



MIZORAM STATE POLLUTION CONTROL BOARD

No. H.88088/Poltn./50 (XIX)-PR/2020-MPCB/ : Dated Aizawl, the 20th February 2021.

To,

The Secretary,
Ministry of Jal Shakti,
2nd Floor, Block-III, CGO Complex,
Lodhi Road, New Delhi – 110003.

Subj.: Submission of monthly progress report of Mizoram for the month of December 2020 & January 2021 as per the revised format in compliance to Hon'ble NGT order dated 24.09.2020 in the matter of OA No. 673/2018

Sir,

With reference to the above cited subject, may I submit herewith monthly progress report of Mizoram for the month of **December 2020 & January 2021** on OA. 673/2018 as per the revised format for favour of your kind information and further necessary action.

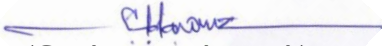
Yours faithfully,

Enclo: As above


(C.LALDUHAWMA)
Member Secretary

Memo No. H.88088/Poltn./50 (XIX)-PR/2020-MPCB/ : Dated Aizawl, the 20th February 2021.

Copy to: Member Secretary, Central Pollution Control Board


(C.LALDUHAWMA)
Member Secretary
Mizoram Pollution Control Board

Monthly Progress Report for the State of MIZORAM for December 2020 & January 2021
(As per revised format)

(in compliance to NGT order dated 24.09.2020 in the matter of OA No. 673 of 2018)

Overall status of the State:

I. Total Population: Urban Population & Rural Population (as per 2011 census).

<i>Urban & Rural Population</i>	<i>2011</i>	<i>Projected population in 2021</i>
Urban Population	525435	638722
Rural Population	571771	632013
Total	1097206	1270735

II. Estimated Sewage Generation (MLD) as per projected population for 2021:

Urban	68 MLD
Rural (692 villages)	36 MLD
Total	104 MLD

***Note:** The Sewage Generations are arrived taking into consideration the water supply at 70 lpcd and 135 lpcd in rural and urban respectively.*

III. Details of Sewage Treatment Plant:

- Existing no. of STPs and Treatment Capacity (in MLD):
 - Nil
- Capacity Utilization of existing STPs:
 - Nil
- MLD of sewage being treated through Alternate technology:
 - **0.5437 MLD (Bio Digester etc.)** – List of Bio Digester is enclosed in **Annexure-I**
- Gap in Treatment Capacity in MLD:
 - **104 MLD – 10.2 MLD = 93.45 MLD**
(Counting the ongoing project of 10 MLD at hand)
- No. of Operational STPs:
 - Nil
- No. of Complying STPs:
 - N/A
- No. of Non-complying STPs:
 - N/A

Details of each existing STP in the State

No.	Location	Existing STP Capacity	Capacity Being Utilized	Operational Status of STP	Compliance Status of STP
1.		NIL	NIL	NIL	N/A

Details of under construction STPs in the State

No.	Location	Capacity of the plant in MLD	Physical Progress in %	Status of I&D or House sewer connections	Completion Timeline
1.	Bethlehem Vengthang, Aizawl	10 MLD	STP – 99% Sewerage network – 75%	3033 Households connections are ready for final connection to the sewer.	Within February 2021

Details of proposed STPs in the State

No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
1.			Action Plan for 100% sewage treatment Including recycle and reuse of treated waste water was submitted to the State Govt., will be implemented after due approval and instruction from the State Govt.	

IV. Details of Industrial Pollution:

- No. of industries in the State:
 - 735 units
- No. of water polluting industries in the State:
 - 56 units (Status of the industry and the functioning of ETP is enclosed at **Annexure-II**)
- Quantity of effluent generated from the industries in MLD:
 - 0.04384 MLD
- Quantity of Hazardous Sludge generated from the Industries in TPD:
 - Nil
- Number of industrial units having ETPs:

- 56 units
- Number of industrial units connected to CETP:
 - Nil (No CETP exists)
- Number and total capacity of ETPs (details of existing/ under construction / proposed)
 - 56 units with total capacity of 0.099 MLD
- Compliance status of the ETPs:
 - ETPs are functional and effluents are found to be complied with standards.
- Number and total capacity of CETPs (details of existing/ under construction / proposed) :
 - Nil (No CETP exists)
- Status of compliance and operation of the CETPs: No CETP exists

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (existing, under construction & proposed)
N/A				

V. **Solid Waste Management:**

- Total number of Urban Local Bodies and their Population:
 - Only 1 notified ULB in Mizoram i.e Aizawl Municipal Corporation
 - Population: 293,416 as per 2011 census
- Current Municipal Solid Waste Generation:
 - 348.19 TPD (23 Urban towns)
- Number, installed capacity and utilization of existing MSW processing facilities in TPD (bifurcated by type of processing eg- Waste to Energy (Tonnage and Power Output), Compost Plants (Windrow, Vermi, decentralized pit composting), biomethanation, MRF etc:
 - Landfill : 44 TPD & Material Recovery Facility 74 TPD (Aizawl city)
 - Composting:
 - i. Aizawl city:
 - a) Vermi-composting plant – 22 TPD
 - b) Mechanical Composting Plant – 50 TPD
 - ii. Lunglei Town: Vermi-composting Plant – 45 TPD is under construction
 - ii. KolasibTown: Vermi-composting Plant of - 20 TPD is under construction.
 - iii. Champhai Town: Vermi-composting Plant of - 25 TPD is under construction
 - iv. Remaining 19 Urban towns: Vermi-composting Plant - 0.5 TPD each are operational

- v. DPR for Land Development for Solid Waste Management Centre for 5 (Five) remaining towns have been approved and Administrative Approval & Expenditure Sanction amounting to Rs 60.00 Lakhs each have been received from the state Government.
- Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%):
 - Concept Note have been submitted for Waste Resource Management Center for all remaining 19 Urban Towns
 - No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction):
 - Nil
 - Total no. of wards, no. of wards having door to door collection service, no. of wards practicing segregation at source:
 - No. of wards in Aizawl city: 19
 - No. of wards having door to door collection service: 19
 - No. of wards practicing segregation at source: 19
 - Details of MSW treatment facilities proposed and under construction (no., capacity, and technology):
 - In addition to one existing MSW treatment facility at Tuirial (Eastern part of Aizawl city), 3 more sites have been identified for closing the gap in waste management at the following locations for which concept paper preparation is under process:
 - i) Hualngo Hmun (southern part of Aizawl city)
 - ii) Sihphir Neihbawih (Northern part of the Aizawl city)
 - iii) Luangmual (Eastern part of Aizawl City)
 - No. and area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills:
 - One at Tuirial Dumping Ground having approximately 487 sq.m. It has been closed recently since 1st November 2020 following the commissioning of the newly constructed Waste Management Centre at Tuirial.
 - No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers:
 - Nil

- No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers:
 - Nil

Status of ULB wise Management of Solid Waste

<i>ULB and polluted river</i>	<i>Population (2011 Census)</i>	<i>Total Municipal Waste Generated in TPD</i>	<i>Total Municipal Waste Processed in TPD</i>	<i>Existing Municipal Waste Facilities</i>	<i>Utilization Capacities of the Existing MSW facilities</i>	<i>Proposed MSW facilities and completion time</i>
Aizawl (Chite & Tuikual)	293416	188.54 TPD	64.628 TPD	Mechanical composting & vermin composting and Sanitary landfill	190 TPD	3 more sites have been identified to ease the waste transportation and reduce O&M cost.
Lunglei (Tlawng)	57011	17.10	6.50	Solid Waste Management Centre for Lunglei Town is under Construction (NLCPR)	NA	Bio-Degradable Waste: Vermicomposting Non Bio-Degradable Waste: Recycling at Waste Resource Management Centre Inert Waste: Sanitary Landfill
Champhai (Tuipui River)	32734	9.83	4.00	Solid Waste Management Centre for Champhai Town is under Construction (State Plan Fund)	NA	Bio-Degradable Waste: Vermicomposting Non Bio-Degradable Waste: Recycling at Waste Resource Management Centre Inert Waste: Sanitary Landfill
Serchhip (Mat River)	21158	6.35	3.40	Open Dumping	NA	Concept Note for Solid Waste Management has been submitted to NitiAayog
Sairang (Tlawng)	5950	1.79	0.80	Open Dumping	NA	Concept Note for Solid Waste Management has been submitted to NitiAayog
Bairabi (Tlawng)	4320	1.30	0.85	Open Dumping	NA	Concept Note for Solid Waste Management has been submitted to NitiAayog

VI. Bio-medical Waste Management:

- Total Bio-medical generation:
 - 936.37 kg/ day
- No. of Hospitals and Health Care Facilities:
 - 68 (Bedded Hospitals & Nursing Home) & 144 (Non-bedded)
- Status of Treatment Facility/ CBMWTF

- No CBMWTF yet in Mizoram. However, Govt. of Mizoram has prepared proposal for setting up of CBMWTF for Mizoram and submitted to Central Pollution Control Board for funding.
- At present, for treatment of BMW in Mizoram, captive biomedical treatment and disposal is in practice as of now.

