

# **ACACIA FOREST INDUSTRIES SDN. BHD.**

Metro Town, Unit No. 1, 2<sup>nd</sup> Floor, Block L, Jalan Lintas, 88300, Kota  
Kinabalu, Sabah  
TEL: 088 – 438 021 FAX: 088 – 424 077

## **ENVIRONMENTAL COMPLIANCE REPORT**

FOR

**PROPOSED REPLANTING AND PLANTING OF 25,000 HA OF  
ACACIA MANGIUM AND EUCALYPTUS PELLITA AT BENGKOKA  
PENINSULA, DISTRICT OF PITAS, SABAH BY ACACIA FOREST  
INDUSTRIES SDN BHD.**

**1<sup>ST</sup> REPORT OF 2024**

<b>NOVEMBER 2022 – FEBRUARY 2023</b>	<b>MARCH 2023 – JUNE 2023</b>	<b>JULY 2023 – OCTOBER 2023</b>
✓		

**EIA Approval Letter Ref. No.** : JPAS/PP/15/600-1/01/3/29  
**Approval Date** : 19<sup>th</sup> May 2010  
**Report Reference** : CK/MO411/1187-1/24  
**Date of Report** :

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# ACACIA FOREST INDUSTRIES SDN BHD

## ENVIRONMENTAL COMPLIANCE REPORT

### 1.0 INTRODUCTION

The Project site covers an area of 25, 000 ha involving planting and replanting of Acacia mangium and Eucalyptus pellita trees within the gazetted land for SAFODA. The said area will be managed as a single Forest Management Unit (FMU) by the Project Proponent. The Project comprises of felling of commercial trees, site clearing and preparation for the replanting and planting on-site. The Project site is located approximately 4 km northeast of Pitas and situated at Bengkoka Peninsula, Pitas and is accessible via the Pitas-Kanibongan Highway.

### 1.1 Monitoring Information

<b>Project Title</b>	: Proposed Replanting and Planting of 25,000 Ha of Acacia Mangium and Eucalyptus Pellita at Bengkoka Peninsula, District of Pitas, Sabah by Acacia Forest Industries Sdn Bhd
<b>AEC Reference</b>	: JPAS/PP/15/600-1/01/3/29 dated 19 <sup>th</sup> May 2010
<b>Monitoring Period</b>	: November 2023 – February 2024
<b>Date of Monitoring</b>	: Compliance Audit : 13 <sup>th</sup> February 2024 Water Sampling : 13 <sup>th</sup> February 2024
<b>EIA Consultant</b>	: Kiviheng Environmental Consultants Sdn. Bhd.

### 1.2 Project Proponent Information

<b>Project Proponent</b>	: Acacia Forest Industries Sdn. Bhd.
<b>Contact Person</b>	: Ms Stanna Chang
<b>Tel. No.</b>	: 088 438 021
<b>Contact No.</b>	: 088 438 021
<b>Fax No.</b>	: 088 – 424 077
<b>E-mail</b>	: stanna@afisb.com.my
<b>Environmental Officer</b>	: Mr. Efron Amung
<b>Contact No.</b>	: 019 – 808 3862 (Mobile)
<b>E-mail</b>	: -

### 1.3 Post-EIA Consultant Information

<b>Post-EIA Consultant</b>	: Chemsain Konsultant Sdn. Bhd.
<b>Tel. No.</b>	: Office : 088 – 381 277 / 278
<b>Fax No.</b>	: 088 – 381 280
<b>Contact Person</b>	: Jessica Malagkas / Vianah Boman
<b>Email</b>	: jessica.malagkas@chemsain.com/vianah.boman@chemsain.com



## 1.4 Project Status

Percentage Completion :

Replanting Year	Planting plan (FMP) (Ha)	Actual Planted (Ha)	Percentage completion of FMP 2016-2025 (%)
2016	1,253	1,255	15.5
2017	1,417	1,416	33.0
2018	1,139	1,145	47.2
2019	762	778	56.8
2020	233	308	60.8
2021	69	104	61.9
2022	20	-	-
2023	500	-	-
2024	1,300	-	-
2025	1,400	-	-
<b>Total</b>	<b>8,093</b>	<b>5,006</b>	

Chronology of Events :

Table 1.0: Chronology of events

No.	Event	Date
1.0	Signing of AEC Ref. No.: JPAS/PP/15/600-1/01/3/29	19 <sup>th</sup> May 2010

## 2.0 LEGAL REQUIREMENT

The Project is classified as a prescribed activity under the **Second Schedule of the Environment Protection (Prescribed Activities) (Environmental Impact Assessment) Order 2005** under **Item 2 (i) & (ii)**.

