

# Restoration & Rejuvenation of Wah Umkhrah, Wah Umkhen & Wah Umshyrpi Stakeholder Consultation

Presentation by:  
Shri. D. P. WAHLANG, IAS  
CHIEF SECRETARY

# Outline

- Present Scenario
- NGT Directives
- Action Taken So Far
- Some Success Stories
- Road Map Ahead

# Paradox (of a Paradise)



Wah Umngot

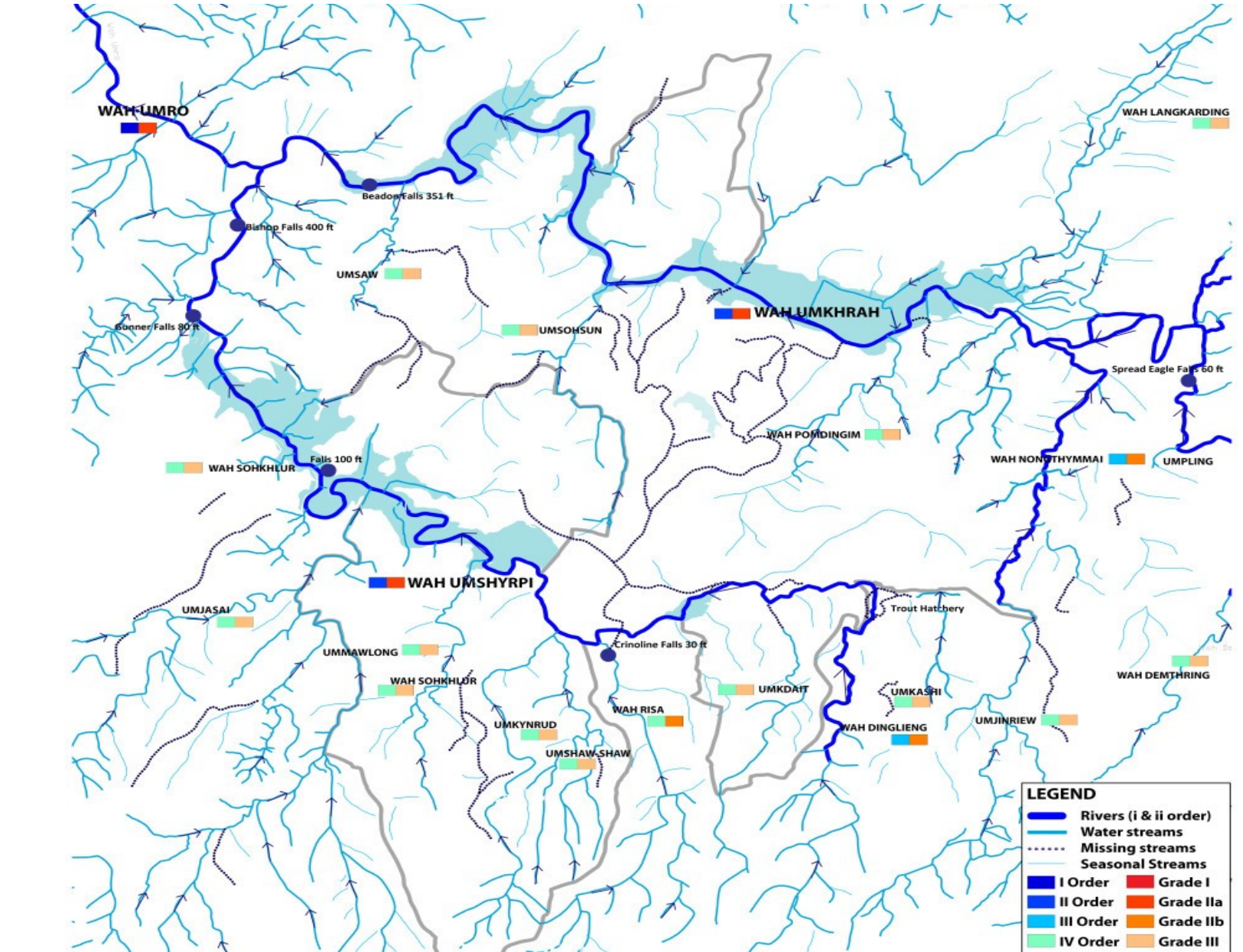


Wah Umkhrah

- Wah Umkhrah & Wah Umshyrpi on the list of 45 critically polluted rivers in India
- Video [Umkhrah](#) & [Umshyrpi](#) & [Umkhen](#)



