 'AGWC & R Act 2012' with Secretary Irrigation Department as the Ex Officio Chairman and Director, Geology and Mining as Ex Officio Member Secretary. The State ground Water Authority to exercise points conferred on as per section 5 to 15 & 19 to 23 of the Act & also to perform functions assigned to the State Authority. As the Assam State Authority is yet to be functional CGWB, NER is looking after matters related to Ground Water management and regulation for the State of Assam.
	viii. Adopting good irrigation practices				Good irrigation practices such as Lift Irrigation Scheme, Deep Tube Well, Flow Irrigation scheme, LIS, FIS, DTW, Gully Control, RCC Check Dam, Drainage Channel Construction are adopted and promoted by Irrigation, Soil Conservation, P&RD Department in the state.
	ix. Protection and management of Flood Plain Zones (FPZ)				The GMDA has constructed guard /flood wall on the banks of Bharolu from Bhangagarh to ASEB colony. As regards Bharalu and Bahini river basin in Greater Guwahati area the following areas are vulnerable to water level in Bharalu and Bahini: Zoo-Road, Anil Nagar, Tarun Nagar, Nabin Nagar, Lachit Nagar areas etc.. As the areas are

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks
					thickly populated so the flood plain zone management is not feasible at this stage. Various protection and management measures like Spur Bandh, Guide Bandh Erosion protection and Plantation are adopted by P & RD Department and Water Resources Department also.
	x. Rain Water Harvesting				Provisions for rain water harvesting are incorporated in the Guwahati Building Byelaws and in the proposed Byelaws all the Urban Local Bodies of Assam also. Rain Water Harvesting is being carried out by the Departments of Soil Conservation Department and P&RD Departments by constructing RCC Check Dams, Construction of Farm, Ponds and Drainage, Channels, River Bank Protection etc. Rain Water Harvesting in some Gaon Panchayat is being taken by P & RD Department by excavating and renovating the natural water bodies for catchment ponds for irrigation and agricultural needs.
	xi. Maintaining minimum environment flow of river				It is contemplated to establish gauge discharge stations of Bahini/Bharalu river. Namely one at Hengrabari RCC bridge, one at Jonali RCC bridge and one at Santipur Sluice gate. Gauge reading are being taken regularly and records are kept in the concerned division. Earlier an attempt was made to induct fresh water into Bahini river by diverting a part discharge of Basistha river through a sluice gate a Basistha Natun Bazaar area. A scheme was taken up having nomenclature, "Re-sectioning and regarding of river Bharalu, Mora Bharalu, Bahini, Basistha, Lakhimijan channel including re-opening of Bahini sluice gate at Natunbazaar', which was Administratively approved by the Secretary to the Govt. of Assam, Water Resources Department.
	xii. Plantation on both sides of the river				Plantation is regularly being carried by Department of Forest on the side slopes of embankments and berms of rivers which help in checking erosion of embankments and river berms/edges. Environment & Forest Department is taking some proposal for plantation like 200 hectares plantation for protection of erosion at Bogi Beel near Dehing Mukh Reserve Forest. The State Govt. taking some schemes under MGNREGA.

Sl.No.	Activity to be monitored	Timeline in NGT Order	Water bodies	Name of Agency	Remarks
	xiii. Setting up biodiversity parks on flood plains by removing encroachment				The Environment and Forest Department is taking necessary initiatives like Jokai Botanical Garden,
	xiv. Encroachment				The matter of encroachment in river Bharalu has been taken up by GMC with the D.C., Kamrup (M) and D.C., Kamrup(M) will sort out the matter very shortly. In connection with the rejuvenation of Bharalu river in Guwahati City, by allowing fresh water flow from the Bahini river, a site verification was carried out through a joint team. According to the report submitted by the team, the total length of the original Bahini River to be developed for free flowing of water from the Sluice Gato portion at Natun bazaar to Bakrapara point is about 321 meters. Out of this land about 150 meters is under encroachment at present with pucca house and boundary walls. Heavy machineries like chain mounted excavators and excavators (ICB) will be required and these machineries will have to be operationalized from the Bakrapara side by using the channel of the Bahini River as there is no alternate road to enter into the operational site for removal of encroachment. However, this will not be possible at this moment as the area of the channel is presently found submerged due to rain water. Hence, removal of encroachment will be possible only after monsoon season is over that is from 2nd half of the month October 2020. From the legal point of view, there will be no problem in carrying out of the eviction process as the existing case has been disposed of considering the importance of the rejuvenation of the original Bahini River at Basistha - Beltola area, In connection with the rejuvenation of the Bhaini River, people of the locality has intimated the visiting team that usually there is no flow of water takes place during winters at the Bahini River, the water level recedes to a minimal level and the available water level remains as stagnant water. Moreover, during summer, the sluice gate at Natun Bazar remains closed to block the access water from entering in to the Guwahati City. The sluice gate was constructed in the area after heavy food in the Guwahati City caused by the flash water of the Bahini River in the year 1996. Since then, the sluice gate is closed till now and the river bed of the Bahini River ahead of the sluice gate has become barren and subsequently occupied by a section of people and constructed houses etc. over the area.

