

Meghalaya State Pollution Control Board

Forests & Environment Department, Government of Meghalaya
'ARDEN' Lumpynggad, Shillong-793014
Website: <http://megspcb.gov.in>



No. MPCB/GEN-285(Annexed –IX A)/2020-21/01

Dated Shillong the 01st March 2021

To,

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

Email: ruby.raju@nmcg.nic.in

Sub: Submission of Monthly Progress Report for ensuring compliance to the Hon'ble NGT matter OA No 673/2018 for the month of January 2021.

Sir,

With reference to the above enclosed please find herewith the Monthly Progress Report for the month of January 2021. This is for favour of your information & necessary action.

Encl: As stated

Yours faithfully


MEMBER SECRETARY
MSPCB, SHILLONG

Memo. No. MPCB/GEN-285(Annexed –IX A)/2020-21/01-A

Dated Shillong the 01st March 2021

Copy to: -

1. Shri. A. Sudhakar, DH, WQM-I, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032 for kind information. Email: asudhakar.cpcb@nic.in/jcb.cpcb@nic.in
2. The Addl. Principal Chief Conservator of Forest (Climate Change, Research & Training) cum Chairman of River Rejuvenation Committee, Meghalaya, Shillong – 793 001 for favour of information.
3. The Director of Urban Affairs cum Member Convener of the RRC, Meghalaya, Shillong for information
4. Shri. M.B.K. Reddy, IFS, Additional Principal Chief Conservator of Forest, Planning, Development and Legal matters, Meghalaya, Shillong, for information.


MEMBER SECRETARY
MSPCB, SHILLONG

NATIONAL MISSION FOR CLEAN GANGA

FORMAT FOR SUBMISSION OF MONTHLY PROGRESS REPORT IN THE NGT MATTER OA NO.673 OF 2018 (IN COMPLIANCE TO NGT ORDER) DATED 24.09.2020 FOR THE MONTH OF JANUARY 2021 FOR THE STATE OF MEGHALAYA

Overall status of the State:

- I. Total Population: Urban Population & Rural Population : (5,95,450 & 23,71,439) 29,64,007
- II. Estimated Sewage Generation (MLD)(2021) : 75 MLD in Urban areas
- III. **Details of Sewage Treatment Plant** :
- Existing no of STPs and Treatment Capacity (MLD) : 8
 - Capacity Utilization of existing STPs (MLD) : 1.829
 - MLD of Sewage being treated through alternate technology : 22.8 (Considering treatment by septic tank)
 - Gap in treatment Capacity in MLD : 50.37
 - No of operational STPs : 8
 - No of complying STPs : 8
 - No of Non-complying STPs :

Details of Each Existing STP in the State

| No. | Location | Existing STP Capacity MLD | Capacity being utilised MLD | Operational Status of STP | Compliance status of STP |
|-----|--|---------------------------|-----------------------------|---------------------------|--------------------------|
| 1. | Residential colony of Meghalaya Cements Ltd., Thangskai, East Jaintia Hills District | 0.1 | 0.06 | Operational | Complying |
| 2. | Residential colony of Star Cements Ltd., Lumshnong, East Jaintia Hills District | 0.4 | 0.239 | Operational | Complying |
| 3. | North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang | 1.0 | 1.0 | Operational | Complying |
| 4. | Residential colony of M/S Lafarge Umiam Mining Pvt. Ltd., Nongtra | 0.12 | 0.03 | Operational | Complying |
| 5. | Residential School –JNV, Mawphlang | 0.1 | 0.02 | Operational | Complying |
| 6. | Polo Market , Shillong | 0.05 | 0.05 | | |

| | | | | | |
|----|---|------|------|-------------|--|
| 7. | Green valley industries Ltd ,Nongsning,EJH | 0.03 | 0.03 | Operational | |
| 8. | Dalmia Cement (Bharat) Ltd,Thangskai,EJH | 0.05 | 0.04 | Operational | |

