

SAFE & CLEAN OIL RECYCLE SDN. BHD.

ENVIRONMENTAL IMPACT ASSESSMENT REPORT FOR PROPOSED OFFSITE SCHEDULED WASTE STORAGE FACILITY ON LOT 30 OF CL.025337277, PHASE IIB, LOK KAWI INDUSTRIAL ESTATE, KOTA KINABALU, SABAH



**FINAL REPORT
MAY 2026
ENVS/4/04/G/730/25**



**1st Floor, No. 3, Lorong Kilang F, Kolombong,
88450 Kota Kinabalu, Sabah, Malaysia.
Tel: 088-388791 Fax: 088-388792
Email: envsolve@gmail.com
www.envsolve.com**

EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

ENVIRONMENTAL IMPACT ASSESSMENT (FIRST SCHEDULE) PROPOSED OFFSITE SCHEDULED WASTE STORAGE FACILITY ON LOT 30 OF CL.025337277, PHASE IIB, LOK KAWI INDUSTRIAL ESTATE, KOTA KINABALU, SABAH

PROJECT PROPONENT

SAFE & CLEAN OIL RECYCLE SDN. BHD. LOK KAWI BRANCH

Lot 30, Phase IIB,
Lok Kawi Industrial Estate,
89500 Kota Kinabalu, Sabah.
Tel: 019-688 8148

Contact Persons:

- **Mr. Edward Chen Ying Hao** [General Manager]

Email:

labuan@safenclean.com.my; scoradmexec@gmail.com

EIA CONSULTANT

ENVSOLVE SDN. BHD.

1st Floor, No. 3,
Lorong Kilang F, Kolombong,
88450 Kota Kinabalu, Sabah.

Tel: 088-388 791

Fax: 088-388 792

Contact Persons:

- **Ir. Ts. Burhanudin bin Abu Bakar** [EIA Team Leader]
- **ChM. Lo Su Mui** [Assistant Consultant]

Email:

envsolve@gmail.com; info@envsolve.com

QUALIFIED PERSON

1

IR. TS. BURHANUDIN BIN ABU BAKAR
EIA Consultant [CS0168]

2

MR. ADNAN BIN YUSOP ALI
Subject Specialist [SS0038]

3

PROF. MADYA DR. ZAINI SAKAWI
Subject Specialist [SS0357]

4

ChM. LO SU MUI
Assistant Consultant [AC0923]

OVERVIEW



Location

Lot 30 of CL.025337277, Phase IIB, Lok Kawi Industrial Estate, Kota Kinabalu, Sabah



Zoning

Light Industry (IN(L)) - by *Jabatan Perancang Bandar dan Wilayah Negeri Sabah*



Main Activity

Collection, transportation to the offsite storage facility, temporary storage, and transportation of scheduled wastes to their designated final disposal/ recovery facility.



Statement of Need

- Store hazardous waste safely and according to Malaysian guidelines.
- Prevent illegal oil waste dumping with proper storage and handling.
- Promote responsible waste management to support sustainability.

LEGISLATIVE REQUIREMENTS

Section 34A, Environmental Quality Act, 1974
Environmental Quality (Prescribed Activities)
(Environmental Impact Assessment) Order 2015