VII. Hazardous Waste Management:

- Total Hazardous Waste generation
 - 20.374 MTA (As per revision of Annual Inventory report 2019-2020)
- No. of Industries generating Hazardous waste
 - 40 (most of them are automobile repairing units of small scale)
- Treatment Capacity of all TSDFs:
 - No TSDF exists at present.
- Avg. Quantity of Hazardous waste reaching the TSDFs and Treated:
 - N/A
- Details of on-going or proposed TSDF:
 - Suitable Site at Industrial Growth Centre, Luangmual, Aizawl has been identified by the State Govt. for setting up common TSDF. The Commerce and Industries department is in search of consultancy firm for setting up of the common TSDF but is held back due to non-availability of empanelled firm in the state. The problem has been conveyed to the higher authority.

VIII. Plastic Waste Management:

- Total Plastic Waste generation:
 - 7905.5 TPA (*Municipal Corporation*) & 3.1 TPA (*Urban and Rural areas*)
- Treatment/ Measures adopted for reduction or management of plastic waste:
 - The Plastic Wastes Management Bye-laws, 2019, prepared by Aizawl Municipal Corporation(AMC) was notified vide Mizoram Gazette Notification No M.12011/6/2014-AMC Dt 16.07.2019.
 - AMC has imposed complete ban on plastic carry bags below 50 micron within its jurisdiction with effect from 1st August 2019.
 - The State Govt. has imposed ban on distribution or placing of packaged drinking water made of plastic in all official meetings or conferences or gathering w.e.f 20th May 2019.
 - The AMC has initiated segregation of wastes at source and has set up **Plastic waste Collection Centre** at Riangvai Thlanmual, Zemabawk, Aizawl.

- As per initiatives taken by Mizoram Pollution Control Board, Public Works Department has initiated a program for utilization of plastic wastes in road construction following the 'Guidelines for utilization of plastic wastes' and has recently constructed 800 m long of road using plastics at Reiek, Mamit district.
- Extensive Awareness campaigns were launched in beating plastic pollution to schools and colleges by MPCB. As a result, the state now has 126 schools and 11 colleges declared as **"Plastic Free" institutions**.

IX. Details of Alternate Treatment Technology being adopted by the State/UT:

-

X. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on insitu treatment:

- Water quality of the polluted drains has been regularly monitored by Mizoram Pollution Control Board on quarterly basis.

XI. Details of Nodal Officer appointed by Chief Secretary in the State/UT:

- Mr. Lalrotluanga, Chief Engineer, Irrigation & Water Resources Department, Govt. of Mizoram Vide Notification No.A.46012/1/2019-GAD Dt.27.02.2020

XII. Details of meetings carried under the Chairmanship Chief of Secretary in the State/UT:

- State Level Monitoring Committee has been constituted under the Chairmanship of Chief Secretary, Govt. of Mizoram notified vide letter No.C.18013/2/2020-I&WR/243 dt. 21.07.2020. The Committee comprises of the following members:

1. Chief Secretary	Chairman
2. Principal Secy./Secy., EF&CC	Member
3. Secy., PHED	Member
4. Secy., LRS&WCD	Member
5. Secy., UD&PA	Member
6. Commissioner, AMC	Member
7. Chairman, MPCB	Member
8. Secy., I&WRD	Member Secy.

- Review meeting under the Chairmanship of Chief Secretary, Govt. of Mizoram with Secretaries of the concerned departments to oversee implementation status of the

Action Plan in the matter of the orders of the Hon'ble NGT in O.A No.673/2018 is scheduled to be held on 2nd February 2021.

XIII. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river:

- Latest water quality of the 9 polluted rivers for the month of January 2021 is at **Annexure-III**.
- Water quality of drains/tributaries for the last quarter i.e January 2021 to March 2021 is at **Annexure-IV**. Monitoring of drains/tributaries is being carried out for January to March 2021 Quarter

XIV. Ground water regulation:

- In Mizoram, surface water serves as the main sources of water for drinking, domestic and industrial purposes. Ground water extraction is insignificant in Mizoram and the State Govt. has no separate notified Ground water regulations, however, regulations issued by Central Ground Water Authority has been followed in the state.

XV. Good irrigation practices being adopted by the State:

- Assessment of e-flow is underway. Discharge of streams/rivers are ensured not to be fully diverted for irrigation purposes.
- Guidelines for 'Environment Health and Social Safety' is incorporated in the Department's Construction Manual which is expected to be approved within a month.

XVI. Rain Water Harvesting:

- State Govt. has framed Rain Water Harvesting Policy for the state of Mizoram which is expected to be notified soon.
- Various stakeholder departments such as, PHE, Rural Development, PWD, AMC have taken up schemes for implementing construction of rainwater harvesting structures in the state.
- AMC has mandated provision of rainwater harvesting facility and discharge of rainwater in AMC Building Regulation, 2012 No 5(6) and No.32.
- For rejuvenation of polluted rivers, construction of rainwater harvesting structures have been proposed to be constructed in the river catchment areas for which concerned department, PHED has initiated actions.

XVII. Demarcation of Floodplain and removal of illegal encroachments:

- Not relevant for the state as Mizoram is a hilly region and has no floodplain zone.

XVIII. Maintaining minimum e-flow of river:

For assessment of e-flow of the rivers, actions have been initiated as briefed below:

- Climate Forecast System Reanalysis (CFSR) daily data such as temperature (max and min), wind, relative humidity, solar and precipitation was obtained over the 36-year period of 1979 through 2014. This specific location-based data will be interpolated to each catchment (gauged and ungauged) for carrying out the analysis.
- IMD gridded rainfall data (1901 – 2018) has been obtained. Land use land cover map from MODIS data has been obtained and analysis has been under process whether it can be used in the study area. Obtaining a High-resolution satellite imagery and Soil map is being in progress.
- Identification and preparation of all the gauged catchments been completed for e-flow assessment. The ungauged catchment where the flow has to be assessed has been identified.
- Coding in R statistical software has been prepared for extracting required location from IMD gridded data and also a code for carrying out regression analysis
- The different gauged catchment characteristics like area, perimeter, drainage density, slope, land use land cover and different hydrological parameters has been obtained. Calculation of actual evapo transpiration of each gauged catchment is under process. Using these parameters, climatic classification will be conducted based on the hydroclimatic region in the catchment using Budy curve.

Location where flow duration curve had been obtained is enclosed in **Annexure-V**

XIX. Plantation activities along the rivers:

- Environment, Forests and Climate Change Department has been taking up plantation drives in the catchment areas of the polluted rivers with a targeted area of 595.5 Ha out of which about 186.8 Ha has been already covered. Details enclosed in **Annexure-VI**

XX. Development of biodiversity park:

- Some of the rivers already have Riverine Reserved Forests of about 800 metres on either side of the river banks which are well protected. As such, a separate biodiversity park was not proposed for rejuvenation of the polluted rivers, instead plantation drives have been undertaken in the catchment area of the polluted rivers.