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. | Septage Treatment plant, Shillong | 0.115 | 80 % civil work | | March 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. | FSSM, Shillong | 0.35 | Tender for FSSM has been floated on the 8 th December and the last date for bid submission is on 13 th January 2021 &. Estimated amount for the project is Rs.51.09 crores . 4 nos bids have been received and evaluation process will be completed by the end of this month. Land for of On-site treatment plant being identified | The completion period is estimated for 24 months from the date of issue of work order |
| 2. | 5 nos of On-site treatment plant, Shillong | 13.42 | | |
| 3. | STP, Eastern Air Command, Shillong | 0.105 | | |
| 4. | FSSM ,Jowai | | Matter is now taken with the Govt of Odisha as suggested by NRCD to handhold in preparation of DPR. | |

IV. Details of Industrial Pollution

- No. of industries in the State : **1559**
- No. of water polluting industries in the state : **260**
- Quantity of effluent generated from the industries in MLD : **3.5**
- Quantity of hazardous sludge generated from the industries in TPD : **1.3105**
- No. of industrial units having ETPs : **254**
- No of Industrial units connected to CETPs : **Nil**

- Compliance status of the ETPs : **Complying**
- No and total capacity of CETPs (details of existing/under construction /proposed) : **Nil**
-

| Town | No of Industries | Industrial discharge (MLD) | Status of ETPs | Status of CETPs (existing, under construction & proposed) |
|-----------------------------------|------------------|----------------------------|--|---|
| Shillong | 130 | 1.7585 | Complying | - |
| Byrnihat | 29 | 0.676 | Complying | - |
| Nongstoin and Mairang | 37 | 0.276 | Complying | - |
| Ladrymbai & Khliehriat | 12 | 0.029 | Complying | - |
| Jowai | 20 | 0.40 | Complying | - |
| Khliehriat, Myndihati & Lumshnong | 11 | 0.15 | Complying | - |
| Tura | 16 | 0.09 | 10 ETPS for servicing units under construction(capacity - 0.002 MLD each) | |
| Umiam | 5 | 0.135 | Complying | - |

STATUS OF ULB WISE MANAGEMENT OF SOLID WASTE

V. Solid Waste Management

- Total number of Urban Local Bodies and their Population : **10 Nos , 3,75,930**
- Current Municipal Solid Waste Generation : 245 TPD
- 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.: Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%):

| EXISTING SWM PLANTS IN MEGHALAYA | | | | | | |
|----------------------------------|----------|--------------------------|--------------------|------|--|---|
| SN | Town | Facility Type | Installed Capacity | Nos. | Utilization | Action Plan to utilise installed capacity |
| 1 | Shillong | Waste to Recovery centre | 8 TPD | 4 | 12.72 TDP (6.00 TPD Organic Compost + | 1 of the facilities is already functional at Marten while the other 3 have just been completed. Out of these, 2 are operational in Umpling and Lawjynriew.1 |

| | | | | | | |
|----|----------|------------------|---------|---|----------------------|---|
| | | | | | 6.72 Recyclables) | is yet to be made operational . |
| 2. | Tura | Waste to Compost | 50 TPD | 1 | 0 TPD | The facility is 100% completed. Training of operators is yet to be initiated and is expected to be made operational soon |
| 3 | Nongpoh | Waste to Compost | 15 TPD | 1 | 0 TPD | The facility is 100% completed. To be commissioned as training of operators is yet to be initiated and is expected to be made operational soon. |
| | Shillong | Waste to Compost | 170 TPD | 1 | | The plant in under testing of trial and likely to be commissioned by the end of March 2021 |

- No. And capacity of C & D waste processing plants in TPD (Existing, proposed and under construction):
None
- Total no. Of wards, having door to door collection service, no. Of wards practicing segregation at source:
73
- Details of MSW treatment facilities proposed and under construction (no. Capacity, and technology):

