

# ENVIRONMENTAL IMPACT ASSESSMENT REPORT (2<sup>nd</sup> Schedule)

## EXECUTIVE SUMMARY

The Proposed 1,289.63 Hectares (3,186.75 Acres) of Logging and Forest Plantation Development in Part of Compartment 63, 64, 65, 68, 69, 72, 73, 74, 75, 77, 78, 79, 83, 84 & 85 of Tersang Forest Reserve, Mukim Segu, District of Raub & Mukim Telang, District of Lipis, Pahang Darul Makmur by Summit Rex Sdn Bhd.

### PROJECT PROPONENT

#### SUMMIT REX SDN BHD

No 13, Taman K.S.M.,  
27200 Kuala Lipis,  
Pahang Darul Makmur



### EIA CONSULTANT

#### ECO SYNERGY SOLUTIONS SDN BHD

No. 2-22 Komplek Sentral Point,  
Jalan TKS 1, Taman Kajang Sentral,  
43000 Kajang, Selangor Darul Ehsan



## PROJECT DESCRIPTIONS

01

Project involves logging and forest plantation activities in part of Compartment 63, 64, 65, 68, 69, 72, 73, 74, 75, 77, 78, 79, 83, 84 & 85 of Tersang Forest Reserve, Mukim Segu, District of Raub & Mukim Telang, District of Lipis, Pahang Darul Makmur

02

Approval project by Majlis Mesyuarat Kerajaan (MMK) Pahang (27/2018) on 31<sup>st</sup> March 2022.

03

Located in Rancangan Tempatan Daerah (RTD) Lipis 2020: Blok Perancangan 8 - Telang, Blok Perancangan Kecil (BPK) 8.3 – HSK Tersang and Rancangan Tempatan Daerah (RTD) Raub 2035 (Penggantian): Blok Perancangan 5 - Segu, Blok Perancangan Kecil (BPK) 5.9 – HSK Tersang. The zoning of the project site is designated as Permanent Forest Reserve and Forested State Land. The land use zoning for the project site is forest.

04

Settlement 5km radius (ZOS): **Three (3) Orang Asli villages and 20 other residential areas.**

Zone of Impact (ZOI):

- i. Effected River: **Sungai Cenua, Sungai Siam, Sungai Rasau, Sungai Tepan, Sungai Tenggelan, Sungai Perawah, Sungai Kekabu and Sungai Renggul.**
- ii. Effected WTP: **Sungai Jelai WTP and Benta WTP**



## LEGAL REQUIREMENT

Subject to Section 34A(1) of the Environmental Quality Act 1974 [127] and Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015, the project fall under **Second Schedule**;

**Activity 5(d) Forestry: Logging or cutting or taking of timber covering an area of 500 hectares or more**

**Activity 5(e) Forestry: Development of planted forest covering an area of 500 hectares or more.**

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STATEMENT OF NEEDS

NEEDS TO DEVELOP PROJECT

- To promote development of forest plantations for future sustainable timber supply
- To enhance the sustainable development of forest plantation in Malaysia
- The project will provide job opportunities among the communities in Mukim Segu, District of Raub and Mukim Telang, District of Lipis (direct impact).
- The project will stimulate socio economic growth in the district as a result of the improved in purchasing power and livelihood of local people in the district (indirect impact).

MALAYSIAN TIMBER INDUSTRY

- Malaysia is one of the largest timber exporters in the world
- To meet the target of RM53 billion in wood and timber product exports as outlined in the National Timber Industry Policy

IMPORTANCE  
OF FOREST  
PLANTATION

- To reduce the pressure on native forest while to ensure its continuous availability in domestic timber industry
- To meet the Ministry of Plantation Industries and Commodities (MPIC) plan to develop 375,000 hectares of forest plantation at annual planting rate of 25,000 hectares per year for the next 15 years
- Promotes efficient harvesting and utilization within the production forest for maximum economic benefits



ACCESS ROAD



NEAREST TOWN – Raub (±55.14 km)

The project site can be accessed by traversing from Raub Town using Jalan Batu Malim-Sg. Koyan/ Route C5