XXI. Reuse of Treated Water:

- Action Plan for sewage treatment including recycle and reuse of treated waste water was submitted to the State Govt., will be implemented after due approval and instruction from the State Govt.

XXII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards:

- Govt. of Mizoram has no separate Model river adopted so far. The matter is to be discussed in the meeting of the Chief Secretary, Govt. of Mizoram with concerned Secretaries in the matter of the Orders of the Hon'ble NGT in O.A 673/2018 scheduled to be held on 2nd February 2021.

XXIII. Status of Preparation of Action Plan by the 13 Coastal States:

- Not applicable to the state of Mizoram as Mizoram is a landlocked state and has no coastal areas.

XXIV. Regulation of Mining Activities in the State/UT:

- In Mizoram, there are no major mining activities yet. Most of the mining activities are that of minor mineral mining such as sandstone (stone quarry) and sand mining (sand extraction from river beds)
- Mining activities are strictly regulated in the state under The Mizoram Minor Minerals Consession Rules, 2000, notified by the State Govt. on 20.09.2005 as per the provisions of Section 15 (i) of the The Mines and Minerals (Development and Regulation) Act, 1957.
- Apart from the above Rules, provisions under Central Act and Rules such as, The Explosive Rules, 2008 and The Mines Act, 1952 are effectively followed.

XXV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring:

- Actions have been taken and fines imposed from time to time against the identified polluters, law violators in the past. However, during the reporting months, there is no such action taken.

Brick Masonry Biodigester Details					
Sl. No.	Beneficiary Details		Unit (1unit= 1000lit)	River	Category
	Name of Beneficiaries	Address			
1	2	3	4	5	6
1	Lalrinawma Sailo	Chaltlang Lily	1.2	Tlawng Lui	P-IV
2	Krossmawii	Zonuam	1.2	Tlawng Lui	P-IV
3	C.Zothantluanga	Mission V.T	1.2	Tlawng Lui	P-IV
4	Lalnunmawia Khiangte.	Tanhril MZU Campus	1.2	Tlawng Lui	P-IV
5	H Thankhumi	Chawlhmun	1.2	Tlawng Lui	P-IV
6	R.L. Mangliana	Nursery	1.7	Tlawng Lui	P-IV
7	Chawngguliana	Chanmari West	1.7	Tlawng Lui	P-V
8	Lalhmuaaka	Maubawk	1.7	Tlawng Lui	P-IV
9	Pu Thangkima	Kulikawn	1.7	Tlawng Lui	P-IV
10	Pastor RS Rokima	Tlangnuam 'w'	1.7	Tlawng Lui	P-IV
11	Thangrosiama	Chawlhmun	2.3	Tlawng Lui	P-IV
12	H Lalchhandama	Kulikawn Zobawm	2.3	Tlawng Lui	P-IV
13	Laldinsanga hnamte	Khatla bungkawm	3.5	Tlawng Lui	P-IV
14	S.Beihrosa 1	Bawngkawm Brigate-I	4.2	Tlawng Lui	P-IV
15	S.Beihrosa 2	Bawngkawm Brigate-II	4.2	Tlawng Lui	P-IV
16	Lalmuanzova	Ramhlun 'N'	1	Chite Lui	P-V
17	Dr.Vanlalhlana	Ramhlun 'N'	1.2	Chite Lui	P-V
18	Lalzawmliana	Armed veng 'S'	1.2	Chite Lui	P-V
19	Zabiaka	Chanmari	1.2	Chite Lui	P-V
20	Vanlalruati	Ramhlun V.L.	1.2	Chite Lui	P-V
21	Thangchhingpuii	Saron Veng	1.2	Chite Lui	P-V
22	Thangrodinga	Salem veng	1.2	Chite Lui	P-V
23	Nguldama	Ramhlun 'N'	1.7	Chite Lui	P-V
24	C.Tlanglawma	Salem Veng	1.7	Chite Lui	P-V
25	C. Varparha	Salem	1.7	Chite Lui	P-V
26	Lalkailiana	Chanmari	2.3	Chite Lui	P-V
27	Lalrinthangi	Ramhlun 'S'	2.3	Chite Lui	P-V

28	Nghakkhawma	Bawngkawn	2.3	Chite Lui	P-V
29	R Vanlalawmpuia	Salem Mualpui	2.3	Chite Lui	P-V
30	Pu Tluanga	Ramhlun 'N	2.3	Chite Lui	P-V
31	R.Rohmingliana	Ramhlun N	2.3	Chite Lui	P-V
32	Pu Pahlira	Bethlehem VT	2.3	Chite Lui	P-V
33	R.Lalnithanga	Chhinga veng	2.3	Chite Lui	P-V
34	Zoliana	Kulikawn	2.9	Chite Lui	P-V
35	Lalduhawmi	Chanmari	2.9	Chite Lui	P-V
36	KC Zorammuana	Chaltlang Lly	2.9	Chite Lui	P-V
37	Lalduhawmi	Chanmari (Saron road)	3.5	Chite Lui	P-V
38	V.L.Nunmawia	Ramhlun 'N'	3.5	Chite Lui	P-V
39	K.zosangliana	Chaltlang	3.5	Chite Lui	P-V
40	Lianlunga Sailo	Venghlui	4.8	Chite Lui	P-V
41	Lalmalsawma	Bawngkawn	6	Chite Lui	P-V
42	Ramfangzaua	ITI	6	Chite Lui	P-V
43	Lalremsiama	Chawnpui	1	Tuikual Lui	P-V
44	Pc. Chunglura	Chawnpui	1.2	Tuikual Lui	P-V
45	C.Lalsangluaia	Dinhtar Tlan	1.7	Tuikual Lui	P-IV
46	Pu Lalneihkima	Dinhtar	1.7	Tuikual Lui	P-V
47	B.Lalruma Sailo	Chawnpui	2.3	Tuikual Lui	P-V
48	R.K.Vanlalsawma-1	Kanan Veng	2.3	Tuikual Lui	P-V
49	B.Chhawnkima	Dinhtar	2.3	Tuikual Lui	P-V
50	Chanchinmawii	Dinhtar	2.9	Tuikual Lui	P-V
51	Lalsawta	Tuikual "S"	2.9	Tuikual Lui	P-V
52	Vanlalngena	Chawnpui	4.2	Tuikual Lui	P-V
53	R. Sangkhuma	Khatla	4.2	Tuikual Lui	P-V
54	C.Lalhmingliana	Upper Kannan	4.8	Tuikual Lui	P-V
55	H.Rotluanga FTH	Dinhtar	4.8	Tuikual Lui	P-V
56	Lalnghahmawia	Dinhtar	6	Tuikual Lui	P-V
57	Thanchhunga	Durtlang Mel-5	1.7	Tuirial Lui	P-V
58	Rosiana	Selesih	1.7	Tuirial Lui	P-V