| PROPOSED SWM PLANTS IN MEGHALAYA | | | | |
|----------------------------------|--------------|--------------------------|-------------------|------|
| SN | Town | Facility type | Proposed capacity | Nos. |
| 1. | Shillong | Waste to Energy | 100 TPD | 1 |
| 2. | Tura | Waste to Energy | 50 TPD | 1 |
| | | Waste Recovery Centre | 2 TPD | 1 |
| 3. | Nongpoh | Waste Recovery Centre | 2 TPD | 1 |
| 4. | Jowai | Waste Recovery Centre | 2 TPD | 1 |
| 5. | Williamnagar | Waste Recovery Centre | 2 TPD | 1 |
| 6. | Baghmara | Waste to Recovery Centre | 2 TPD | 1 |
| 7. | Resubelpara | Waste to Recovery Centre | 2 TPD | 1 |
| 8. | Nongstoin | Waste to Recovery Centre | 2 TPD | 1 |
| 9. | Mairang | Waste to Recovery Centre | 2 TPD | 1 |

- No. And area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills:
- No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers: **8.94 acres (a MOU has been signed with CHAMHANA GW INDIA PVT.LTD on 22nd June 2020 which will include the setting up of waste to Energy plant at Tura and Shillong of 50TPD and 100 TPD capacities respectively. These plants will remediate the existing legacy waste at the present dumping grounds)**
- No. Of drains falling into rivers and no. Of drains having floating racks/screens installed to prevent solid waste from falling into the rivers: **Garbage traps have been installed in 6 nos of drains connecting to the rivers and one oil grease trap of 5 Kld installed in one drain of Umkhrah river in Shillong City**

VI. Bio-medical Waste Management:

- Total Bio-medical generation: **1276.24 Kg/day**
- No. of Hospitals and Health Care Facilities: **554**
- Status of Treatment Facility/CBMWTF:

a) **Common Bio-Medical waste treatment is completed and is under trial run.**

b) **The Urban Affairs has procured three Bio-medical Wastes vehicles solely for transport of Bio-medical Wastes**

VII. Hazardous Waste Management:

- Total Hazardous Waste generation: **498.4434 KL/annum**
- No. of Industries generating Hazardous waste: **19 (Nineteen)**
- Treatment Capacity of all TSDF's: **Not available**
- Avg. Quantity of Hazardous waste reaching the TSDF's and Treated : **Nil**
- Details of on-going or proposed TSDF: **None**

VIII. Plastic Waste Management:

- Total Plastic Waste generation: **9.16 TPD**
- Treatment/Measures adopted for reduction or management of plastic waste:

(a) **The plastic wastes are collected as municipal waste. The plastic waste was segregated from the dry waste at the dumpsite and collected for compaction and bailing and send to Cement Plants for co-processing to be used as Fuel.**

(b) **Used for road making in some parts of Tura, and Nongstoin.**

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:

- XI. Details of Nodal Officer appointed by Chief Secretary in the State/UT: **The Government has constituted a Monitoring Committee under the chairmanship of the Principal Secretary to the Govt. of Meghalaya, Forests & Environment Department vide no.ENV.4/2018/426 Dated Shillong the 19th June 2020**
- XII. Details of meetings carried under the Chairmanship Chief of Secretary in the State/UT:
- XIII. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river: **Enclosed as II A to Annexure IX B**
- XIV. Ground water regulation: **For Domestic purpose –District Level Committee Ground Water Resource(Deputy commissioner of respective District as Chairman and official of Water resources as Member Secretary) looks after it and grant NOC For Commercial purpose - State Level Committee Ground Water Resource(Commissioner & Secretary, Water Resources as Chairman and Regional Director, CGWB, NER, as Member Convener) looks after it and grant NOC**
- XV. Good irrigation practices being adopted by the State: **Traditional Bamboo Drip Irrigation**
- XVI. Rain Water Harvesting :**(a) Rain water harvesting implemented for Schools and government buildings.(b) Incorporated as one of the condition while giving permission for any house construction**
- XVII. Demarcation of Floodplain and removal of illegal encroachments: **RFP for engaging of consultancy for flood plains Zonation in identified river stretches sent to the NPMU NHP,MOJS has been approved(Due to technical reasons FPZ is being proposed only at Umkhrah, Nonbah , Umtrew and Myntdu as other rivers flow through deep gorges) . Proposal for setting up of HO stations sent to Govt. for availing sanction**
- XVIII. Maintaining minimum e-flow of river: Perennial rivers
- XIX. Plantation activities along the rivers: **Proposal have been submitted to CEO CAMPA for according sanction to an amount of Rs.27,17,440/- in 2021-2022 for treatment of 48.58 ha (preliminary works for creation of plantations and creation of 94.5 polypot nursery beds for future plantations.**
- XX. Development of Biodiversity Park: **No proposal for setting due to non-availability of Government land.**
- XXI. Reuse of Treated Water: **Stand-alone ETPs are operational in 260 number of hotels/guesthouse/health care centers /Industries and treated wastewater are reuse for gardening/cleaning purpose.**
- XXII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards: Nonbah river
- XXIII. Status of Preparation of Action Plan by the 13 Coastal States: **Not applicable to the State of Meghalaya**