Monthly progress report from Pollution Control Board Assam in compliance with NGT case O.A. No. 673/2018 as on 24.07.2020

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** and **II** have already been identified and mentioned in the Action Plan.
b) However, the list of major drain outfalls and industrial details situated in the catchment area of the polluted river stretches are enclosed **(Annexure A and B)**
c) There are five non-complying industrial units situated in the catchment of Bharalu river, Borsola/Sorusala beel. These industrial units were issued closure notice by Pollution Control Board Assam and ensured closure **(Annexure C).**
d) Pollution Control Board Assam is not the concerned authority to take actions as per NGT order on in-situ treatment. It has been assigned to Guwahati Municipal Corporation.

Reply against 4.1 (iii)

a) Status report on closure of industries 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).**
b) There is only one major industry namely, Guwahati Refinery, IOCL and it has online monitoring system.
c) Step shall be taken to insure Zero Liquid Discharge (ZLD) in the major polluting industrial units. (**Annexure-C).**

Reply and comment 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** and **II** are analysed for the month of July, 2020 and enclosed **(Annexure D, E and F)**. The data generated appears as follows:

a) No significant changes have been observed in the water quality parameters for the river Bharalu, Borsola, Silsako and Sorusala Beel as compared to the previous data. Hence it indicates that although the industrial units and other commercial establishments were closed due to lockdown, the 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** and **II**.
b) As far as the water quality of the drains are concerned, in-situ treatment by bioremediation is yet to be done. Hence the water quality 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 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
b) However, PCBA has been requested by the Regional Director, Central Ground Water Board North-east Region for providing communication details of the identified industries /infrastructure projects those who are extracting Ground Water without NOC from CGWA. PCBA has already provided the list of industrial details to CGWB **(Annexure G).** The list of industries has already been sent to government in compliance to the first monthly Progress report for the month of February, 2020.

Annexure A

Major drains/ outfall contributing to the pollution load of Bharalu River

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 Borsola, Silsako and Sorusala

Beel	Drains	
Borsola	Chandmari drain	Rehabari drain
Silsako	Drain coming through Chachal Area	Drain coming through Panjabari Area
Sorusala	Drain near KC Das Commerce College	Drain near Chatribari area

Annexure B

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	Not installed. Direction issued	NA	NA	NA	2.4
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	Not installed. Direction issued	NA	NA	NA	4.5
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	NA	NA	NA	5
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			**389.7 KLD**	**11633 KLD**	**5652.86 KLD**						**11.9 KLD**

Annexure B

List of industry details responsible for pollution in the Borsola/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
12	Hotel Rajmahal, Paltan Bazar, Ghy.	Green	15	No	12	Not applied. Direction	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		
						issued					
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**

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

Annexure B

			GW	**Supplied Water**				**Existing**	**Proposed**		
1	Hotel Ginger, VIP Road, Ghy.	Green	40	No	32	Not applied. Direction issued	Functional	NA	NA	NA	Nil

Industry details responsible for pollution in the Silsako Beel

Annexure C

Status Report of non-complying Industrial units of the Bharalu river stretch

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

Status Report of non-complying Industrial units of the Borsola/Sorusala Wetland

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	Closure notice issued. Steps are being taken to ensure closure

Latest analysis report of Bharalu river near Pragjyotish College - July, 2020

Parameter	Value
D.O. (mg/L)	Nil
pH	7.7
Cond(µS/cm)	620
BOD(mg/L)	38.0
COD(mg/L)	131.5
NO_3 -N (mg/L)	2.6
TSS (mg/L)	72
Turbidity (NTU)	12
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	90
Hardness (mg/L)	138
Calcium as $CaCO_3$(mg/L)	90
Magnesium as $CaCO_3$ (mg/L)	48
Chloride as Cl- (mg/L)	40
Sulphate as SO_4^{-2} (mg/L)	74.5
Phosphate as PO_4 (mg/L)	0.30
TKN (mg/L)	6.8
NH_4-N (mg/L)	2.3
Total Dissolved Solids (mg/L)	330
TFS (mg/L)	92
Fluoride (mg/l)	0.69
Boron (mg/l)	0.022
Na (mg/L)	53.0
K (mg/L)	11.1
Total Iron (mg/L)	0.38
Lead (mg/L)	BDL
Zinc (mg/L)	0.013
Copper (mg/L)	0.075
Total Chromium (mg/L)	0.003
Nickel (mg/L)	0.055
Cadmium (mg/L)	BDL
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	5300
Faecal Coliform (MPN/100ml)	3500