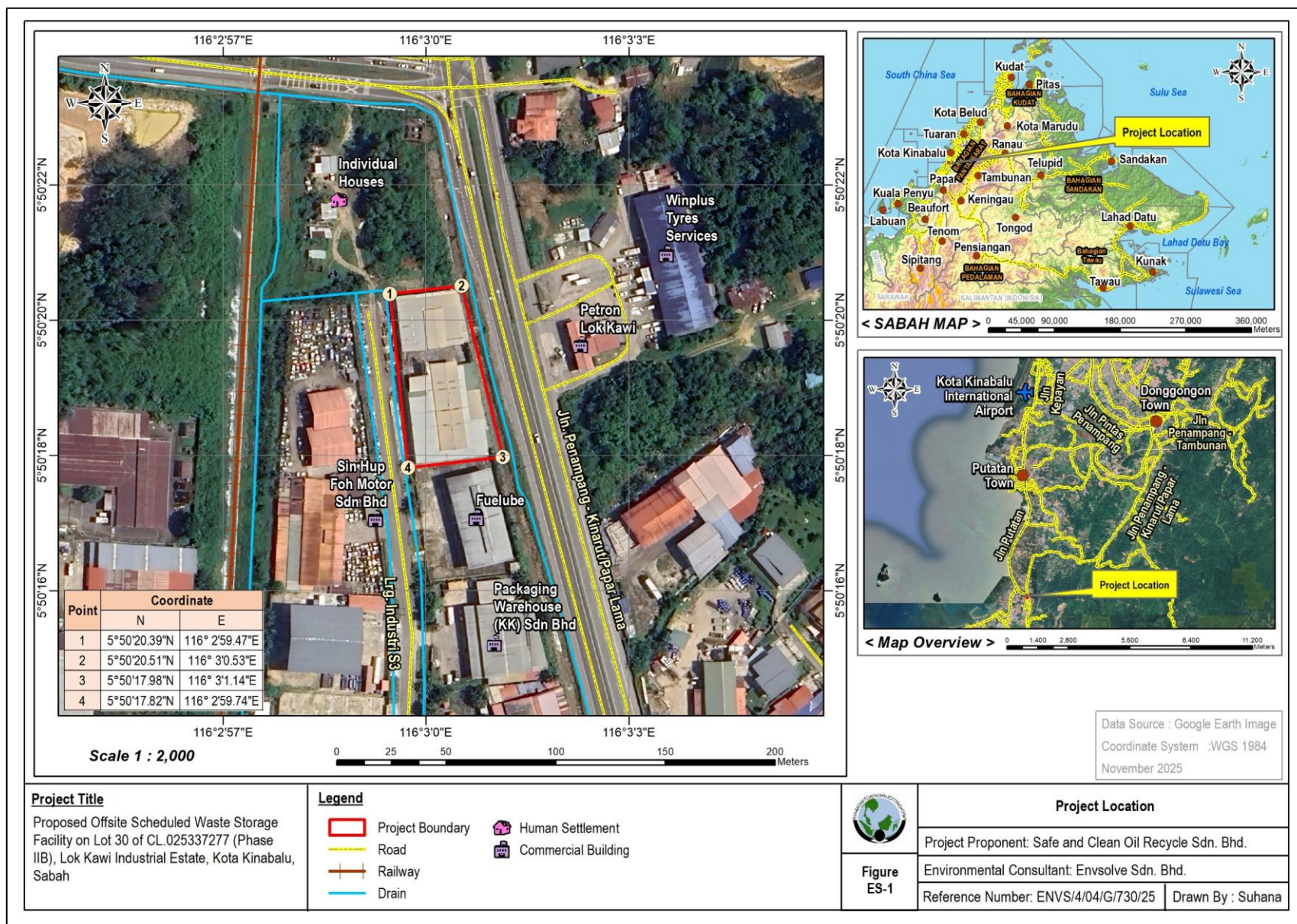
First Schedule

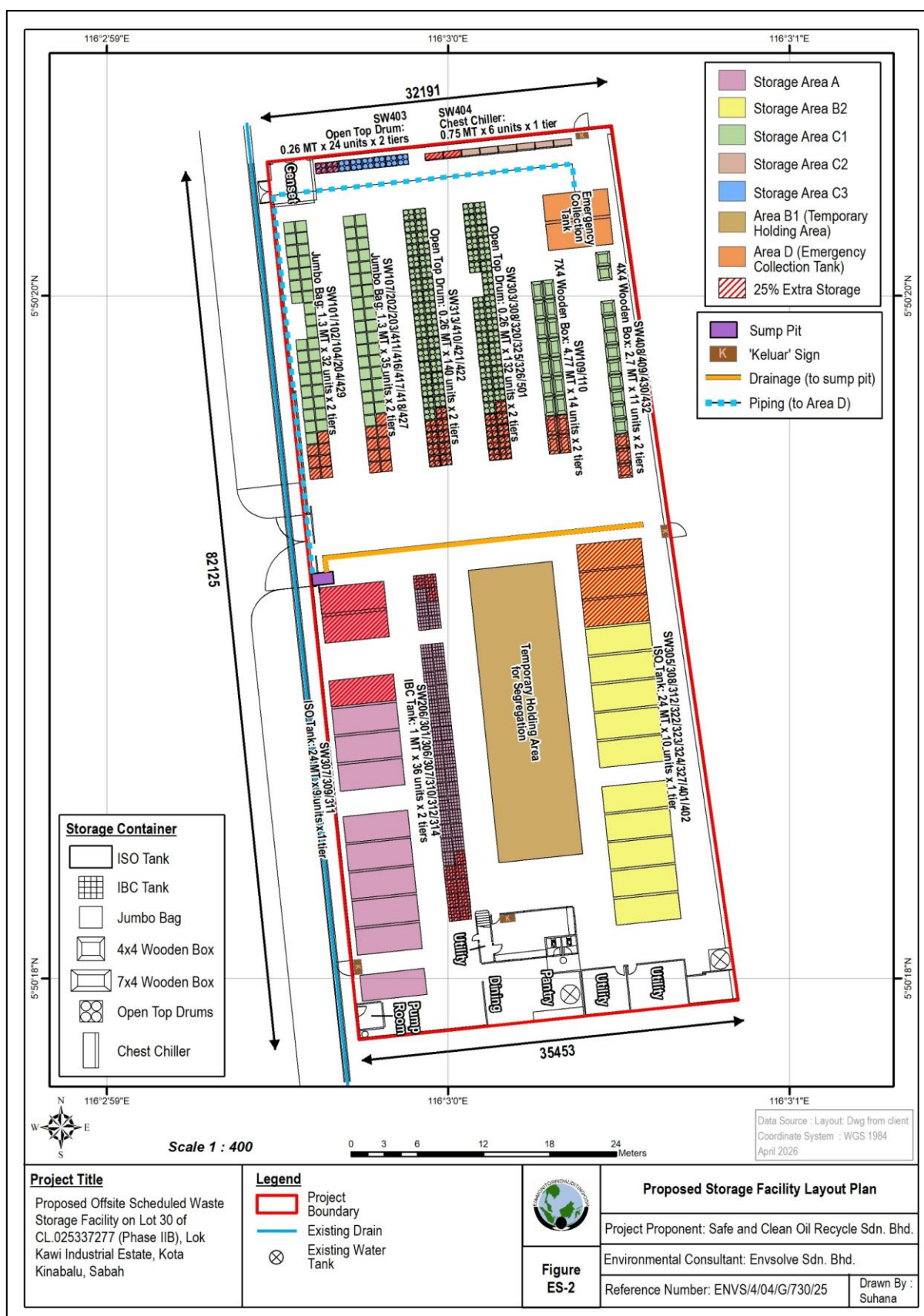
14. Waste Treatment and Disposal

(a) Scheduled waste

- (iii) Construction of storage facility (off-site)

EIA report is therefore required for submission to the DOE for approval prior to Project implementation.







PROJECT CONCEPT

LIST OF SCHEDULED WASTE COLLECTION

GROUP	SCHEDULED WASTE CODE	QUANTITY (MT/MONTH)
A	SW206, SW301, SW306, SW307, SW309, SW310, SW311, SW312, SW314	288.0
B2	SW305, SW308, SW312*, SW322, SW323, SW324, SW327, SW401, SW402	240.0
C1	SW101, SW102, SW104, SW107, SW109, SW110, SW202, SW203, SW204, SW303, SW308*, SW313, SW320, SW325, SW326, SW408, SW409, SW410, SW411, SW416, SW417, SW418, SW421, SW422, SW427, SW429, SW430, SW432, SW501	508.6
C2	SW404	4.5
C3	SW403	12.5
Total		1053.6

*Repeated waste code

PROCESS FLOW FOR OPERATION AT OFFSITE STORAGE FACILITY

COLLECTION OF SCHEDULED WASTE

- ✓ SW collection from waste generators by using DOE-licensed transporter.



STORAGE OF SCHEDULED WASTE AT PROJECT SITE

- ✓ Arrival and offloading of collected scheduled waste at storage facility.
- ✓ Scheduled waste segregation, handling, labeling & inventory update.



TRANSPORTATION TO LICENSED WASTE MANAGEMENT CENTRE

- ✓ Transportation of collected scheduled waste to Sepanggar Port for shipment to final waste receivers.





PROJECT ACTIVITY

PRE-CONSTRUCTION PHASE

- EIA study.
- Preparation of relevant site plans / drawings.



CONSTRUCTION / RENOVATION PHASE

- Mobilisation of equipment, workers, and construction materials.
- Renovation works to convert the existing industrial building into offsite scheduled waste storage facility.