# Hydrological Map of Shillong





# Present Scenario

# WASTE GENERATION OF SHILLONG CITY

## SOLID

Total waste generated (TPD)	Collected (TPD)	Processed at Source	Composting	Recycled Scrap	Un - Accounted (TPD)	Disposed in Landfill
		Uncollected	WRC & Compost Plant			
196	166	26	35.7	40	4	90.3

## LIQUID

Water Supply In MLD	Waste water (80% of Water Supply)	Black Water 30%	Grey water 50%
35.5	28.4	10.7	17.8



## Dumping of Garbage into rivers



**Happy Valley  
Wahkhen**



**Wahingdoh - Raimohan Drain**





Polo Market



Car washing at Urkaliar



Open throwing of Garbage at  
Golf link



Convergence of Drain near  
Woodland Hospital to  
Wahkdait from Malki

**Construction of houses/Absence of septic tanks/leakage of septic tanks/Release of  
Faecal matter/pollution of rivers**





Indiscriminate dumping of waste in drains



Low lying drains clogged with solid waste, now used as dumping space



Clogged drains becomes breeding ground for insects



Umiam Catchment Area



Direct Discharge to Wah Umkhras

# Water Quality vis-à-vis CPCB's requirement

Location Name	DO >4.0mg/l	BOD <3.0mg/l	TC <5,000 MPN/100ml	Water Quality Status
Umshyrpi near Law College	0.5	46.0	1,50,000	Not Satisfactory
Umshyrpi River at Risa Colony	7.6	1.7	150	Not Satisfactory
Umshyrpi at Umshyrpi Bridge	3.0	23.0	31,000	Not Satisfactory
Umkhrah at Demthring	1.2	35.0	70000	Not Satisfactory
Umkhrah at Umkaliar	5.0	8.2	33,000	Not Satisfactory
Umkhrah near Slaughter house	NIL	49.0	1,40,000	Not Satisfactory
Umkhrah at Mawpdang Mawlai	NIL	47.0	1,30,000	Not Satisfactory

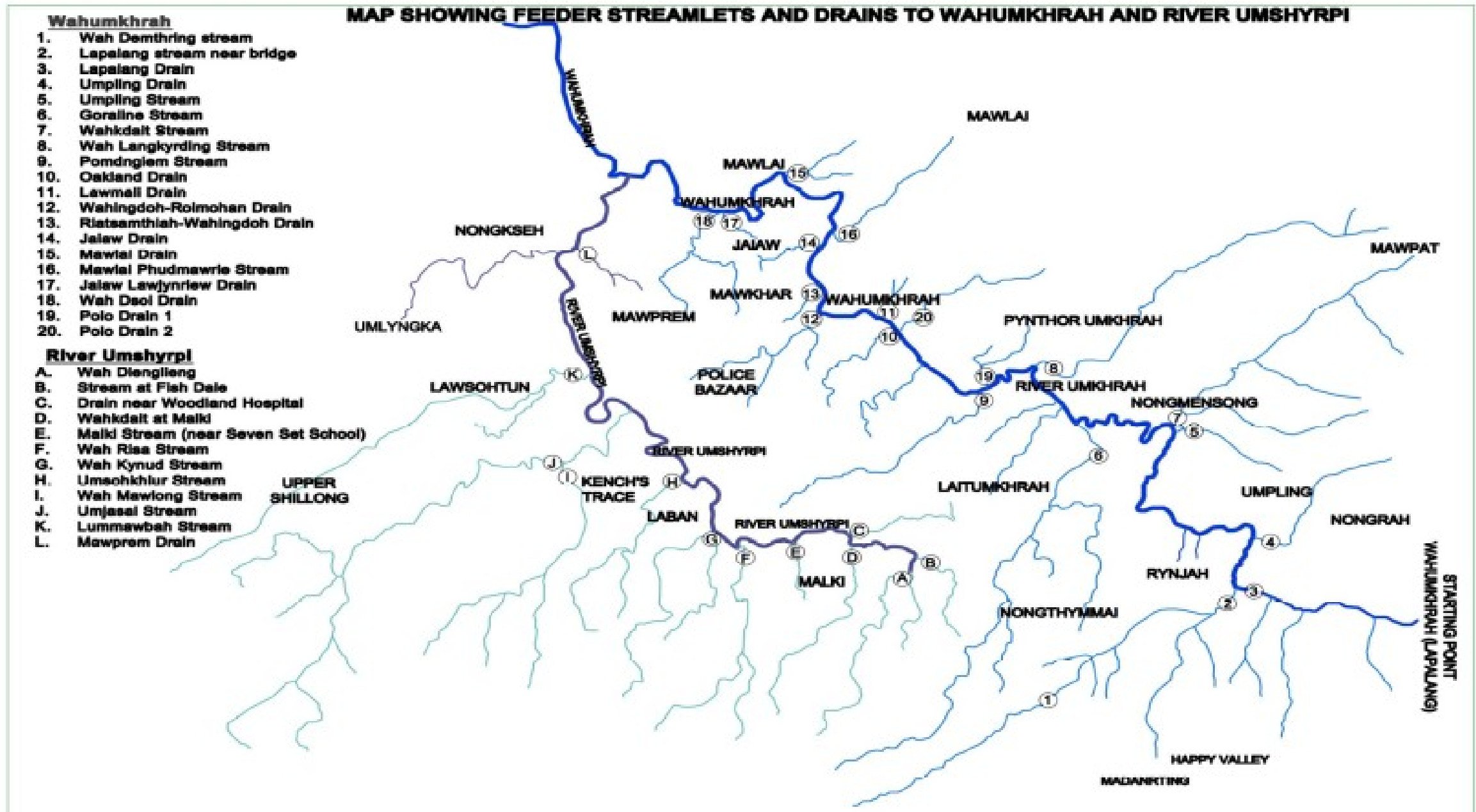
**Water quality is precariously sub-standard – which may lead to health hazard**



