MIZORAM STATE POLLUTION CONTROL BOARD

No. H.88088/Poltn./50 (XIX)-JS/18-MPCB/ : Dated Aizawl, the 21st December 2020.

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 November 2020 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 **November 2020** on OA. 673/2018 as per the revised format for favour of your kind information and further necessary action.

You may be noted that actions could not be taken much during the reporting month due to the Covid-19 Pandemic.

Yours faithfully,

Enclo: As above

(C.LALDUHAWMA)
Member Secretary

Memo No. H.88088/Poltn./50 (XIX)-JS/18-MPCB/ : Dated Aizawl, the 21st December 2020.

Copt to: Member Secretary, Central Pollution Control Board

(C.LALDUHAWMA)
Member Secretary
Mizoram Pollution Control Board

Monthly Progress Report for the State of MIZORAM for November 2020
(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).

Urban & Rural Popullation	*2011*	*Projected population in 2021*
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. <u>Details of Sewage Treatment Plant:</u>

- Existing no. of STPs and Treatment Capacity (in MLD):
  - **Nil**
- Capacity Utilization of existing STPs:
  - **Nil**
- MLD of sewage being treated through Alternate technology:
  - **0.2 MLD (Bio Digester etc.)**
- Gap in Treatment Capacity in MLD:
  - **104 MLD – 10.2 MLD = 93.8 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%	More than 3000 House Hold connections are ready for final connection to the sewer.	Within 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
- 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 – 9TPD

    ii. KolasibTown: 2 Nos. of Vermi-composting Plant of 3 TPD each.

    iii. Champhai Town: Solid Waste Management Center is under construction

    iv. Remaining 19 Urban towns: Vermi-composting Plant - 0.5 TPD each.

v. Remaining 19 Urban Towns: Waste Resource Management Center- TPD each

- 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 (Nothern 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

ULB and polluted river	*Population (2011 Census)*	*Total Municipal Waste Generated in TPD*	*Total Municipal Waste Processed in TPD*	*Existing Municipal Waste Facilities*	*Utilization Capacities of the Existing MSW facilities*	*Proposed MSW facilities and completion time*
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: SanitaryLandfill
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: SanitaryLandfill
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, 20 I 9, 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 of 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 as 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.*

Monthly Review Meeting could not be convened during the reporting months due to Covid-19 lockdown in the state.

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 November 2020 is at **Annexure-I**.
- Water quality of drains/tributaries for the last quarter i.e August- October 2020 is at **Annexure-II.**

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

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. About 20 % of the proposed areas for plantation have been covered so far.

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. However, the action plan prepared for all the 9 polluted rivers in the state has been implemented as far as

possible with the results of the water quality attaining standards prescribed for bathing purposes.

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.

ANNEXURE-I

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

NOVEMBER
2020

MIZORAM STATE POLLUTION CONTROL BOARD

DETAILS OF POLLUTED LOCATIONS & RESULTS OF FIELD PARAMETERS FOR THE MONTH OF NOVEMBER, 2020

Sl. No.	Station Code	Name of Station	Location	Co-Ordinates			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)
				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	14-11-2020	10.20		Domestic			Clear	1.12	Washing		Pale Yellow	Odour free	1.22
2	3709	Tlawng River, Sairang	Sairang Village, Aizawl District, Mizoram	92°39′ 10″E	23^{0}48′49″N	80m	12-11-2020	12.13		Agriculture			Clear	3	Sand collection		Pale Yellow	Odour free	0.5
	3734	Tlawng River, Upper Stream, Lunglei	Near Tlawng Bridge, Mausen Village, Lunglei District, Mizoram	92^{0}49′15.0″E	22^{0}51′21.2″N	1080m	19-11-2020	1.45		Agriculture		Washing, Bathing	Clear	1	Washing, Domestic Purpose		Clear	Odour free	1
	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	19-11-2020	2.30		Agriculture		Drinking Water Source	Clear	3.1	Fishing		Clear	Odour free	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	15-11-2020	2.30		Agriculture			Clear	2	Fishing		Brown	Odour free	0.2
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	14-11-2020	11.30		Agriculture		Drinking Water Source	Clear	2.12			Pale Yellow	Odour free	0.4
4	3720	Tuivawl River	Near Tuivawl Bridge, Seling Village, Aizawl District, Mizoram	93^{0}2′6″E	23^{0}38′31″N	500m	18-11-2020	2.45		Agriculture		Washing, Bathing	Clear	0.3	Traffic Movemnet		Clear	Odour free	0.3
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	10-11-2020	12.02		Domestic			Clear	0.09			Pale Yellow	Odour free	0.3
6	3735	Mat River	Near Mat Bridge, Dawn Village, Lunglei District, Mizoram	92°52′ 19.7″E	22°53′ 58.4″N	380m	19-11-2020	9.45		Agriculture		Washing, Domestic Purpose	Clear	2	Plantation, Gardening		Pale Yellow	Odour free	1
7	3740	Saikah stream	Saikah Village, Lawngtlai, Mizoram	92°53′ 40.1″E	22°27′ 21.3″N	800m	19-11-2020	11.00		Domestic		Drinking Water Source	Clear	0.52			Clear	Odour free	0.2
8	3712	Tuikual Stream	Near PHE Water Treatment Plant, Reiek Kai, Aizawl District, Mizoram	92°39′ 46″E	23°42′ 57″N	270m	22-11-2020	12.20		Domestic			Clear	0.7			Clear	Odour free	0.7
9	2052	Tuirial U/s, Aizawl	Tuirial Village, upstream of Tuirial Bridge	92^{0}47′58.25″E	23^{0}43′8.99″N	187m	17-11-2020	12.10		Agriculture			Clear	1.5	Fishing		Pale Yellow	Odour free	0.5
	2053	Tuirial L/s Aizawl	Turial Village, downstream of Tuirial Bridge	92°47′ 57.92″E	23°43′ 5.22″N	185m	17-11-2020	12.30		Agriculture			Clear	1.5	Fishing		Pale Yellow	Odour free	0.5