Latest analysis report of Borsola Beel near Sarabbhati - July, 2020

Parameter	Value
D.O. (mg/L)	Nil
pH	7.1
Cond(µS/cm)	470
BOD(mg/L)	28.0
COD(mg/L)	90.5
NO_3 -N (mg/L)	1.3
TSS (mg/L)	64
Turbidity (NTU)	06
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	144
Hardness (mg/L)	144
Calcium as $CaCO_3$(mg/L)	98
Magnesium as $CaCO_3$ (mg/L)	46
Chloride as Cl- (mg/L)	24
Sulphate as SO_4^{-2} (mg/L)	32.6
Phosphate as PO_4 (mg/L)	1.4
TKN (mg/L)	8.3
NH_4-N (mg/L)	2.3
Total Dissolved Solids (mg/L)	254
TFS (mg/L)	58
Fluoride (mg/l)	0.76
Boron (mg/l)	0.030
Na (mg/L)	28.3
K (mg/L)	12.5
Total Iron (mg/L)	0.18
Lead (mg/L)	0.028
Zinc (mg/L)	0.036
Copper (mg/L)	BDL
Total Chromium (mg/L)	BDL
Nickel (mg/L)	0.022
Cadmium (mg/L)	0.003
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	2800
Faecal Coliform (MPN/100ml)	2000

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

Parameter	Value
D.O. (mg/L)	Nil
pH	7.8
Cond(µS/cm)	494
BOD(mg/L)	14.0
COD(mg/L)	42.0
NO_3 -N (mg/L)	1.1
TSS (mg/L)	70
Turbidity (NTU)	05
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	68
Hardness (mg/L)	108
Calcium as $CaCO_3$(mg/L)	72
Magnesium as $CaCO_3$ (mg/L)	36
Chloride as Cl- (mg/L)	16
Sulphate as SO_4^{-2} (mg/L)	33.4
Phosphate as PO_4 (mg/L)	0.11
TKN (mg/L)	0.83
NH_4-N (mg/L)	0.20
Total Dissolved Solids (mg/L)	264
TFS (mg/L)	68
Fluoride (mg/l)	0.66
Boron (mg/l)	0.008
Na (mg/L)	70.2
K (mg/L)	20.0
Total Iron (mg/L)	0.29
Lead (mg/L)	0.032
Zinc (mg/L)	0.048
Copper (mg/L)	0.003
Total Chromium (mg/L)	BDL
Nickel (mg/L)	0.022
Cadmium (mg/L)	0.004
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	3500
Faecal Coliform (MPN/100ml)	2000

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

Parameter	Value
D.O. (mg/L)	Nil
pH	7.2
Cond(µS/cm)	471
BOD(mg/L)	26.0
COD(mg/L)	88.0
NO_3 -N (mg/L)	1.0
TSS (mg/L)	66
Turbidity (NTU)	06
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	140
Hardness (mg/L)	142
Calcium as $CaCO_3$(mg/L)	96
Magnesium as $CaCO_3$ (mg/L)	46
Chloride as Cl- (mg/L)	22
Sulphate as SO_4^{-2} (mg/L)	31.8
Phosphate as PO_4 (mg/L)	1.3
TKN (mg/L)	8.2
NH_4-N (mg/L)	2.0
Total Dissolved Solids (mg/L)	252
TFS (mg/L)	56
Fluoride (mg/l)	0.78
Boron (mg/l)	0.40
Na (mg/L)	29.5
K (mg/L)	12.0
Total Iron (mg/L)	0.24
Lead (mg/L)	0.024
Zinc (mg/L)	0.029
Copper (mg/L)	0.003
Total Chromium (mg/L)	BDL
Nickel (mg/L)	0.027
Cadmium (mg/L)	0.003
Mercury (mg/L)	BDL
Arsenic(mg/L)	BDL
Total Coliform (MPN/100ml)	3900
Faecal Coliform (MPN/100ml)	1400