59	Isaack Lalchhuanmawia	Durtlang	2.3	Tuirial Lui	P-V
60	Lalngaihawma	Zemabawk	2.3	Tuirial Lui	P-V
61	Jerry Lalhmunsanga	Durtlang	2.3	Tuirial Lui	P-V
		TOTAL UNITS:	151.3		
PROGRESS DURING THE MONTH					
1	C Lalmuanpuia	Chanmari West	1.0	Tlawng Lui	P-IV
2	Pu Rina S/O	Chawlhmun	1.2	Tlawng Lui	P-IV
3	Lalruatkima Ralte	Durtlang Leitan	1.2	Tuirial Lui	P-V
4	David Lalchhuanawma	Durtlang	1.7	Tuirial Lui	P-V
5	LC.Hima	Durtlang Leitan	1.7	Tuirial Lui	P-V
6	R Vanlalawmpuia	Salem Veng	1.7	Chite Lui	P-V
7	H Lalparliani	Durtlang LT	2.3	Tuirial Lui	P-V
8	Denghmingthanga	Kulikawn	2.3	Chite Lui	P-V
9	LBS Suzuki (Mesai-a)	Bawngkawn Brg	2.9	Tlawng Lui	P-IV
10	LBS Suzuki (Mesai-a)	Bawngkawn Brg	2.9	Tlawng Lui	P-IV
11	H Lalparliani	Durtlang LT	3.5	Chite Lui	P-V
12	C.Chawngnhnuna	Zemabawk	0	Tuirial Lui	P-V
13	Manhnuni	Thakthing	0	Chite Lui	P-V
14	AMC (Mawitea)	Thuampui	6	Chite Lui	P-V
15	AMC (Mawitea)	Thuampui	6	Chite Lui	P-V
16	Lushai Engineer/Join YMA Multipurpose Hall, Vaivakawn	Vaivakawn	12	Tuikual Lui	P-V
		TOTAL UNITS:	46.4		
	CUMMULATIVE TOTAL:		197.7		
	TOTAL FRP + B/MASONRY	346	+	197.7	
			=	543.7	
TOTAL VOLUME OF FAECAL SLUDGE HANDLED			=	0.5437	MLD

STATUS OF ETP FOR MIZORAM																			
Sl. No.	Name and Address of the Industry	Contact No.	District	Category of the Industry	Type of the industry	Does the unit fall under 17 categories of highly polluting industries?	Is the unit classified as Grossly Polluting Industry	Location Co-ordinates of the unit	Operation Status	Name of the river basin where units is located	Disposal point	Name of disposal point	Status ETP	Designed capacity of ETP (MLD)	Daily Average volume of Effluent Generation (MLD)	Daily Average volume of treated effluent (MLD)	Treatment Capacity Gap (MLD)	Industry complying with environment standards	Remark
1	M/s T.C. Bakery, Upper Zarkawt	Thluaiipuii 9436152985	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.738567 92.716019	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 6kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0001	0.00005	0.00005	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
2	M/s Bake House, Tuikhuahtlang	Lalhmingliana Colney 0389-2310232	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.719495 92.718836	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 7kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0001	0.00004	0.00004	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
3	M/s L.V. Patisserie, Chaitlang	L.V. Lalrinpuia 0389-2349666 9436767491	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.751631 92.722497	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0001	0.00004	0.00004	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
4	M/s K.C. Bakery, Tuithiang	Lalchhanhima 9436153548 9436195122	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.729418 92.720713	Yes	Barak etc (upto Border)	Drain	Lungli stream at a distance of about 2 kms from the unit which meets Chite Stream at a distance of about 3 kms and then meets river Tuirial after 15 kms approx	Yes	0.0001	0.00003	0.00003	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
5	M/s Hmingliani Bakery, Mission Vengthlang 796005	Hmingliani 0389-2326350	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.752908 92.706088	Yes	Barak etc (upto Border)	Drain	Vai lui (Stream) at a distance of about 2 kms from the unit which meets river Tlawng after 6 kms approx	Yes	0.0005	0.0003	0.0003	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
6	M/s P.S. Bakery, Armed Veng 796007	P.S. Lalpianpuia 8258847192 9862426785	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.733825 92.729069	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 2 kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0002	0.00003	0.00003	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
7	M/s Cookie Jar, Chanmari 796007	Lalsangpuili 9862572516	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.742159 92.717382	Yes	Barak etc (upto Border)	Drain	Natural drains at about 2 kms from the unit which meets Tlawng river at about 18 kms approx.	Yes	0.0002	0.00015	0.00015	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.

8	M/s Holy Cross Bakery, Zotlang 796009	Lalmangaiha Sailo 0389-2342600 9436360275	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.720549 92.715498	Yes	Barak etc (upto Border)	Drain	Li Bial lui (Stream) at about 4 kms from the unit which meets Tlawng river after 7 kms approx.	Yes	0.0001	0.000005	0.000005	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
9	M/s Blav's Bakery, Thakthing tiang	Bawihluta 0389-23296913	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.712458 92.721097	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5 kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.001	0.0002	0.0002	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
10	M/s Nu-Nun Bakery, Ramthar, Tlang veng		Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.740021 92.725239	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 4kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0001	0.00005	0.00005	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
11	M/s J&J Bakery, Bethlehem 796007	Lalrelkima Fanai 9862311635	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.726862 92.723560	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 3 kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0001	0.00003	0.00003	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
12	M/s C.Mart Bakery, Chanmari (Glenaries)	John R. Chhangte 0389-2340120 9615418810	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.739638 92.717035	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.001	0.0007	0.0007	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
13	M/s Zote Bakery, Lower Zarkawt	Lalrinmawia Tochhawng 0389-2340109	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.737810 92.717220	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0015	0.001	0.001	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
14	M/s L.S. Bakery, Chanmari 'W', Near Salvation Army Church	Lalliansangpuil 9436364020 8974143982	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.744318 92.716309	Yes	Barak etc (upto Border)	Drain	Natural drains at about 3 kms from the unit which meets Tlawng river at about 13 kms approx.	Yes	0.001	0.0003	0.0003	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
15	M/s C.K. Bakery and Confectionaries, Kanan Veng 796009	Judie Lallungtiawil 9436149877	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.734677 92.709953	Yes	Barak etc (upto Border)	Drain	Natural drains at about 3 kms from the unit which meets Tlawng river at about 12 kms approx.	Yes	0.0005	0.00023	0.00023	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.

16	M/s Vogue Bakery, Zotlang	Lallawmzuali	Aizawl	Green	Bakery/ confection (with production capacity <1 TPD with gas or electric oven)	No	No	23.740762 92.705994	Yes	Barak etc (upto Border)	Drain	Natural drains at about 3 kms from the unit which meets Tlawng river at about 15 kms approx.	Yes	0.0005	0.0002	0.0002	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
17	M/s Hotel Ritz, Dawrpui	Hmingliani 9436141361	Aizawl	Orange	Hotel	No	No	23.729898 92.716878	Yes	Barak etc (upto Border)	Drain	Tuikual stream at a distance of about 3kms which meets Tlawng river after 15 kms approx.	Yes	0.005	0.0035	0.0035	0	Yes	
18	M/s The Esquire, Sikulpuikawn	Biakthanmawia 9436142525 9862354550	Aizawl	Green	Hotel	No	No	23.717137 92.719066	Yes	Barak etc (upto Border)	Drain	Lungli stream at a distance of about 1 kms from the unit which meets Chite Stream at a distance of about 3 kms and then meets river Tuirial after 15 kms approx	Yes	0.002	0.001	0.001	0	Yes	
19	M/s David Hotel Clover, G-16, Chanmari	David Lalhmangaiha 9862310838 8730971457	Aizawl	Green	Hotel	No	No	23.739966 92.716481	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.002	0.001	0.001	0	Yes	
20	M/s Hotel Chief, Zarkawt	Lalrinenga Sailo 0389-2341097 0389-2340324 9436141209	Aizawl	Orange	Hotel	No	No	23.736430 92.716948	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.002	0.0012	0.0012	0	Yes	
21	M/s Hotel Chawlhna, Zarkawt	M.S. Dawngliani 0389-2342292	Aizawl	Orange	Hotel	No	No	23.737643 92.717071	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.002	0.0015	0.0015	0	Yes	
22	M/s Hotel Hill Orchid, Dawrpui	Laichhanhimi 0389-2316565	Aizawl	Green	Hotel	No	No	23.733136 92.717635	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.003	0.002	0.002	0	Yes	
23	Hotel Floria, Bara Bazar	Thanzami Tochhawng & Denis M. Ralte 9436960301 9436154319	Aizawl	Orange	Hotel	No	No	23.733724 92.717683	Yes	Barak etc (upto Border)	Drain	Ramthar lui, Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.005	0.002	0.002	0	Yes	
24	M/s Hotel Arini, Khatla	B. Zosangliana 0389-2301557 0389-2314044	Aizawl	Orange	Hotel	No	No	23.722209 92.717930	Yes	Barak etc (upto Border)	Drain	Tuikual stream at a distance of about 5 kms which meets Tlawng river after 15 kms approx.	Yes	0.002	0.001	0.001	0	Yes	
25	M/s Hotel Serow, Chaltlang	B.Darchhinga Chaltlang, Lily Veng	Aizawl	Orange	Hotel	No	No	23.751555 92.727118	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.001	0.0008	0.0008	0	Yes	
26	M/s Grand Hotel, Chanmari	David Zohmachhuana 943614930	Aizawl	Orange	Hotel	No	No	23.738873 92.716505	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.003	0.002	0.002	0	Yes	