Then from the main road, turn right onto the unpaved access road



To reach the Project site boundary, followed the unpaved road for 15.00 km

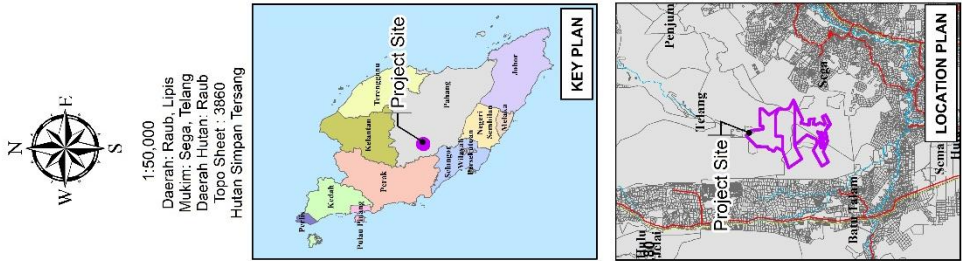


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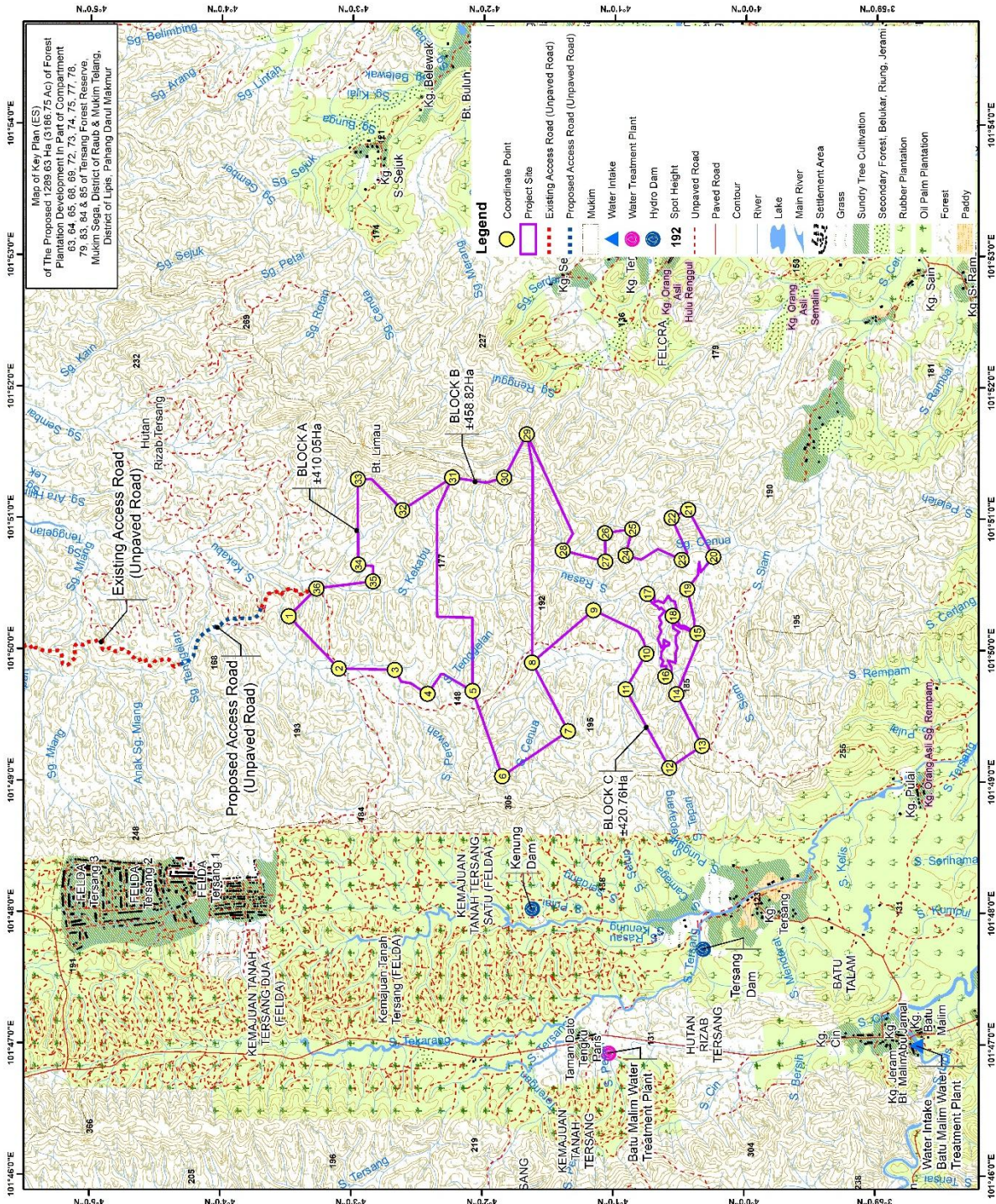
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PROJECT LOCATION



Source : Jabatan Ukur dan Pemetaan Malaysia (JUPEM)