Analytical data of the drains outfalling in Bharalu River for the month of July, 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_3-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	7.6	592	46.8	138	3.6	108	8	Nil	186	172	106	66	68	40.4	1.2	9.8	3.2	378	96	0.49	0.036	46.6	13.4	0.44	0.021	0.054	0.009	BDL	BDL	BDL	BDL	0.009	21000	8600
Water from drain at Jonali before confluence with Bharalu river.	Nil	7.4	588	48.2	146	3.2	116	6	Nil	248	172	116	56	58	33.1	1.6	10.2	3.2	378	92	0.52	0.029	48.1	15.9	0.64	0.018	0.044	0.005	BDL	BDL	BDL	BDL	0.007	75000	3900
Water from drain after confluence with Bharalui River at Jonali	Nil	7.4	596	54.4	148	3.4	110	7	Nil	232	172	110	62	58	32.4	1.6	9.8	3.1	382	94	0.48	0.024	46.9	14.7	0.68	0.022	0.057	0.004	BDL	BDL	BDL	BDL	0.007	12000	7500
water from drain before confluence with Bharalu river at Ulubari Mazar	Nil	7.6	718	50.6	142.1	3.4	120	8	Nil	288	220	162	58	74	39.8	1.8	12.8	4.2	456	112	0.48	0.028	54.1	16.9	0.51	0.019	0.044	0.006	BDL	BDL	BDL	BDL	0.005	5300	2300
Water from Sarabbhati drain before confluence with Bharalu river at Sarabbhati	Nil	7.4	494	52	148.1	2.6	120	8	Nil	156	132	92	40	48	28.1	1.9	10.8	3.4	318	78	0.52	0.027	46.1	16.4	0.46	0.022	0.053	0.007	BDL	BDL	BDL	BDL	0.006	12000	4300
Water from Bishnupur drain after confluence with Bharalu river at Bishnupur	Nil	7.4	496	51.4	146.2	2.2	116	6	Nil	188	140	92	48	52	27.9	1.8	12.1	3.6	318	72	0.44	0.033	43.9	13.8	0.49	0.023	0.051	0.005	BDL	BDL	BDL	BDL	0.008	95000	5300

Latest analysis report of the major drains contributing to pollution in the Borsola Beel - July, 2020

Parameter	Drain 1 (Chandmari Drain)	Drain 2 (Rehabari drain)
D.O. (mg/L)	Nil	Nil
pH	7.4	7.4
Cond(µS/cm)	492	428
BOD(mg/L)	41.6	45.4
COD(mg/L)	142.5	142.8
NO_3 -N (mg/L)	1.8	2.3
TSS (mg/L)	122	144
Turbidity (NTU)	08	12
p-Alkalinity (mg/L)	Nil	Nil
m-Alkalinity (mg/L)	218	218
Hardness (mg/L)	154	138
Calcium as $CaCO_3$(mg/L)	106	92
Magnesium as $CaCO_3$ (mg/L)	48	46
Chloride as Cl- (mg/L)	44	36
Sulphate as SO_4^{-2} (mg/L)	27.2	28.8
Phosphate as PO_4 (mg/L)	2.1	1.7
TKN (mg/L)	12.8	12.2
NH_4-N (mg/L)	4.1	3.8
Total Dissolved Solids (mg/L)	316	276
TFS (mg/L)	76	68
Fluoride (mg/l)	0.54	0.54
Boron (mg/l)	0.031	0.034
Na (mg/L)	33.6	27.6
K (mg/L)	13.1	13.4
Total Iron (mg/L)	0.51	0.57
Lead (mg/L)	0.036	0.021
Zinc (mg/L)	0.051	0.062
Copper (mg/L)	0.004	0.003
Total Chromium (mg/L)	BDL	BDL
Nickel (mg/L)	0.014	0.019
Cadmium (mg/L)	0.004	0.003
Mercury (mg/L)	BDL	BDL
Arsenic(mg/L)	BDL	BDL
Total Coliform (MPN/100ml)	7500	21000
Faecal Coliform (MPN/100ml)	3900	7500

Latest Analysis report of the major drains contributing to pollution in the Silsako Beel - July, 2020

Parameter	Drain 1 (Chachal drain)	Drain 2 (Panjabari drain)
D.O. (mg/L)	Nil	Nil
pH	7.2	7.2
Cond(µS/cm)	562	532
BOD(mg/L)	44.6	51.9
COD(mg/L)	164.4	172.6
NO_3 -N (mg/L)	2.2	2.0
TSS (mg/L)	128	124
Turbidity (NTU)	09	10
p-Alkalinity (mg/L)	Nil	Nil
m-Alkalinity (mg/L)	128	162
Hardness (mg/L)	152	148
Calcium as $CaCO_3$(mg/L)	106	102
Magnesium as $CaCO_3$ (mg/L)	46	46
Chloride as Cl- (mg/L)	44	42
Sulphate as SO_4^{-2} (mg/L)	43.1	42.9
Phosphate as PO_4 (mg/L)	1.6	1.6
TKN (mg/L)	13.4	10.8
NH_4-N (mg/L)	4.2	3.4
Total Dissolved Solids (mg/L)	358	342
TFS (mg/L)	88	84
Fluoride (mg/l)	0.51	0.62
Boron (mg/l)	0.058	0.044
Na (mg/L)	52.3	54.1
K (mg/L)	17.4	16.6
Total Iron (mg/L)	0.84	1.4
Lead (mg/L)	0.035	0.027
Zinc (mg/L)	0.049	0.046
Copper (mg/L)	0.003	0.003
Total Chromium (mg/L)	BDL	BDL
Nickel (mg/L)	0.041	0.029
Cadmium (mg/L)	0.003	0.005
Mercury (mg/L)	BDL	BDL
Arsenic(mg/L)	BDL	BDL
Total Coliform (MPN/100ml)	7500	9300
Faecal Coliform (MPN/100ml)	2300	4300

