

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED SEWAGE TREATMENT PLANT (STP) (120,000 PE) IN MVV CITY, MUKIM LABU, DISTRICT OF SEREMBAN, NEGERI SEMBILAN DARUL KHUSUS.



EXECUTIVE SUMMARY

PROJECT PROPONENT/DEVELOPER

N9 MATRIX DEVELOPMENT SDN BHD

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Attn: Ms. Tan Sze Chee (Director)

ENVIRONMENTAL CONSULTANT



EUROPASIA ENGINEERING SERVICES SDN. BHD.

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Attn. : Mrs. Nur Arina Muhamad Affandi (CEP-C0101)
(EIA Study Team Leader)

PROJECT AREA

4.62 acres (1.87 hectares)

JURISDICTION

Majlis Bandaraya Seremban (MBS)

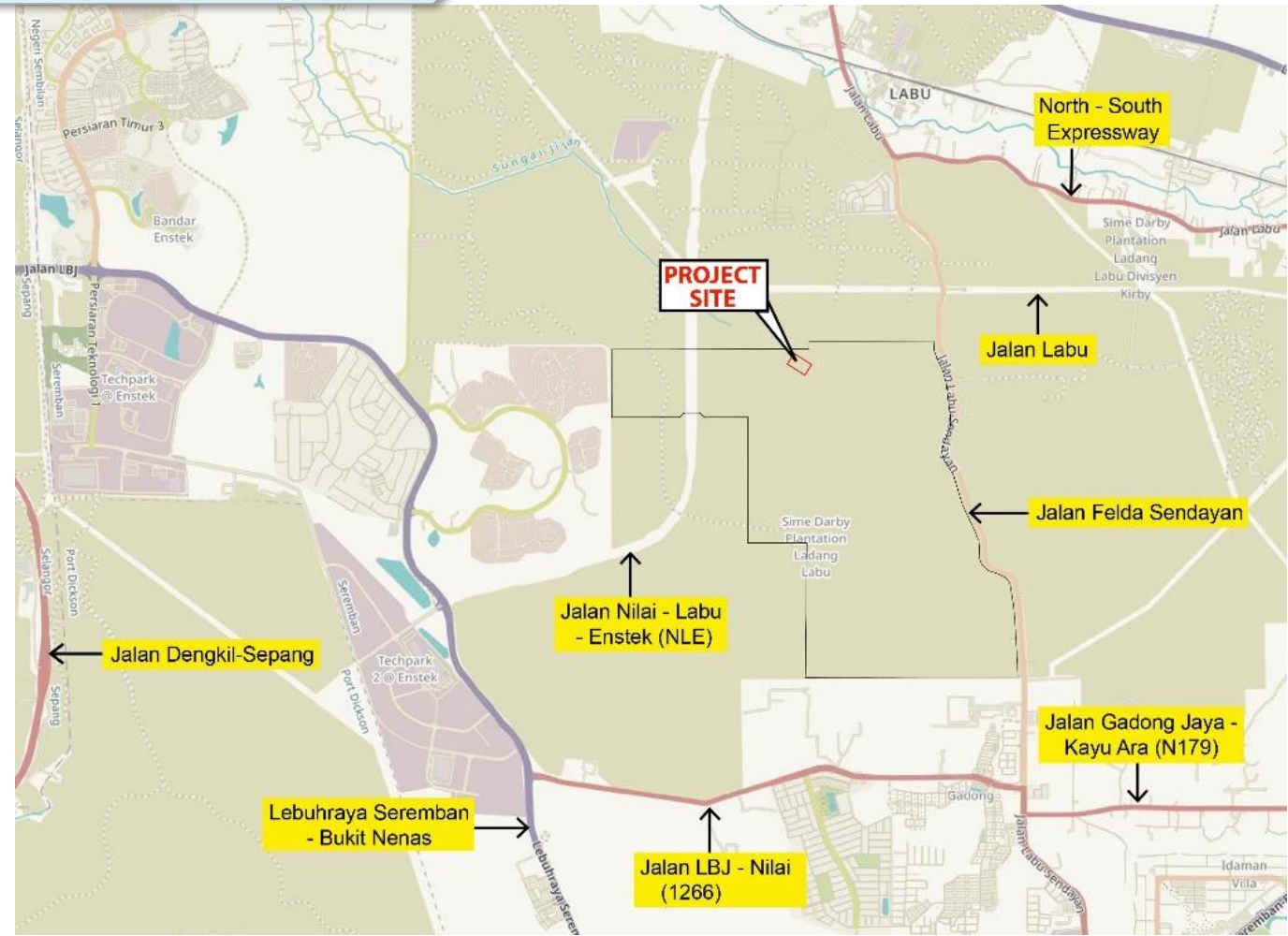
EIA SCOPE

- ✓ Ultimate PE: 120,000PE
- ✓ Scope of this EIA: 120,000 PE
- ✓ Proposed STP is to cater to the development Plot B and Plot C of MVV City

THE PROPOSED STP:

- Designed with **Open Sequence Batch Reactor (SBR) System**
- Constructed in two (2) modules, **Module 1 and Module 2**
- **Each module will cater for 60,000 PE**

ACCESSIBILITY



The Project Site is accessible via:

- ✓ North-South Expressway via Jalan Pajam-Nilai-Salak (Federal Route 3265) → Jalan Nilai-Labu-Seremban (Federal Route 362) → Jalan Felda Sendayan (Federal Route 1265) → Estate road of Labu Estate → proposed development of Plot C, MVV City → Head north to the Project Site.
- ✓ Future access road to the industrial development will be via the Jalan Nilai-Labu-Enstek (NLE) once it is completed, which also lead to the Proposed STP area

CURRENT CONDITION

- ✓ The whole project site has been cleared during the Stage 1 earthwork activities for the development of Plot C, MVV City

Immediate Receptors Within 1km Radius

- Sg. Jijan (27m from the boundary of Proposed STP)
- Future development – proposed new residential (350m from the boundary of Proposed STP)



Current condition of Plot C, MVV City earthwork Stage 1 area where the Proposed STP is located

