

## Turning the Tide: Role of Statutory Bodies in Abating River Pollution

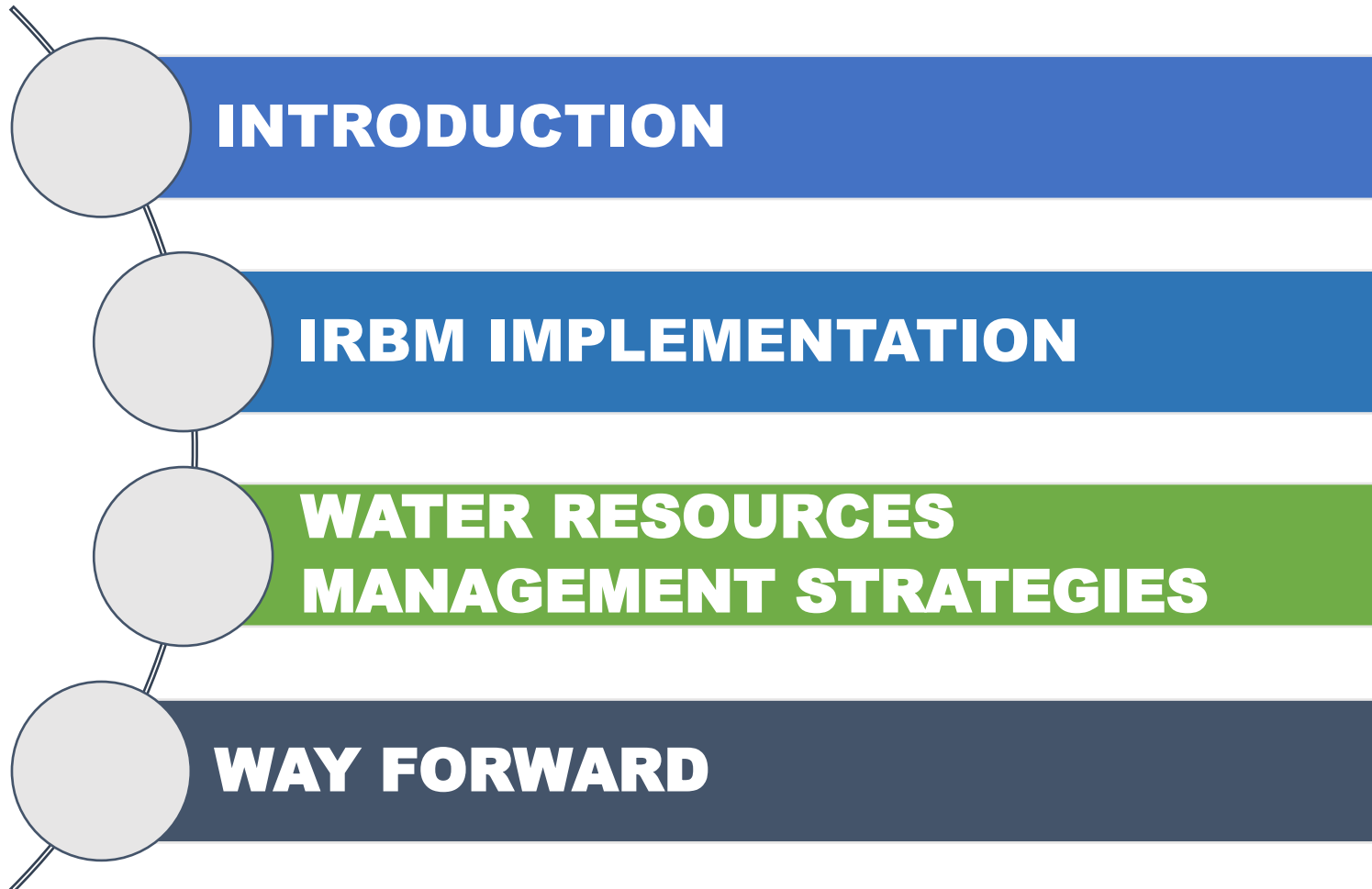


2<sup>nd</sup> May 2024 | 14:00 – 16:30 IST

# CHALLENGES AND STRATEGIES IN WATER RESOURCES MANAGEMENT TOWARDS SUSTAINABILITY OF WATER RESOURCES IN SELANGOR, MALAYSIA