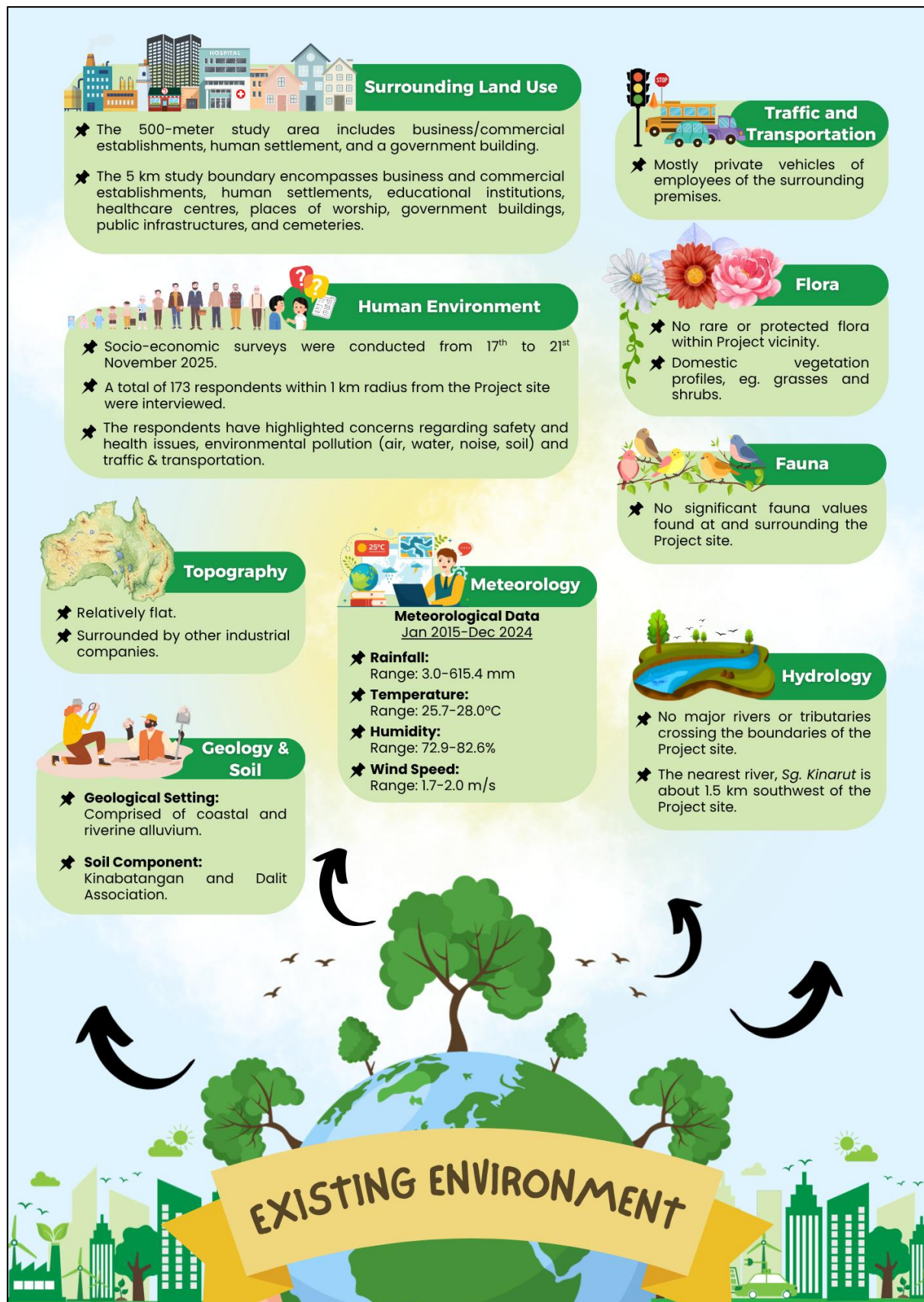
OPERATIONAL AND MAINTENANCE PHASE

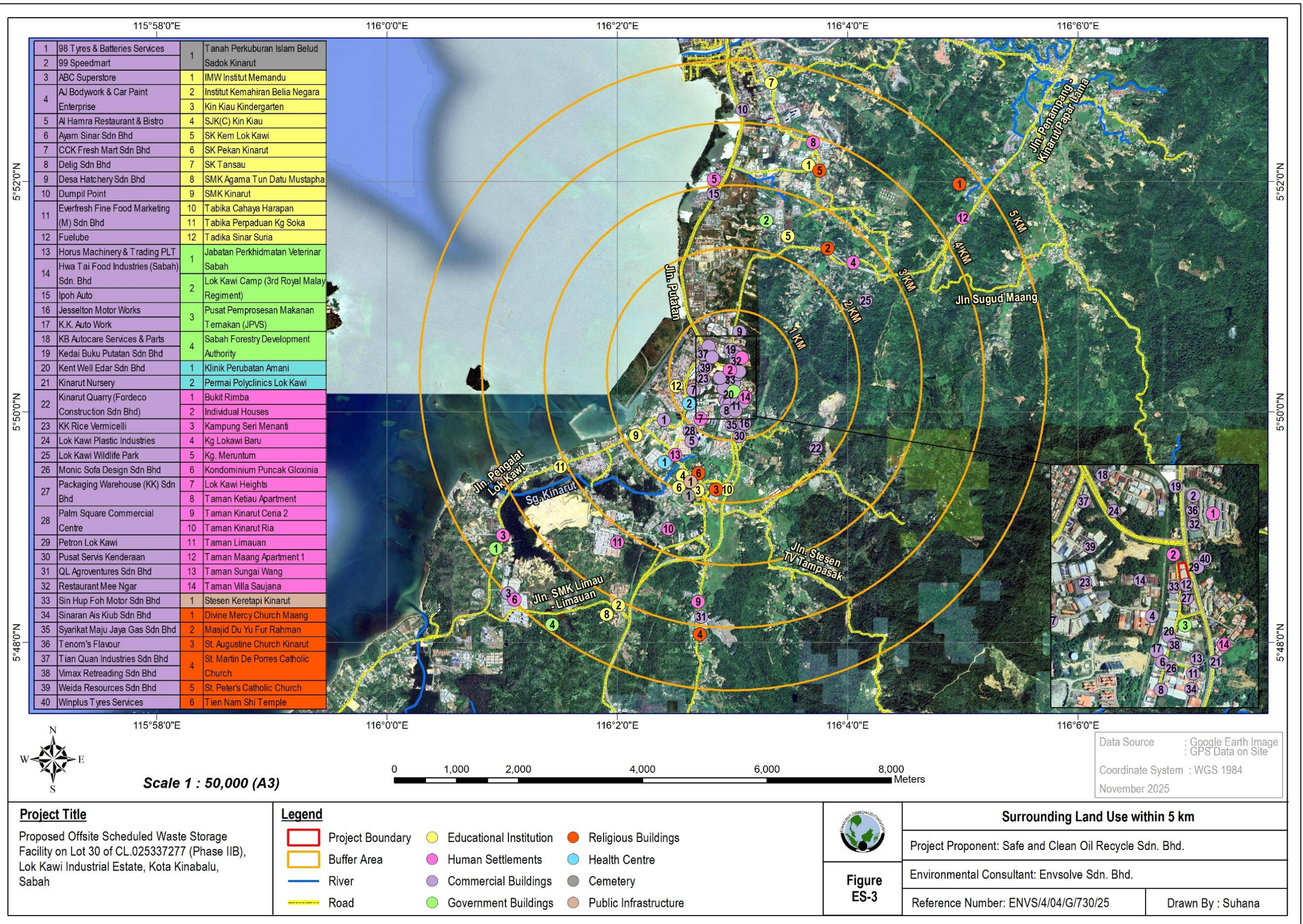
- Collection and transportation of scheduled waste from waste generators to offsite storage facility.
- Waste segregation, labelling and inventory update.
- Temporary storage of scheduled waste at offsite storage facility.
- Transportation of scheduled waste to Sepanggar Port for a shipment to final waste receivers for recovery / disposal.



ABANDONMENT PHASE

- Site restoration.
- Submission of Abandonment Plan to DOE.







ENVIRONMENTAL BASELINE SAMPLING

Surface Water Quality Monitoring



- Most of the measured parameters comply with the **National Water Quality Standards Malaysia – Class IIB**. Non-compliance was recorded for parameters:

SAMPLING LOCATION	PARAMETER
SW1	Faecal Coliform Count, Total Coliform Count, Manganese, Iron
SW2	Faecal Coliform Count, Total Coliform Count
SW3	Faecal Coliform Count, Total Coliform Count, Manganese, Iron, Ammoniacal Nitrogen

Air Quality Monitoring



- Baseline air quality monitoring was conducted, and the results for PM₁₀, PM_{2.5}, SO₂, NO₂ and CO were compared to the **Malaysian Ambient Air Quality Standards (MAAQS)**, whereas VOC parameter was compared to the **Arizona Ambient Air Quality Guidelines (AAAQGs)**. All parameters complied with the stipulated limits.

Groundwater Quality Monitoring



- Most of the measured parameters comply with the **National Groundwater Quality Standards for Industrial Use**. Non-compliance was recorded for parameters:
 - pH value
 - Total suspended solids
 - Iron

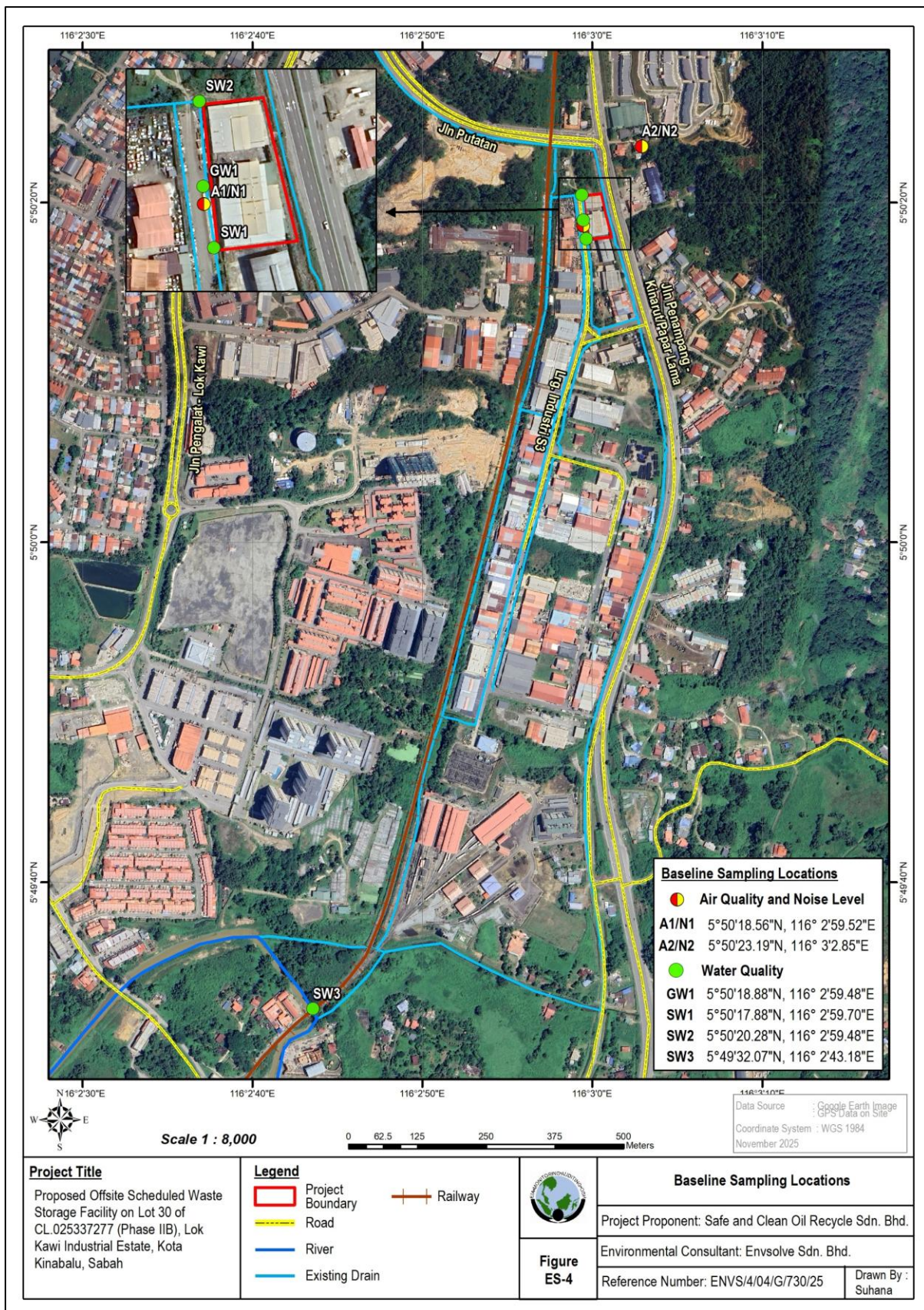
Noise Level Monitoring



- Existing noise levels for both day-time and night-time were measured and all the results complied with the recommended levels specified by DOE in the **Guidelines for Environmental Noise Limits and Control (First Schedule of the Permissible Sound Levels by Receiving Land Use for New Development for Industrial Zones)**.