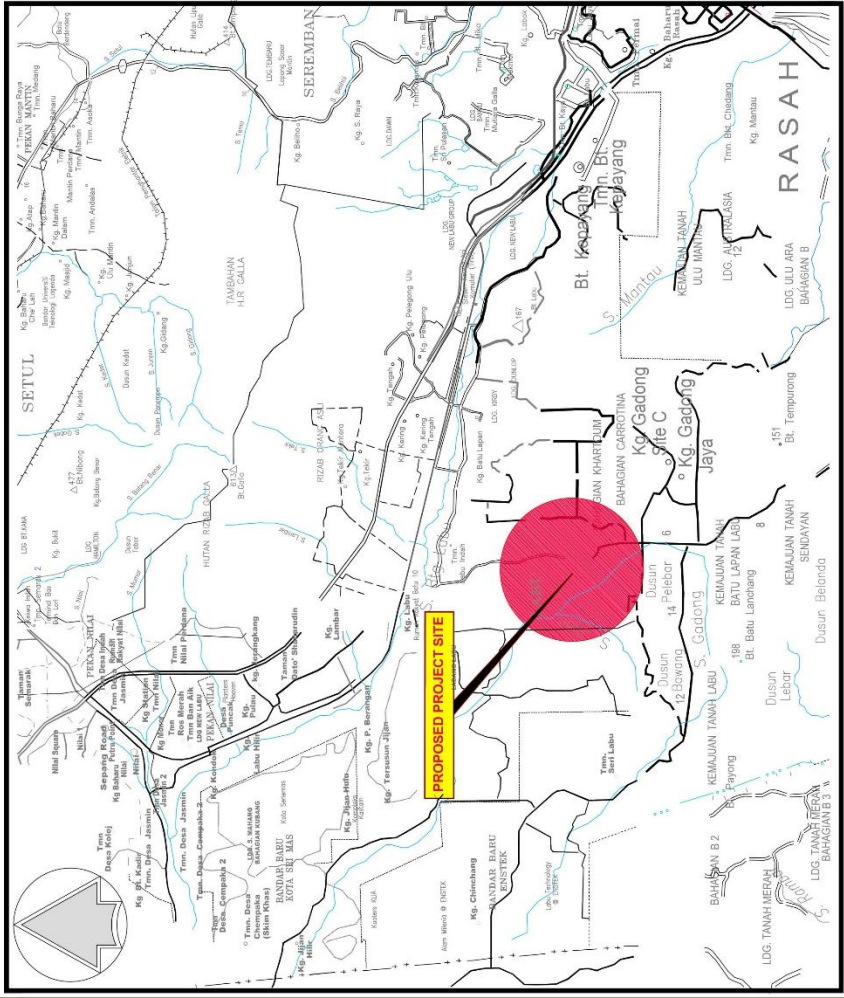
LEGEND



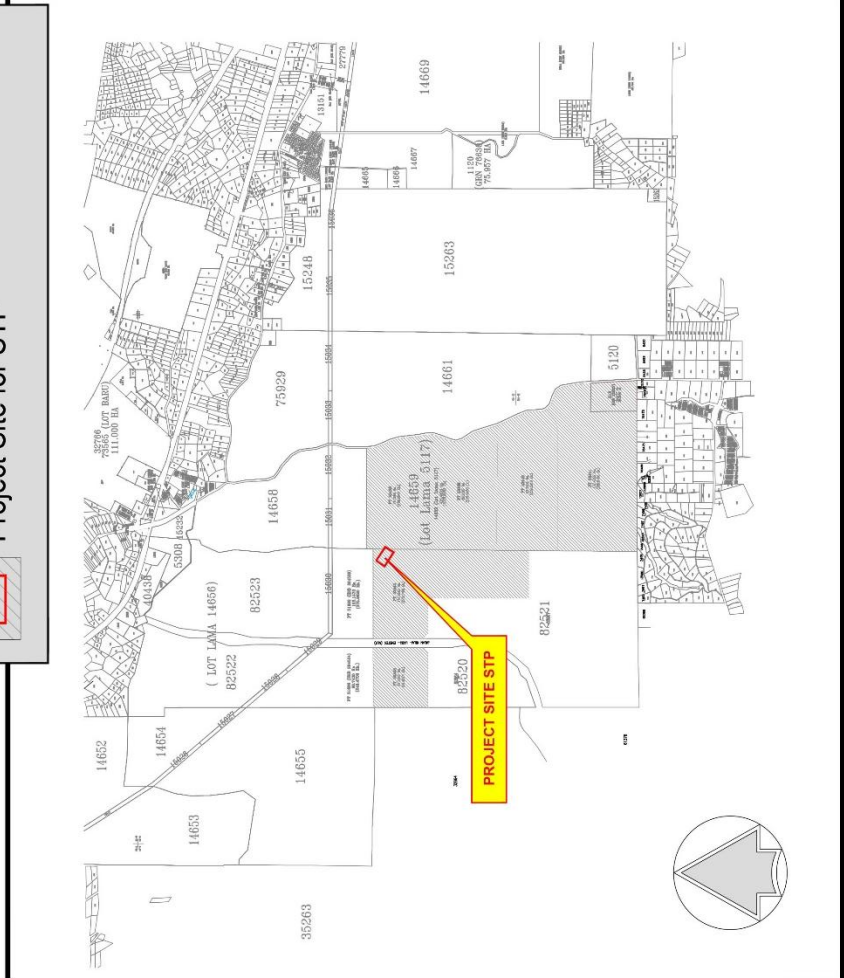
Approved EIA Area for Matrix MVV Plot C
Doe Ref. : JAS.NHQ.600-2/12/15 Jilid 2(5)
dated : 18 February 2025



Project Site for STP



KEY PLAN
N.T.S.



LOCATION PLAN
N.T.S.

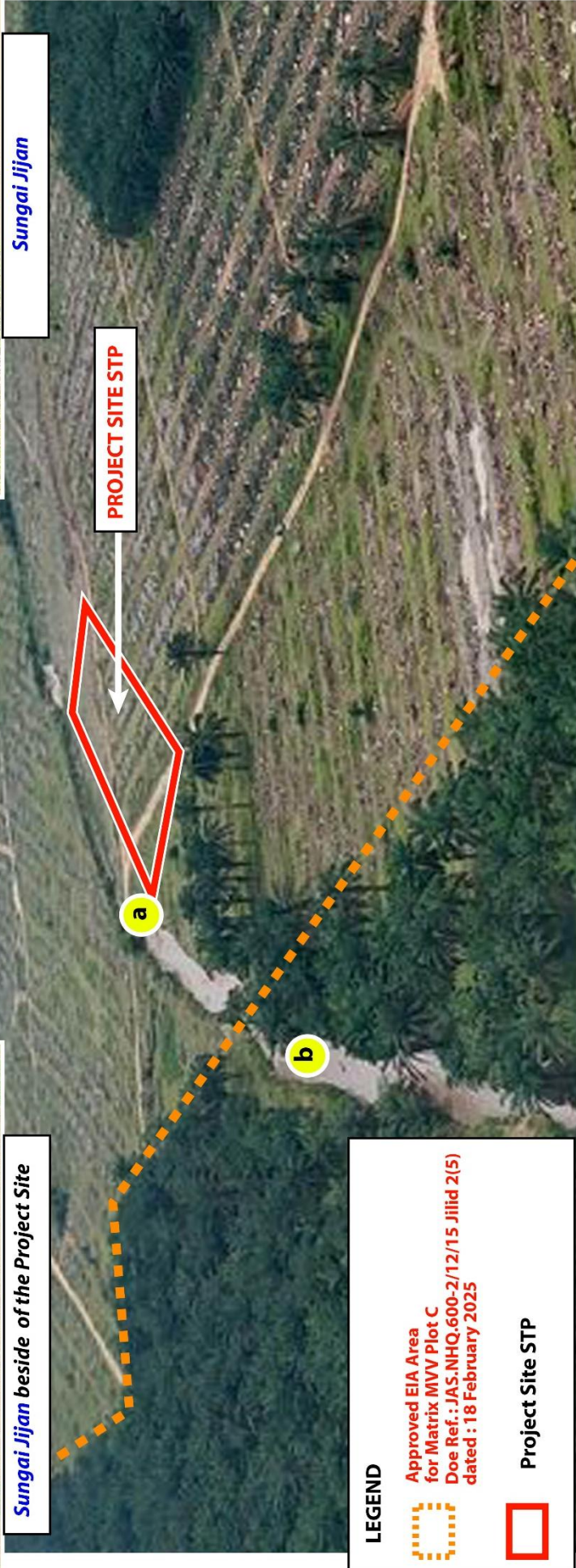
CURRENT CONDITION OF THE PROJECT SITE



Sungai Jijan beside of the Project Site



Sungai Jijan



LEGEND

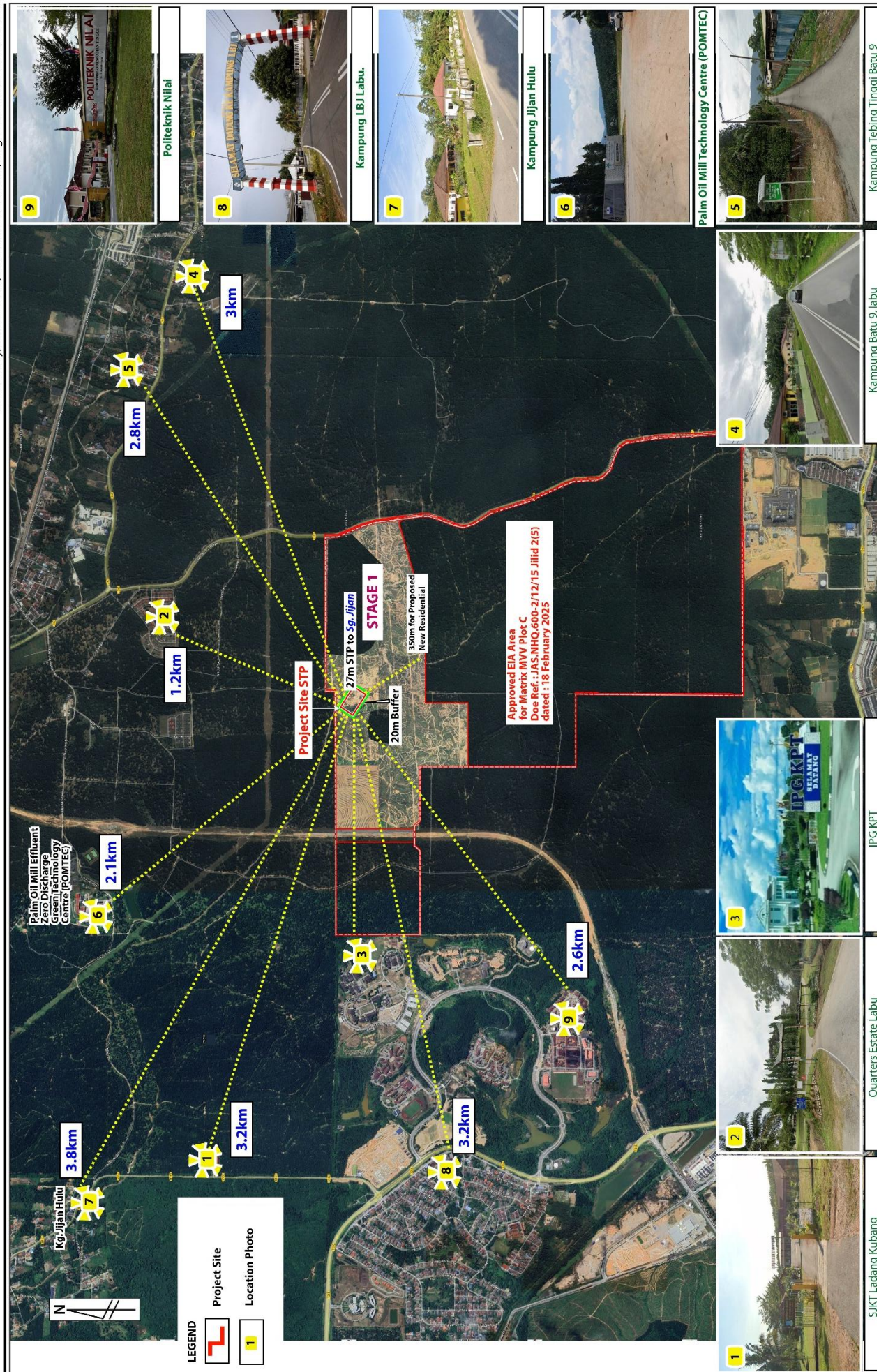


Approved EIA Area
for Matrix MVM Plot C
Doe Ref.: JAS.NHQ.600-2/12/15 Jilid 2(5)
dated : 18 February 2025



Project Site STP

IMMEDIATE RECEPTOR OF THE PROJECT SITE



LEGAL ASPECT – PRESCRIBED ACTIVITIES



Activity 14(c)(i): Construction of Sewage Treatment Plant with 20,000 population equivalent or more

Proposed Development with ultimate 120,000 population equivalent (PE).