Environmental compliance auditing is carried out on quadrimester basis, and reported in accordance to the Approval Conditions as specified in the **Syarat-Syarat Alam Sekitar [Seksyen 12(1) dan 20, Enakmen Perlindungan Alam Sekitar 2002]** of the EPD ref: JPAS/PP/15/600-1/01/3/29 dated 19<sup>th</sup> May 2010.

## 3.0 CHANGES TO PROJECT CONCEPT / ENVIRONMENT

### 3.1 Project Concept

No.	Item	Changes
1.	Project Component	Inclusion of <i>Eucalyptus pellita</i> in the tree planting program, approved by EPD (ref. JPAS/PP/15/600-1/01/3/18(44) dated 1 <sup>st</sup> July 2018 – Appendix E)
2.	Changes to Land Lot	Nil
3.	Land Area	Nil

### 3.2 Surrounding Environment

No.	Item	Changes
1.	Land Use	Nil
2.	River / Costal Morphology	Nil

### 4.0 MONITORING LOCATION

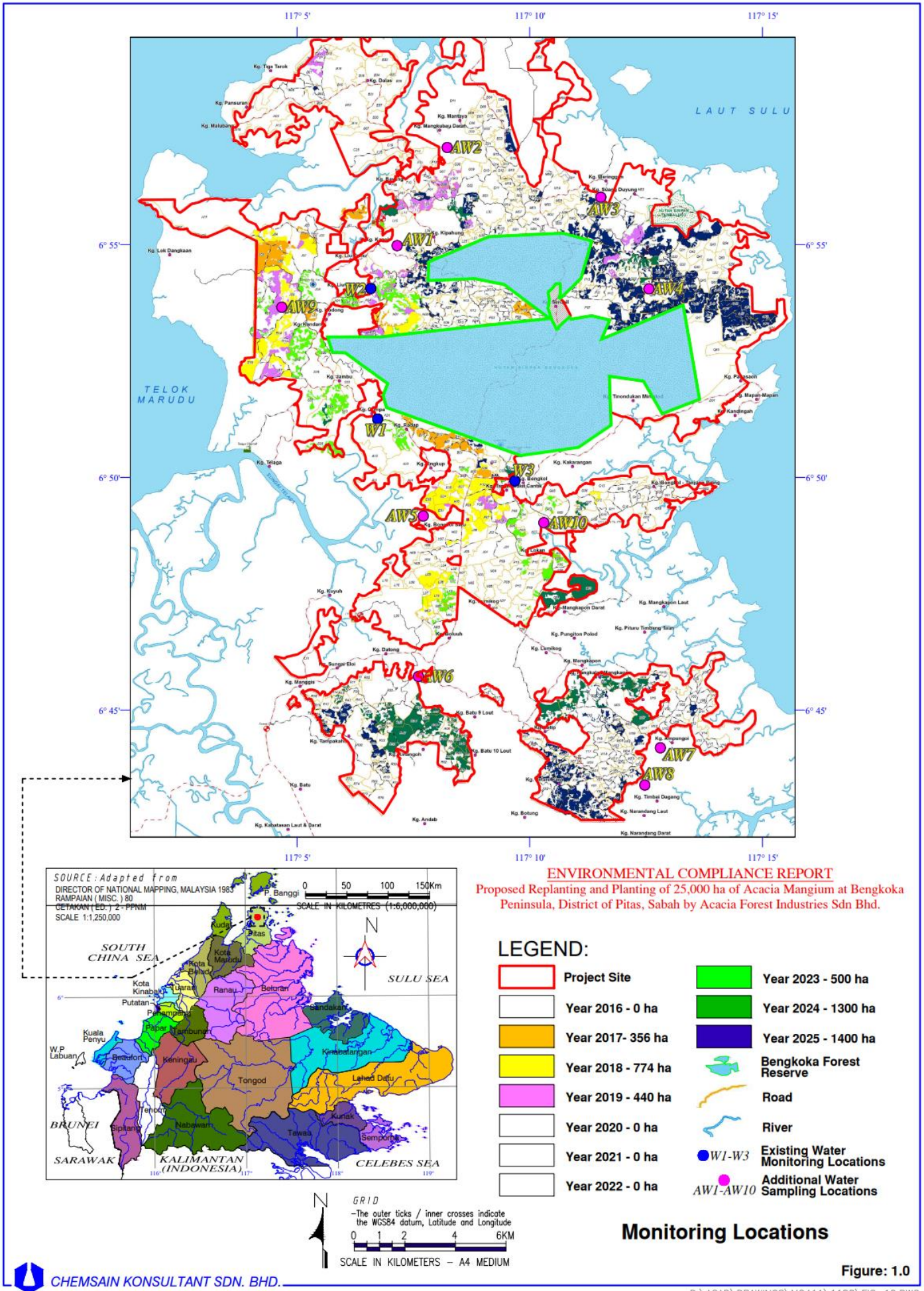
Designated sampling locations are shown in **Figure 1.0** with details tabulated in **Table 2.0**. **Table 3.0** details the proposed water quality monitoring programme.