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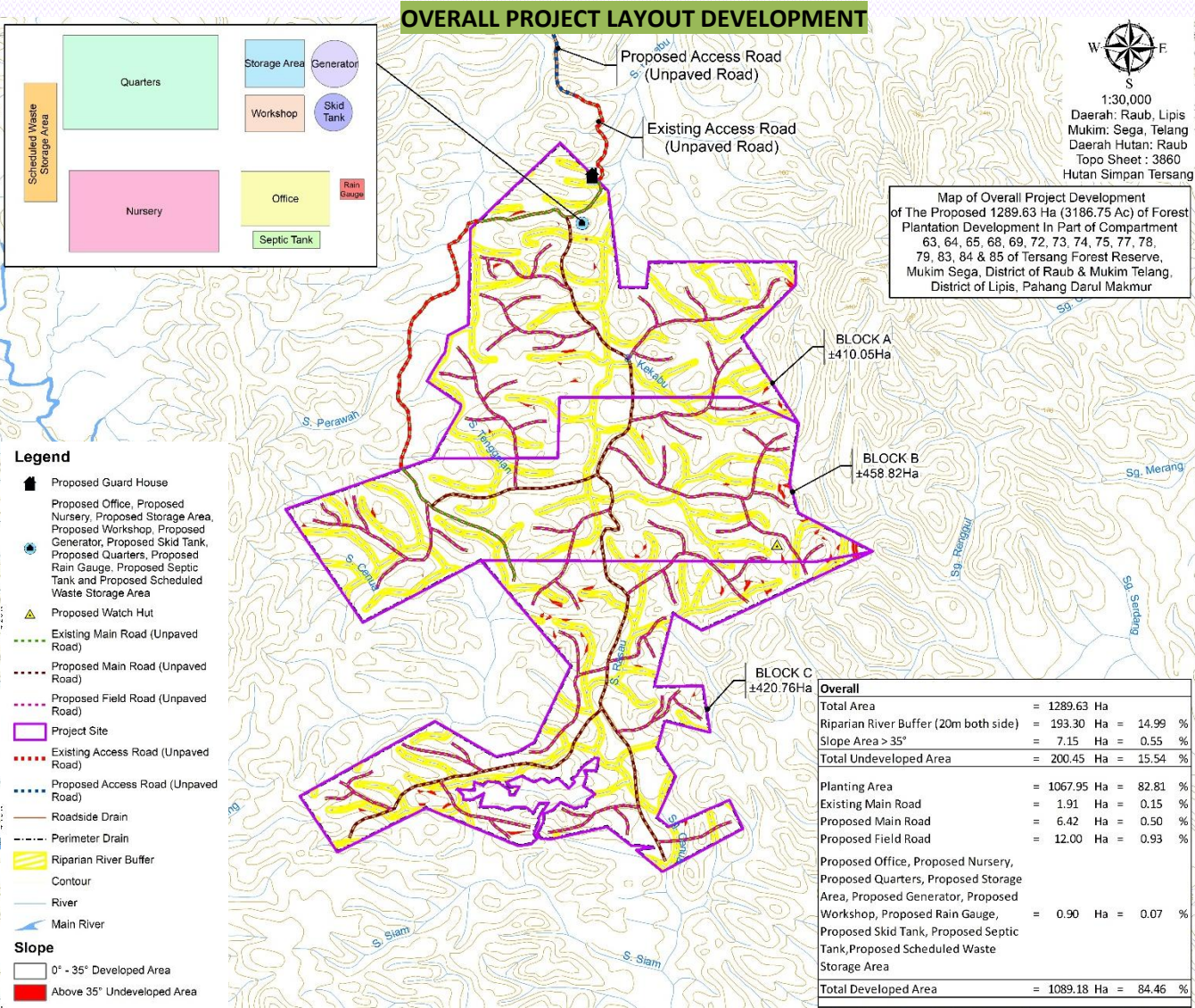
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PROJECT CONCEPT

- The development of the project involves **logging and forest plantation** activities within parts of **compartments 63, 64, 65, 68, 69, 72, 73, 74, 75, 77, 78, 79, 83, 84 and 85** of the Tersang Forest Reserve, Mukim Segu, District of Raub and Mukim Telang, District of Lipis, Pahang Darul Makmur.
- The project proponent must adhere to the conditions stipulated in the approval letter issued by the Pahang Forestry Department (Ref: PHN. PHG. 100-21/0/3663 (J)(4))
- Trees with diameter >30cm are uniformly cut down without removing the undergrowth vegetation and the stumps.
- Planting Species: ***Shorea leprosula* (Meranti Tembaga)**
- Approval Size: **1289.63 Hectares (3,186.75 Acres)**
- Developed Area Size: **1089.18 Hectares**





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## PROJECT ACTIVITIES

### LOGGING ACTIVITIES

#### 1. Preliminary Investigation

- ✎ Site survey
- ✎ Environmental study
- ✎ Project planning/management



#### 2. Logging Activity

- ✎ Construction of Road Network
- ✎ Construction of Drainage System
- ✎ Construction Bridge and Culvert
- ✎ Installation of erosion and sedimentation control tools
- ✎ Construction of Base Camp
- ✎ Refurbish Existing Main Log Yard
- ✎ Extraction of timber (>30cm diameter)
- ✎ Transport logs onto trucks
- ✎ Transport logs to log yard
- ✎ Transport logs to sawmill
- ✎ Biomass management

#### 3. Post Logging Activity

- ✎ Base Camp (re-use for forest plantation development as plantation worker's Base Camp and nursery area)
- ✎ Removal of machineries, vehicles and waste from concession
- ✎ Rehabilitation of log yard