27	M/s Hotel Royale, Dawrpui	J. Thankunga 9862304664	Aizawl	Orange	Hotel	No	No	23.731526 92.717249	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.002	0.001	0.001	0	Yes	
28	M/s Hotel Regency, Zarkawt	Biakchhunga 9436142096	Aizawl	Orange	Hotel	No	No	23.738338 92.716542	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.003	0.0025	0.0025	0	Yes	
29	M/s Hotel Ahimsa, Zarkawt	Lalbiaknii 0389-2341133 0389-2345542	Aizawl	Orange	Hotel	No	No	23.735587 92.715809	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.001	0.0005	0.0005	0	Yes	
30	M/s Jay Jay Foods, Falkland, Zemabawk	Jervis Lalramnghaka 9612393893 9436955500	Aizawl	Orange	Food & Fruit Processing	No	No	23.737323 92.740473	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 3kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0005	0.0002	0.0002	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
31	M/s S.L. Mizo Foods, Salem Veng	Pu K. Lalrodinga	Aizawl	Orange	Food & Fruit Processing	No	No	23.709449 92.726611	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 3kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0001	0.00006	0.00006	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (B)(b) of the Environment Protection (Rules), 1986.
32	M/s Moon Star Rice Cake, Zemabawk	Nangsiammung 9862381670	Aizawl	Orange	Food & Fruit Processing	No	No	23.734561 92.764709	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 3kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0001	0.00007	0.00007	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
33	M/s C.B. Enterprise, Bethlehem Vengthlang	C.B. Liankhuma 9856933433 9862735699	Aizawl	Orange	Food & Fruit Processing	No	No	23.728966 92.722901	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 3kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.0001	0.00005	0.00005	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
34	M/s Blue Berry Ice Cream, Mission Veng	H. Lallenpui 9774510215 9862937474	Aizawl	Orange	Ice Cream	No	No	23.716276 92.715224	Yes	Barak etc (upto Border)	Drain	Vai lui (Stream) at a distance of about 2 kms from the unit which meets river Tlawng after 6 kms approx	Yes	0.0002	0.00015	0.00015	0	Yes	
35	M/s K.L.T. Fruit Processing Industry, Edenthlar	K.L.Tluanga 8132935836	Aizawl	Orange	Food & Fruit Processing	No	No	23.756485 92.717071	Yes	Barak etc (upto Border)	Drain	Natural drain which meets Tlawng river at about 14 kms approx.	Yes	0.0001	0.00006	0.00006	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (B)(b) of the Environment Protection (Rules), 1986.
36	M/s Bee Zet Ice Cream Industry, Khatla	R. Lianzuala 0389-2333867 0389-2333170	Aizawl	Orange	Ice Cream	No	No	23.720276 92.715766	Yes	Barak etc (upto Border)	Drain	Vai lui (Stream) at a distance of about 3 kms from the unit which meets river Tlawng after 6 kms approx	Yes	0.0002	0.00017	0.00017	0	Yes	

37	M/s Lucky Star Soya Egg Rice Cake, Luangmual Vengthlang	Lallianmawia 8575301638 9436702768	Aizawl	Orange	Food & Fruit Processing	No	No	23.741275 92.701726	Yes	Barak etc (upto Border)	Drain	Libial lui (Stream) at a distance of about 2 kms from the unit which meets river Tlawng after 6 kms approx	Yes	0.0001	0.000075	0.000075	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 (C)(a) (ii) of the Environment Protection (Rules), 1986.
38	M/s Sunrise Soft Drinks, Ramhlun North		Aizawl	Orange	Food & Fruit Processing	No	No	23.746648 92.722914	Yes	Barak etc (upto Border)	Drain	Chite lui (Stream) at a distance of about 1 kms from the unit which meets river Tlawng after 6 kms approx	Yes	0.0002	0.00015	0.00015	0	Yes	The unit is small scale and wastes water disposal via septic tank is permissible as per SI No 51 A(b) of the Environment Protection (Rules), 1986.
39	M/s Zonu Meat Processing, Missi on Veng	Dr. Vanramhlimpui 9862641893	Aizawl	Red	Meat Processing	No	No	23.715384 92.720245	Yes	Barak etc (upto Border)	Drain	Vai lui (Stream) at a distance of about 5 kms from the unit which meets river Tlawng after 6 kms approx	Yes	0.0003	0.00025	0.00025	0	Yes	
40	M/s Slaughter House, Mualpui		Aizawl	Red	Meat Processing	No	No	23.705001 92.736244	Yes	Barak etc (upto Border)	Drain	Natural drain at about 1km from the unit which meets chite stream at about 1.5 kms and then meet Tlawng river at about 14 kms	Yes	0.0005	0.0003	0.0003	0	Yes	
41	M/s Greenwood Hospital, Bawng kawn, Aizawl	Nursing Superintendent 9856136798	Aizawl	Red	Hospital	No	No	23.755497 92.731038	Yes	Barak etc (upto Border)	Drain	Side drain which meets chite stream at about 1.5 kms and then meet Tlawng river at about 14 kms	Yes	0.001	0.0007	0.0007	0	Yes	
42	M/s Ebenezer Medical Centre, Chawnpui, Aizawl	Managing Director 9436195087	Aizawl	Red	Hospital	No	No	23.731202 92.707832	Yes	Barak etc (upto Border)	Drain	Tuikual lui (Stream) at a distance of about 500 mts from the unit which meets river Tlawng after 8 kms approx	Yes	0.02	0.001	0.001	0	Yes	
43	M/s BN Hospital & Research Centre , Kulikawn		Aizawl	Red	Hospital	No	No	23.710908 92.719462	Yes	Barak etc (upto Border)	Drain	Vai lui (Stream) at a distance of about 3 kms from the unit which meets river Tlawng after 6 kms approx	Yes	0.0005	0.0005	0.0005	0	Yes	
44	M/s Nazareth Hospital , Ramhlun South		Aizawl	Red	Hospital	No	No	23.748506 92.724134	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 6kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.001	0.0005	0.0005	0	Yes	
45	M/s Grace Nursing Hospital & Research Centre, Lower Zarkawt		Aizawl	Red	Hospital	No	No	23.736116 92.717365	Yes	Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.001	0.00065	0.00065	0	Yes	
46	Civil Hospital , Dawrpui Aizawl		Aizawl	Red	Hospital	No	No	23.732300 92.716526	Yes	Barak etc (upto Border)	Drain	Tuikual stream at a distance of about 3kms which meets Tlawng river after 15 kms approx.	Yes	0.02	0.01	0.01	0	Yes	