- XXIV. Regulation of Mining Activities in the State/UT: Mining activities in the State is being regulated under the following acts and rules**
- a) Mines and Minerals (Development and Regulation) Act 1957 and its subsequent amendments**
 - b) EIA notification ,2006 and its subsequent amendments**
 - c) Meghalaya Minor mineral Concession Rules 2016 and its subsequent amendments**
 - d) EP Acts, 1986**
 - e) The Air (Prevention and Control of Pollution) Act,1981 and the Water (Prevention and Control of Pollution) Act, 1974**
- XXV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring:**
- a) Units which failed to comply to the consent conditions have been issued directions, show cause notice and closure notices**
 - b) Units which have been operating without consent from the Pollution Control Board have been issued closure notices under relevant Acts and Rules**
 - c) Filing of Complaints to the District Courts**

POLLUTED RIVER STRETCHES

| | | | | | | | | |
|------|---|--|-----------------|---|---------------|------------------|---------------|--------------|
| I. | Total No. of Pollution River Stretches | 7 (Umkhrah & Umshyrpi river –Priority I:Umtrew, Nonbah & Kyrhukhla river –Priority IV: Myntdu & Lukha –Priority V) | | | | | | |
| | | Umkhrah | Umshyrpi | Umtrew | Nonbah | Kyrhukhla | Myntdu | Lukha |
| II. | In-situ Bio-remediation | PMC of Smart City has prepared the feasibility report for Nallah in-situ treatment for the drain falling within the ADB. The report was approved and accepted by the RRC. Proposal sent to the Govt. to engage the same consultant for preparation of DPR for the bio-remediation of remaining drains was approved and the same has been communicated to the PMC for finalisation of terms & conditions. The DPR will be completed by the 1 st week of March. | | DPR is completed and the Water Resources Department is seeking fund for implementing the same. For Kyrhukhla and Lukha river, the Water Resources Department is processing the matter with the Deputy Commissioner, East Jaintia Hills District for funding under Meghalaya Environment Protection Fund (MEPRF) | | | | |
| III. | Sewage Treatment Plant | | | | | | | |
| | Total Sewage Generation (MLD) | 33.52 | 15.47 | 0.36 | 3.10 | 0.8 | 3.07 | 0.5 |
| | Total Existing Treatment Capacity (MLD) | 0.05 | | | | | | |
| | Capacity Utilization | | | | | | | |

Note: Garbage traps have been installed in 6 nos. of drains connecting to the rivers and one oil grease trap of 5kld installed in one drain of Umkhrah River.

| Town | Existing STP | Capacity Being Utilized | Whether Complying or not | STP Proposed if any | Status (DPR/tendering/under construction/ETC etc.) |
|--|---------------------|--------------------------------|---------------------------------|--|--|
| Shillong (catchment of Umkhrah & Umshyrpi river) | 0.05 MLD | - | - | Faecal Sludge & Septage Management (FSSM) -0.35 MLD 5 On-site Treatment | Tender for FSSM has been floated on the 8 th December and the last date for bid submission is on 13 th January 2021 & for On-site Treatment System land are being identified. Estimated amount |