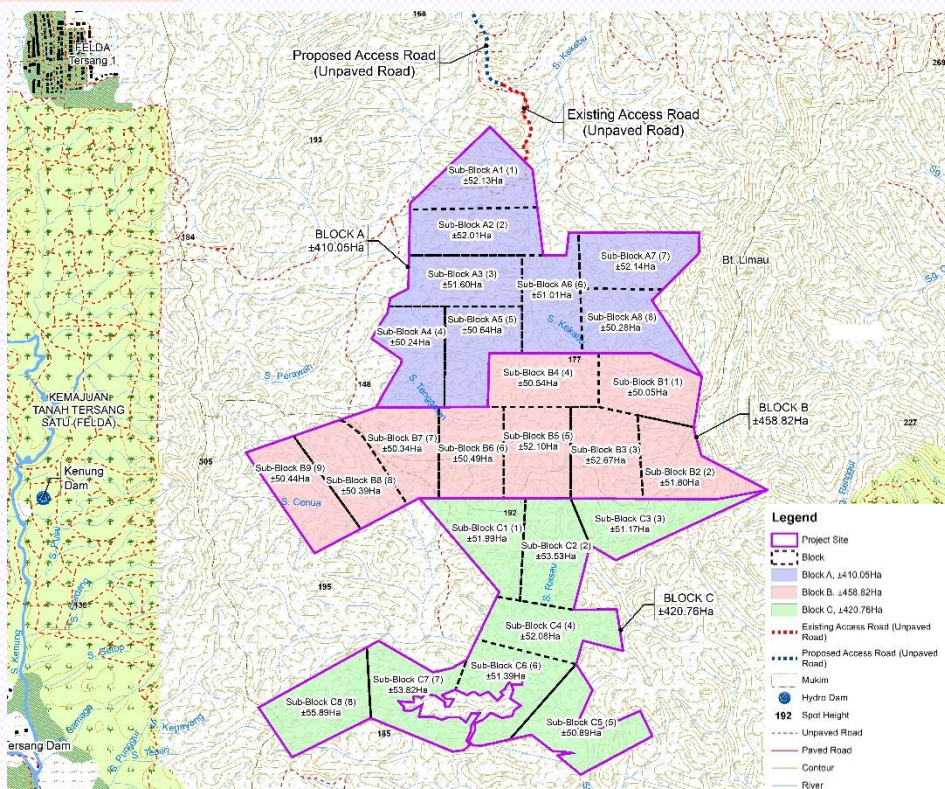
### PLANTATION DEVELOPMENT

- ✎ Nursery establishment, construction of base camp and site office
- ✎ Site preparation
- ✎ Maintenance
- ✎ Harvesting



The logging activities and forest plantation development will be carried out in phases, by block and sub-block which are **three (3) blocks and twenty-five (25) sub-blocks**.

The logging of the next block will commence once the current block is planted with forest species.





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EXISTING ENVIRONMENT

01

Soil:

- ▲ Bungor : 4.8%
- ▲ Batu Lapan : 52.2%
- ▲ Chat : 19.5%
- ▲ Gong Chenak: 2.8%
- ▲ Kuala Brang Series : 2.2%
- ▲ Kechor : 3.3%
- ▲ Kerayong : 6.3%
- ▲ Munchong : 4%
- ▲ Padang Besar : 2.9%

GEOLOGY

The Project site consists of mainly argillaceous facies, mustone and pelitic hornfel, slate and phyllite, sandstone and metasandstone.

TOPOGRAPHY

- ✧ Elevation: 120 m to 250 m MSL
- ✧ Elevation 120m to 150m is 49.95%

FLORA SPECIES FOUND



Artocarpus integer  
var. silvestris



Knema sp.

| Family           | No of Genus | No of Species |
|------------------|-------------|---------------|
| Rubiaceae        | 16          | 21            |
| Fabaceae         | 16          | 20            |
| Euphorbiaceae    | 9           | 16            |
| Annonaceae       | 9           | 14            |
| Dipterocarpaceae | 6           | 13            |
| Lauraceae        | 5           | 13            |
| Myristicaceae    | 5           | 13            |
| Phyllanthaceae   | 5           | 12            |
| Moraceae         | 3           | 12            |
| Ebenaceae        | 1           | 12            |

02

03

WILDLIFE FOUND ON CAMERA TRAP



Tapir



Barking Deer



Wild Boar

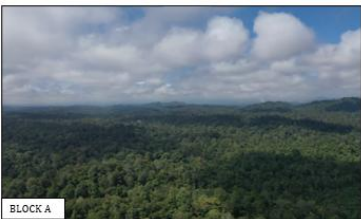
FAUNA SPECIES RECORDED

Avian: 20 species

Mammals: 11 species

Herpetofauna: 5 species

04



THE VIEW OF THE PROJECT SITE

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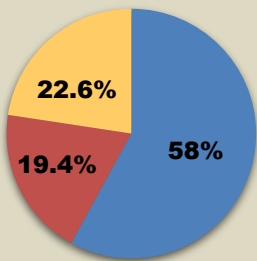
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EXISTING ENVIRONMENT

SOCIO-ECONOMY

- Settlement 5km radius (ZOS): Three (3) Orang Asli villages and 20 other residential areas:
- Kg. Hulu Cenua, Kg. Terap, KOA Hulu Renggul, Kg. Pulau, KOA Semalin, Felda Tersang 1, KOA Sg. Rempam, Kg. Kekabu, Taman Dato' Tengku Paris, Kg. Hulu Renggul, Kg. Sungai Sejuk, Felda Tersang 2, Kg. Temalir, Kg. Cin, Kg. Sain, Kg. Cerlang, Kg. Abu Jamal, Kg. Kuala Tersang, Kg. Batu Malim, Kg. Sungai Rambai & Felda Tersang 3



| PUBLIC ACCEPTANCE |       |
|-------------------|-------|
| AGREE             | 58%   |
| DISAGREE          | 19.4% |
| NO OPINION        | 22.6% |

COMMUNITY HEALTH STATUS FROM THE SURVEY

Hypertension had the highest prevalence at 9.3%, compared to the national prevalence of 15.9%. This was followed by arthritis (5.6%), asthma (3.8%), and diabetes (3.6%). For other diseases, less than 40 cases were reported among household members.