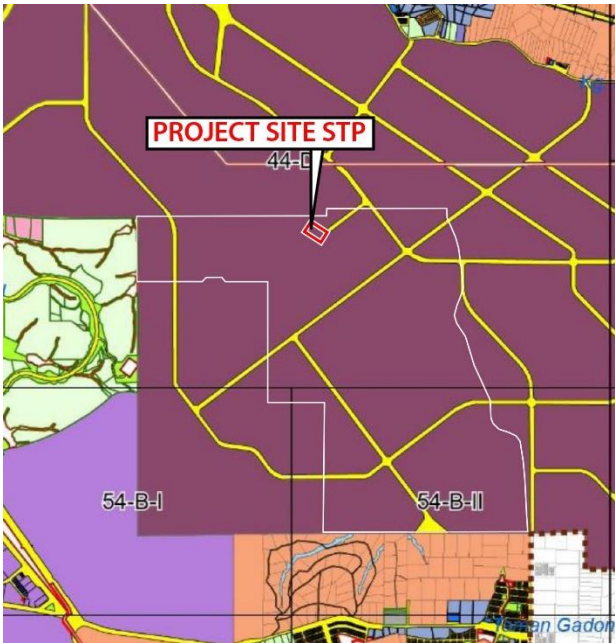
 28 Ogos 2015 28 August 2015 P.U. (A) 196	WARTA KERAJAAN PERSEKUTUAN FEDERAL GOVERNMENT GAZETTE
PERINTAH KUALITI ALAM SEKELILING (AKTIVITI YANG DITETAPKAN) (PENILAIAN KESAN KEPADA ALAM SEKELILING) 2015 ENVIRONMENTAL QUALITY (PRESCRIBED ACTIVITIES) (ENVIRONMENTAL IMPACT ASSESSMENT) ORDER 2015	
	DIGALARKAN OLEH/ PUBLISHED BY JABATAN PEGUAM NEGARA/ ATTORNEY GENERAL'S CHAMBERS

STATEMENT OF NEED

ENVIRONMENTAL CONSIDERATION

- ✓ The project Site is designed and built to fulfill SPAN MSIG guidelines and to treat any sewage and sullage from the development of Plot C and future development of Plot B of MVV City in compliance to the Environmental Quality (Sewage) Regulations 2009.

ZONING COMPATIBILITY

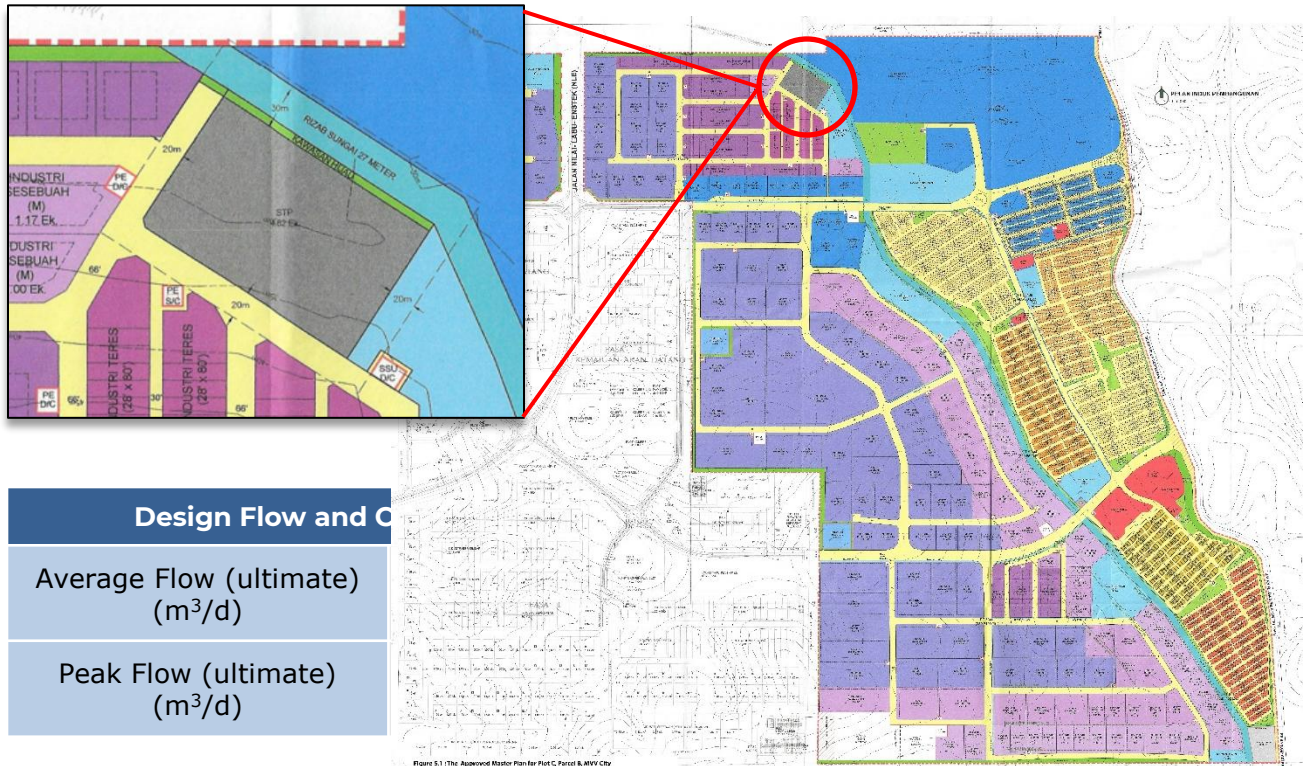


The locality of the Project Site falls under the jurisdiction of Majlis Bandaraya Seremban. Based on the “Rancangan Tempatan Malaysia Vision Valley 2045 (RT MVV 2045)”, the proposed development is located within **Blok Perancangan (BP) 7- Labu** and compatible with the projected land use for Mixed Development Zone (i.e. Industrial, Commercial and Residential) under **Zon Guna Tanah Sokongan i.e Infrastructure – Class 11(a), (b), (c), (d), (e), (f), (g) and (h).**

ZON GUNA TANAH, 2045	
Perumahan	Tanah Lapang dan Rekreasi
Perumahan Sedia Ada	Tanah Lapang dan Rekreasi Awam
Perumahan Cadangan	Rekreasi Komersial
Komersial	Pertanian
Komersial Sedia Ada	Hutan
Komersial Cadangan	Badan Air
Industri	Pantai
Industri Sedia Ada	Infrastruktur dan Utiliti
Industri Cadangan	Pengangkutan
Pembangunan Bercampur	

SEWAGE TREATMENT DESIGN & PROCESS

- ✓ The ultimate design capacity for the Sewage Treatment Plant (STP) is 120,000 Population Equivalent (PE).
- ✓ The proposed STP will be built in two (2) modules (60,000 PE / Module)
- ✓ The effluent from sewage treatment plant will be discharged to Sg. Jijan.
- ✓ The sewage from future development Plot B will be discharged to the proposed sewerage manhole which is located within the development of Plot C and eventually to the proposed sewage treatment plant.
- ✓ The sewage must be designed and treated in strict compliance with **Standard A of the Environmental Quality (Sewage) Regulations 2009** before being discharged into any watercourse.
- ✓ The proposed project site includes a **minimum of 20-metre buffer zone** for the treatment plant



Standard A for Effluent Discharge to River under the Environmental Quality Act 1974

Technical Data	Influent Quality (Absolute)	Treated Effluent
Biological Oxygen Demand (BOD5) (mg/l)	≤250	20 {10}
Suspended Solids (SS) (mg/l)	≤300	50 {20}
Chemical Oxygen Demand (COD) (mg/l)	≤500	120 {60}
Total Nitrogen (TN) (mg/l)	≤50	N/A
Ammoniacal Nitrogen (mg/l)	≤30	10 {5}
Nitrate (mg/l)	N/A	20 {10}
Total Phosphorus (TP) (mg/l)	≤10	N/A
Oil & Grease (O&G) (mg/l)	≤50	5 {<2}