| | | | | | | | | |
|---|--|----------------|-----------------|---|---------------|---|---------------|--------------|
| | | | | System.- 13.42 MLD Total -13.935 MLD | | for the project is Rs.51.09 crores and the completion period is estimated for 24 months. 4 nos bids have been received and evaluation process will be completed by the end of this month. The 0.115 MLD Septage Treatment Plant which is under construction is 75 % completed. | | |
| Jowai catchment of | - | - | - | FSSM | | The Government has approved the proposal to change the STP project to that of FSSM.The Jowai Municipal Board has been directed to expedite the proposal for FSSM. Matter is now taken with the Govt of Odisha as suggested by NRCD to handhold in preparation of DPR | | |
| Byrnihat(catchment of Umtrew river) | | | | | | Safe sanitary latrine under Swachh Bharat mission (Gramin) for 364 households | | |
| Nongstoin (catchment of Nonbah river) | | | | | | Safe sanitary latrine under Swachh Bharat Mission (urban) for 424 households | | |
| Khliehriat, Ladrymbai etc (catchment of Kyrhukhla river) | | | | | | Safe sanitary latrine under Swachh Bharat mission (Gramin) for 220 households | | |
| Myndihati, Khliehriat & Lumshnong etc (catchment of Lukha River) | | | | | | Safe sanitary latrine under Swachh Bharat mission (Gramin) for 366 households. | | |
| IV. | Industrial | Umkhrah | Umshyrpi | Umtrew | Nonbah | Kyrhukhla | Myntdu | Lukha |
| • | Total No. of industries/industrial estates | 121 | 9 | 29 | 34 | 12 | 20 | 11 |
| • | Total Industrial discharge | 1.3035 | 0.455 | 0.676 | 0.276 | 0.029 | 0.40 | 0.15 |
| • | Total No. of industries having ETPs | 121 | 9 | 29 | 34 | 12 | 20 | 11 |

| | | | | | | | | |
|---|--------------------------------|------|------|------|------|------|------|------|
| • | Total existing CETPs | None | None | None | None | None | None | None |
| • | Total No. of GPIs/SPIs | None | None | 1 | None | None | None | None |
| • | No. of industries having OCEMS | None | None | None | None | None | None | None |

| Town | Existing ETP Capacity(MLD) | Whether Complying or not | CETP Proposed if any | Status (DPR/tendering/under construction/ETC etc.) |
|-----------------------------------|----------------------------|--------------------------|----------------------|--|
| Shillong | 1.8 | Complying | - | - |
| Byrnihat | 1.0 | Complying | - | - |
| Nongstoin | 0.41 | Complying | - | - |
| Ladrymbai & Khliehriat | 0.1 | Complying | - | - |
| Jowai | 0.45 | Complying | - | - |
| Khliehriat, Myndihati & Lumshnong | 0.615 | Complying | - | - |

| V. | Solid Waste Management | Umkhrah | Umshyrpi | Umtrew | Nonbah | Kyrhukhla | Myntdu | Lukha |
|----|--|--|----------|--------|---|-------------------------------------|--|---|
| | Total Municipal Solid Waste generation (TPD) | 164.81 | | 1.16 | 10.05 | 2.6 | 9.95 | 1.6 |
| | Existing facilities (TPD) | 12.72 (6.00 TPD Organic Compost + 6.72 Recyclables) a) Door to door collection is introduced in all wards and | | 15.0 | Collection, segregation and transportation of wastes has been | Waste management soak pit household | Door to door collection and transportation coverage is being | Waste management soak pit household waste |

| | | | | | | | |
|--|--|---|--|---|--|--|--|
| | | <p>level of coverage is 100%.Segregation at source is in place and the level of compliance by the residential households is 85% ad by the commercial establishments about 45%.Chain link fencing has been installed at strategic garbage points. Penalty is imposed on habitual offenders.</p> <p>b) Additionally, Garbage traps have been installed in 6 nos of drains connecting to the rivers and one oil grease trap of 5 Kld installed in one drain of Umkhras River. 170 TPD Compost Plant at Marten is completed and under testing of trial run and likely to be commissioned by the end of March 2021</p> <p>There are 4 nos of decentralised compost plants. 1 of the facilities is already functional at Marten while the other 3 have just been completed. Out of these, 2 are operational recently in Umpling and Lawjynriew.1 is yet to be made operational.</p> | | <p>done by the SLRM team under SBM (Urban) .In some households the biodegradable wastes are treated by composting method in compost pit</p> | <p>waste water management & organic waste compost for 175 households under SBM (G)</p> | <p>done by the Jowai Municipal Board. Segregation at source is in place.</p> | <p>water management & organic waste compost pit for 366 households under SBM (G)</p> |
|--|--|---|--|---|--|--|--|