# Localities affected by indiscriminate garbage dumping

- Polo market
- Demthring
- Demseiniong
- Nongmensong
- Lapalang
- Rynjah
- Umpling
- Jhalupara
- Nongthymmai
- Madanryting
- 4th Furlong
- Urkaliar
- Goraline
- Police Bazar
- Umsohsun Bridge
- Wahingdoh
- Mawlai
- Mawprem
- Barapathar
- Laban
- Laitumkrah
- Iewduh
- Rilbong
- Pohkseih
- Nongshiliang
- Jaiaw
- Nongrah
- Risa Colony
- Cleve Colony
- Lumiablot

# Release of untreated Sewage/waste water- 32 Outfalls



# **Directives of Hon'ble NGT**

## **OA No. 673 of 2018:**

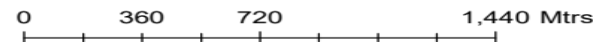
- Directed state to ensure 100% treatment of sewage before entering water bodies and eradicate problem from sources and directed till such time 100% treatment is achieved in-situ remediation should be put in place

## **OA No.192/2022:**

- NGT constituted joint committee of CPCB and MSCPCB to look into this matter and furnish an action taken Report
- Joint Committee submitted two reports and an action plan for restoration of Umkhrah & Umshyrpi rivers
- Directed State to ensure that untreated sewage and Fecal matter is not released into Umshyrpi and Wah Umkhrah
- State to take time-bound remedial measures with action plan and firm budgetary allocation



- Shillong Municipal Board
- KHADC
- Shillong Cantonment Board



- ROAD
- LANDMARK
- ▲ LOCALITY
- RIVER
- WARD\_BOX

**ACTION TAKEN**

## Steps Taken:

- FSSTP in Marten with 115 KLD capacity
- To enhance the treatment of Faecal Sludge generated 0.35 MLD Treatment Plant set up in Wahpomdngiem behind SMB Quarter
- Community Outreach and Partnership
- Joint Inspection on Direct Discharge of Untreated Sewage
  - Risa Colony, Cleve Colony, Malki.
  - 1099 Households covered
  - 47 Households with faulty septic tanks-
  - Notice issued with 10 days time otherwise fine of ₹500 to be imposed per day
- Special Cleanliness Drive & Removal of Accumulated Waste



# Biological reclamation of drains

Drains being taken up are the 5 drains joining the Umkhrach

## **Drain no. Drain Name**

Drain 9 Pomdngiem Drain (Wah Thangsiniang)