PROPOSED LAYOUT PLAN OF THE SEWAGE TREATMENT PLANT

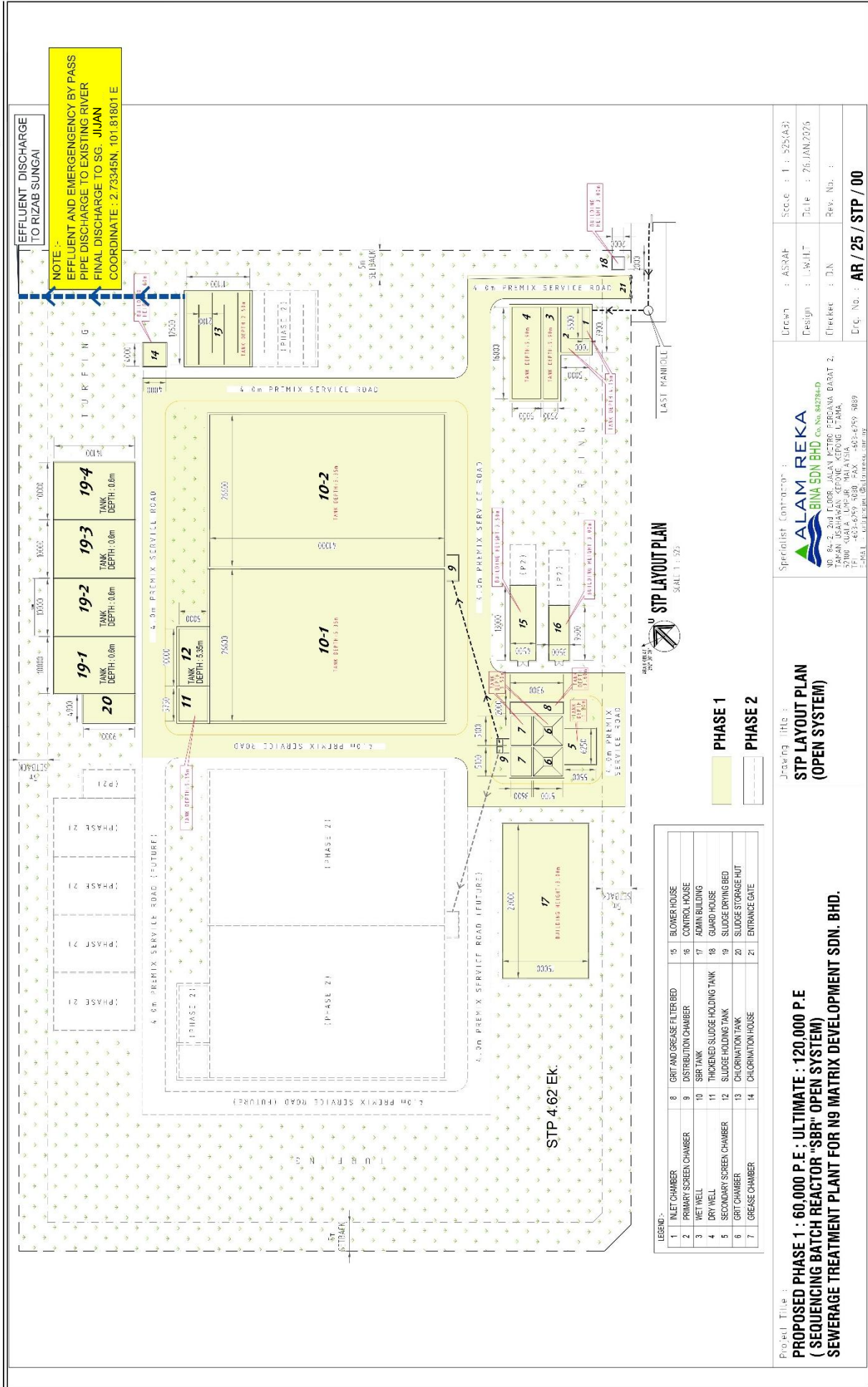


Figure 5.2 : The sewerage conceptual layout plan for the proposed new STP

Source : Alam Reka Bina Sdn. Bhd.

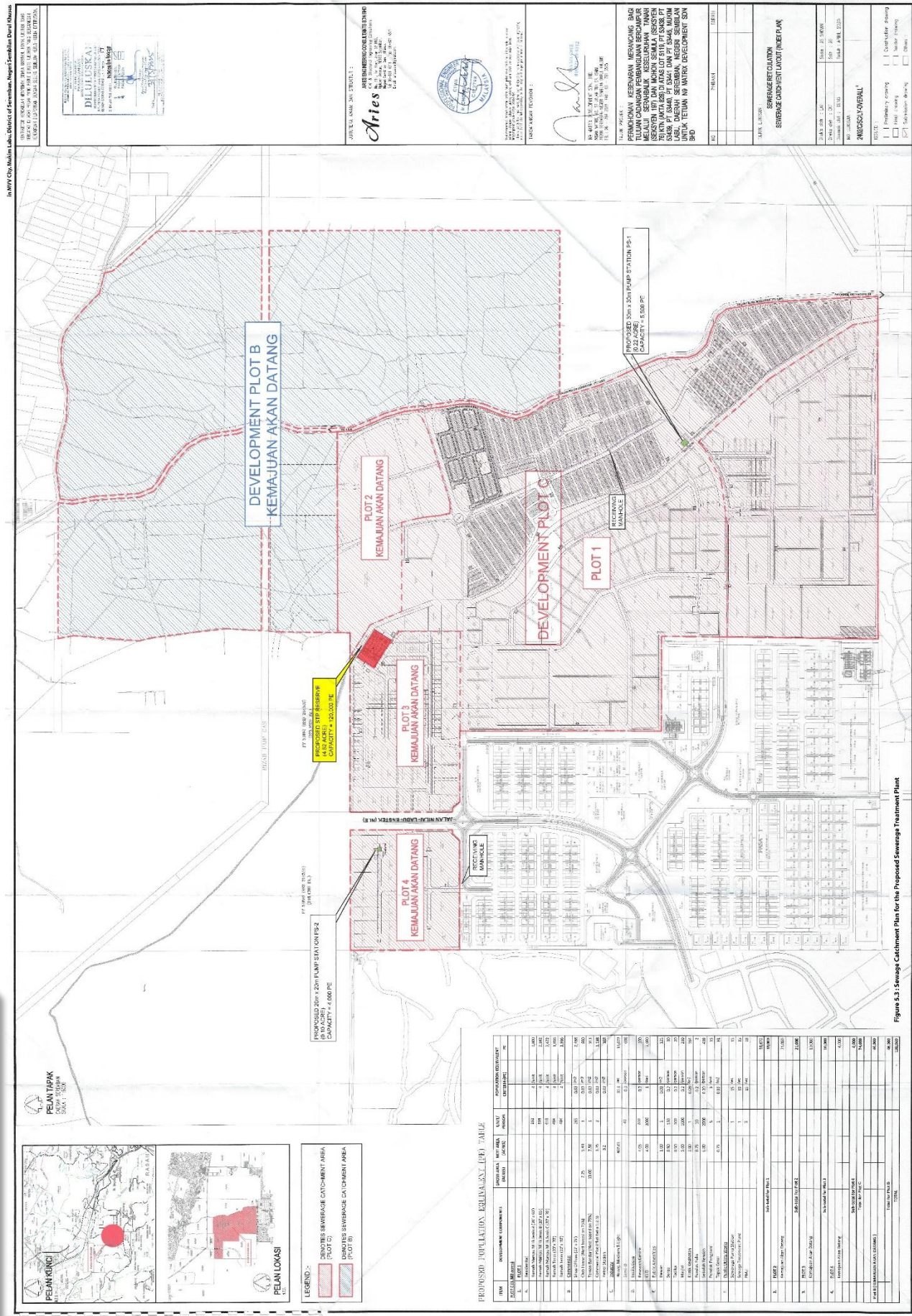
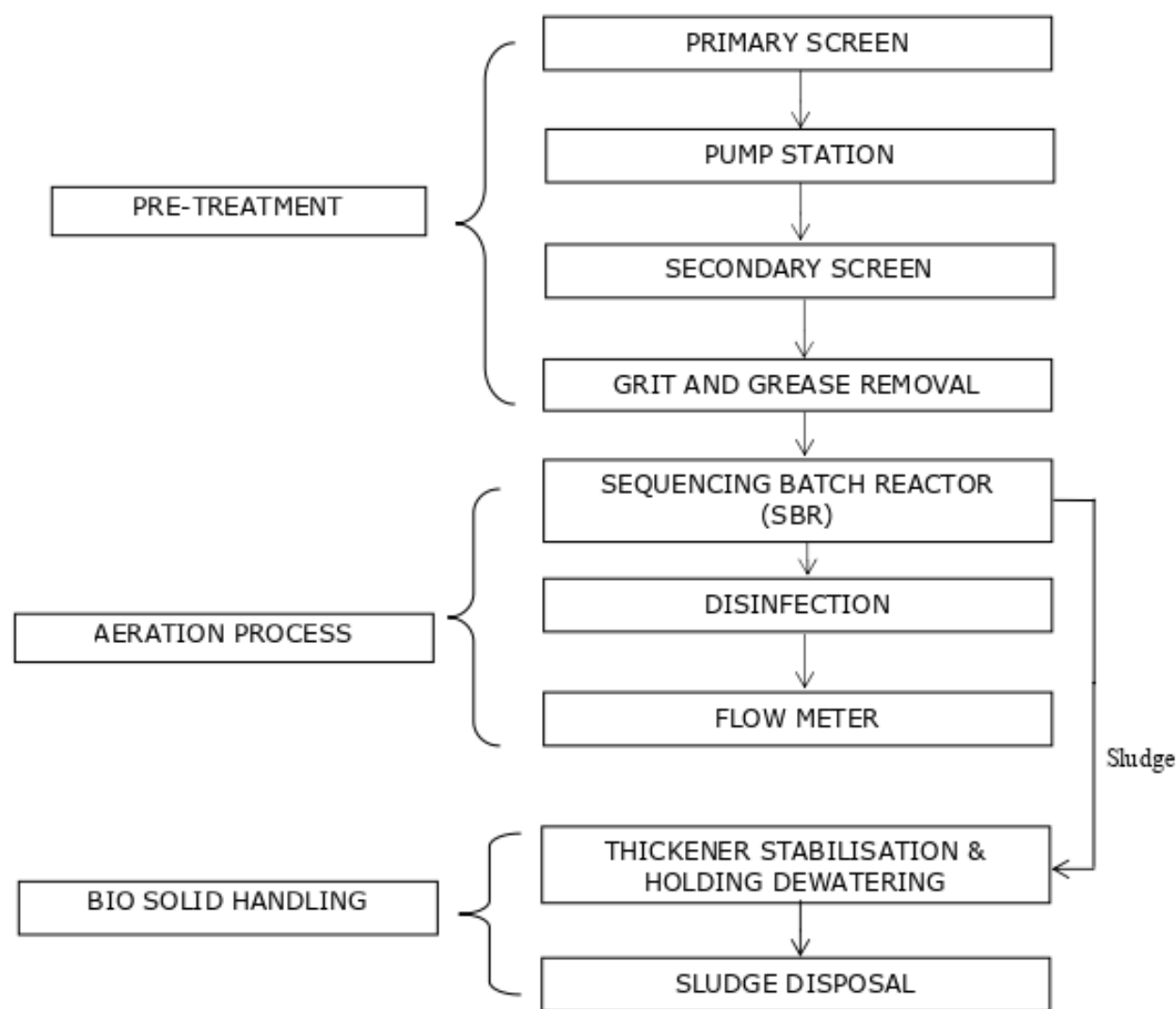