Most of the diseases identified are non-communicable, except certain infectious diseases such as food poisoning, and COVID-19.

07

ENVIRONMENTAL AND BASELINE MONITORING LOCATIONS

|                  |                                                                                                                                                                                                                                                                       |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water Quality    | 39 water quality station (range result WQI: 87.54 - 95.3)<br>5 sample from mata air / air tandak for Orang Asli Villagers (range result WQI: 87.54 - 94.3)                                                                                                            |
| Air Quality      | Four (4) sampling location analysed for PM2.5 and PM10.<br>Result PM10: between 20 µg/m3 and 42 µg/m3<br>Result PM2.5: between 9 µg/m3 and 21 µg/m3<br>All values for all sampling stations are well complied with the New Malaysia Ambient Air Quality Standard 2020 |
| Noise            | Four (4) sampling location analysed for parameter LAeq, Lamin and Lamax.<br>Baseline LAeq ranged between 47.0 dBA to 53.2 dBA for daytime. For night-time, the LAeq ranged between 41.4 dBA to 49.6 dBA.<br>All sampling points comply with the recommended limit.    |
| Aquatic Sampling | Ten (10) sampling locations for aquatic life were taken to test the six (6) heavy metal parameters.                                                                                                                                                                   |



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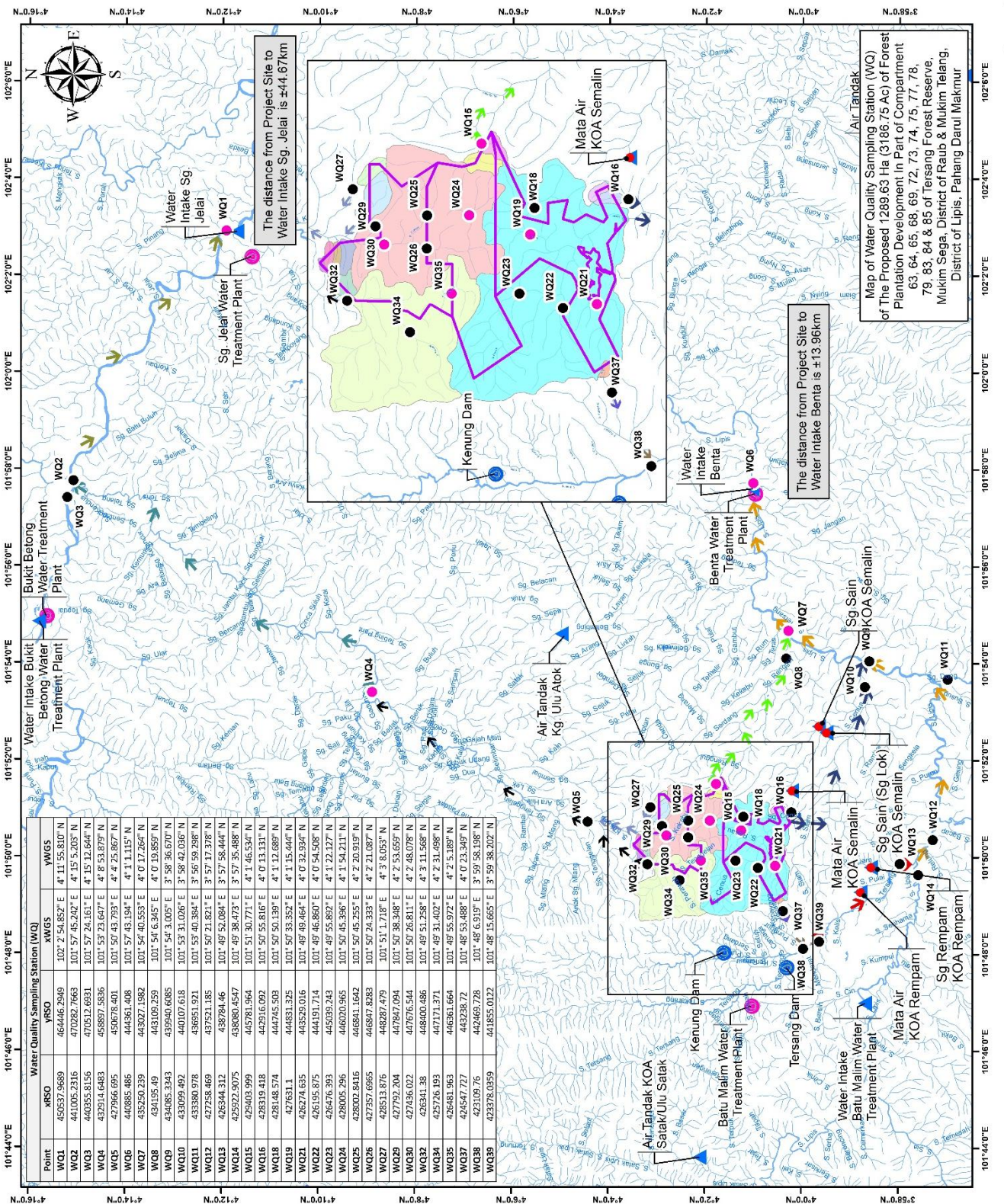
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ENVIRONMENTAL AND BASELINE MONITORING  
LOCATIONS