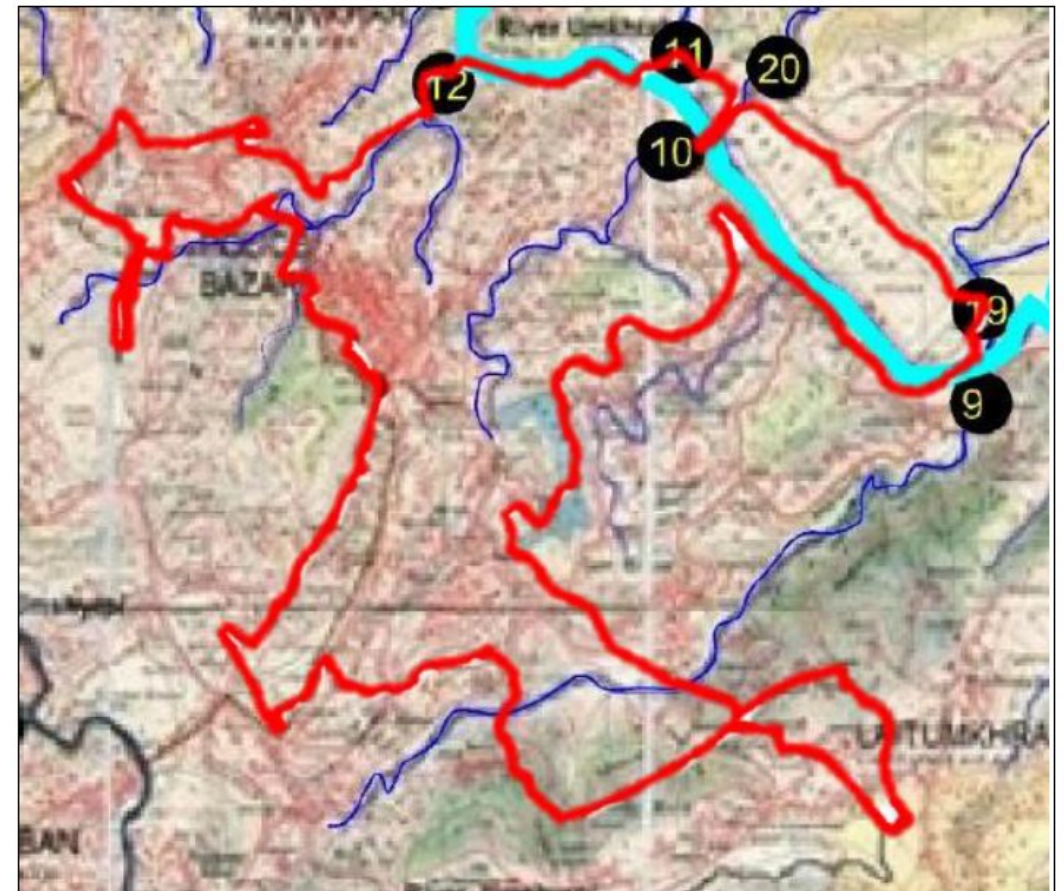
Drain 10 Oakland Drain

Drain 11 Lawmali Drain

Drain 12 Wahingdoh-Raimohan Drain

Drain 20 Polo Drain 2

Above 5 drains account for 42% of Umkhrach's pre-monsoon discharge



# ONGOING WORKS FOR SEWAGE TREATMENT

Project Title	Location	Capacity of the plant in MLD	Physical progress in %	Status of I&D or house sewer connections
<b>(i) 5 nos of On-site treatment plant,</b>	Shillong	13.42	55%	The estimated date of completion is July 2023
<b>(ii) Nallah in-situ Remediation- 5 Nos</b>	<p>For <b>3 nos of nallah</b> of which <b>100% civil work</b> is completed and with respect to other <b>2 nallahs 80% civil works</b> is completed.</p> <p>The total work is expected to be completed by <b>May, 2023</b>.</p>			

Community interaction



Imposition of fine by SMB

**Shillong Municipal Board**  
**Money Receipt**

Receipt No 202201427 Receipt Date 10/06/2022

Received with thanks a sum of Rupees 15,000.00

from Mr./Ms./Mrs./M/s \_\_\_\_\_

on account of DUMPING OF WASTE IN THE OPEN SPACE ON

under account head PENALTY FOR LITTERING

Mode of Payment CASH Cheque No. \_\_\_\_\_ Bank Name \_\_\_\_\_

Rupees 15,000.00

Issued By \_\_\_\_\_

*10/6/2022*

**SHILLONG MUNICIPAL BOARD**  
**S. M. B.**

*[Signature]*  
**Chief Executive Officer**  
**Shillong Municipal Board**

Cleaning of rivers





# Case study 1: Action taken by MSPCB with Pohkseh Dorbar Shnong

**Before**



**After**





## Case Study 2: Community involvement with Cleve Colony



← To turn this...