Figure 5.3 : Sewage Catchment Plan for the Proposed Sewerage Treatment Plant

PROCESS FLOW DIAGRAM FOR THE PROPOSED STP

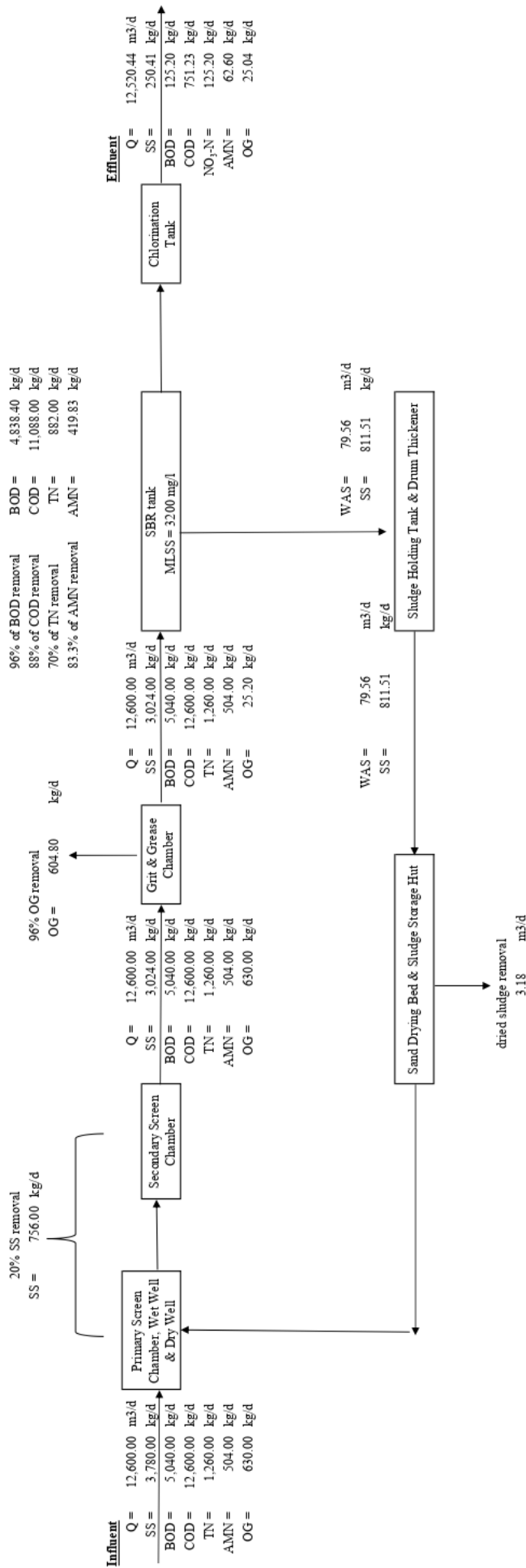


Source: Alam Reka Bina Sdn. Bhd., 2026

MASS BALANCE DIAGRAM

PROPOSED MIXED DEVELOPMENT ON LOT 5119, PT 53438, PT 53439, PT 53440, PT 53441, PT 53443 AND PT 53445 PLOT C, PARCEL B AT MALAYSIA VISION ALLEY, DAERAH SEREMBAN, NEGERI SEMBILAN: DESIGN, OBTAINING APPROVAL, SUPPLY AND BUILD INCLUDING TESTING, COMMISSIONING AND HANDOVER FOR PROPOSED NEW STP (M&E WORKS- 60,000PE)

MASS BALANCE DIAGRAM - ULTIMATE : 120,000PE



PROJECT DEVELOPMENT SCHEDULE

- ✓ The area for the proposed STP was cleared from the earthwork activities of previous development.
- ✓ Construction stage for Module 1 will start in the first quarter of 2026 and is estimated to be completed in the third quarter of Year 2027 and will start its operation.
- ✓ The construction stage for Module 2 is expected to start in the middle of the Year 2033 and will take around 15 months to be constructed and started its operation

Project: MVV City STP
Trade: Phases of modules & Project Implementation Schedule

Project phases

PRECINCTS	2026				2027				2028				2029				2030				2031				2032				2033				2034				2035			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Site clearing																																								
Earthwork stage																																								
Construction stage (module 1)																																								
Operational stage (module 1)																																								
Construction stage (module 2)																																								
Operational stage (module 2)																																								

EXISTING ENVIRONMENT – PHYSICAL ENVIRONMENT



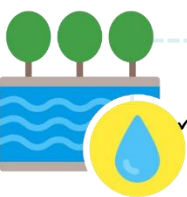
TOPOGRAPHY

✓ The morphology of the Project Site shows that the Project Site is characterized as flat platform with surrounding ground level ranging from 26.0m to 30.0m



GENERAL GEOLOGY

✓ The Project Site is situated on the granite (Main Range Granite)

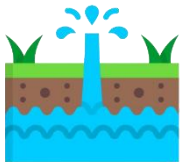
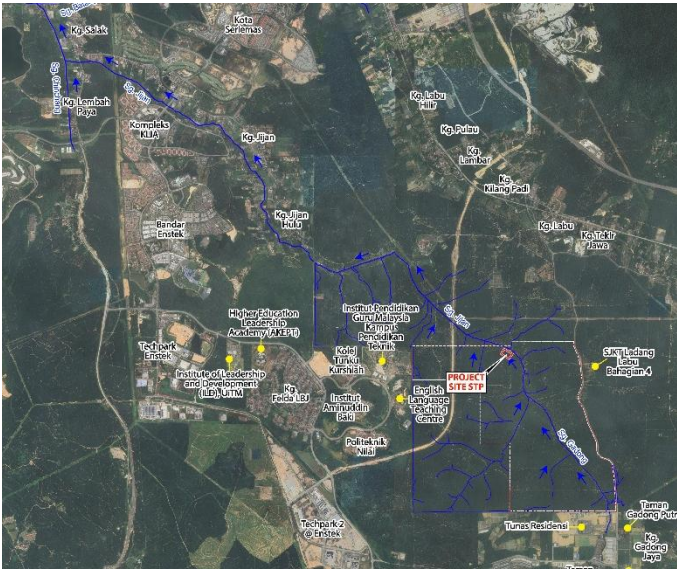


HYDROLOGY

✓ The Project Site lies within the Sg. Langat catchment area

✓ Currently, all the surface runoff from the Project Site would flows toward northwest across Jalan Nilai-Labu-Enstek (NLE) and Kampung Jijan and merge into Sg. Chinchang near Taman Desa Merpati prior to draining into Sg. Labu. The surface runoff from the Project Site would flows westwards and drains into Sg. Langat near the under construction Maju Expressway II (MEX II) and KLIA Tol Plaza of North-South Expressway (NSE) before eventually draining into Straits of Malacca.