BASELINE WATER QUALITY MONITORING



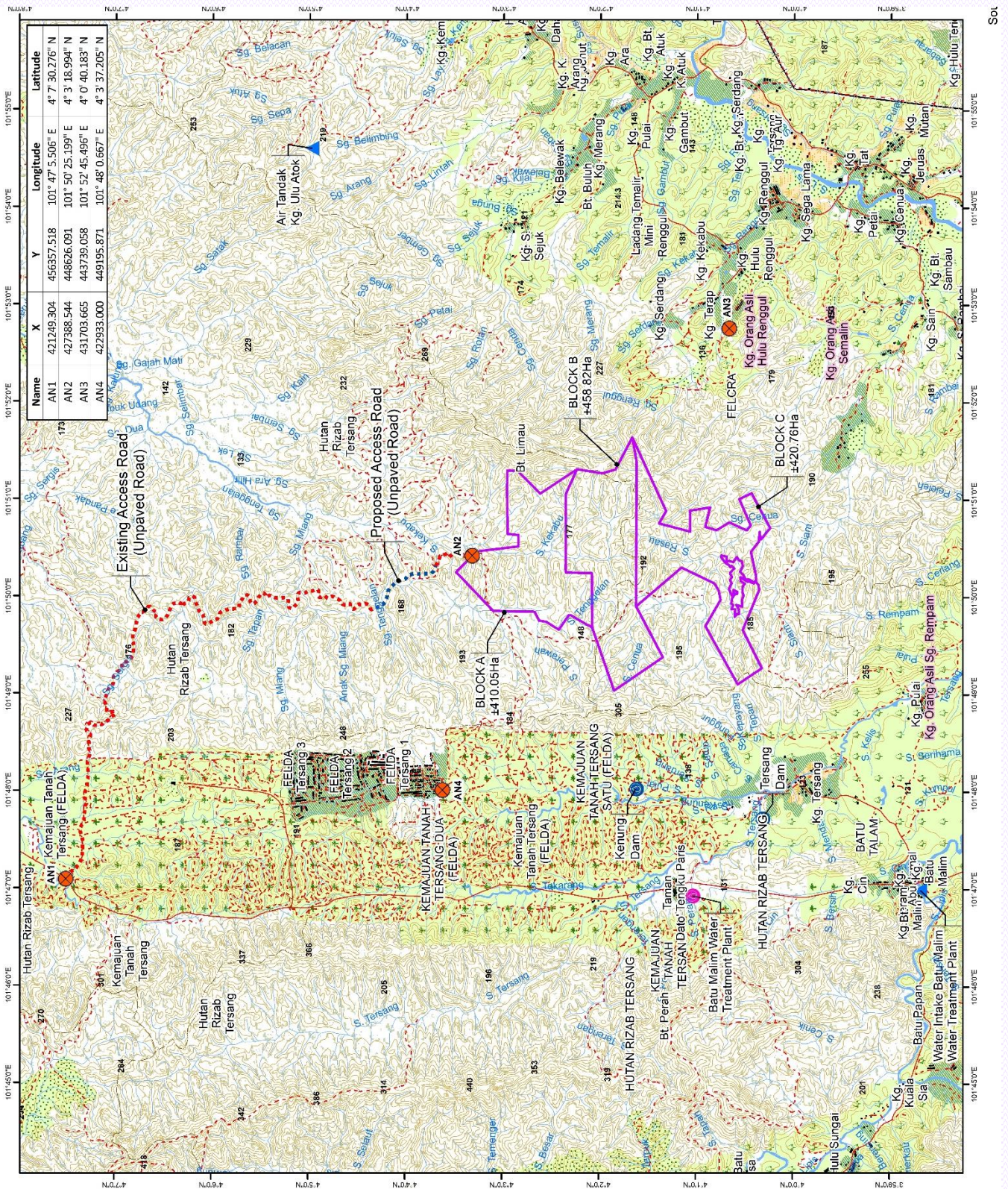


## EXECUTIVE SUMMARY

## BASELINE AIR AND NOISE QUALITY MONITORING



## ENVIRONMENTAL AND BASELINE MONITORING LOCATIONS





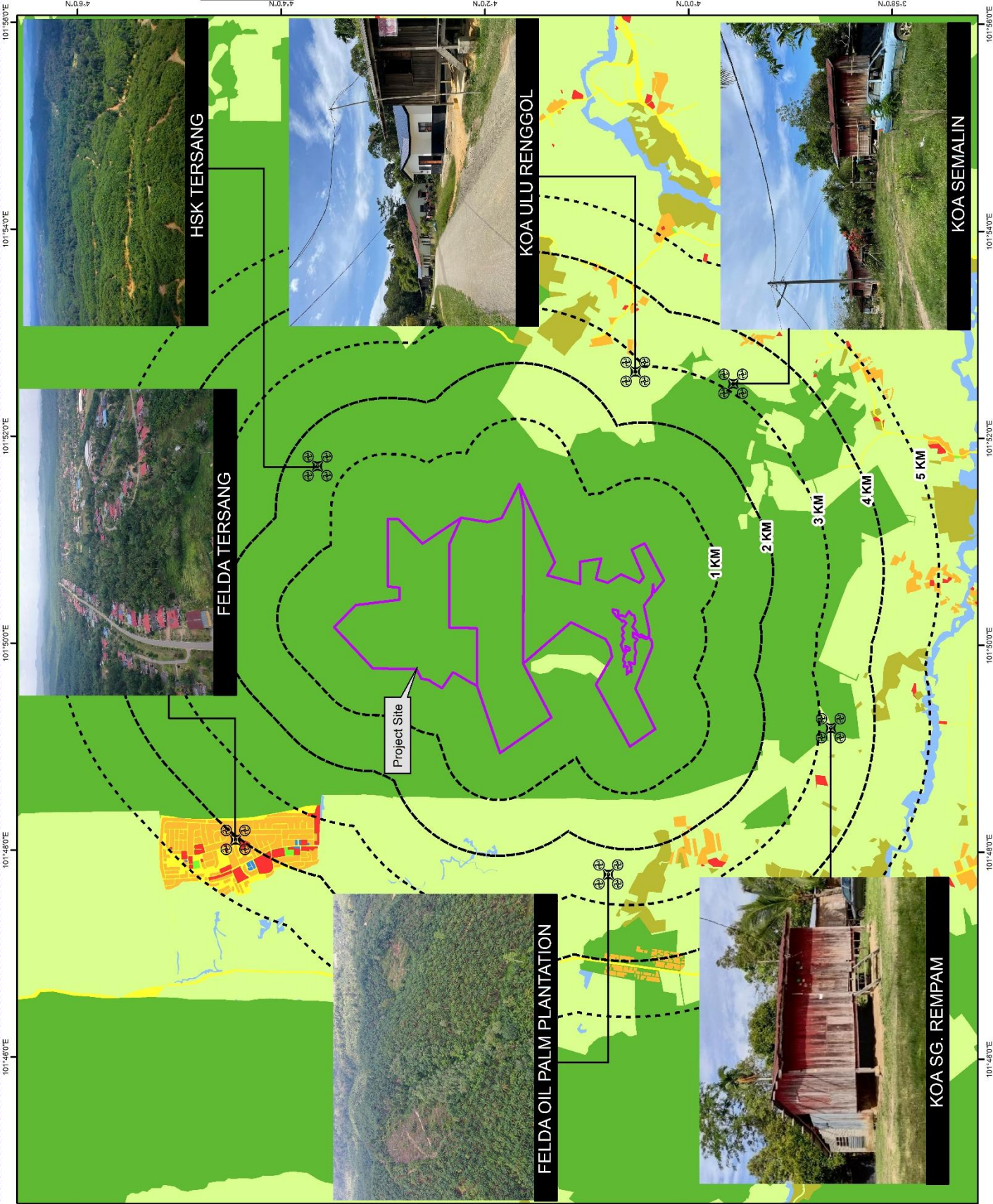
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LANDUSE AROUND OF PROJECT SITE





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SIGNIFICANT IMPACTS AND CONTROL MEASURES

01 EROSION RISK

- Earthworks may lead to erosion and subsequently sedimentation of surrounding waters



- Proper LD-P2M2 to control soil erosion and sedimentation during logging and post logging phases
- Planting cover crops on slope and bare area
- Develop the project according to blocks and sub-blocks

02 WATER QUALITY

- Sedimentation – increase TSS and turbidity in river
- Improper handling and storage of fertilizer, herbicides and pesticides
- Improper handling of fuels, waste oil and lubricants



- Field establishment will be carried out by stages and during dry weather
- Implementation of all mitigation measures as proposed in LD-P2M2 and maintain regularly
- Implementation of water quality monitoring
- Fertilizers and agrochemical must not be applied during rainy season
- Proper storage facility must be built to store agrochemicals and fertilizers
- Avoid oil and grease leakage, regular maintenance of the vehicles
- Storage spill oil and waste oil in proper container

03 FLORA

- Removal of logs and other smaller trees affects the available animal habitats in the project site
- The direct impacts of the vegetation removal are soil erosion, sedimentation, elevated surface runoff and water flow which affect the river water quality.



- Vegetative cover along rivers and streams must be replanted to act as riparian buffer zones to protect riverbanks and river ecosystems.
- Logging and planting activities should be conducted concurrently and by stage following the sustainable planning.
- The Project Proponent should regularly monitor vegetation changes at all stage
- Any unhealthy vegetation growth and bare soil with no/less vegetation should be resolved to avoid soil erosion and detrimental environmental impacts.



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SIGNIFICANT IMPACTS AND CONTROL MEASURES

04 FAUNA

- Removal of logs and other smaller trees affects the available animal habitats in the project site
- The direct impacts of the vegetation removal are soil erosion, sedimentation, elevated surface runoff and water flow which affect the river water quality.