...into this →



- Formulation of task force

- Door to door collection

- Segregation at source



# Achieving the Goal

Stop indiscriminate dumping of waste



Proper disposal of waste



Stop releasing untreated sewage



Treat wastewater before release





# Case Study 3: Waste Recovery Centre at Umpling

- A Self Sustained Community Owned Waste Management.
- Indigenous technology of Waste Management.
- Decentralized Waste Management system.



## **Case Study 4: Diversion Drain At Nongrah**

- Dorbar Shnong wanted to preserve small streams that has served the locals for Years.
- To prevent the Household waste water to get mixed up with the stream water.
- Diversion drains was constructed from BDO, Mawpat Block.
- Plans are to construct Effluent Treatment Tank, to treat the household wastewater and prevent the contamination of environment.



## Diversion Drain at Nongrah





Way Forward

# Critical Gaps:

- Untreated Sewage flowing into the rivers
- Non-Segregation of Waste at source
- Unregulated dumping & Littering
- Lack of enforcement mechanism
- Availability of land for setting up STPs/Waste Processing Centres/Composting Units for organic waste
- General Awareness

# Future Action Plan

- MSPCB is preparing a feasibility plan for setting up STPs to tackle all 32 outfalls
- STP in SMB area will be set up under SBM 2.0/Amrut etc & in non-urban areas under SBM-G. Funds will also be made available under State budget. 15<sup>th</sup> FC Tied Grants to be leveraged
- For Rural Sanitation PHED has been designated as the nodal department. To work in close coordination with KHADC & Dorbar Shnongs
- STPs to be set up on convenient land available with Govt
- Dorbar Shnongs & KHADC to actively participate in identification of suitable land and making it available for setting up STPs.

## **Responsibility of Dorbar Shnong as per Solid Waste Management Rules 2016**

Local authority and Panchayats shall :-

- 1) Arrange for door-to-door collection of segregated solid waste from all households
- 2) Prescribe & collect user fee
- 3) Facilitate formation of Self-Help Groups for integration in solid waste management
- 4) Direct waste generators
  - a) not to litter or burn or burry waste on streets, public spaces, drains, water bodies
  - b) to segregate the waste at source
  - c) hand over the segregated waste to authorised waste pickers or waste collectors
- 5) Collect organic waste from market on day-to-day basis and promote setting up of decentralised compost plant or bio-methanation plant
- 6) Frame bye-laws and prescribe criteria for levying of spot fine for persons who litter
- 7) Public awareness



# **Plastic Waste Management Rules, 2016**

Responsibility of Gram Panchayat/Local Bodies:

Every gram panchayat either on its own or by engaging an agency shall:

- a) Ensure segregation, collection, storage, transportation, plastic waste and channelization of recyclable plastic waste fraction to recyclers having valid registration; ensuring that no damage is caused to the environment during this process;
- b) Create awareness among all stakeholders about their responsibilities; and
- c) Ensure that open burning of plastic waste does not take place

# **Khasi Hills Autonomous District Council Solid Waste Management Rules, 2022**

## **Responsibilities of Rangbah Shnong & Dorbar Shnong**

- Responsible and accountable for the overall cleanliness of the village
- Constitute a committee for implementation of the solid waste management
- Ensure result-oriented performance and smooth functioning through active participation of all inhabitants of the village on solid waste management
- Shall engage waste collectors/managers for collection and recovery of reusable & recyclable solid waste
- Direct waste generators not to litter waste on streets, open public space, drains, water bodies.
- Arrange door to door collection of segregated waste from all households
- Levy fines or take action on waste generators who fails to comply with the provisions of the Rules/Acts

# Way Forward

- **Sewage & Effluent Treatment**
- Treatment of sewage/used water at all 32 outfalls of two rivers by collection, transport and treatment of sewage in STP both within SMB areas and outside with required Sewer network
- In situ nallahs treatment wherever STP not feasible /Onsite STP
- Ensure no fecal matter released into river.
- Penalty on house holds without septic tank/leakage of septic tank
- All industrial unit should have ETP/STP
- No vehicle washing along the rivers



# Way Forward

- **Garbage Management**
- Spot penalty for dumping garbage by SMB and other agencies
- Headman empowered to impose spot penalty for garbage dumping
- Fencing to prevent garbage dumping and CCTVs for monitoring
- Mesh trap and regular cleaning
- **Sustainability Measures**
- Extensive Plantation along rivers
- Community Participation, Awareness Programme and Sensitization