Streamflow of the Project Site



GROUNDWATER

- ✓ The Project Site is located on low potential aquifer regime of this region
- ✓ Nearby tube wells were located at Perkampungan LBJ and Kg. Lambar, approximately 1.5km west and 3km north of the proposed Project Site
- ✓ The tube well of Perkampungan LBJ (active for domestic use) indicated that the groundwater could yield >5.0 - <10.0 meter³/hour while tube well near Kg. Lambar could only yield 5.0 meter³ or less per hour (inactive or abandoned)



SOIL

Based on the Reconnaissance Soil Map of Peninsular Malaysia (Pindaan 2002), the soil within the Project Site is classified as *Rengam - Jerangau Association*

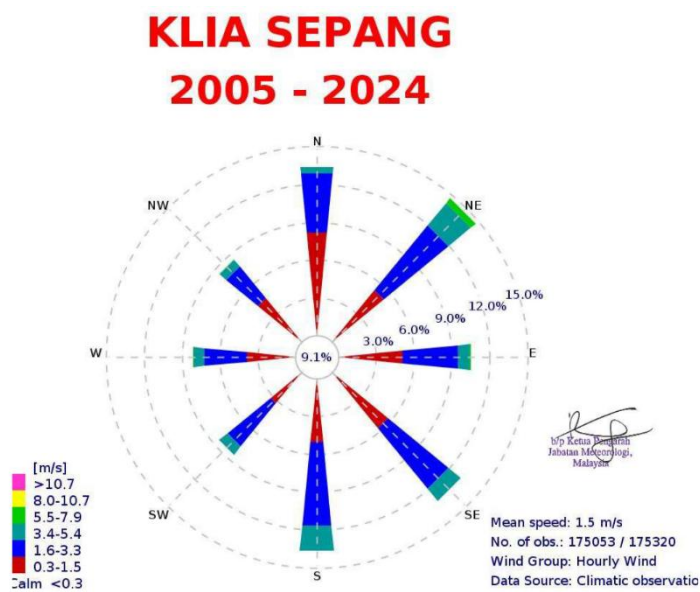


LANDUSE

✓ The predominant type of land use setting in the impact area is industrial area

CLIMATE

- Based on the monthly temperature records at Kuala Lumpur International Airport from 2006 to 2025, temperatures remain relatively stable throughout the year, with average monthly variations not exceeding 1.3°C.
- The average total annual rainfall recorded from 2006 to 2025 was approximately 2,140.8 mm.
- The wind rose data from 2005 – 2024 indicates that the northeast wind exhibits the highest velocity (mean speed of 2.3 m/s), and the greatest frequency originates from the northeast.



ENVIRONMENTAL BASELINE

WATER QUALITY



- Generally, baseline water quality classification for sampling point W1 is clean while W2 is slightly polluted and W3 & W4 are polluted.

AIR QUALITY

- All parameters at all sampling stations comply to Malaysian Ambient Air Quality Standards 2013, Standard 2020.



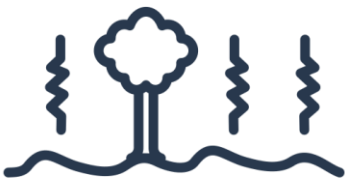
NOISE LEVEL



- Noise level recorded complied with the permissible limits of The Planning Guidelines for Environmental Noise Limits & Control, Department of Environment, 2021, Second and Third Schedule except N1 (Kiaramas Danai) and N2 (Kiaramas Cendana) during day time.

VIBRATION LEVEL

- The root mean square (RMS) values on z-axis (vertical) at all sampling points have shown that the values were within the maximum velocity level of 0.2 mm/s for the First Schedule for Residential.

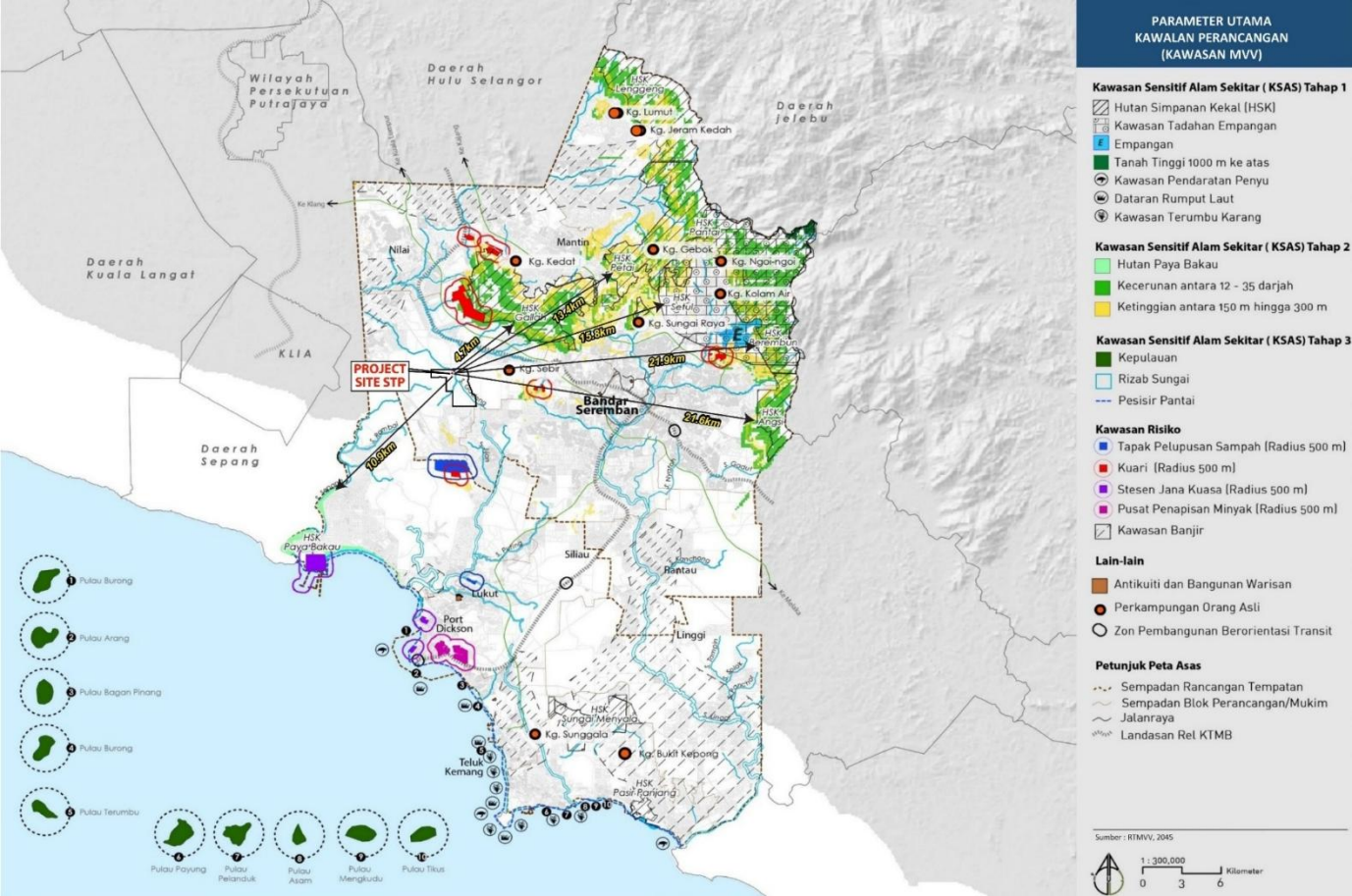




ENVIRONMENTAL SENSITIVE AREA (ESA)

- ✓ Proposed Project Site is not within or identified as Environmental Sensitive Area (ESA) (RT MVV 2045).
- ✓ In addition, the Proposed Project Site does not fall within the 55 Important Birds and Biodiversity Area (IBA) in Malaysia (www.birdlife.org).

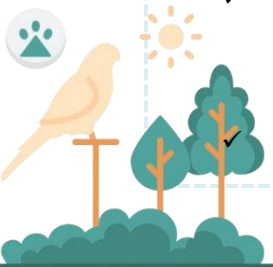
The Location of the Project Site and its Surrounding ESA Integrated Areas



FLORA AND FAUNA

- ✓ There is no significant flora vegetation present at the proposed STP Project Site, as the area had already been cleared during previous development activities.
- ✓ Mammalian species that may be present or likely to occur are mainly common synanthropic or suburban-associated species, such as house rats and squirrels, which are well adapted to human-modified environments.
- ✓ In terms of avifauna, only a few bird species were observed in the surrounding area. The presence of continuous human activities and the lack of vegetation cover reduce the suitability of the area as a feeding, nesting, or sheltering habitat for birds.