Noise level limit:

- Day-time = 70 dB(A)
- Night-time = 65 dB(A)





SIGNIFICANT POTENTIAL IMPACTS	IMPACT MAGNITUDE	P2M2	PAGES
CONSTRUCTION / RENOVATION PHASE			
 Air Pollution	Minor	• Suspend work during severe weather conditions. • Ensure workers wear protective equipment. • Enforce speed limit for vehicles to 30-40 km/h. • Prohibit open burning of any material waste.	8-2
 Noise Pollution	Minor	• Regularly maintain all equipment. • Provide adequate hearing protection devices for workers. • Provide training for all workers to create awareness. • Regular noise level monitoring at Project boundary. • Limit work to daytime (8:00 am - 5:00 pm).	8-2 to 8-3
 Waste Generation	Minor	• Provide adequate waste bins at strategic location. • Encourage reusable items. • Implement 4R concept. • Conduct ongoing awareness to prevent littering. • Segregate and regularly dispose of waste at approved sites. • Prohibit indiscriminate dumping and avoid burning waste.	8-3 to 8-4
 Occupational Safety and Health	Minor	• Provide adequate fire extinguishers. • Keep a well-stocked First Aid Kit. • Provide training related to the safety & health course. • Brief workers on emergency procedures. • Provide appropriate protective equipment.	8-4 to 8-5
 Abandonment	Minor	• Restore the site to its original condition as closely as possible. • Barricade entry points to prevent unauthorised access. • Remove machinery, equipment, and waste from Project site. • Demobilise all vehicles to prevent obstruction and safety risks.	8-5



SIGNIFICANT POTENTIAL IMPACTS	IMPACT MAGNITUDE	P2M2	PAGES
OPERATIONAL PHASE			
 Water and Soil Pollution	Minor	• Install appropriate containment systems within storage areas. • Conduct loading & unloading activities at designated areas with stable, level & impermeable (epoxy-coated) flooring. • Provide adequate spill response equipment & cleaning materials on-site.	8-5 to 8-7
 Flooding Impact	Minor	• Equip facility with water pumps and backup power supply to facilitate dewatering of affected area. • Maintain drainage system to prevent blockages. • Prepare and implement a Flood Emergency Response Plan.	8-7 to 8-8
 Air Pollution	Minor	• Provide adequate ventilation within storage areas. • Conduct regular inspections to identify and fix any leaks. • Provide respiratory protection for on-site workers. • Enforce speed limit for vehicles to 30-40 km/h within Project vicinity. • Strictly prohibit open burning of any materials.	8-8 to 8-9
 Noise Pollution	Minor	• Provide appropriate hearing protection devices and adhere to exposure limits. • Ensure noise levels are within permissible limits. • Schedule transportation and activities to minimise disturbance. • Avoid excessive speed and unnecessary honking near sensitive areas.	8-9
 Traffic and Transportation	Minor	• Comply with all traffic regulations & enforce speed limit for vehicles to 30-40 km/h. • Maintain road courtesy. • Transport scheduled wastes outside peak hours to prevent congestion and accidents.	8-9 to 8-10



SIGNIFICANT POTENTIAL IMPACTS	IMPACT MAGNITUDE	P2M2	PAGES
OPERATIONAL PHASE			
 Socio-Economic Impact	Minor	- Conduct regular inspections to identify signs of potential hazardous conditions. - Provide proper PPE for workers. - Follow established SOPs and ERP for safe handling. - Record and respond to community feedback promptly.	8-10 to 8-11
 Waste Generation	Minor	- Practice good housekeeping to maintain site cleanliness. - Inspect & maintain sewer pipelines periodically. - Keep inventory & notify DOE of any scheduled waste generated.	8-11 to 8-12
 Occupational Safety and Health	Minor	- Ensure all electrical wiring is properly installed to prevent short circuits that may cause fire. - Provide relevant safety & health course training for all workers. - Equip storage with fire extinguishers and check them regularly. - Prepare and train personnel on emergency response plan.	8-12 to 8-13
 Quantitative Risk Assessment	Minor	- Store scheduled waste in cool, dry, well-ventilated areas away from heat and moisture. - Segregate scheduled wastes based on compatibility to prevent hazardous reactions and fire risks. - Implement ERP, supported by regular training, to ensure effective emergency preparedness. - Conduct safety studies for any design changes during post-EIA engineering stages to ensure continued compliance with DOE risk criteria.	8-13 to 8-14
 Abandonment	Minor	- Reinstate the site to its closest original condition as possible. - Barricade entry points to prevent unauthorised access. - Use DOE-licensed contractors to remove any remaining scheduled waste on-site. - Submit an abandonment plan to DOE at least 120 days before demolition work begins. - Conduct site inspection 3 months after abandonment to ensure the site is safe.	8-14



ENVIRONMENTAL MONITORING PLAN



PERFORMANCE MONITORING (PM)

Performance Monitoring is carried out regularly to ensure safe and proper handling of scheduled waste, mainly the storage and management of scheduled waste before sending them to licensed recovery / disposal facilities.

ACTIVITY	FREQUENCY
Inspection of scheduled waste containers	Daily
Inspection of containment systems	Daily
Inventory check	Monthly
Inspection of safety compliance	Monthly



COMPLIANCE MONITORING (CM)

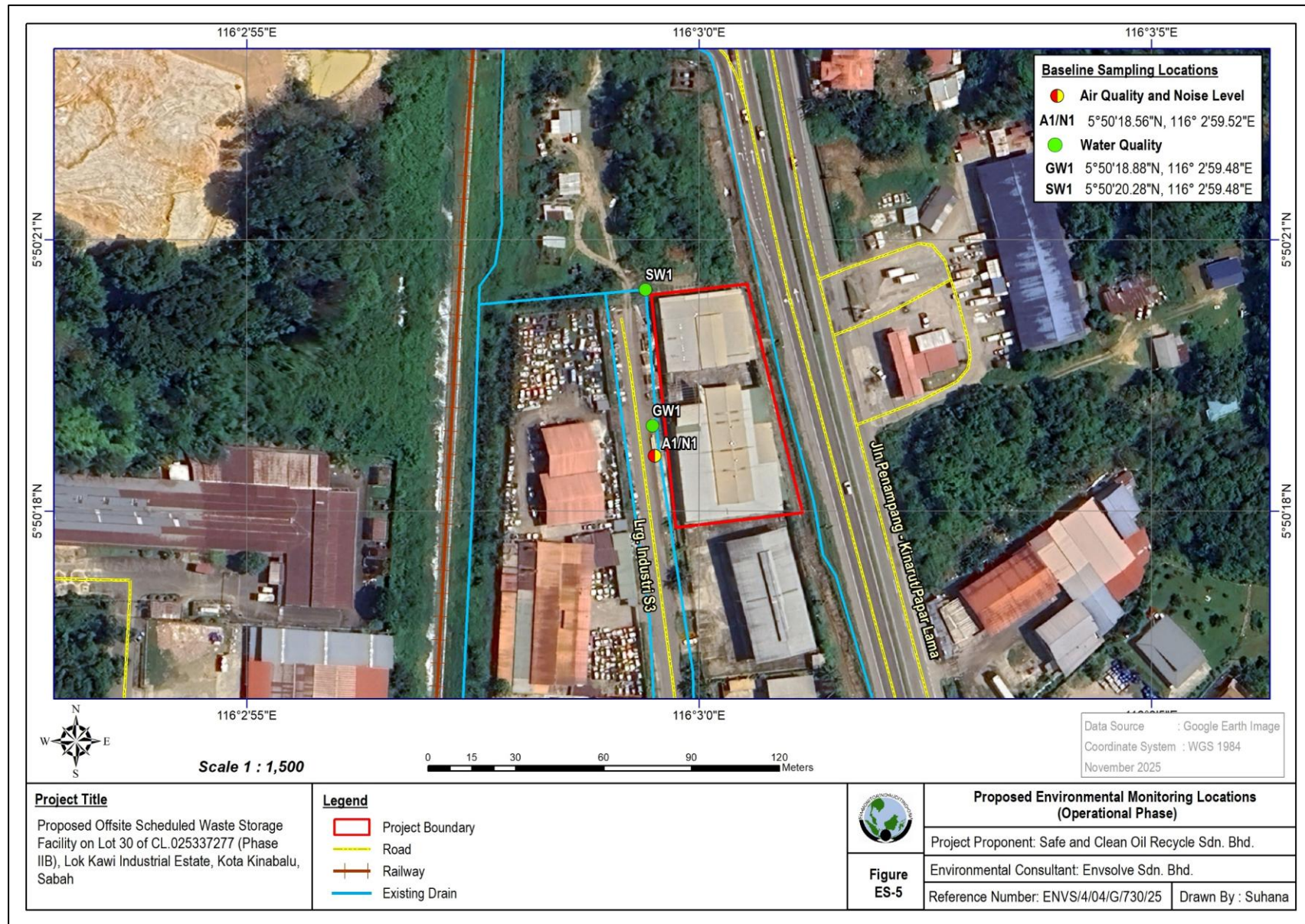
The proposed Project only involves the temporary storage of scheduled waste and does not entail the release of air pollutants or wastewater discharges.

As a result, there is no explicit obligation for compliance monitoring, except for ensuring that the management of scheduled waste on-site adheres to the **Environmental Quality (Scheduled Wastes) Regulations 2005**.