Latest Analysis report of the major drains contributing to pollution in the Sorusala Beel - July, 2020

Parameter	Drain near KC Das Commerce college	Drain from Chatribari area
D.O. (mg/L)	Nil	**May 2020**
pH	7.3	Nil
Cond(µS/cm)	426	7.1
BOD(mg/L)	43.2	446
COD(mg/L)	146.4	42.1
NO_3 -N (mg/L)	1.9	136.4
TSS (mg/L)	128	2.4
Turbidity (NTU)	09	124
p-Alkalinity (mg/L)	Nil	09
m-Alkalinity (mg/L)	192	Nil
Hardness (mg/L)	136	186
Calcium as $CaCO_3$(mg/L)	96	134
Magnesium as $CaCO_3$ (mg/L)	40	92
Chloride as Cl- (mg/L)	40	44
Sulphate as SO_4^{-2} (mg/L)	25.6	44
Phosphate as PO_4 (mg/L)	1.6	28.61.4
TKN (mg/L)	12.8	2.3
NH_4-N (mg/L)	4.1	12.4
Total Dissolved Solids (mg/L)	272	4.1
TFS (mg/L)	66	284
Fluoride (mg/l)	0.56	70
Boron (mg/l)	0.029	0.46
Na (mg/L)	25.1	0.039
K (mg/L)	9.4	29.2
Total Iron (mg/L)	0.54	13.4
Lead (mg/L)	0.028	0.58
Zinc (mg/L)	0.056	0.027
Copper (mg/L)	0.004	0.047
Total Chromium (mg/L)	BDL	0.004
Nickel (mg/L)	0.017	BDL
Cadmium (mg/L)	0.003	0.029
Mercury (mg/L)	BDL	0.004
Arsenic(mg/L)	BDL	BDL
Total Coliform (MPN/100ml)	12000	BDL
Faecal Coliform (MPN/100ml)	4300	12000

Annexure F

Latest analysis report of Ground water from Shantipur area (Catchment of River Bharalu) – July, 2020

Parameter	Value
D.O. (mg/L)	-
pH	7.5
Cond(µS/cm)	383
BOD(mg/L)	1.5
COD(mg/L)	4.4
NO_3 -N (mg/L)	2.6
TSS (mg/L)	08
Turbidity (NTU)	03
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	44
Hardness (mg/L)	96
Calcium as $CaCO_3$(mg/L)	60
Magnesium as $CaCO_3$ (mg/L)	36
Chloride as Cl- (mg/L)	14
Sulphate as SO_4^{-2} (mg/L)	25.7
Phosphate as PO_4 (mg/L)	0.08
TKN (mg/L)	0.54
NH_4-N (mg/L)	0.21
Total Dissolved Solids (mg/L)	210
TFS (mg/L)	68
Fluoride (mg/l)	0.21
Boron (mg/l)	0.009
Na (mg/L)	36.0
K (mg/L)	13.3
Total Iron (mg/L)	0.45
Lead (mg/L)	BDL
Zinc (mg/L)	0.127
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

Latest analysis report of Ground water from Shantipur area (Catchment of Borsola Beel) – July, 2020

Parameter	Value
D.O. (mg/L)	-
pH	7.5
Cond(µS/cm)	383
BOD(mg/L)	1.5
COD(mg/L)	4.4
NO_3 -N (mg/L)	2.6
TSS (mg/L)	08
Turbidity (NTU)	03
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	44
Hardness (mg/L)	96
Calcium as $CaCO_3$(mg/L)	60
Magnesium as $CaCO_3$ (mg/L)	36
Chloride as Cl- (mg/L)	14
Sulphate as SO_4^{-2} (mg/L)	25.7
Phosphate as PO_4 (mg/L)	0.08
TKN (mg/L)	0.54
NH_4-N (mg/L)	0.21
Total Dissolved Solids (mg/L)	210
TFS (mg/L)	68
Fluoride (mg/l)	0.21
Boron (mg/l)	0.009
Na (mg/L)	36.0
K (mg/L)	13.3
Total Iron (mg/L)	0.45
Lead (mg/L)	BDL
Zinc (mg/L)	0.127
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