| | | | | | | | |
|--|---|--|---|---|--|--|--|
| | | | | | | | |
| | Proposed | <p>Waste to energy of 100 TPD capacity and the proposed investment is INR 24.5 crores. MoU has been signed on 22nd June 2020 between the Department of Urban Affairs ,Government of Meghalaya and CHAMHANA GW India Pvt .Ltd on a Build, Own and Operate (BOD) basis for a period of 25 years.</p> <p>There is however ,delay in starting the project due to ongoing pandemic for transportation of equipments and other related matters to human resources .</p> | Proposed for soak pit household waste water management & organic waste compost for 112 households under SBM (G) | Land has been identified and a compost plan has been sanctioned under SBM (Urban) | | <p>Within the existing dumping site portion of land has been identified for indigenous compost plant and waste recovery. The work is to be started soon.</p> | |
| | Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river | Enclosed as annexure II | | | | | |

| VI. | Bio-medical/Hazardous/Plastic Waste Management(in TPD) | Umkrah | Umshyrpi | Umtrew | Nonbah | Kyrhukhla | Myntdu | Lukha |
|-----|--|---|----------|--------|--------|-----------|--------|--------|
| | Total Bio-medical Waste generation | 1.0597 | | 0.0021 | 0.029 | 0.00608 | 0.41 | Nil |
| | Total Bio-medical Waste Treatment | 1.0597 | | 0.0021 | 0.029 | 0.00608 | 0.41 | Nil |
| | Bio-Medical Treatment facilities | <p>a) Common Bio-Medical waste treatment plan is completed and is under trial run</p> <p>b) The Urban Affairs has procured three Bio-medical Wastes vehicles solely for transport of Bio-medical Wastes.</p> | | | | | | |
| | Hazardous Waste generation | Nil | Nil | 1.17 | Nil | Nil | Nil | 0.1405 |
| | Hazardous Waste Treatment | - | - | 1.135 | - | - | - | 0.1405 |
| | Plastic Waste generation | 0.230 | | - | - | - | - | |
| | Plastic Waste processing | <p>(a) The plastic Waste was collected as municipal waste into dry waste and wet waste. The plastic waste was segregated from the dry waste at the dumpsite and collected for compaction and bailing and send to Cement plants for co-processing to be used as Fuel.</p> <p>(b) Used for road making in some parts of Nongstoin</p> | | | | | | |
| | Total No. of Hospital and bio-medical waste generation/treatment | 6 | 2 | None | 2 | None | 2 | None |
| | Total of units generating Hazardous waste/treatment facility | | | 6 | | | | 11 |