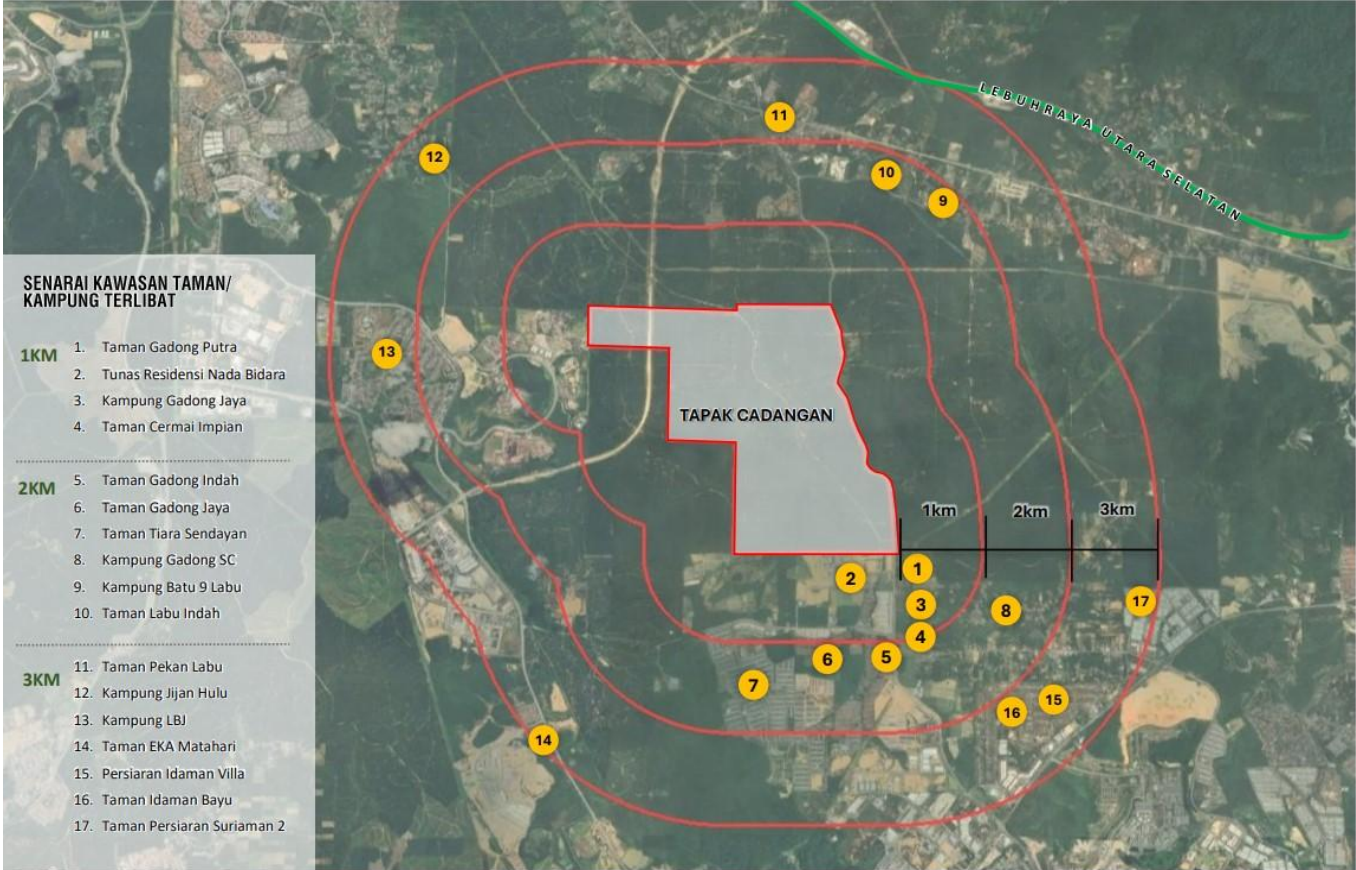
The overall faunal presence within the Project Site is considered minimal



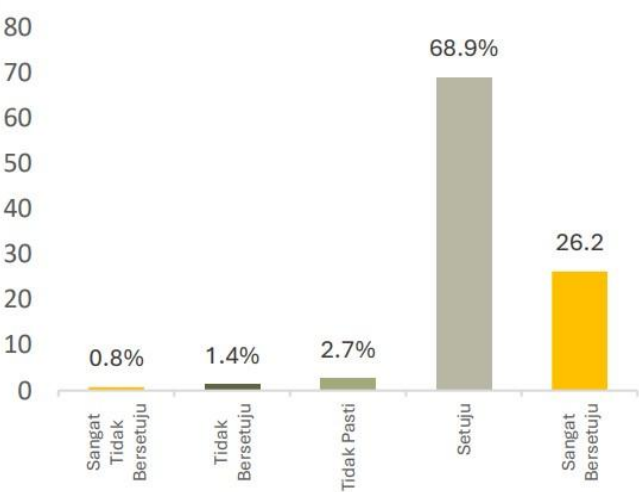


- ✓ Social Impact Assessment for the proposed MVV City had been conducted by IKTISAS PLANNERS SDN. BHD on December 2024, and this proposed STP will use the same findings as the proposed STP had been included in the components of the MVV City Development
- ✓ The SIA report for the proposed MVV City Development has been classified as a project requiring Category B, SIA.

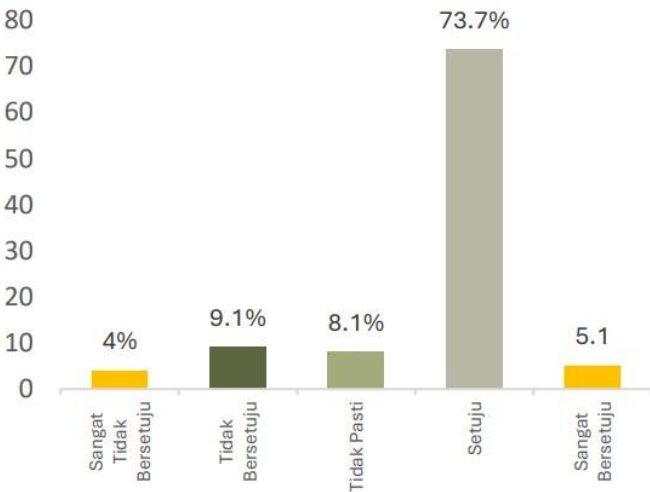
Primary Zone of Influence (ZOI)



Respondent’s Agreement Level on the Proposed Project Development



(Residential Sector)



(Commercial Sector)

CONSTRUCTION PHASE



LOGISTIC ROUTES

Construction access: Jalan Nilai-Labu-Seremban or Jalan FELDA Sendayan → existing earthen road within the Labu Estate → Project Site

IMPACT

- Noise and dust disturbances.
- Increment of traffic risks especially by heavy vehicles especially Jalan Nilai-Labu-Seremban, Jalan Felda-Sendayan
- Possible oil spillage and spillage of raw construction materials onto public roads.
- The increase of traffic hazard.

MITIGATION MEASURES

- Regular sweeping / cleaning of access roads
- Flagmen must be stationed at the access road junctions to control and direct traffic
- Vehicles will have to observe speed limits
- Proper warning signs, signals or warning light and barricade are recommended to ensure safety and smooth flow of traffic

MOBILISATION ON-SITE

- It is estimated that 30 workers shall be needed during construction stage.
- There shall be no workers quarters and maintenance yard / workshop to be established within the Project Site.



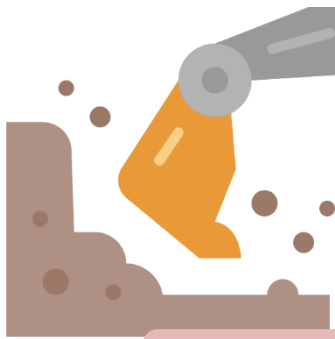
IMPACT

- Impact related to generation of sewage and solid waste .
- Expose to contagious diseases.

MITIGATION MEASURES

- Adequate facilities to prevent an unhealthy environment.
- Providing safety devices recommended in OSHA Act 1994.
- All foreign workers are screened against the presence of contagious diseases.

CONSTRUCTION PHASE



SOIL EROSION

IMPACT

- No earthworks to be carried out within the Project Site of the proposed STP.
- The earthworks for the proposed Project as the area has already been cleared during previous earthworks associated with earlier development activities

MITIGATION MEASURES

- Drainage system with drainage outlet protection.
- Maintenance of the drainage network.
- Compliance to EIA Conditions of Approvals.

NOISE & VIBRATION

IMPACT

- The noise impact is not significant as only minor construction and STP components installation works involve.
- The noise sources during the construction phase will be contributed by the machineries and equipment operating during the construction activities.
- Based on the simulation results, it could be concluded that the predicted cumulative daytime L10 and Lmax levels at NSR 1 and NSR 2 were within the maximum permissible limits.
- In addition, the anticipated community response to noise was None.



MITIGATION MEASURES

- Construction activities should be done only during day-time.
- All construction equipment must be properly maintained so that they will always be in good working order and do not produce noise higher than that specified by the manufacturer.
- Avoid using equipment that generate exceeding noise levels.

CONSTRUCTION PHASE



AIR

IMPACT

- No additional site clearing will be required within the Project Site, as the area has already been cleared during previous earthworks associated with earlier development activities.
- Traffic movement on dirt road will churn up the surface and may incite hazy condition especially during dry and windy periods.

MITIGATION MEASURES

- Proper covering of materials whilst being transported to prevent any road damage.
- On-site traffic management by observing the speed limits, regular maintenance of vehicles, machinery and the on-site road network to be in good servicing conditions. Ultimately this shall reduce the level of exhaust gases, agitated road surface dust, and cut down vehicular noise and vibration emitted.

WASTE GENERATION

IMPACT

- Unattended debris could impact the safety of the site as construction works proceeds.
- Indiscriminately dumping of domestic waste.
- Diesel or hydraulic oil spill onto soil causing the soil and water contamination.



MITIGATION MEASURES

- Construction waste from the development will be reused and recycled.
- All domestic waste will be disposed off site to an approved dumpsite
- Burning of any type of waste are strictly prohibited.
- All scheduled waste must be handled as per requirements of the Environmental Quality (Scheduled Wastes) Regulations 2005.

OPERATION PHASE

WASTE MANAGEMENT

IMPACT

- Improper disposal of solid waste may affect aesthetic quality, a source of water contamination and proliferation of disease vectors.
- Lack of STP maintenance will result in unpleasant smell and unsightly view.



MITIGATION MEASURES

- Solid waste shall only be disposed of at an approved dumpsite landfill under the jurisdiction of Majlis Bandaraya Seremban (MBS).
- Proper maintenance of STP.



IMPACT

- A higher and faster peak discharge is anticipated due to the increased imperviousness created by the presence of built-up units and paved road systems.

STORMWATER MANAGEMENT

MITIGATION MEASURES

- The drain along the perimeter of the Project Site is designed to collect and convey all the surface runoff and treated effluent before discharging out from the Project Site into the external concrete lining river.