Latest analysis report of Ground water from Satgaon area under NWMP (Catchment of Silsako Beel) – July, 2020

Parameter	Value
D.O. (mg/L)	-
pH	7.0
Cond(µS/cm)	366
BOD(mg/L)	1.3
COD(mg/L)	4.2
NO_3 -N (mg/L)	2.4
TSS (mg/L)	08
Turbidity (NTU)	03
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	72
Hardness (mg/L)	92
Calcium as $CaCO_3$(mg/L)	60
Magnesium as $CaCO_3$ (mg/L)	30
Chloride as Cl- (mg/L)	14
Sulphate as SO_4^{-2} (mg/L)	34.7
Phosphate as PO_4 (mg/L)	0.08
TKN (mg/L)	0.56
NH_4-N (mg/L)	0.24
Total Dissolved Solids (mg/L)	198
TFS (mg/L)	40
Fluoride (mg/l)	0.22
Boron (mg/l)	0.009
Na (mg/L)	33.2
K (mg/L)	9.0
Total Iron (mg/L)	0.52
Lead (mg/L)	BDL
Zinc (mg/L)	0.283
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)	0.004
Total Coliform (MPN/100ml)	Nil
Faecal Coliform (MPN/100ml)	Nil

Latest analysis report of Ground water from Shantipur area (Catchment of Sorusala Beel) – July, 2020

Parameter	Value
D.O. (mg/L)	-
pH	7.5
Cond(µS/cm)	383
BOD(mg/L)	1.5
COD(mg/L)	4.4
NO_3 -N (mg/L)	2.6
TSS (mg/L)	08
Turbidity (NTU)	03
p-Alkalinity (mg/L)	Nil
m-Alkalinity (mg/L)	44
Hardness (mg/L)	96
Calcium as $CaCO_3$(mg/L)	60
Magnesium as $CaCO_3$ (mg/L)	36
Chloride as Cl- (mg/L)	14
Sulphate as SO_4^{-2} (mg/L)	25.7
Phosphate as PO_4 (mg/L)	0.08
TKN (mg/L)	0.54
NH_4-N (mg/L)	0.21
Total Dissolved Solids (mg/L)	210
TFS (mg/L)	68
Fluoride (mg/l)	0.21
Boron (mg/l)	0.009
Na (mg/L)	36.0
K (mg/L)	13.3
Total Iron (mg/L)	0.45
Lead (mg/L)	BDL
Zinc (mg/L)	0.127
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 - G

LIST OF INDUSTRIES IN BHARALU RIVER

Sl No.	NAME OF THE UNIT	ADDRESS OF THE UNIT	e mail id
1	Guwahati Refinery	P.O. : Noonmati, Guwahati, Assam 781020	monica_das@indianoil.in
2	Diesel Shed	New Guwahati, Bamunimaidan, Guwahati, Assam 781021	
3	Guwahati Medical College Hospital	Bhangagarh, Guwahati-5.	superintendentgmch@gmail.com
4	Kiranshree	SC Goswami Rd, Athgaon, Guwahati, Assam 781001	
5	Monsoon Polymers Private Limited	CITI Complex, Kalapahar Industrial Area, Guwahati-16.	monsoonpolymers@yahoo.com
6	Assam Dyeing Works	Cycle Factory Road, Fatashil Ambari, Guwahati-25.	aysguwahati@gmail.com
7	Panacea Clinical & Laboratory	Bhangagarh, Guwahati-5.	panaceaadmin@gmail.com
8	Hotel Asian Palace	Guwahati Shillong Road, Lachit Nagar, Guwahati, Assam 781007	
9	Sanjay Products	Fatashil Bazar, Guwahati-9.	sanjayproducts2012@gmail.com
10	Institute Of Human Reproduction, (Goenka Nursing Home)	Bharalumukh, Guwahati-9.	office@ihrindia.com
11	Kumar Nursing Home(A unit of Shrithi Foundation)	KRC Road,Kumarpara, Guwahati-9.	shristyfoundation@gmail.com
12	Rapid Diagnostic Centre	Sarab Bhati, Ghy-8.	rapiddiagnostics21@gmail.com
13	Raja Restaurant	GS Rd, Paltan Bazaar, Guwahati, Assam 781008	
14	Makhan Bhog	Royal Centre, Ground, GS Rd, Opposite Deorah College, Ulubari, Guwahati, Assam 781007	**makhanbhog.ghy@gmail**.com
15	Woodland Marriage Hall	Dr. B.K. Kakati Road, Ulubari, Guwahati-7, Kamrup (M)	info@weddingz.in
16	Assam Plywood (Signature Estate)	61, B.K Kakati Road,Ulubari,Guwahati-07	rkpoddar@infinityitpark.com
17	RK Life Services Pvt. Ltd. Apollo Clinic	Bora Service, G.S. Road, Kanchan Road, Ghy-7.	guwahati@theapolloclinic.com