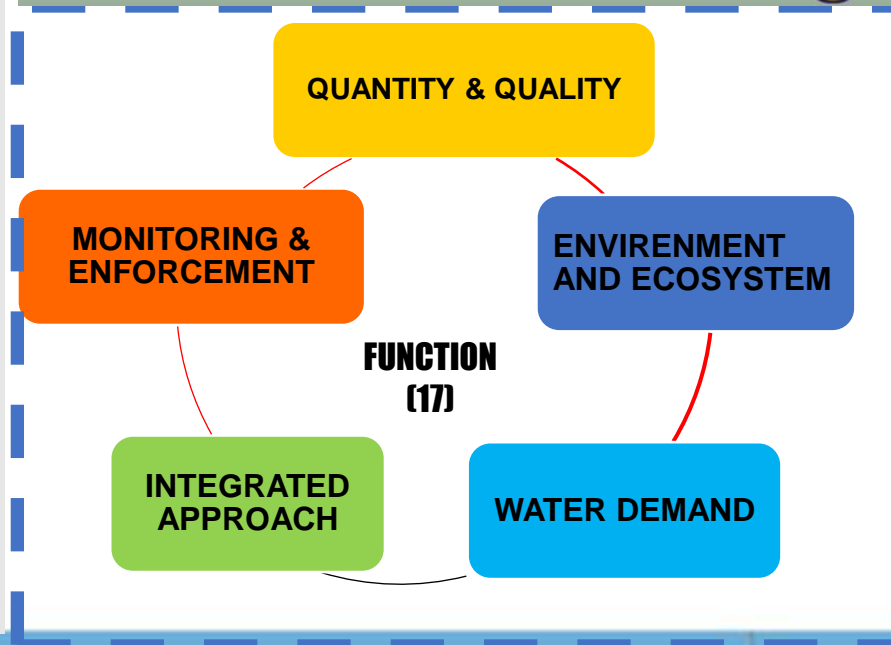
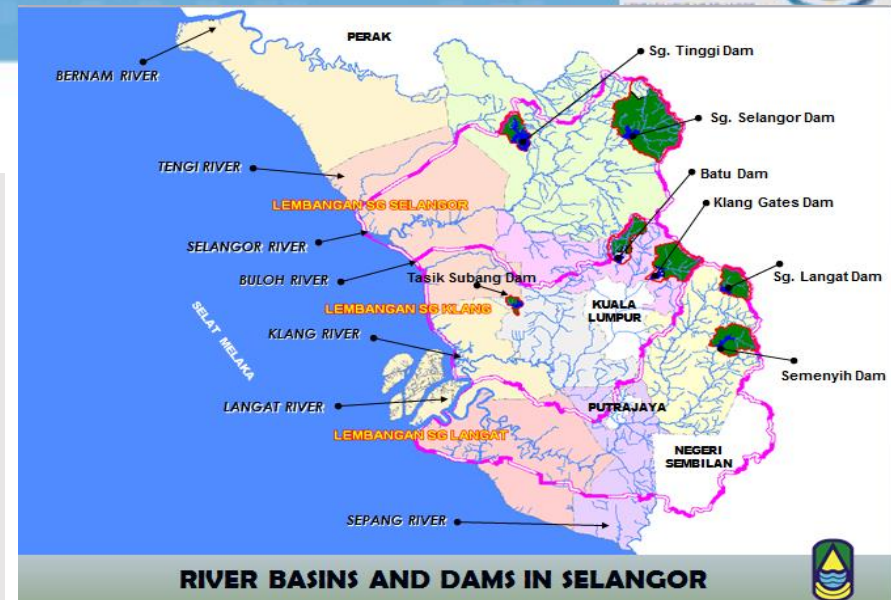
**HASLINA BINTI AMER A.I.S**  
CHIEF ASSISTANT DIRECTOR  
HEAD OF RIVER BASIN AND COASTAL MANAGEMENT DIVISION  
SELANGOR WATERS MANAGEMENT AUTHORITY (SWMA)