47	M/s Aizawl Hospital & Research Centre, Khatla		Aizawl	Red	Hospital	No	No	23.718775 92.717601	Yes	Barak etc (upto Border)	Drain	Vai lui (Stream) at a distance of about 3 kms from the unit which meets river Tlawng after 6 kms approx	Yes	0.002	0.002	0.002	0	Yes	
48	M/s Alpha Hospital , Kulikawn		Aizawl	Red	Hospital	No	No	23.709216 92.719481	Yes	Barak etc (upto Border)	Drain	Vai lui (stream) at about 3.7 kms from the unit which meets Tlawng River at about 6 kms approx	Yes	0.001	0.0006	0.0006	0	Yes	
49	M/s Kulikawn Hospital , Kulikawn		Aizawl	Red	Hospital	No	No	23.708397 92.715562	Yes	Barak etc (upto Border)	Drain	Vai lui (stream) at about 3 kms from the unit which meets Tlawng River at about 5 kms approx	Yes	0.001	0.0004	0.0004	0	Yes	
50	M/s Synod Hospital, Durtlang		Aizawl	Red	Hospital	No	No	23.772098 92.731021	Yes	Barak etc (upto Border)	Drain	Leitan Stream at about 3 kms from the unit which meets Tlawng river after 15 kms approx.	Yes	0.002	0.0008	0.0008	0	Yes	
51	M/s Mizoram state Cancer Institute, Zemabawk		Aizawl	Red	Hospital	No	No	23.732244 92.751173	Yes	Barak etc (upto Border)	Drain	Chite Stream and Muthi stream at a distance of about 5 and 7 kms from the unit which meets river Tuirial after 15 kms approx	Yes	0.001	0.0004	0.0004	0	Yes	
52	M/s Bethany Hospital , Mission Veng	Chief Managing Director 9436351875	Aizawl	Red	Hospital	No	No	23.716626 92.716299	Yes	Barak etc (upto Border)	Drain	Vai lui (Stream) at a distance of about 2 kms from the unit which meets river Tlawng after 6 kms approx	Yes	0.001	0.0004	0.0004	0	Yes	
53	M/s Bethesda Hospital & Research Centre, Bawngkawn Chhim Veng		Aizawl	Red	Hospital	No	No	23.750370 92.726632		Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	No operation since notice for disconnection of water supply was served as per the order.		0.0004				No operation since notice for disconnection of water supply was served as per the order.
54	M/s K.K. Dairy, Bawngkawn	Samuel K. Kawla 9436144171	Aizawl	Orange	Dairy	No	No	23.754122 92.728345	Yes	Barak etc (upto Border)	Drain	Natural drain which meets Tlawng river at about 15 kms approx.	No operation since notice for disconnection of water supply was served as per the order.	0.005	0.0002	0.0002		Yes	Reported construction of ETP.
55	M/s Zonuam Food Processing Centre, Zonuam	R. Lalrohluia 9612078505	Aizawl	Red	Meat Processing	No	No	23.739744 92.701609		Barak etc (upto Border)	Drain	Libial lui (Stream) at a distance of about 2 kms from the unit which meets river Tlawng after 6 kms approx	No operation since notice for disconnection of water supply was served as per the order.		0.0002				No operation since notice for disconnection of water supply was served as per the order.
56	M/s Hmingliani Ice Cream, Dawrpui, Aizawl	Lalrinsanga 9089524366	Aizawl	Orange	Ice Cream	No	No	23.720284 92.715783		Barak etc (upto Border)	Drain	Chite Stream at a distance of about 5kms from the unit which meets river Tuirial after 15 kms approx	No operation since notice for disconnection of water supply was served as per the order.		0.0002				No operation since notice for disconnection of water supply was served as per the order.

ANNEXURE - III

**Water Quality Data of 9 (NINE) Polluted River
stretches in Mizoram
(OA - No. 673 of 2018)**

**JANUARY
2020**



MIZORAM STATE POLLUTION CONTROL BOARD

DETAILS OF POLLUTED LOCATIONS & RESULTS OF FIELD PARAMETERS FOR THE MONTH OF JANUARY, 2021																			
Sl. No.	Station Code					A. STATIONS DETAILS													
		Name of Station	Location	Co-Ordinates			Sampling Date	Sampling Time	Used Based Class	Major Polluting Sources	Visibility Effluent Discharge	Use of water in Down Stream (irrigation, industrial, domestic, drinking water source, organised water source, cultivation, fishing, bathing ghat, others)	Weather	Depth of Water Body (m)	Human activities (Bathing, Washing, Cultivation, Fishing, Boating, Gardening, Tourist spot, cattle wedding, others)	Floating matter	Colour	Odour	Flow (m/s)
				Longitude	Latitude	Elevation	1	2	3	4	5	6	7	8	9	10	11	12	13
1	3756	Tiau River	Near Boundary Tiau Bridge, Zokhawthar Village, Champhai District, Mizoram	93 ⁰ 23'31.0"E	23 ⁰ 21'42.8"N	720m	15-01-2021	10.20		Domestic			Clear	1.18	Washing		Pale Yellow	Odourless	0.51
2	3709	Tlawng River, Sairang	Sairang Village, Aizawl District, Mizoram	92 ⁰ 39'10"E	23 ⁰ 48'49"N	80m	18-01-2021	11.30		Agriculture			Clear	1	Sand collection		Clear	Odourless	0.4
	3734	Tlawng River, Upper Stream, Lunglei	Near Tlawng Bridge, Mausem Village, Lunglei District, Mizoram	92 ⁰ 49'15.0"E	22 ⁰ 51'21.2"N	1080m	14-01-2021	10.30		Agriculture		Washing, Bathing	Clear	1	Washing, Domestic Purpose		Clear	Odourless	0.8
	3736	Tlawng River, Pialthleng, Zotlang, Lunglei	Near P.H.E Water Treatment Plant, Zotlang, Lunglei Distirct, Mizoram	92 ⁰ 45'45.7"E	22 ⁰ 56'53.5"N	800m	14-01-2021	12.30		Agriculture		Drinking Water Source	Clear	3.1	Fishing		Clear	Odourless	0.2
	3754	Tlawng River, Downstream,Bairabi	Bairabi Village, Kolasib District, Mizoram	92 ⁰ 32'14.3"E	24 ⁰ 10'44.7"N	40m	10-01-2021	2.30		Agriculture			Clear	1	Fishing		Pale Yellow	Odourless	0.5
3	3757	Tuipui River	Near P.H.E Treatment Plant, Champhai District, Mizoram	93 ⁰ 16'27"E	23 ⁰ 30'18.8"N	800m	15-01-2021	11.30		Agriculture		Drinking Water Source	Clear	2.14			Clear	Odourless	0.31
4	3720	Tuivawl River	Near Tuivawl Bridge, Seling Village, Aizawl District, Mizoram	93 ⁰ 2'6"E	23 ⁰ 38'31"N	500m	17-01-2021	12.45		Agriculture		Washing, bathing	Clear	0.3	Traffic Movement		Clear	Odourless	0.5
5	3718	Chite River	Near Mini Sports Complex, Armed Veng, Aizawl, Mizoram	92 ⁰ 44'17.5"E	23 ⁰ 43'59.2"N	680m	25-01-2021	12.45		Domestic			Clear	0.3			Pale yellow	Odourless	0.3
6	3735	Mat River	Near Mat Bridge, Dawn Village, Lunglei District, Mizoram	92 ⁰ 52'19.7"E	22 ⁰ 53'58.4"N	380m	13-01-2021	11.00		Agriculture		Washing, Domestic Purpose	Clear	1.7	Plantation, Gardening		Clear	Odourless	0.8
7	3740	Saikah stream	Saikah Village, Lawngtlai, Mizoram	92 ⁰ 53'40.1"E	22 ⁰ 27'21.3"N	800m	07-01-2021	9.00		Domestic		Drinking Water Source	Clear	0.2			Clear	Odourless	0.2
8	3712	Tuikual Stream	Near PHE Water Treatment Plant, Reiek Kai, Aizawl District, Mizoram	92 ⁰ 39'46"E	23 ⁰ 42'57"N	270m	12-01-2021	11.49		Domestic			Clear	0.9			Clear	Odourless	0.5
9	2052	Tuiriial U/s, Aizawl	Tuiriial Village, upstream of Tuiriial Bridge	92 ⁰ 47'58.25"E	23 ⁰ 43'8.99"N	187m	05-01-2021	12.00		Agriculture			Clear	1	Fishing		Clear	Odourless	0.5
	2053	Tuiriial L/s Aizawl	Tuiriial Village, downstream of Tuiriial Bridge	92 ⁰ 47'57.92"E	23 ⁰ 43'5.22"N	185m	05-01-2021	12.20		Agriculture			Clear	1	Fishing		Clear	Odourless	0.3