WATER QUALITY DATA OF 9(NINE) POLLUTED RIVER STRETCHES
FOR THE MONTH OF NOVEMBER, 2020

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	14.5	4.97	7.2	127	0.56	0.021	23	1100	63	52.1	8.4	0.353	42	9.6	4.3	2.5	0.5	170	110	0.096
2	3709	26	8.4	8.08	156	1.2	0.038	210	2400	16.7	72.9	9.3	0.574	54	12.8	5.3	1	0	160	130	0.13
	3734	24	7.3	6.5	58	1.6	0.042	12	1100	2.8	31.3	9.3	0.509	28	8	1.9	1	0			0.034
	3736	24	7.4	6.98	72	1.1	0.017	39	2400	1.5	35.4	11.2	0.448	26	7.2	1.9	0.5	0			0.121
	3754	25	5.1	7.74	138	1.6	0.024	15	2400	32	52.1	9.3	0.422	48	12	4.8	1	0	150	110	0.192
3	3757	14	4.52	8.83	151	0.68	0.015	20	1100	14.3	43.8	12.1	0.285	46	12	3.8	1.5	0.5	70	40	0.059
4	3720	20	7.8	7.3	76	1.6	0.01	3.6	160	2	3.8	9.3	0.205	28	8	1.9	1.5	0.5	110	40	0.061
5	3718	26	4.4	8.07	425	1.1	0.144	120	2400	4.3	168.8	67	0.281	94	26.4	6.7	4.5	1	130	70	0.313
6	3735	24	7.1	6.2	31	1.7	0.046	9	120	9.3	20.8	6.5	0.551	10	2.4	1	0	0			0.045
7	3740	18	5.9	6.37	54	1.3	0.015	6	93	1.1	25	7.4	0.79	20	5.6	1.4	0.5	0			0.141
8	3712	20	6.3	8.6	210	1.5	0.017	210	2400	2.8	66.7	23.2	0.483	70	20	4.8	2	0			0.159
9	2052	25	5.8	8.2	116	1.4	0.016	1100	2400	8.6	43.8	8.4	0.217	30	8	2.4	1.5	0	130	30	0.114
	2053	25	5.9	8.21	116	1.4	0.02	1100	2400	8	41.7	9.3	0.251	22	5.6	1.9	1.5	0	110	20	0.118

ANNEXURE-II

Polluted Rivers Data With Drains Joining the Polluted locations for August -October, 2020

Sl. No	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	Result under process (delayed due to Covid 19 lockdown in the state) and the results will be submitted in the next MPR																			
2	**Tlawng River**	Drain -1 flowing between Pukpui & Zotlang																				
		Drain -2 flowing between nothern side of Serkawn & Zotlang																				
		Drain -3 flowing between Southern side of Serkawn																				
		Dak Lui, Sairang																				
		Lawngpu lui																				
		Bawng lui																				
3	**Tuipui River**	Keilungliah Stream																				
4	**Tuivawl River**	Serlui																				
5	**Chite Stream**	Tlak Lui	21	7.2	6.86	30	3.4	0.986			19.2	73.6	46.5	3.116	92	24	7.7	4	1			0.123
		Bangla Lui	21	5.2	6.97	454	1.2	0.822			13	89	65.1	5.005	100	29.6	6.2	4	1			0.226
		Luihnai & Darnam Lui	24	8.8	7.45	316	4.3	0.741			7.9	46.2	30.7	0.904	70	19.2	5.3	3	0.5			0.162
		Sakawrpu lui	24	7.1	7.29	549	2	0.964			113	47.9	69.7	5.692	112	33.6	6.7	4.5	1			0.161
6	**Mat River**	Hmawngawn lui,Serchhip	Result under process (delayed due to Covid 19 lockdown in the state) and the results will be submitted in the next MPR																			
7	**Saikah Stream**	NIL																				
8	**Tuikual Lui**	Chawnpui Lui	Result under process (delayed due to Covid 19 lockdown in the state) and the results will be submitted in the next MPR																			
		Dinthar Lui																				
		Dawrpui Kawr																				
9	**Tuirial River**	Theihai Lui	23	5.1	7.48	390	1.9	0.884			3.2	54.8	35.3	3.576	70	19.2	5.3	3	0.5			0.104
		Hmawngkai Lui	23	7.2	7.51	446	1.2	1.055			2.1	54.8	55.8	3.637	86	24	6.2	3.5	1			0.054
		Lawibual Lui	23	6.6	7.45	322	2.5	0.413			2.4	90.8	41.8	0.262	122	37.6	6.7	2.5	0.5			0.094