IMPACT MONITORING (IM)

ASPECT	COMPLIANCE STANDARD / GUIDELINE	MONITORING & REPORTING FREQUENCY TO DOE SABAH
Surface Water Quality (1 monitoring station)	Class IIB of National Water Quality Standards for (NWQSM)	Quarterly
Groundwater Quality (1 monitoring station)	National Groundwater Quality Standards for Industrial Use	Yearly
Air Quality - VOC Parameter (1 monitoring station)	Arizona Ambient Air Quality Guidelines (AAAQGs)	Quarterly
Noise Level (1 monitoring station)	First Schedule of Guidelines for Environmental Noise Limits and Control, Third Edition 2019	Quarterly



RINGKASAN EKSEKUTIF



RINGKASAN EKSEKUTIF

PENILAIAN IMPAK ALAM SEKITAR (JADUAL PERTAMA) PROPOSED OFFSITE SCHEDULED WASTE STORAGE FACILITY ON LOT 30 OF CL.025337277, PHASE IIB, LOK KAWI INDUSTRIAL ESTATE, KOTA KINABALU, SABAH

PENGGERAK PROJEK

SAFE & CLEAN OIL RECYCLE SDN. BHD. LOK KAWI BRANCH

Lot 30, Phase IIB,
Lok Kawi Industrial Estate,
89500 Kota Kinabalu, Sabah.
Tel: 019-688 8148

Pegawai untuk dihubungi:

- En. Edward Chen Ying Hao [Pengurus Besar]

Email:

labuan@safenclean.com.my; scoradmexec@gmail.com

PERUNDING EIA

ENVSOLVE SDN. BHD.

1st Floor, No. 3,
Lorong Kilang F, Kolombong,
88450 Kota Kinabalu, Sabah.
Tel: 088-388 791
Fax: 088-388 792

Pegawai untuk dihubungi:

- Ir. Ts. Burhanudin bin Abu Bakar [Ketua Pasukan EIA]
- ChM. Lo Su Mui [Pembantu Perunding]

Email:

envsolve@gmail.com; info@envsolve.com

ORANG BERKELAYAKAN

- 1 IR. TS. BURHANUDIN BIN ABU BAKAR
Perunding EIA [CS0168]
- 2 EN. ADNAN BIN YUSOP ALI
Pakar Subjek [SS0038]
- 3 PROF. MADYA DR. ZAINI SAKAWI
Pakar Subjek [SS0357]
- 4 ChM. LO SU MUI
Pembantu Perunding [AC0923]

PENGENALAN



Lokasi

Lot 30 CL.025337277, Fasa IIB,
Kawasan Perindustrian Lok Kawi, Kota
Kinabalu, Sabah



Zon

Industri Ringan (IN(L)) - oleh Jabatan
Perancang Bandar dan Wilayah
Negeri Sabah



Aktiviti Utama

Pengumpulan, pengangkutan ke
fasiliti penyimpanan luar tapak,
penyimpanan sementara, dan
pengangkutan buangan terjadual ke
fasiliti pelupusan/ pemulihan akhir
yang ditetapkan.



Penyata Keperluan

- Menyimpan sisa berbahaya dengan selamat dan mengikut garis panduan Malaysia.
- Mencegah pembuangan sisa minyak secara haram melalui penyimpanan dan pengendalian yang betul.
- Menggalakkan pengurusan sisa yang bertanggungjawab bagi menyokong kelestarian.

KEPERLUAN PERUNDANGAN

Seksyen 34A, Akta Kualiti Alam Sekeliling 1974

Perintah Kualiti Alam Sekeliling (Aktiviti Yang
Ditetapkan) (Penilaian Impak Alam Sekitar) 2015