# Our Aspiration

## From Cleanest Village & Cleanest River



To cleanest Capital & Cleanest State





## Twin Falls – Bishop & Beadon Falls of Wah Umkrah & Wah Umshyrpi



Questions

Comments

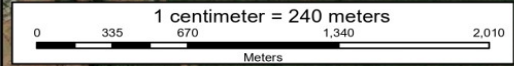
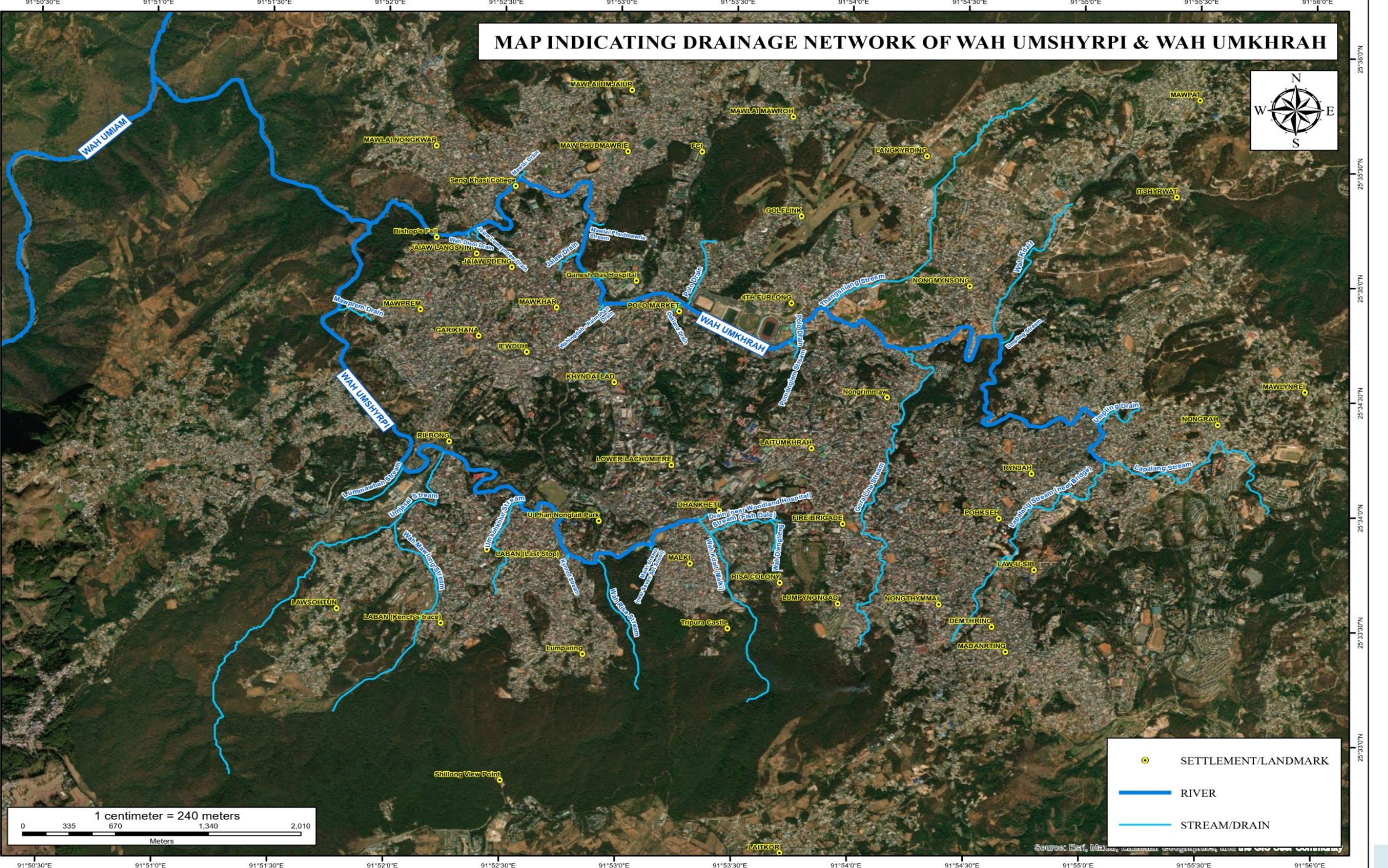
Suggestions



**Khublei**



# MAP INDICATING DRAINAGE NETWORK OF WAH UMSHYRPI & WAH UMKHRAH



- SETTLEMENT/LANDMARK
- RIVER
- STREAM/DRAIN

Source: Sat. Imagery, Digitized by the Ministry of Natural Resources and Environmental Conservation, Myanmar