| | | Umkhrah | Umshyrpi | Umtrew | Nonbah | Myntdu | Kyrhukhla | Lukha |
|-------|---|--|--|--------|--------|--------|-----------|---|
| VII. | Ground water regulation | For Domestic purpose –District Level Committee Ground Water Resource (Deputy commissioner of respective District as Chairman and official of Water resources as Member Secretary) looks after it and grant NOC. For Commercial purpose - State Level Committee Ground Water Resource(Commissioner & Secretary, Water Resources as Chairman and Regional Director, CGWB, NER, as Member Convener) looks after it and grant NOC | | | | | | |
| VIII. | Maintaining minimum e-flow of river | Perennial | | | | | | |
| IX. | Protection and management of Flood Plain Zones (FPZ) | <ol style="list-style-type: none"> 1. RFP for engaging of consultant for Flood Plain zonation in identified river stretches sent to NPMU,NHP, MOJS has been floated. Date of opening of technical report is on the 16th Dec 2020.(Due to technical reasons FPZ is being proposed only at Umkhrah, Nonbah, Umtrew and Myntdu as other rivers flow through deep gorges).Evaluation process is in progress. 2. Proposal for setting up of HO stations sent to Govt. for availing sanction. | | | | | | |
| X. | Rain water harvesting | <ol style="list-style-type: none"> i. Rain water harvesting implemented for Schools and government buildings ii. Incorporated as one of the condition while giving permission for any house construction | | | | | | |
| XI. | Plantation along river | Proposal have been submitted to CEO CAMPA for according sanction to an amount of Rs.27,17,440/- in 2021-2022 for treatment of 48.58 ha (preliminary works for creation of plantations and creation of 94.5 polypot nursery beds for future plantations. | | | | | | No proposal was made since there is a Reserve Forest and green cover on both sides of the river |
| XII. | Development of biodiversity park on flood plains by removing encroachment | Matter of encroachment is pending in the Supreme Court .Biodiversity parks in existence. | No proposal for setting up of Bio-Diversity Park due to non-availability of Government land. | | | | | |
| XIII. | Reuse of Waste water | Treated wastewater are reuse for gardening/cleaning purpose | | | | | | |

Annexure II A

WATER QUALITY DATA OF POLLUTED RIVER STRETCHES – JANUARY 2021

| Stations→ Parameters↓ | Umshyrpi | | Umkhrah | | | | Umtrew at Byrnihat | Nonbah at Nongstoin | Myntdu at Jowai | Lunar River (Tributary of Lukha River) at Myndihati | Kyrhuhkhla |
|--|------------------------|--------------------|-----------|----------|----------------------------|----------|--------------------------|------------------------|--------------------|---|------------|
| | Near Law College | Umshyrpi Bridge | Demthring | Umkaliar | Near Slaughter House | Mawpdang | | | | | |
| <i>pH</i> | 6.9 | 7.1 | 6.9 | 7.3 | 7.1 | 6.9 | 7.2 | 6.9 | 7.0 | 2.7 | 3.1 |
| <i>Dissolved Oxygen(mg/l)</i> | 3.4 | 5.9 | 4.1 | 5.9 | 3.7 | 3.9 | 7.3 | 7.5 | 7.4 | 7.4 | 7.1 |
| <i>Bio-chemical Oxygen Demand (mg/l)</i> | 22.0 | 8.0 | 18.0 | 7.3 | 15.6 | 15.1 | 2.5 | 2.6 | 2.5 | 2.4 | 2.5 |
| <i>Faecal Coliform (MPN/100ml)</i> | 21000 | 5800 | 6300 | 7800 | 17000 | 14000 | 280 | 310 | 350 | <1.8 | <1.8 |
| <i>Total Coliform (MPN/100ml)</i> | 54000 | 11000 | 21000 | 13000 | 58000 | 49000 | 1700 | 1100 | 920 | <1.8 | <1.8 |
| <i>Faecal Streptococci (MPN/100m)</i> | 3100 | 920 | 1700 | 1100 | 2700 | 2100 | 43 | 31 | 33 | <1.8 | <1.8 |

Annexure II B

BIOMONITORING OF POLLUTED RIVER STRETCHES – JANUARY 2021

| Stations→ Parameters↓ | Umshyrpi | | Umkhrah | | | | Umtrew at Byrnihat | Nonbah at Nongstoin | Myntdu at Jowai | Lunar River (Tributary of Lukha River) at Myndihati | Kyrhuhkhla |
|--------------------------|------------------------|--------------------|-----------|----------|----------------------------|----------|--------------------------|------------------------|--------------------|---|------------|
| | Near Law College | Umshyrpi Bridge | Demthring | Umkaliar | Near Slaughter House | Mawpdang | | | | | |
| <i>Saprobic score</i> | 2.1 | 2.6 | 2.1 | 2.6 | 2.0 | 1.9 | 4.5 | 5.6 | 6.6 | 5.3 | 3.1 |
| <i>Diversity Index</i> | 0.34 | 0.37 | 0.30 | 0.30 | 0.35 | 0.31 | 0.43 | 0.34 | 0.56 | 0.46 | 0.45 |