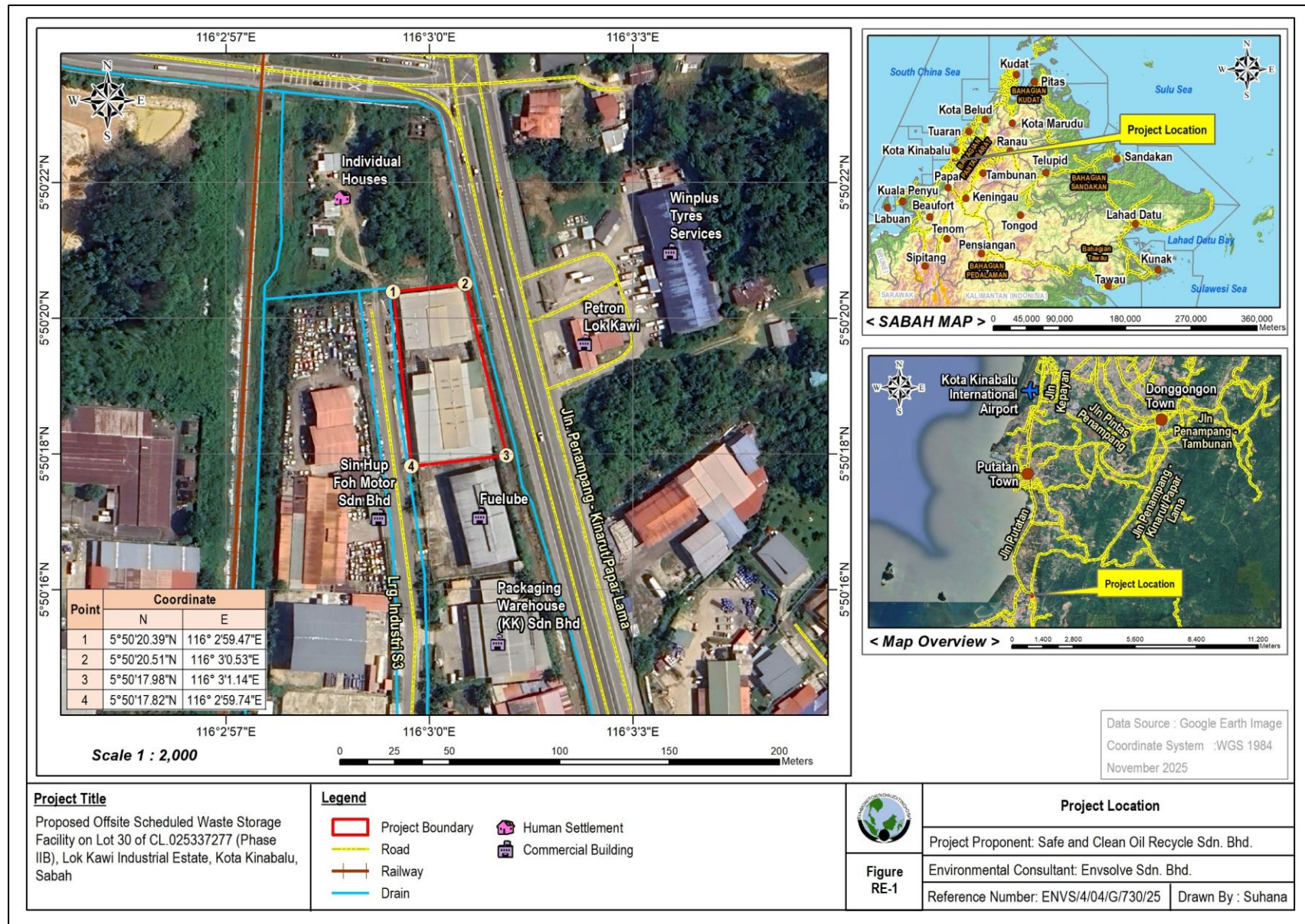
Jadual Pertama

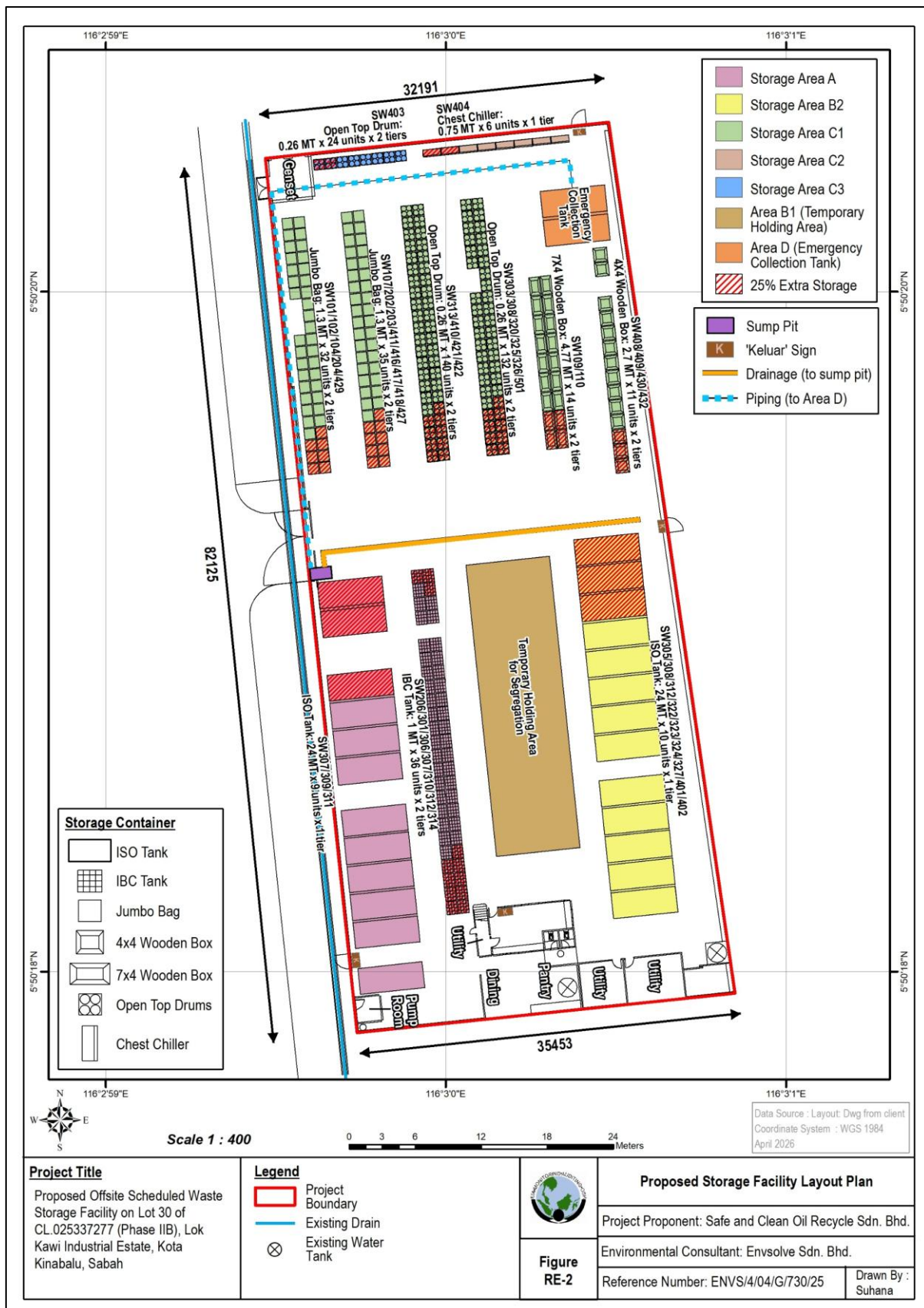
14. Pengolahan dan Pelupusan Buangan

(a) Buangan Terjadual

- (iii) Pembinaan kemudahan penyimpanan
(luar tapak)

Oleh itu, laporan EIA perlu diserahkan kepada JAS
untuk kelulusan sebelum pelaksanaan Projek.







KONSEP PROJEK

SENARAI PENGUMPULAN BUANGAN TERJADUAL

KUMPULAN	KOD BUANGAN TERJADUAL	KUANTITI (MT/BULAN)
A	SW206, SW301, SW306, SW307, SW309, SW310, SW311, SW312, SW314	288.0
B2	SW305, SW308, SW312*, SW322, SW323, SW324, SW327, SW401, SW402	240.0
C1	SW101, SW102, SW104, SW107, SW109, SW110, SW202, SW203, SW204, SW303, SW308*, SW313, SW320, SW325, SW326, SW408, SW409, SW410, SW411, SW416, SW417, SW418, SW421, SW422, SW427, SW429, SW430, SW432, SW501	508.6
C2	SW404	4.5
C3	SW403	12.5
Jumlah		1053.6

*Kod buangan berulang

ALIRAN PROSES OPERASI DI KEMUDAHAN PENYIMPANAN LUAR TAPAK

PENGUMPULAN BUANGAN TERJADUAL

- ✓ Pengumpulan buangan terjadual daripada penjana sisa menggunakan pengangkut berlesen JAS.



PENYIMPANAN BUANGAN TERJADUAL DI TAPAK PROJEK

- ✓ Ketibaan dan pemunggahan buangan terjadual yang dikumpul di fasiliti penyimpanan.
- ✓ Pengasingan, pengendalian, pelabelan, dan kemas kini inventori buangan terjadual.



PENGANGKUTAN KE PUSAT PENGURUSAN SISA BERLESEN

- ✓ Pengangkutan buangan terjadual yang dikumpul ke Pelabuhan Sepanggar bagi penghantaran kepada penerima sisa akhir.





AKTIVITI PROJEK

FASA PRA-PEMBINAAN

- Kajian EIA.
- Penyediaan pelan / lukisan tapak yang berkaitan.



FASA PEMBINAAN / PENGUBAHSUAIAN

- Mobilisasi peralatan, pekerja dan bahan binaan.
- Kerja-kerja pengubahsuaian untuk menukar bangunan industri sedia ada kepada fasiliti penyimpanan buangan terjadual luar tapak.