# OUTLINE



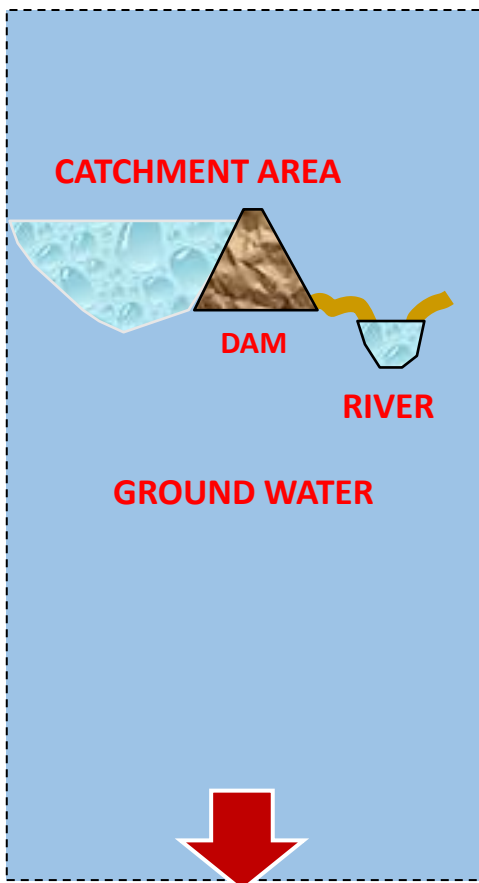
## INTRODUCTION

- LUAS is a local agency / **River Basin Organization (RBO)** for the management of water resources, river basins and coastal waters in the State of Selangor under the **LUAS Enactment, 1999**.
- *“The river-basin approach to water management in Malaysia was initiated with the establishment of **Lembaga Urus Air Selangor (LUAS)** in 1999.” (Source: RMK- 8 (2001-2005))*
- LUAS is also a **MODEL** for the implementation of **Integrated Water Resource Management (IWRM)** in Malaysia. (Source: *“Transforming The Water Sector: National Integrated Water Resources Management Plan Strategies and Road Map Report”, 2017*)