**Table 2.0:** Environmental Monitoring and Sampling Particulars

Monitoring Component	Key	GPS Coordinates (Datum: Timbalai)	Location Description
Surface Water Quality	<b>W1</b>	N 05° 51' 18.56" E 117° 06' 41.09"	Sg. Gumpa
	<b>W2</b>	N 05° 54' 12.40" E 117° 06' 36.87"	Tributary of Sg. Malubang
	<b>W3</b>	N 06° 50' 02.73" E 117° 09' 31.55"	Sg. Bongkol

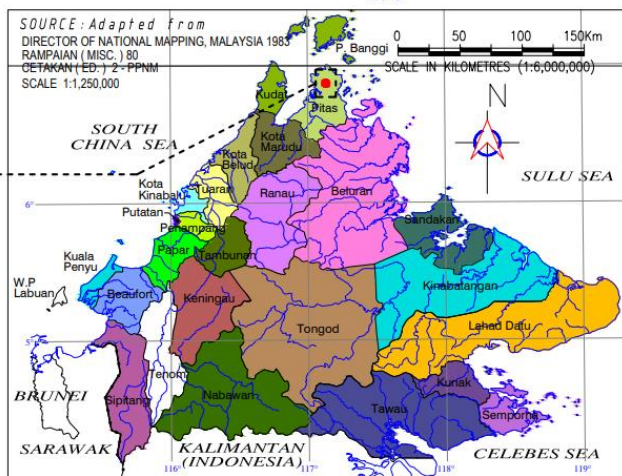
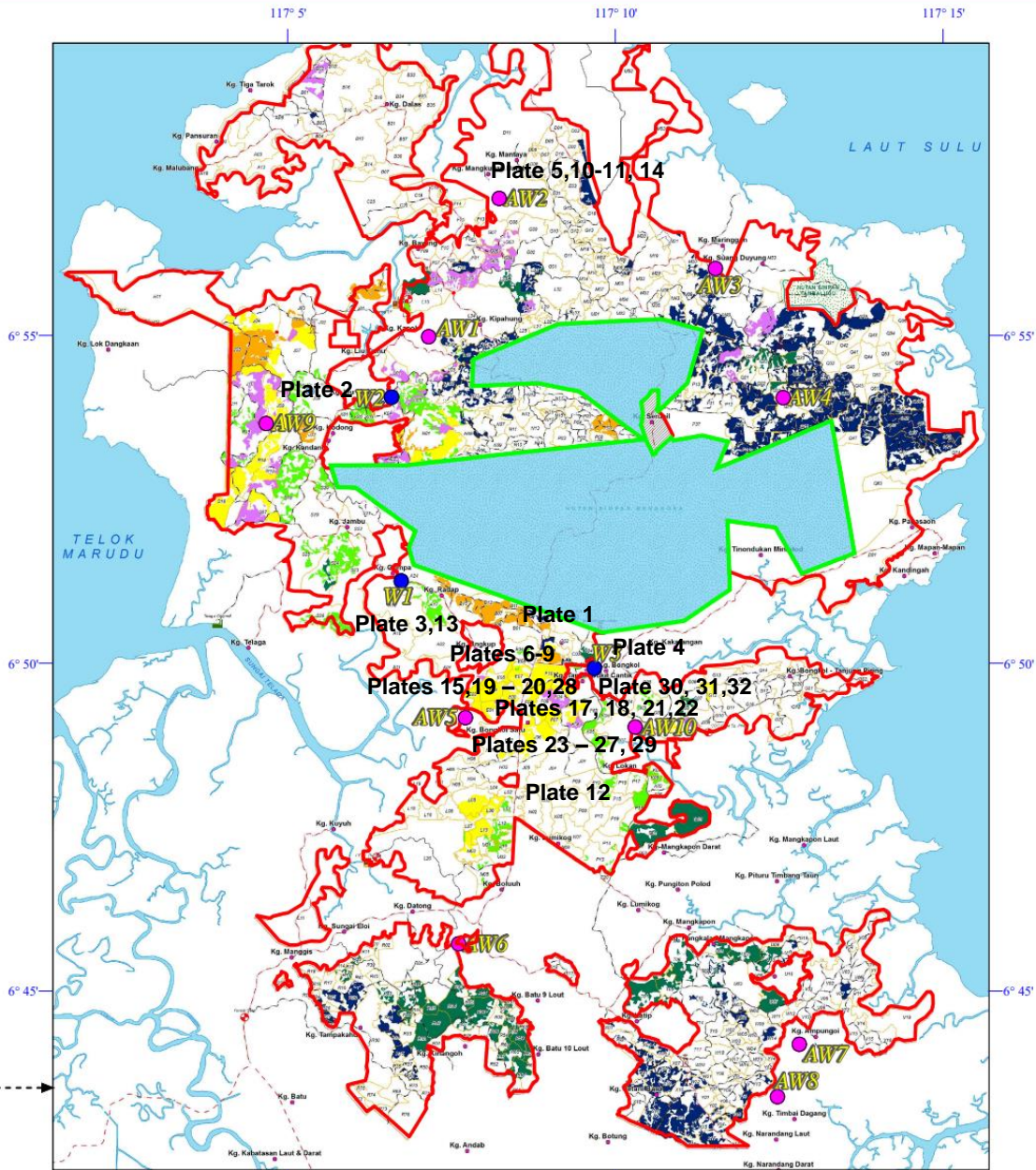
**Table 3.0:** Proposed Water Quality Monitoring Programme