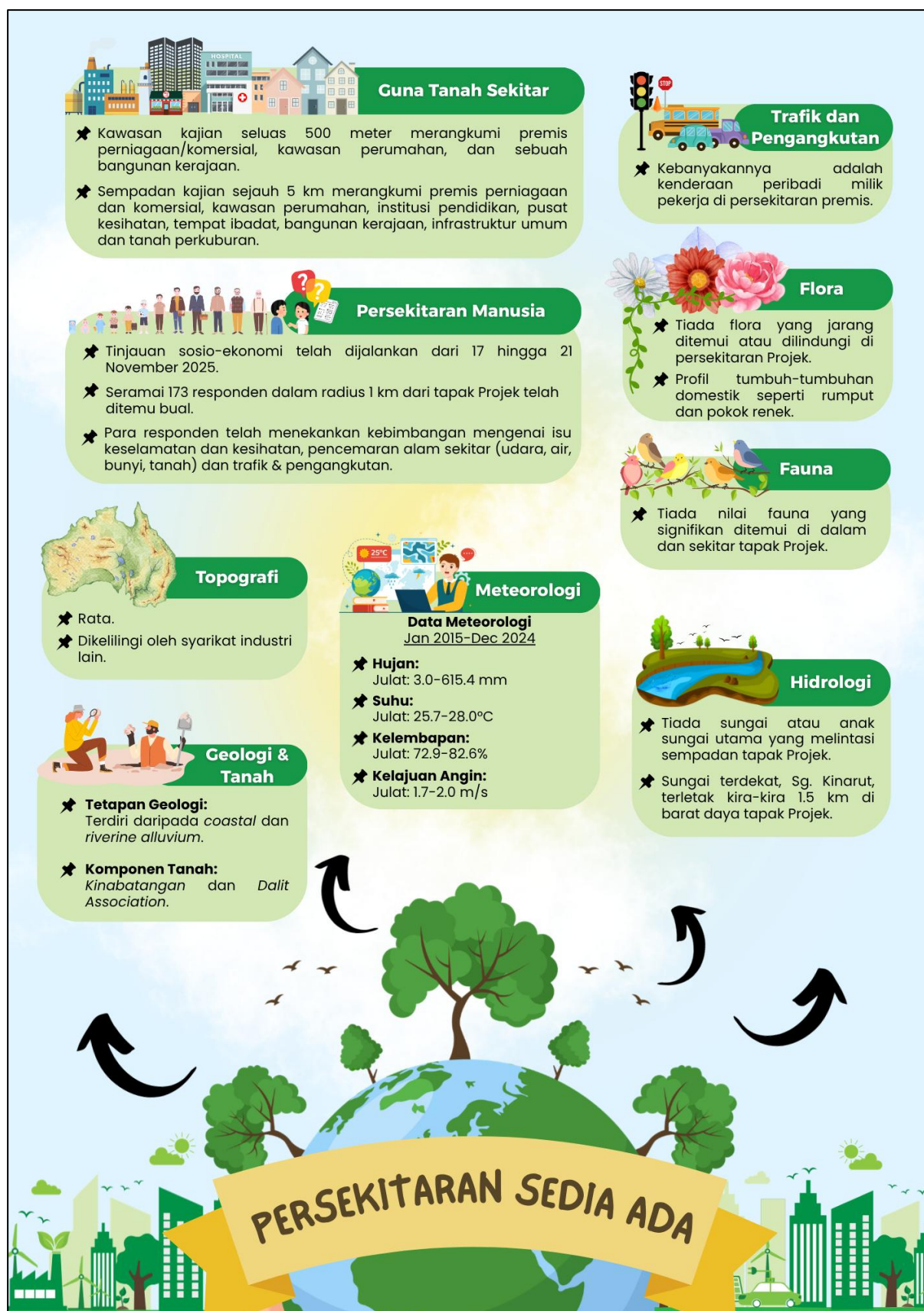
FASA OPERASI DAN PENYELENGGARAAN

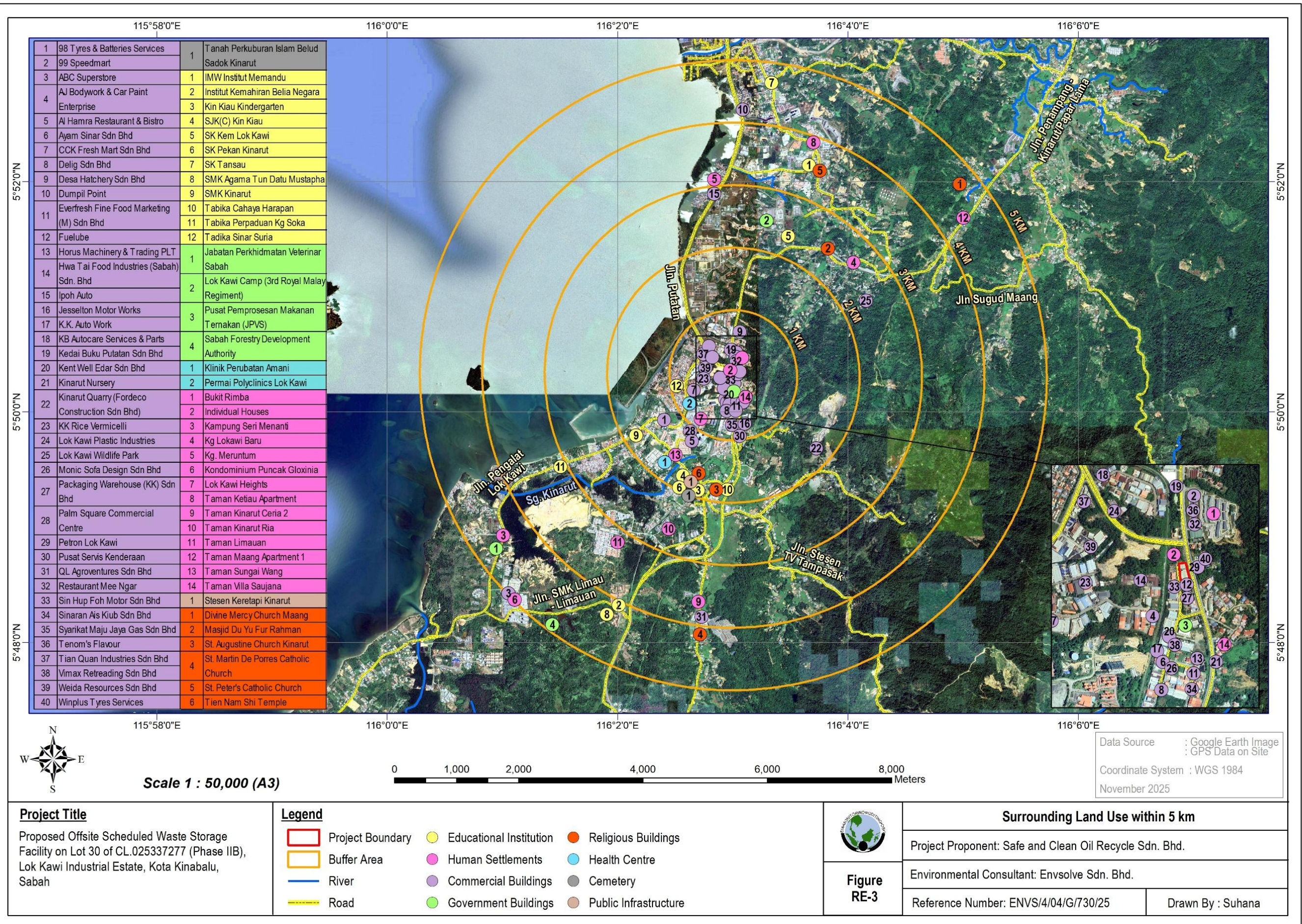
- Pengumpulan dan pengangkutan buangan terjadual daripada penjana sisa ke fasiliti penyimpanan luar tapak.
- Pengasingan sisa, pelabelan dan kemas kini inventori.
- Penyimpanan sementara buangan terjadual di fasiliti penyimpanan luar tapak.
- Pengangkutan buangan terjadual ke Pelabuhan Sepanggar untuk penghantaran kepada penerima sisa akhir bagi tujuan pemulihan / pelupusan.



FASA PEMBERHENTIAN PROJEK

- Pemulihan tapak.
- Penyerahan Pelan Pemulihan Tapak kepada JAS.





KAJIAN DASAR ALAM SEKITAR

Pemantauan Kualiti Air Permukaan



- Kebanyakan parameter yang diukur mematuhi **National Water Quality Standards Malaysia - Class IIB**. Ketidakpatuhan direkodkan bagi parameter:

LOKASI PER-SAMPELAN	PARAMETER
SW1	Kiraan Koliform Tinja, Jumlah Bilangan Koliform, Mangan, Ferum
SW2	Kiraan Koliform Tinja, Jumlah Bilangan Koliform
SW3	Kiraan Koliform Tinja, Jumlah Bilangan Koliform, Mangan, Ferum, Nitrogen Ammoniakal

Pemantauan Kualiti Air Bawah Tanah



- Kebanyakan parameter yang diukur mematuhi **National Groundwater Quality Standards for Industrial Use**. Ketidakpatuhan direkodkan bagi parameter:
 - Nilai pH
 - Jumlah Pepejal Terampai
 - Ferum

Pemantauan Kualiti Udara

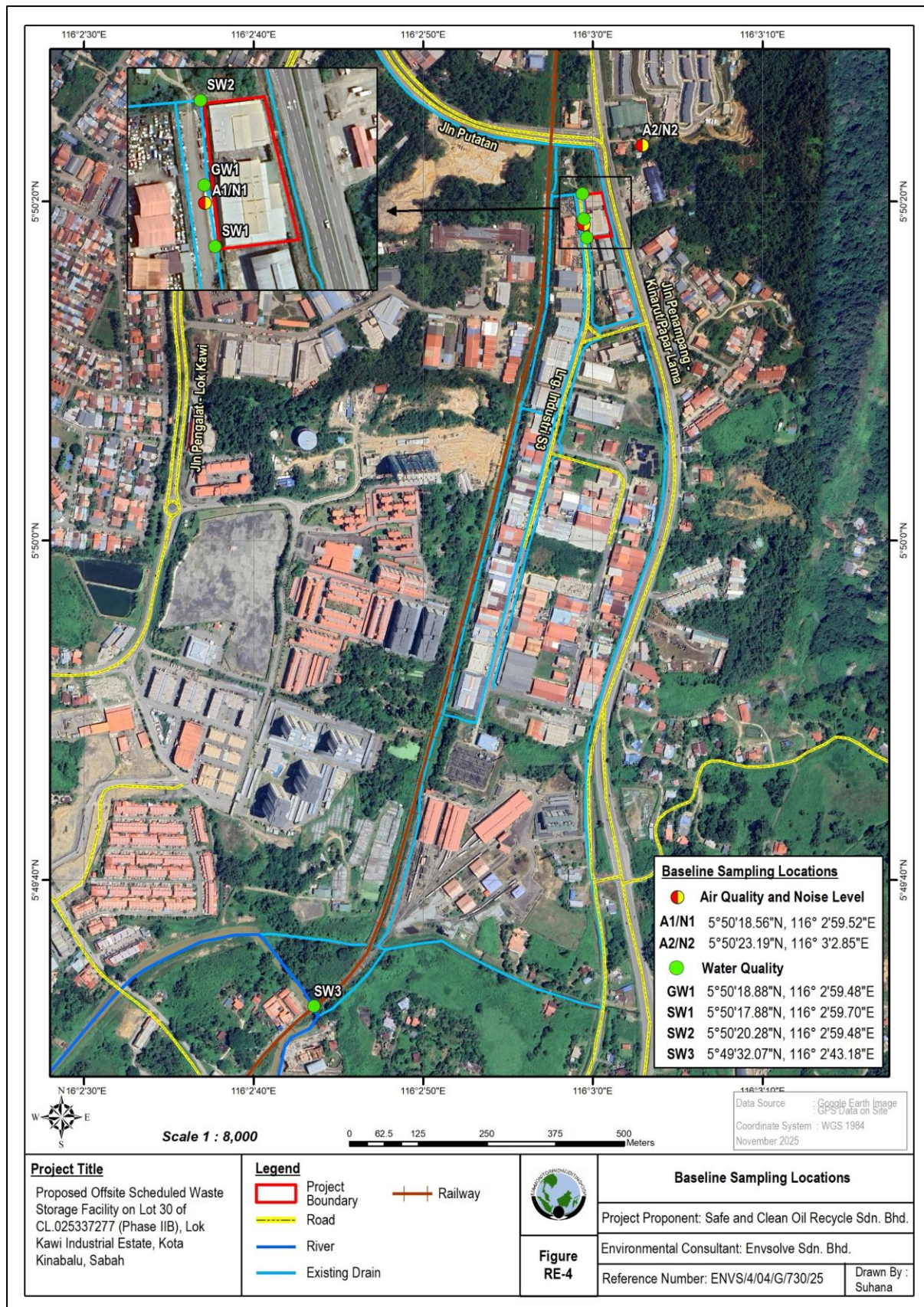


- Pemantauan kualiti udara asas telah dijalankan, dan keputusan bagi PM₁₀, PM_{2.5}, SO₂, NO₂ and CO dibandingkan dengan **Malaysian Ambient Air Quality Standards (MAAQS)**, manakala parameter VOC dibandingkan dengan **Arizona Ambient Air Quality Guidelines (AAAQGs)**. Semua parameter mematuhi had yang ditetapkan.