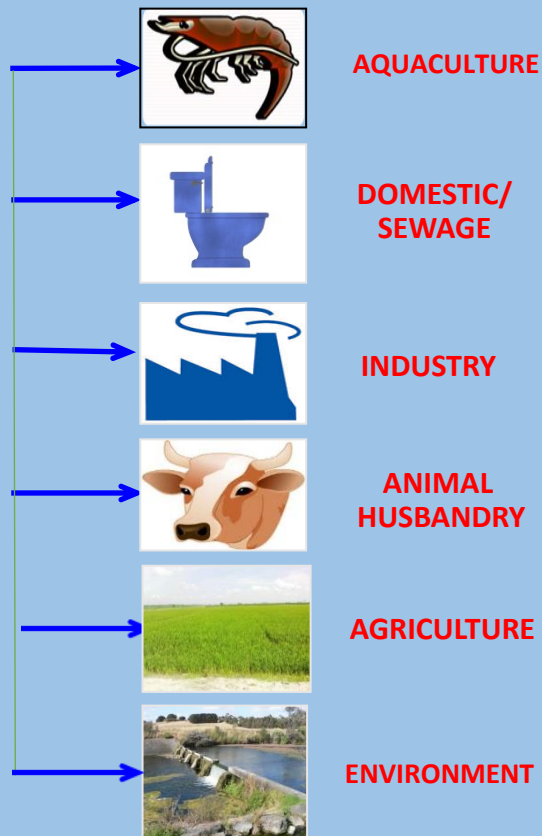


## JURISDICTION

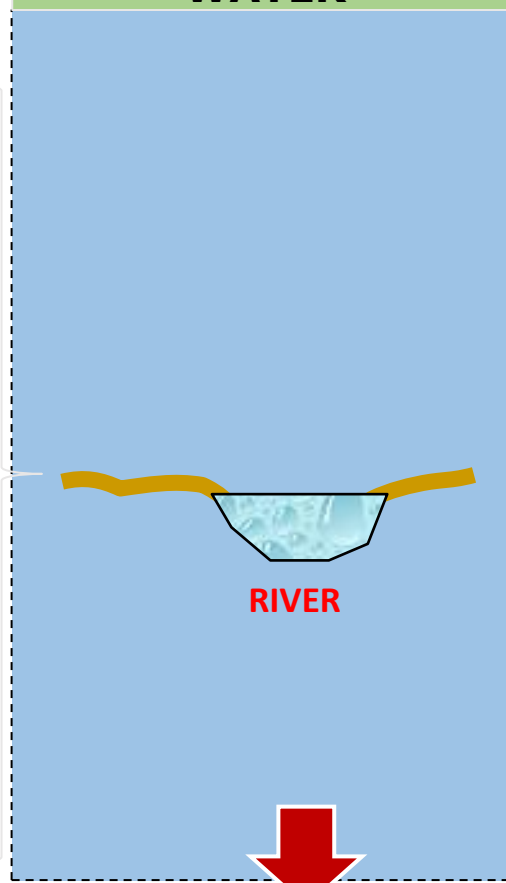
### WATER RESOURCES



### WATER USAGE



### EFFLUENT/ USED WATER



#### ■ LUAS : LUAS Enactment 1999

- DOE : EQA 1974
- LOCAL AUTHORITY: Local Government Act 1976
- Related Agencies

## QUALITY CONTROL

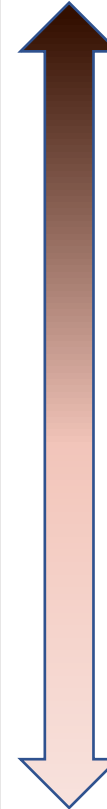
#### ■ LUAS : LUAS Enactment 1999

- DOE : EQA 1974
- LOCAL AUTHORITY: Local Government Act 1976
- Related Agencies

## ISSUES & CHALLENGES

- Rapid urbanisation and industrial development that have resulted in water, land and related resources within the basin becoming increasingly under stress
- Threat of climate change, creating extreme variability in climate
- Deterioration of river water quality
- Degradation on environment
- Trans-boundary nature of the shared river basin illustrates the complexities to implement IRBM
- Water security challenges – Too much water, too little water, too dirty water

too much



too little



**Too much or too little water – management issues**

## IRBM IMPLEMENTATION

**Gazettement : LUAS IRBM  
Plan Regulation 2019**

**POLICY 1: Ensure Sufficient Water**

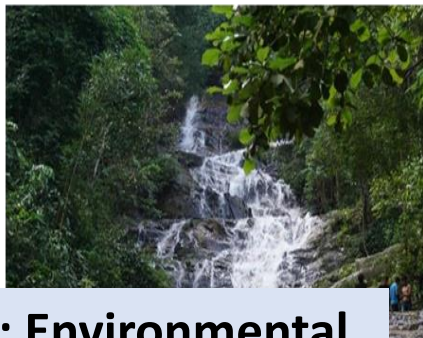
**6 CLEAN WATER  
AND SANITATION**



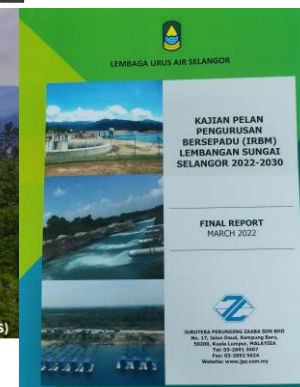
**POLICY 2: Ensure Clean Water**

**POLICY 4 : Environmental  
Conservation**

**POLICY 3: Protection Against Flood**



Following an hour-long afternoon downpour on Nov 12, -



# **WATER RESOURCES MANAGEMENT STRATEGY IN SELANGOR**



## **POLICY : ENSURE SUFFICIENT AND CLEAN WATER**

### **STRATEGY 1 : QUANTITY AND QUALITY CONTROL**

i

Licensing and Water Abstraction Charges, s.41(2)

ii

Written Approval of Alteration Activities, s.43(1)

iii

Licensing of Enter or Discharge of Pollutants, s.79(1)

iv

Licensing of Inland Waterway Navigation, s.97(1)

v

Licensing of Water Diversion for Electricity, s. 42(3)