18	Nemcare Hospital	GMCH Road, Guwahati-5.	**arup_nemcare@rediffmail.com**
19	Nemcare Hospital Pvt Ltd	GMCH Road, Guwahati-5.	dr.mihirbaruah@nemcarehospital.in
20	Pulse Diagnostic Center	Bhangagarh,G.S.Road, Guwahati-5.	
21	Primus Diagnostic Centre	Bhangagarh,G.S.Road, Guwahati-5.	**primus_imaging@yahoo.com**
22	Alcare Diagnostic Centre	Rajgarh Road, Bhangagarh, Guwahati-5	
23	Orthodontic Centre	Prag Plaza Complex, Bhangagarh, Guwahati-05.	dramarnath@hotmail.com
24	Health Care Diagnostic Centre	Prag Plaza Complex,Bhangagarh, Guwahati-05.	healthcare.rp123@gmail.com
25	Aruna Memorial Hospital Pvt. Ltd.	Rajgarh Road, Bhangagarh, Guwahati-5.	arunamemorial.hospital@gmail.com
26	Apex Diagnostic Centre	Bhangagarh, GMCH Road, Guwahati-5	mail2apex@yahoo.in
27	Bids, KN Baruah	Rudraksh Mall, Bhangagarh, Guwahati-5.	knbaruabids@gmail.com
28	Midland Hospital	Shreenager,R.G.Baruah Road, Guwahati-05.	midlandhospitalguwahati@gmail.com
29	KAMRUP ICE & COLD STORAGE COMPANY(Exotica Green)	191,R.G. Baruah Road, Guwahati-05	info@exoticagreens.com
30	Hariyana Charitable Trust	R .K.S. Chowdhury , Narayan Nagar, Bharalumukh, Guwahati, Assam, 781009	
31	East India Hematological Research Institute	Rudraksh Mall, Near Bigbazar,Bhangagarh, G.S. Road,Guwahati-5.	pk_gogoi@yahoo.com

LIST OF INDUSTRIES IN BORSOLA WETLAND

Sl No.	NAME OF THE UNIT	ADDRESS OF THE UNIT	e mail id
1	Marwari Hospitals(Aunit of Shree Marwari Databya Aushadhalaya)	Sati Jaimati Road,Athgaon, Guwah	hssmda@marwarihospitals.com
2	Satribari Christian Hospital	Athgaon, Guwahati-8.	sch_care75@rediffmail.com
3	Lions Eye Hospital	K.C. Chaudhury Path Near K.C. Das Commerce College, Chatribari, Guwahati, Assam 781001	glehosp@gmail.com
4	Arya Hospital	A.M. Road, Opp. Apsara Cinema, Rehabari, Guwahati - 781008	aryahospital2004@gmail.com
5	Hotel Atithi	7, AK Azad Rd, Opp. Nepali Mandir, Manipuri Rajbari, Paltan Bazaar, Guwahati, Assam 781008	reservation1.hotelatithi@**gmail**.com
6	Hotel Rains Inn	Solapara Rd, Opposite Capital Tours & Travels, Paltan Bazaar, Guwahati, Assam 781008	info@rainsinn.com
7	Hotel Fame city	Guwahati-Shillong Road Paltan Bazaar, Manipuri Rajbari, Guwahati, Assam 781008	**hotelfamecityguwahati**@**gmail**.com
8	Hotel Nandan	GS Rd, Manipuri Rajbari, Paltan Bazaar, Guwahati, Assam 781008	info@**hotelnandan**.com
9	Hotel Mahalaxmi	GS Rd, Manipuri Rajbari, Paltan Bazaar, Guwahati, Assam 781008	mahalaxmiindomyanmar@gmail.com
10	Hotel Kiranshree Portico	Manipuri E Rd, Paltan Bazaar, Guwahati, Assam 781008	kiranshree@kiranshreeportico.com
11	Hotel Sagar	Nepali Mandir Point, MD Shah Rd, PWD Colony, Paltan Bazaar, Guwahati, Assam 781008	
12	Hotel Rajmahal	Assam Trunk Rd, Guwahati, Assam 781001	fom@**hotelrajmahal**.in
13	Hotel Vishwaratna	A. T. Road, Tokobari Rd, Opp, Fancy Bazaar, Guwahati, Assam 781001	info@vishwaratnahotel.com
14	Hotel Trimurty International	Network Travels, GS Rd, Manipuri Rajbari, Paltan Bazaar, Guwahati, Assam 781008	