WATER QUALITY DATA OF 9(NINE) POLLUTED RIVER STRETCHES FOR THE MONTH OF JANUARY, 2021

Sl.No	Station Code	B. CORE PARAMETERS								C. GENERAL PARAMETERS											
		Water Temp (°C)	D.O (mg/L)	pH	Conductivity µs/cm	B.O.D (mg/L)	Nitrogen Nitrite (N-NO ₂) (mg/L)	Faecal Coliform MPN	Total Coliform MPN	Turbidity NTU	Total Alkalinity (mg/L)	Chlorides (mg/L)	Ammonia-N (mg/L)	Total Hardness (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	K (mg/L)	TDS (mg/L)	TSS (mg/L)	Total Phosphate (mg/L)
		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1	3756	10	4.1	8.6	168	0.18	0.01			8.2	112.2	11.2	0.327	94	24	8.2	2	0	130	10	0.061
2	3709	19	9	8.6	132	0.5	0.01	10	160	1.8	82.6	9.3	0.399	58	8	9.1	1.5	0.5	90	10	0.052
	3734	19	7	7.3	48	0.6	0.007			1	33.1	4.6	0.372	20	4	2.4	2	0.5	40	10	0.061
	3736	18	6.7	7.3	81	1.4	0.006			0.9	43.4	8.4	0.376	30	4	4.8	1	0	60	10	0.059
	3754	24	5.9	7.9	162	0.9	0.015			5	107.4	7.4	0.41	110	32	7.2	1	0.5	100	20	0.065
3	3757	10	3.9	7.5	81	0.2	0.007			2.2	51	9.3	0.372	32	4	5.3	1.5	1	50	10	0.104
4	3720	12	6.8	7.6	118	0.8	0.011			2.6	80.6	7.4	0.361	60	16	4.8	1.5	0.5			0.063
5	3718	18	6	7.7	613	1.9	0.353	1100	2400	3.8	247.9	90.2	4.628	178	60	6.7	5.5	1.5	410	40	0.166
6	3735	20	6.9	7.4	57.2	1.3	0.006			1.1	20.7	4.6	0.369	10	2.4	1	2	0	50	10	0.063
7	3740	20	8.63	7.26	63	1.1	0.01			1.3	26.9	8.4	0.703	36	8	3.8	2	0	60	20	0.096
8	3712	19	5.3	8.45	249	1.4	0.017	460	2400	2.5	105.4	32.5	0.619	112	32	6.7	2.5	0.5	120	10	0.107
9	2052	19	7.7	8.06	160	1.86	0.016	0	2400	1.3	33.1	11.2	0.445	20	4.8	1.9	2.5	0	60	10	0.086
	2053	19	7.4	8.22	155	1.5	0.013	0	2400	1.9	103.3	8.4	0.528	40	7.2	5.3	3	0.5	90	10	0.093

ANNEXURE - 4

Polluted Rivers Data With Drains Joining the Polluted locations January, 2021

Sl.No	Name of Polluted River	Name of Drains	A. STATIONS DETAILS												
			Sampling Date	Sampling Time	Used Based Class	Major Polluting Sources	Visibility Effluent Discharge	Use of water in Down Stream (irrigation, industrial, domestic, drinking water source, organised water source, cultivation, fishing, bathing ghat, others)	Weather	Depth of Water Body (m)	Human activities (Bathing, Washing, Cultivation, Fishing, Boating, Gardening, Tourist spot, cattle wedding, others)	Floating matter	Colour	Odour	Flow (m/s)
			1	2	3		5	6	7	8	9	10	11	12	13
1	Tiau River	LK KAI	15-01-2021	11.00					Clear	N/A			Clear	Odourless	N/A
2	Tlawng River	Drain -1 flowing between Pukpui & Zotlang	27-01-2021	11.00					Clear	N/A			Clear	Odourless	N/A
		Drain -2 flowing between nothern side of Serkawn & Zotlang	27-01-2021	11.45				Bathing	Clear	N/A	Public Water Supply		Clear	Odourless	N/A
		Drain -3 flowing between Southern side of Serkawn	27-01-2021	1.30					Clear	N/A	bathing, Dwelling, Paddy Field		Clear	odourless	N/A
		Dak Lui, Sairang	18-01-2021	12.00					Clear	N/A			Clear	Odourless	0.5
		Lawngpu lui	18-01-2021	12.15					Clear	N/A			Clear	Odourless	0.5
		Bawng lui	20-01-2021	5.30					Clear	0.43			Clear	Odourless	N/A
3	Tuipui River	Keilungliah Stream													
4	Tuivawl River	Serlui	20-01-2021	2.45					Clear	0.2			Clear	Odourless	0.03
5	Chite Stream	Tlak Lui	25-01-2020	2.30					Clear	0.2			Milky	Bad Smell	0.3
		Bangla Lui	25-01-2021	2.00					Clear	0.2			Greyish	Bad Smell	0.3
		Luihnai & Darnam Lui	25-01-2021	1.15					Clear	0.2			Pale Yellow	Foul Smell	0.3
		Sakawrpui lui	25-01-2021	1.30					Clear	0.2			Milky	Bad Smell	0.3
6	Mat River	Hmawngawn lui,Serchhip	26-01-2021	1.15				Irrigation	Clear	0.8	gardening, Fish Pond located near the ri		Clear	Odourless	0.9
7	Saikah Stream	NIL													
8	Tuikual Lui	Chawnpui Lui	19-01-2021	12.00					Clear	0.02			Milky	Pungent Smell	0.03
		Dinthar Lui	19-01-2021	12.20					Clear	0.02			Blackish	Pungent Smell	0.3
		Dawrpui Kawr	19-01-2021	11.25					Clear	0.03			Blackish	Pungent Smell	0.02
9	Tuirial River	Theihai Lui	07-01-2021	12.20					Clear	0.2			Pale Yellow	Odourless	0.4
		Hmawngkai Lui	07-01-2021	12.00					Clear	0.2			Pale Yellow	Odourless	0.5
		Lawibual Lui	07-01-2021	11.50					Clear	0.2			Clear	Odourless	0.4