**SOURCE: LUAS ENACTMENT, 1999**

## **POLICY : ENSURE SUFFICIENT AND CLEAN WATER**

### **STRATEGY 2 : GOVERNANCE OF INTEGRATED WATER RESOURCES MANAGEMENT (IWRM)**

**STATE AUTHORITY**

**LUAS BOARD DIRECTOR**  
Chairman: Chief Minister of Selangor

**TECHNICAL COMMITTEE**  
(Chairman: Selangor State Secretary)

**SELANGOR RIVER  
CONSERVATION  
COMMITTEE**  
(Chairman: YB EXCO of  
Infrastructure)

**SELANGOR WATER RESOURCES  
POLLUTION EMERGENCY  
COMMITTEE**  
(Selangor Water Resources  
Pollution Action Plan Manual)  
(Chairman: YB EXCO of  
Environment)

**SELANGOR RIVER BASIN AND  
COASTAL MANAGEMENT COMMITTEE**  
(Chairman: YB EXCO of  
Infrastructure)

**RIVER BASIN  
TASK FORCE  
(SELANGOR,  
LANGAT, KLANG)**  
(Chairman : LUAS  
Director)

**IRBM ACTION  
PLAN  
MONITORING  
COMMITTEE**  
(Chairman : LUAS  
Director)

**ICM MONITORING  
COMMITTEE**  
(Chairman : LUAS  
Director)



Less Critical Level (WTP)

Alert Level (WTP)

Critical Level (WTP)



## STRATEGY 3 : RIVER BASIN MONITORING AND SURVEILANCE

### SKIM JAMINAN AIR MENTAH

- 
**1. Rawatan Awal Di Kolam-Kolam Rawatan Air**
  - Pendekatan biologi dengan peletakan nanoteknologi (aquritin) sebagai rawatan semulajadi
- 
**2. Pemantauan Dan Pengawasan**
  - Pemantauan 24 jam oleh Skwad PANTAS
  - Dron berteknologi tinggi untuk menganalisis air, mengawasi kawasan, mengumpul bukti dakwaan mahkamah
  - Menempatkan sistem amaran awal pencemaran menggunakan teknologi Total Organic Carbon (TOC) Analyser
- 
**3. Pembinaan Infrastruktur Pengepaman Terus Dari Kolam Takungan Sungai Selangor (Hujung 2022)**
  - Menjamin bekalan air walaupun berlakunya pencemaran (kecuali kemarau panjang dan pencemaran lebih 5 hari)
- 
**4. Penguatkuasaan Enakmen Lembaga Urus Air Selangor (LUAS) (Pindaan) 2020**
  - Denda minimum RM200,000 dan maksimum RM1 juta
  - Penjara mandatori
  - Kuasa menyita tanpa waran
  - Tuntutan ganti rugi
  - Ganjaran pemberi maklumat

**TAHUKAH ANDA?**  
**SKUAD PANTAS**  
**LEMBAGA URUS AIR SELANGOR (LUAS)**

**DITUBUHKAN**  
**01**  
DISEMBER 2020

**41**  
SKUAD PANTAS

**MENGAPA SKUAD PANTAS DITUBUHKAN ?**

Memperkasa Ops Sumber Air Negeri Selangor.

Meningkatkan keberkesanan tindakan pencegahan pencemaran.

**OBJEKTIF UTAMA PENUBUHAN SKUAD PANTAS**

Melaksanakan pemantauan 24 jam di kawasan-kawasan sensitif sumber air.

Memastikan kelangsungan sumber air Negeri Selangor sentiasa terjamin dan terpelihara.

Meminimalkan risiko henti tugas loji rawatan air (LRA).

**PENDEKATAN OPERASI SKUAD PANTAS**

Rondaan 24 jam di lembangan-lembangan sungai.

Pemantauan Statik & berkala bagi memastikan status kualiti air dan meningkatkan tahap kualiti sumber air.