OPERATION PHASE

AIR AND NOISE

IMPACT

- Increasing of traffic contributing factors to air and noise pollution.



MITIGATION MEASURES

- Provision of sufficiently sized junctions, traffic signages and proper maintenance of road network system.
- Regulatory procedures or control of traffic emissions to comply with the legislative limits.



WATER POLLUTION

IMPACT

- Potential intrusion of wastewater (primarily sewage) into waterways may occur due to leakages in the sewerage system or discharge of non-compliant effluent arising from Sewage Treatment Plant (STP) malfunction or breakdown.
- A worst-case scenario modelling showed that the average discharge of the untreated sewage will cause negative impacts towards the existing river water quality in Jijan and Sg. Labu respectively.
- If the final discharge can meet DOE Standard A limit (i.e., 20mg/L), the water quality classification for each modeled parameter will not be affected at Sg. Labu water intake except for BOD and ammoniacal nitrogen.
- Nevertheless, the overall water quality category will remain at Class II at Sg. Labu water intake in Sg. Labu during the average discharge.
- if the sewage discharge complies with MSIG IV design limit (Standard A), the overall water quality index (WQI) will be further improved along Sg. Jijan.

MITIGATION MEASURES

- Sewage discharge must comply to DOE Standard A limit of Environmental Quality (Sewage) Regulations 2009
- The planning, design and construction of Sewage Treatment Plant (STP) is based on the requirements set out in MALAYSIA SEWERAGE INDUSTRY GUIDELINES (MSIG) VOLUME IV- Sewage Treatment Plant published by *Suruhanjaya Perkhidmatan Air Negara (SPAN)*.
- Proper maintenance of Sewage Treatment Plant is necessary to ensure its good operational state and to reduce the risk of contamination to the surrounding water.

OPERATION PHASE

IMPACT

- During the operation phase of the project, potential air emissions are odour
- Modelling to predict odour levels during the operation phase of the proposed STP showed that odour due to the STP is within the acceptable guideline limit of 7 OU when odour emissions are treated
- Even when odour treatment fails, predicted odour levels are higher but remain below the acceptable limit of 7 OU.
- Ambient air concentrations of PM₁₀, sulphur dioxide, nitrogen dioxide and carbon monoxide at the project site and sensitive receptors are below MAAQS limits and activities at the project site is not expected to release any significant amount of these gases.

ODOUR



MITIGATION MEASURES

- 20m buffer zone surrounding the STP.
- Fencing and planting climber to provide the natural odour screening to those neighbouring residential area.
- Operator to maintain good housekeeping of the STP at all times



IMPACT

OPERATIONAL FAILURE AND ABNORMAL CONDITION

MITIGATION MEASURES

- Cause failure in all power generated mechanical treatment process.
- Trips out mechanical equipment when buildings or electrical control equipment are struck by lightning.
- Large flow than that designed for and would suffer severe hydraulic loading.
- Occur when insufficient standby equipment is provided.
- The treatment process is at risk if there is an interference.

- Provide emergency generators.
- Provide auto-restart facilities.
- Assign personnel to be on-site on a daily basis.
- Provide sufficient standby units with automatic changeover system.
- Repair works will be carried out immediately.
- Provide 24-hours security at the site to prevent unauthorized entry.



In reviewing the proposed Project and its' anticipated integration with the existing environment of the Project Site, the main concerns is the environmental issues raised. Mitigating measures proposed in this report should be strictly adhered with, to ensure that the surrounding population shall not be adversely impacted by the proposed upgrading work.

- The ultimate design for the proposed STP is 120,000 PE. This EIA addresses 120,000 PE for the proposed STP and consists of two (2) modules with the number of PE 60,000 per module. The Sequencing Batch Reactor (SBR) system is the treatment process adopted in this sewage treatment plant which simplifies operation and requires less space than traditional sewage treatment systems.
- As for noise, during building / infrastructural works, it could be concluded that the predicted cumulative daytime L_{10} and L_{max} levels at NSR 1, and NSR 2 were within the maximum permissible limits.
- For vibration, no significant adverse impact from the construction vibration to the vibration sensitive receptor since VSR1: SJKT Ladang Labu Bhg 4, VSR 2: IPG Malaysia Kampus Pendidikan Teknik and VSR 3: Worker Quarter for Palm Oil Mill are located outside of vibration zone of influence for cosmetic damage and vibration zone of influence for human response
- Based on the odour modelling exercise showed that odour due to the STP is within the acceptable guideline limit of 7 OU when odour emissions are treated and even when odour treatment fails, predicted odour levels are higher but remain below the acceptable limit of 7 OU.
- There are no gazetted odour regulations in Malaysia currently; however, the Draft Environmental Quality (Odour) Regulation 201x proposes a limit of 1,200 ou/m³ at point of emission for sewage systems. An odour removal system is recommended to manage fugitive emissions, particularly given the site's proximity to sensitive receptors.
- Water quality simulations under a worst-case scenario showed that untreated sewage discharge could negatively impact Sg. Jijan, affecting their respective water quality classifications. The negative impacts can even prolong till Sg. Labu especially at Sg. Labu water intake for the parameter of BOD, ammoniacal nitrogen, total suspended solids (TSS) and COD as the overall water quality index (WQI) will drop significantly and the category will deteriorate from Class II to Class III at Sg. Labu water intake.
- With strict site supervision and a commitment to compliance, the project is expected to proceed in line with sustainable development principles.

Predicted Water Quality Classification of the Existing River Water Quality During the Operational Phase for the Proposed STP

No	Parameter @ Ultimate PE = 120,000 for STP Sewage Discharge		*Water Quality Classification for River				Recommended Compliance Limits
			STP Average Discharge		STP Peak Discharge		
			W3 (Discharge Location @ (Sg. Jajan)  Sg. Labu Water Intake	W3 (Discharge Location @ (Sg. Jajan)  Sg. Labu Water Intake			
1	Baseline	BOD	IIA/IIB	IIA/IIB	IIA/IIB	IIA/IIB	STP Design Limit MSIG IV (Std A) STP Discharge Limit DOE Std A Limit BOD = 20mg/L
	Worst Case Scenario, mg/L	BOD (STP: 200)	V	IV	V	V	
	DOE Std A Limit, mg/L	BOD (STP: 20)	IV	III	IV	III	
	MSIG IV Design Limit (Std A), mg/L	BOD (STP: 10)	III	IIA/IIB	III	III	
2	Baseline	NH ₃ -N	IIA/IIB	IIA/IIB	IIA/IIB	IIA/IIB	STP Design Limit MSIG IV (Std A) STP Discharge Limit DOE Std A Limit NH ₃ -N= 10mg/L
	Worst Case Scenario, mg/L	NH ₃ -N (STP: 40)	V	IV	V	V	
	DOE Std A Limit, mg/L	NH ₃ -N (STP: 10)	V	III	V	IV	
	MSIG IV Design Limit (Std A), mg/L	NH ₃ -N (STP: 5)	IV	III	IV	III	
3	Baseline	TSS	I	I	I	I	STP Design Limit MSIG IV (Std A) STP Discharge Limit DOE Std A Limit TSS= 50mg/L
	Worst Case Scenario, mg/L	TSS (STP: 150)	III	IIA/IIB	III	IIA/IIB	
	DOE Std A Limit, mg/L	TSS (STP: 50)	I	I	IIA/IIB	I	
	MSIG IV Design Limit (Std A), mg/L	TSS (STP: 20)	I	I	I	I	
4	Baseline	COD	I	IIA/IIB	I	IIA/IIB	STP Design Limit MSIG IV (Std A) STP DOE Std A Limit COD= 120mg/L
	Worst Case Scenario, mg/L	COD (STP: 400)	V	III	V	IV	
	DOE Std A Limit, mg/L	COD (STP: 120)	III	IIA/IIB	IV	III	
	MSIG IV Design Limit (Std A), mg/L	COD (STP: 60)	IIA/IIB	IIA/IIB	III	IIA/IIB	
5	Baseline	O&G	IIA/IIB	IIA/IIB	IIA/IIB	IIA/IIB	STP Design Limit MSIG IV (Std A) STP DOE Std A Limit O&G = 5mg/L
	Worst Case Scenario, mg/L	O&G (STP: 50)	IV	IIA/IIB	IV	IIA/IIB	
	DOE Std A Limit, mg/L	O&G (STP: 5)	IIA/IIB	IIA/IIB	IIA/IIB	IIA/IIB	
	MSIG IV Design Limit (Std A), mg/L	O&G (STP: 2)	IIA/IIB	IIA/IIB	IIA/IIB	IIA/IIB	

Overall Water Quality Index (WQI) & Category of the Existing River Water Quality for the Proposed STP During the Operational Phase

No.	Scenario for Sewage Discharge	* Water Quality Index & Category for River			
		STP Average Discharge		STP Peak Discharge	
		W3 (Discharge Receiving Location @ (Sg. Jilau))	 Sg. Labu Water Intake	W3 (Discharge Receiving Location @ (Sg. Jilau))	 Sg. Labu Water Intake
1	Baseline	II (89)	II (84)	II (89)	II (84)
2	Worst Case Scenario	IV (44)	III (71)	IV (39)	III (55)
3	DOE Std A Limit	III (69)	II (81)	III (61)	III (76)
4	MSIG Vol IV Design Limit (Std A)	II (78)	II (83)	III (72)	II (80)