- Prohibition of dogs
- Permanent guard house to prevent hunters and trappers
- Animal trench
- Consultation with Department of wildlife and National Park
- Offence and penalty for wildlife trapping and hunting
- No hunting warning post
- Establish Wildlife Management Team (Monitoring)
- Riparian river buffer as wildlife corridor

05 AIR QUALITY

- Vehicles moving in and out the project site contribute to soil re-suspension
- Vehicular emission from transport vehicles and other machineries during the development phase
- Spraying of herbicide and pesticides (whenever required)



- Vehicles speeds should be limited within the site
- Unpaved road shall be sprayed with water
- Vehicles shall be regularly serviced and maintained
- Open burning is strictly prohibited under the Environmental Quality Act, 1974, Section 29A (1)
- Use sensible biological control in managing forest plantation to reduce use of pesticides and other poisons
- The frequency, dosage and timing of chemicals application must be closely monitored

06 NOISE LEVEL

- The noise generated contributed by the movement of heavy vehicles, tractors and machineries used for logging process (construction of access road and transportation of timbers) and forest plantation development (road, drainage and LDP2M2 maintenance).



- Work should be limited to daytime hours (0800 to 1700) only.
- Noise barriers such as existing vegetation at the Vehicles shall be regularly serviced and maintained
- Modifying existing old equipment with damping materials and mufflers.



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SIGNIFICANT IMPACTS AND CONTROL MEASURES

07 WASTE MANAGEMENT

- Sewage and Sullage
- Accident Spillage from Skid Tanks, Oil and Grease
- Soil contamination



- Waste is not allowed to be thrown into the river.
- A storage facility for scheduled wastes must be built in proper condition and sheltered
- The project proponent needs to maintained the septic tank, according to SPAN
- Solid waste segregated by the waste type.

08 SOCIO ECONOMY

- Employment Opportunities
- Orang Asli searching area
- Human Wildlife Conflict
- Impact on river water quality
- Job opportunities



- Approach local community heads and advertise to the community to encourage locals to participate in jobs that are suitable to the skills of locals.
- In order to minimize the erosion, the preventive measures shall be planned through the preparation of a LD-P2M2 and BMP's
- Involve wildlife department to overcome wildlife-human conflict
- Corporate Social Responsibility (CSR) – developing human resources by hiring the local communities hence giving economic benefits and build relationships with the local community

09 HEALTH

- Zoonotic, vector-borne, tick-borne, waterborne diseases, and infectious diseases among the workers
- Risk of drinking water contamination if the river water is used as a direct source for consumption
- Risk of air pollution and noise pollution
- Risk upon consumption of contaminated fish from the contaminated river



- Prophylaxis for zoonotic/vector/tickborne diseases
- All site personnel and visitors must maintain good personal hygiene
- Workers are encouraged to be vaccinated for infectious diseases
- Practice good sanitation
- Vector control through the elimination of breeding sites and fogging to avoid any vector-borne and zoonotic diseases



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ENVIRONMENTAL MONITORING

PERFORMANCE MONITORING (PM)

| LD-P2M2 Tools                                                   | Parameters                   | Recommended                                                |
|-----------------------------------------------------------------|------------------------------|------------------------------------------------------------|
| Sediment Basin/Trap                                             | Silt Marker                  | 2/3 depth from sediment trap<br>After rain event (in-situ) |
| Perimeter Drain                                                 | Performance                  | Subjected to CoA                                           |
| Earth Drain with Check Dam                                      | Sediment Level               |                                                            |
| Temporary or permanent<br>waterway crossing<br>(culvert/bridge) | Structure and<br>Performance |                                                            |

COMPLIANCE MONITORING (CM)

| Component                             | Standard                 | Frequency                                    |
|---------------------------------------|--------------------------|----------------------------------------------|
| Noise (LAeq )                         | Day 55 dBA, Night 50 dBA | Subjected to CoA                             |
| Water Quality<br>➤ TSS<br>➤ Turbidity | 50 mg/L<br>250 NTU       | After 12.5 mm rainfall<br>(using rain gauge) |
| Air Quality                           | 100 µg/m³                | Subjected to CoA                             |

IMPACT MONITORING (IM)

| Impact                    | Parameter            | Limit                         | Standards                                                            | Frequency        |
|---------------------------|----------------------|-------------------------------|----------------------------------------------------------------------|------------------|
| Air<br>Quality<br>Level   | PM <sub>10</sub>     | 100 µg/m³                     | Malaysia Ambient<br>Air Quality Standard<br>2020                     | Subjected to CoA |
| Noise<br>Quality<br>Level | LAeq<br>Lmax<br>Lmin | Day 55 dBA,<br>Night<br>50dBA | Guidelines for<br>Environmental Noise<br>Limits and Control,<br>2019 | Subjected to CoA |
| Water<br>Quality<br>Level | TSS                  | 50 mg/L                       | National Water<br>Quality<br>Standard (NWQS)                         | Subjected to CoA |
|                           | BOD                  | 3 mg/L                        |                                                                      |                  |
|                           | pH                   | 6.0~9.0                       |                                                                      |                  |
|                           | Turbidity            | 250 NTU                       |                                                                      |                  |
|                           | DO                   | 5~7 mg/L                      |                                                                      |                  |
|                           | COD                  | 25 mg/L                       |                                                                      |                  |