**TALIAN ADUAN** 019-2647904 aduan@luas.gov.my

Lembaga Urus Air Selangor | @lembagaurusairselangor | @luas\_selangor

❖ **LUAS QUICK SQUAD:**  
Established on 1 Dec 2020  
(Selangor Water Assurance Scheme, SJAM)

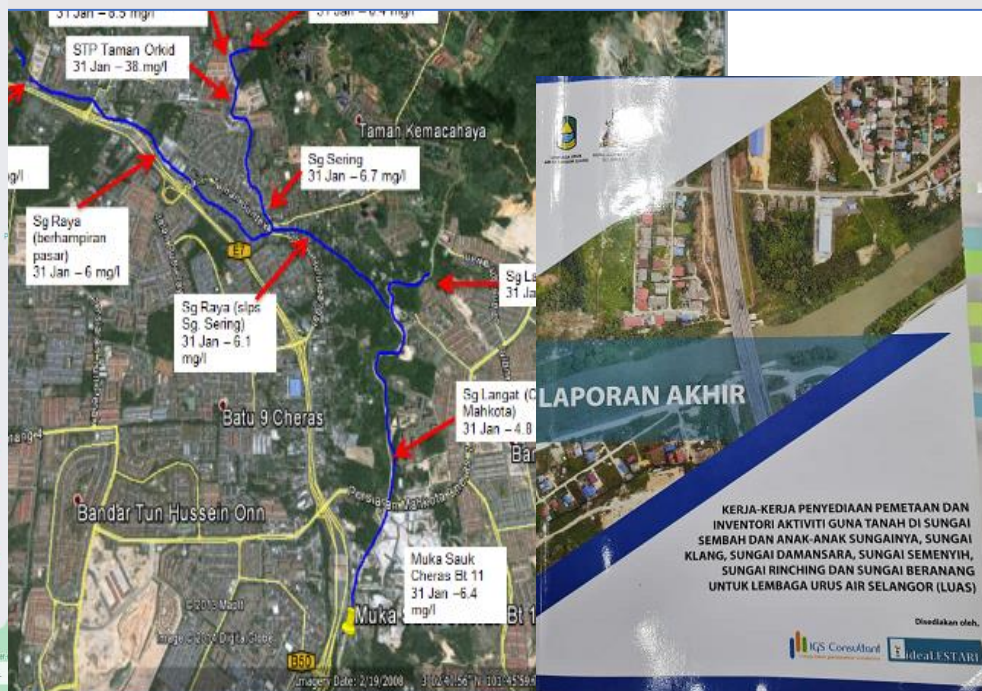
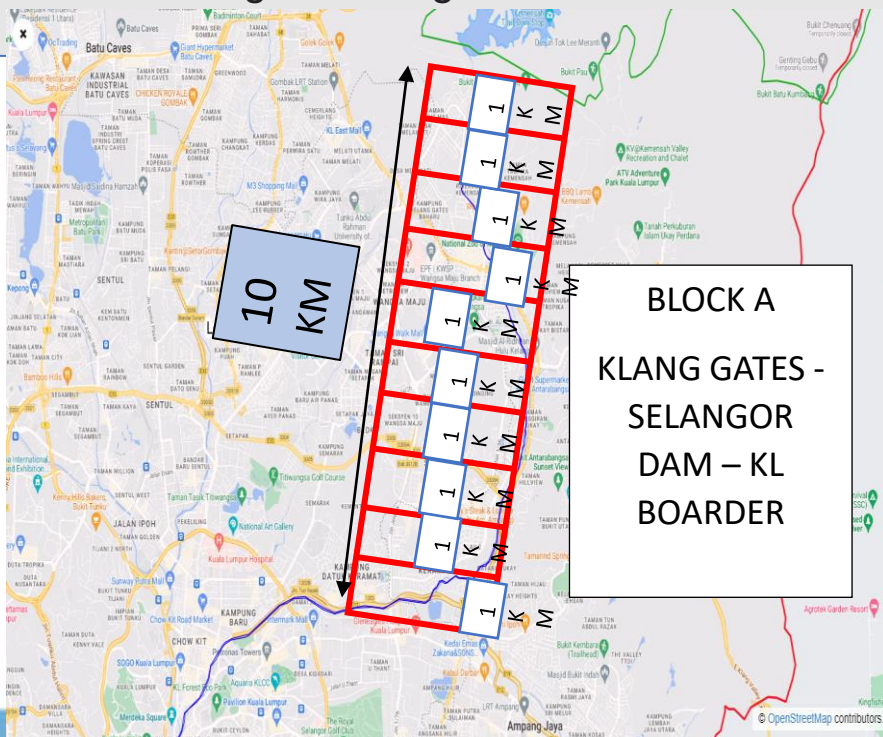
❖ **Objective :** To monitor the critical river basin (24 hours) and prevent any river pollution to avoid water treatment plant shutdown.