15	Hotel Darbar	2nd & 3rd Floor, AK Azad Rd, opposite Nepali Mandir, Manipuri Rajbari, Paltan Bazaar, Guwahati, Assam 781008	
16	Hotel Biswanath	M.E Road, Paltan Bazaar, Guwahati, Assam 781008	
17	Hotel Geetanjali	GS Road,Paltan Bazar, opp- V2 Shopping Mall Guwahati India 781008	
18	Hotel Azolla	Guwahati Shillong Rd, Paltan Bazaar, Guwahati, Assam 781008	
19	Hotel Prince	K C Sen Road, Paltan Bazar, Guwahati	
20	Hotel Maharaja	GS Rd, Paltan Bazaar, Guwahati, Assam 781008	

LIST OF INDUSTRIES IN SILSAKO WETLAND			
Sl No.	**NAME OF THE UNIT**	**ADDRESS OF THE UNIT**	**e mail id**
1	Hotel Ginger	IHM Campus VIP Road Borbari, Upper, Hengrabari, Guwahati, Assam 781036	hm.guwahati@gingerhotels.com

LIST OF INDUSTRIES IN SORUSOLA

Sl No.	NAME OF THE UNIT	ADDRESS OF THE UNIT
1	Marwari Hospitals(Aunit of Shree Marwari Databya Aushadhalaya)	Sati Jaimati Road,Athgaon, Guwahati-8.
2	Satribari Christian Hospital	Athgaon, Guwahati-8.
3	Lions Eye Hospital	K.C. Chaudhury Path Near K.C. Das Commerce College, Chatribari, Guwahati, Assam 781001
4	Arya Hospital	A.M. Road, Opp. Apsara Cinema, Rehabari, Guwahati - 781008
5	Hotel Atithi	7, AK Azad Rd, Opp. Nepali Mandir, Manipuri Rajbari, Paltan Bazaar,
6	Hotel Rains Inn	Solapara Rd, Opposite Capital Tours & Travels, Paltan Bazaar, Guwahati,
7	Hotel Fame city	Guwahati-Shillong Road Paltan Bazaar, Manipuri Rajbari, Guwahati, Assam
8	Hotel Nandan	GS Rd, Manipuri Rajbari, Paltan Bazaar, Guwahati, Assam 781008
9	Hotel Mahalaxmi	GS Rd, Manipuri Rajbari, Paltan Bazaar, Guwahati, Assam 781008
10	Hotel Kiranshree Portico	Manipuri E Rd, Paltan Bazaar, Guwahati, Assam 781008
11	Hotel Sagar	Nepali Mandir Point, MD Shah Rd, PWD Colony, Paltan Bazaar, Guwahati, Assam
12	Hotel Rajmahal	Assam Trunk Rd, Guwahati, Assam 781001
13	Hotel Vishwaratna	A. T. Road, Tokobari Rd, Opp, Fancy Bazaar, Guwahati, Assam 781001
14	Hotel Trimurty International	Network Travels, GS Rd, Manipuri Rajbari, Paltan Bazaar, Guwahati, Assam
15	Hotel Darbar	2nd & 3rd Floor, AK Azad Rd, opposite Nepali Mandir, Manipuri Rajbari, Paltan Bazaar, Guwahati, Assam 781008
16	Hotel Biswanath	M.E Road, Paltan Bazaar, Guwahati, Assam 781008
17	Hotel Geetanjali	GS Road,Paltan Bazar, opp- V2 Shopping Mall Guwahati India 781008
18	Hotel Azolla	Guwahati Shillong Rd, Paltan Bazaar, Guwahati, Assam 781008
19	Hotel Prince	K C Sen Road, Paltan Bazar, Guwahati
20	Hotel Maharaja	GS Rd, Paltan Bazaar, Guwahati, Assam 781008

WETLAND

e mail id
hssmda@marwarihospitals.com
sch_care75@rediffmail.com
glehosp@gmail.com
aryahospital2004@gmail.com
reservation1.hotelatithi@**gmail**.com
info@rainsinn.com
hotelfamecityguwahati@**gmail**.com
info@**hotelnandan**.com
mahalaxmiindomyanmar@gmail.com
kiranshree@kiranshreeportico.com
fom@**hotelrajmahal**.in
info@vishwaratnahotel.com