Pemantauan Tahap Bunyi



- Tahap bunyi sedia ada bagi waktu siang dan malam telah diukur dan semua keputusan mematuhi tahap yang ditetapkan oleh JAS dalam **Guidelines for Environmental Noise Limits and Control (First Schedule of the Permissible Sound Levels by Receiving Land Use for New Development for Industrial Zones)**.
Had tahap bunyi:
 - Waktu siang = 70 dB(A)
 - Waktu malam = 65 dB(A)





IMPAK POTENSI YANG KETARA	MAGNITUD IMPAK	P2M2	HALAMAN
FASA PEMBINAAN / PENGUBAHSUAIAN			
 Pencemaran Udara	Minor	- Tangguh kerja semasa keadaan cuaca buruk. - Pastikan pekerja memakai peralatan perlindungan pernafasan. - Kuatkuasakan had laju kenderaan kepada 30-40 km/j di tapak Projek dan di sepanjang jalan masuk utama. - Pembakaran terbuka bagi sebarang bahan sisa adalah dilarang sama sekali	8-2
 Pencemaran Bunyi	Minor	- Selenggara semua peralatan secara berkala. - Sediakan alat perlindungan pendengaran yang mencukupi untuk pekerja. - Sediakan latihan kepada semua pekerja untuk meningkatkan kesedaran. - Lakukan pemantauan tahap bunyi secara berkala di sempadan Projek. - Hadkan kerja kepada waktu siang (8:00 pagi - 5:00 petang).	8-2 hingga 8-3
 Penjanaan Sisa	Minor	- Sediakan tong sampah yang mencukupi di lokasi strategik. - Galakkan penggunaan barangan boleh guna semula. - Laksanakan konsep 4R. - Laksanakan program kesedaran berterusan untuk mencegah pembuangan sampah merata-rata. - Asingkan dan buang sisa secara berkala di tapak yang diluluskan. - Melarang pembuangan sisa secara sembarangan dan mengelakkan pembakaran sisa.	8-3 hingga 8-4
 Keselamatan dan Kesihatan Pekerja	Minor	- Sediakan alat pemadam api yang mencukupi. - Sediakan Peti Pertolongan Cemas yang lengkap. - Sediakan latihan berkaitan kursus keselamatan dan kesihatan. - Berikan taklimat kepada pekerja mengenai prosedur kecemasan. - Sediakan peralatan perlindungan yang sesuai.	8-4 hingga 8-5
 Pemberhentian Projek	Minor	- Kembalikan tapak kepada keadaan asal sebaik mungkin. - Sekat pintu masuk bagi mengelakkan akses tanpa kebenaran. - Alihkan mesin, peralatan, dan sisa dari tapak Projek. - Keluarkan semua kenderaan bagi mengelakkan halangan dan risiko keselamatan.	8-5



IMPAK POTENSI YANG KETARA	MADNITUD IMPAK	P2M2	HALAMAN
FASA OPERASI			
 Pencemaran Air dan Tanah	Minor	- Bina sistem pembendungan yang sesuai di dalam kawasan penyimpanan. - Jalankan aktiviti pemunggaan dan pemuatan di kawasan yang ditetapkan dengan lantai yang stabil, rata dan tidak telap (bersalut epoksi). - Sediakan peralatan tindak balas tumpahan serta bahan pembersihan yang mencukupi di tapak.	8-5 hingga 8-7
 Impak Banjir	Minor	- Lengkapkan fasiliti dengan pam air dan bekalan sumber kuasa sokongan bagi memudahkan proses penyahairan kawasan yang terjejas. - Selenggara sistem saliran untuk mengelakkan penyumbatan. - Sediakan dan melaksanakan Pelan Tindakan Kecemasan Banjir.	8-7 hingga 8-8
 Pencemaran Udara	Minor	- Sediakan pengudaraan yang mencukupi di dalam kawasan penyimpanan. - Jalankan pemeriksaan berkala untuk mengesan dan membaiki sebarang kebocoran. - Sediakan alat perlindungan pernafasan kepada pekerja di tapak. - Kuatkuasakan had laju kenderaan kepada 30-40 km/j di tapak Projek dan di sepanjang jalan masuk utama. - Pembakaran terbuka bagi sebarang bahan sisa adalah dilarang sama sekali.	8-8 hingga 8-9
 Pencemaran Bunyi	Minor	- Sediakan alat perlindungan pendengaran yang sesuai dan patuhi had pendedahan bunyi. - Pastikan tahap bunyi berada dalam had yang dibenarkan. - Mengehadkan aktiviti pengangkutan mengikut jadual. - Elakkan pemanduan pada kelajuan berlebihan dan membunyikan hon tanpa keperluan di kawasan sensitif.	8-9
 Trafik dan Pengangkutan	Minor	- Patuhi semua peraturan lalu lintas dan kuatkuasakan had kelajuan kenderaan kepada 30-40 km/j. - Amalkan tatatertib jalan raya. - Angkut buangan terjadual di luar waktu puncak bagi mengelakkan kesesakan dan kemalangan.	8-9 hingga 8-10



IMPAK POTENSI YANG KETARA	MAGNITUD IMPAK	P2M2	HALAMAN
FASA OPERASI			
 Kesan Sosio-Ekonomi	Minor	- Jalankan pemeriksaan berkala untuk mengenal pasti tanda-tanda keadaan berbahaya. - Sediakan PPE yang sesuai untuk pekerja. - Patuhi SOP dan ERP yang ditetapkan bagi pengendalian yang selamat. - Rekod dan tangani maklum balas komuniti dengan segera.	8-10 hingga 8-11
 Penjanaan Sisa	Minor	- Amalkan pengurusan kebersihan tapak yang baik untuk mengekalkan kebersihan kawasan. - Periksa dan selenggara saluran pembetulan secara berkala. - Kawal inventori dan maklumkan kepada JAS mengenai sebarang buangan terjadual yang dihasilkan.	8-11 hingga 8-12
 Keselamatan dan Kesihatan Pekerja	Minor	- Pastikan semua pendawaian elektrik dipasang dengan betul bagi mengelakkan litar pintas yang boleh menyebabkan kebakaran. - Sediakan latihan kursus keselamatan dan kesihatan yang berkaitan kepada semua pekerja. - Lengkapkan kawasan penyimpanan dengan alat pemadam api dan periksanya secara berkala. - Sediakan dan latih kakitangan mengenai pelan tindak balas kecemasan.	8-12 hingga 8-13
 Penilaian Risiko Kuantitatif	Minor	- Simpan buangan terjadual di kawasan yang sejuk, kering, dan mempunyai pengudaraan baik, jauh dari haba dan kelembapan. - Asingkan buangan terjadual berdasarkan keserasian bagi mengelakkan tindak balas berbahaya dan risiko kebakaran. - Laksanakan ERP yang disokong oleh latihan berkala bagi memastikan kesiapsiagaan menghadapi kecemasan yang cekap. - Jalankan kajian keselamatan bagi sebarang perubahan reka bentuk semasa fasa kejuruteraan pasca EIA bagi memastikan pematuhan berterusan terhadap kriteria risiko JAS.	8-13 hingga 8-14
 Pemberhentian Projek	Minor	- Kembalikan tapak kepada keadaan asal sebaik mungkin. - Sekat pintu masuk untuk mengelakkan akses tanpa kebenaran. - Gunakan kontraktor berlesen JAS untuk mengalihkan sebarang buangan terjadual yang masih berada di tapak. - Kemukakan pelan pemulihan tapak/ pelan penamatan operasi kepada JAS sekurang-kurangnya 120 hari sebelum kerja perobohan bermula. - Jalankan pemeriksaan tapak 3 bulan selepas penamatan operasi bagi memastikan tapak berada dalam keadaan selamat.	8-14



PROGRAM PEMANTAUAN ALAM SEKITAR



PEMANTAUAN PRESTASI (PM)

Pemantauan Prestasi dijalankan secara berkala bagi memastikan pengendalian buangan terjadual dilakukan dengan selamat dan sesuai, terutamanya bagi penyimpanan dan pengurusan buangan terjadual sebelum dihantar ke fasiliti pemulihan / pelupusan berlesen.

AKTIVITI	KEKERAPAN
Pemeriksaan bekas buangan terjadual	Harian
Pemeriksaan sistem pembendungan	Harian
Semakan inventori	Bulanan
Pemeriksaan pematuhan keselamatan	Bulanan



PEMANTAUAN PEMATUHAN (CM)

Projek yang dicadangkan hanya melibatkan penyimpanan sementara buangan terjadual dan tidak melibatkan pelepasan pencemar udara atau pembuangan air sisa.

Oleh itu, tiada keperluan khusus untuk pemantauan pematuhan, kecuali memastikan pengurusan buangan terjadual di tapak mematuhi **Environmental Quality (Scheduled Wastes) Regulations 2005**.



PEMANTAUAN IMPAK (IM)

ASPEK	STANDARD / GARIS PANDUAN PEMATUHAN	KEKERAPAN PEMANTAUAN & PELAPORAN KEPADA DOE SABAH
Kualiti Air Permukaan (1 stesen pengawasan)	<i>Class IIB of National Water Quality Standards for (NWQSM)</i>	Setiap suku tahun
Kualiti Air Bawah Tanah (1 stesen pengawasan)	<i>National Groundwater Quality Standards for Industrial Use</i>	Setiap tahun
Kualiti Udara - Parameter VOC (1 stesen pengawasan)	<i>Arizona Ambient Air Quality Guidelines (AAQGs)</i>	Setiap suku tahun
Tahap Bunyi (1 stesen pengawasan)	<i>First Schedule of Guidelines for Environmental Noise Limits and Control, Third Edition 2019</i>	Setiap suku tahun