❖ **Monitoring method:** Static and River Patrol through sampling and drone monitoring.

❖ **Reference:** Selangor Water Resources Pollution Action Plan Manual.

## RIVER MONITORING PROGRAM (RMP) & INVENTORY MAPPING

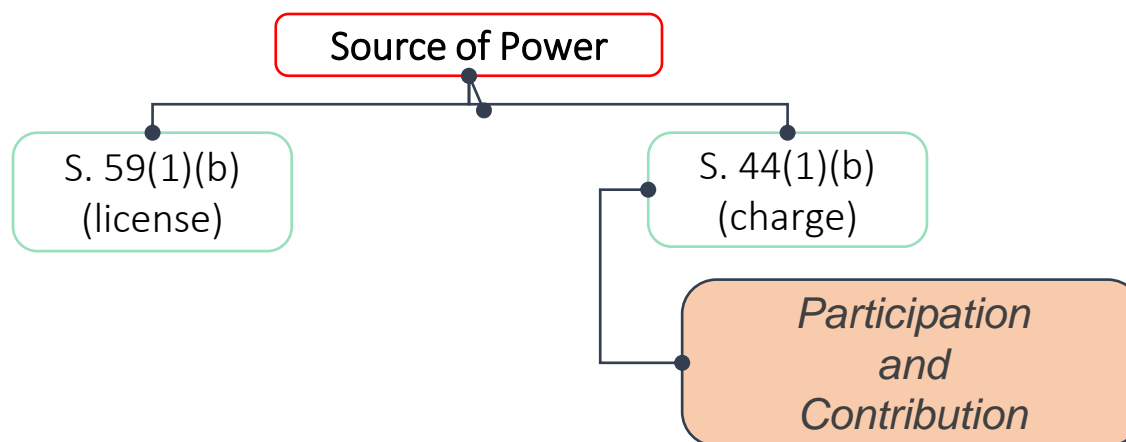
- Integrated monitoring and land use mapping inventory along 50m river reserves (drone monitoring)
  - Sg. Rinching, Sg. Beranang, Sg. Klang, Sg. Damansara & Sg. Sembah (2018)
  - Sg. Langat, Sg. Selangor, Sg. Buloh (2020)
- Mapping potential sources of pollution in river basins and outfall/tributaries for water quality monitoring and integrated enforcement with stakeholders.



### STRATEGY 4: STRENGTHENING LEGISLATION

#### INTRODUCTION OF ZERO DISCHARGE POLICY AND POLLUTERS PAY PRINCIPLE THROUGH DRAFTING OF LUAS SUBSIDIARY LAW

##### 1. Regulation of Licensing Discharge of Return Water, Waste or Pollutants (State of Selangor) 202X



REPLACE  
Enter or Discharge of Pollutants Regulation (State of Selangor)  
2012

### STRATEGY 5 : Empowering Communities in Conservation of Water Resources and Its Environment



## WAY FORWARD

1

- **Holistic River Basin Management For Water Quantity and Quality Assurance**

2

- **Strengthening Legislation and Enforcement**

3

- **Active Stakeholders Involvement in Integrated Water Resources Management(IWRM)**





*THANK YOU*  
“WATER FOR ALL”



**GWSC**  
Global Water & Sanitation Center

**SCI-AI**  
SEALING CITY INSTITUTIONS FOR ASIA AND INDIA

**TREADS**  
TRANSBOUNDARY RIVERS ECOLOGIES  
AND DEVELOPMENT STUDIES

**NFSSM**  
ALLIANCE