Polluted Rivers Data With Drains Joining the Polluted locations January, 2021

SLNo	Name of Polluted River	Name of Drains	B. CORE PARAMETERS								C. GENERAL PARAMETERS											
			Water Temp (°C)	D.O (mg/L)	pH	Conductivity µs/cm	B.O.D (mg/L)	Nitrogen Nitrite (N-NO ₂) (mg/L)	Faecal Coliform MPN	Total Coliform MPN	Turbidity NTU	Total Alkalinity (mg/L)	Chlorides (mg/L)	Ammonia-N (mg/L)	Total Hardness (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	K (mg/L)	TDS (mg/L)	TSS (mg/L)	Total Phosphate (mg/L)
1	Tiau River	LK KAI	10	3.9	8	191	0.1	0.014	34	2400	7.8	114.3	12.1	0.733	106	32	6.2	1.5	1	150	10	0.086
2	Tlawng River	Drain -1 flowing between Pukpui & Zotlang	18	7.5	7.3	64	0.5	0.014	53	2400	1.7	20.7	8.4	0.441	34	8	3.4	2	1	50	0	0.056
		Drain -2 flowing between nothern side of Serkawn & Zotlang	17	7.2	7.3	108	0.7	0.012	43	2400	1.6	26.9	17.7	0.46	36	11.2	1.9	1.5	0.5	80	0	0.078
		Drain -3 flowing between Southern side of Serkawn	17	7.7	7.4	60	0.3	0.012	95	2400	1.5	26.9	11.2	0.551	20	4	2.4	1	0	30	0	0.052
		Dak Lui, Sairang	17	6	8.6	443	5.6	0.182	210	2400	4.8	132.2	68.8	4.1	120	40	4.8	2	0.5	90	10	0.251
		Lawngpu lui	17	7.5	8.03	208	1.3	0.008	53	2400	3.4	219	4.6	0.422	110	32	7.2	2.5	0.5	50	10	0.049
		Bawng lui	27	4	7.97	195	1.8	0.028	43	2400	8.8	115.7	4.6	0.543	90	24	7.2	1.5	0.5	120	20	0.103
3	Tuipui River	Keilungliah Stream																				
4	Tuivawl River	Serlui	11	8.2	7.6	355	2.2	0.015	75	2400	5.5	126	12.1	0.369	124	40	5.8	2	0.5	150	10	0.073
5	Chite Stream	Tlak Lui	19	4.1	7.29	612	1.8	0.065	29	2400	42.8	272.7	67	6.87	120	40	4.8	5	1.5	350	80	0.515
		Bangla Lui	19	4.1	7.6	928	2.5	0.111	1100	2400	67.4	386.4	125.5	8.801	152	48	7.7	7	2	560	70	0.687
		Luihnai & Darnam Lui	19	2.3	7.6	821	1.7	0.027	44	2400	58.4	324.4	100.4	7.197	166	56	6.2	6.5	1.5	530	170	0.398
		Sakawrpui lui	19	0.9	7.3	956	3.4	0.103	1100	2400	59	371.9	118.1	8.831	158	48	9.1	6.5	2.5	650	70	0.633
6	Mat River	Hmawngawn lui,Serchhip	16	6.2	6.9	196	3.2	0.014	75	2400	1.6	107.4	19.5	0.361	92	24	7.7	1	0.5	120	0	0.055
7	Saikah Stream	NIL																				
8	Tuikual Lui	Chawnpui Lui	18	0.4	7.9	949	5.2	0.306	1100	2400	100	338.8	132.1	10.83	130	40	7.2	2	0.5	1560	380	1.025
		Dinthar Lui	18	0.9	7.6	825	7.3	0.29	1100	2400	101.6	338.8	103.2	9.705	168	56	6.7	2.5	0.5	750	100	0.651
		Dawrpui Kawr	18	2.8	7.7	121	4.8	0.259	1100	2400	100	483.5	139.5	11.17	114	32	8.2	2.5	0.5	790	100	0.984
9	Tuirial River	Theihai Lui	19	4.1	7.54	672	3.6	0.084	210	2400	100	295.5	93	6.893	206	72	6.2	1	0.5	410	250	0.358
		Hmawngkai Lui	18	4.9	7.7	692	5.7	0.215	20	2400	12.6	291.3	81.8	5.662	188	64	64	1	0.5	350	30	0.207
		Lawibual Lui	20	5.9	8.27	501	4	0.015	290	2400	2.3	109.5	72.5	0.555	216	72	8.6	8.6	0	280	10	0.24

ANNEXURE-VII

Location where flow duration curve had been obtained

IWRD																																																																					
Sl. No.	Action required	Achievement as reported by the Deptt.	Information's to be provided and for which a separate sheet may be attached, if required.																																																																		
1.	E-flow Assessment	Under process	<i>Mention progress made so far for works related to e-flow assessment up to the Reporting month</i> - The gauged catchment flow quantiles and flow duration curve had been obtained as shown below: <table border="1"> <thead> <tr> <th>Location</th><th>q₅ (l/s. km²)</th><th>q₅₀ (l/s. km²)</th><th>q_{mean} (l/s. km²)</th><th>q₉₀ (l/s. km²)</th><th>q₉₅ (l/s. km²)</th><th>FDC_{slp} (-)</th></tr> </thead> <tbody> <tr> <td>Mat Rotlang</td><td>351.23</td><td>69.92</td><td>95.07</td><td>10.44</td><td>7.44</td><td>6.87</td></tr> <tr> <td>Mat Valley</td><td>427.55</td><td>18.05</td><td>267.12</td><td>0.58</td><td>0.38</td><td>3.39</td></tr> <tr> <td>Tlabung</td><td>194.00</td><td>13.03</td><td>13.83</td><td>4.49</td><td>2.63</td><td>1.77</td></tr> <tr> <td>Tlawng</td><td>123.93</td><td>66.67</td><td>74.14</td><td>2.71</td><td>2.24</td><td>3.13</td></tr> <tr> <td>Bairabi</td><td>88.37</td><td>54.22</td><td>59.49</td><td>34.57</td><td>33.03</td><td>2.93</td></tr> <tr> <td>Tuirial</td><td>23.74</td><td>12.62</td><td>6.72</td><td>7.94</td><td>7.76</td><td>5.25</td></tr> <tr> <td>Tuichang</td><td>5451.58</td><td>333.97</td><td>184.47</td><td>65.83</td><td>49.30</td><td>3.95</td></tr> <tr> <td>Mateswari, De</td><td>678.49</td><td>51.24</td><td>13.55</td><td>3.91</td><td>3.63</td><td>3.53</td></tr> </tbody> </table> The different gauged catchment characteristics like area, perimeter, drainage density, slope, land-use land cover and different hydrological parameters has been obtained. Calculation of actual evapotranspiration of each gauged catchment is under process. Using these parameters, climatic classification will be conducted based on the hydro-climatic region in the catchment using Budyo curve.				Location	q ₅ (l/s. km ²)	q ₅₀ (l/s. km ²)	q _{mean} (l/s. km ²)	q ₉₀ (l/s. km ²)	q ₉₅ (l/s. km ²)	FDC _{slp} (-)	Mat Rotlang	351.23	69.92	95.07	10.44	7.44	6.87	Mat Valley	427.55	18.05	267.12	0.58	0.38	3.39	Tlabung	194.00	13.03	13.83	4.49	2.63	1.77	Tlawng	123.93	66.67	74.14	2.71	2.24	3.13	Bairabi	88.37	54.22	59.49	34.57	33.03	2.93	Tuirial	23.74	12.62	6.72	7.94	7.76	5.25	Tuichang	5451.58	333.97	184.47	65.83	49.30	3.95	Mateswari, De	678.49	51.24	13.55	3.91	3.63	3.53
Location	q ₅ (l/s. km ²)	q ₅₀ (l/s. km ²)	q _{mean} (l/s. km ²)	q ₉₀ (l/s. km ²)	q ₉₅ (l/s. km ²)	FDC _{slp} (-)																																																															
Mat Rotlang	351.23	69.92	95.07	10.44	7.44	6.87																																																															
Mat Valley	427.55	18.05	267.12	0.58	0.38	3.39																																																															
Tlabung	194.00	13.03	13.83	4.49	2.63	1.77																																																															
Tlawng	123.93	66.67	74.14	2.71	2.24	3.13																																																															
Bairabi	88.37	54.22	59.49	34.57	33.03	2.93																																																															
Tuirial	23.74	12.62	6.72	7.94	7.76	5.25																																																															
Tuichang	5451.58	333.97	184.47	65.83	49.30	3.95																																																															
Mateswari, De	678.49	51.24	13.55	3.91	3.63	3.53																																																															

ANNEXURE - VI

PLANTATION CARRIED OUT IN THE CATCHMENT AREA OF POLLUTED RIVER STRETCHES

Sl.No	Name of Polluted Rivers	Location of Plantation	Area (Ha)	Species
1	Tiau River	Zokhawthar	20	Michelia Champaca
2	Tuipui	Keilungliah kam HH.Th	15	Chukrassia
3	Chite Stream	Chite	1.8	Grevillea robusta, Mesua ferrea, Saraca asoka, Artocarpus Chaplasha, Prunus serasoides, Artocarpus lacucha, Bischofia javanica, Delonix regia, Artocarpus hyterophylla, acrocarpus fraxinifolias, Phyllanthus emblica, Magnolia oblonga, Aquilaria mallaccensis, Oroxylum indicum, Syzygium cumini, Tigustrum robustum etc.
4	Tuirial River	Phulraw peng, Maubuang	150	Duabanga grandiflora, Toona ciliate, Logustrum robustum, Schima wallichii, Terminalia myriocarpa, Bischofia javanica, Mechelia champaca, Embilica officinalis, Gmelina arborea, Alseodaphne petiolaris etc.
Total			186.8	