Harvesting Year	Monitoring Location	Parameter	Compliance Standard
2019 - 2029	W1, W2, W3, AW1, Aw2, AW3, AW4, AW5, AW6, AW7, AW8, AW9 and AW10 (* sampled for active area)	pH, Turbidity, Total Suspended Solids (TSS), Oil & Grease, Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD) and Ammoniacal-Nitrogen (NH <sub>3</sub> -N)	<b>Class IIB</b> of National Water Quality Standard of Malaysia (NWQSM)



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**ENVIRONMENTAL COMPLIANCE REPORT**  
 Proposed Replanting and Planting of 25,000 ha of Acacia Mangium at Bengkoka Peninsula, District of Pitas, Sabah by Acacia Forest Industries Sdn Bhd.

**LEGEND:**

- |  |                    |  |                                     |
|--|--------------------|--|-------------------------------------|
|  | Project Site       |  | Year 2023 - 500 ha                  |
|  | Year 2016 - 0 ha   |  | Year 2024 - 1300 ha                 |
|  | Year 2017 - 356 ha |  | Year 2025 - 1400 ha                 |
|  | Year 2018 - 774 ha |  | Bengkoka Forest Reserve             |
|  | Year 2019 - 440 ha |  | Road                                |
|  | Year 2020 - 0 ha   |  | River                               |
|  | Year 2021 - 0 ha   |  | Existing Water Monitoring Locations |
|  | Year 2022 - 0 ha   |  | Additional Water Sampling Locations |

**Monitoring Plates**

Figure: 2.0

## 5.0 COMPLIANCE STATUS, OBSERVATION & RECOMMENDATION

Nama Projek	: Replanting and Planting of 25,000 Ha <i>Acacia mangium</i> and <i>Eucalyptus pellita</i> at Bengkoka Peninsula, District of Pitas, Sabah
Nama Pemaju	: Acacia Forest Industries Sdn Bhd
Rujukan fail jabatan ini	: JPAS/PP/15/600-1/01/3/29
Tarikh Akujanji	: 19 May 2010
Penyedia laporan pematuhan ini	: Chemsain Konsultant Sdn. Bhd.
Tempoh diliputi oleh laporan ini	: November 2023 – February 2024

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
<b>5.1</b>	<b><u>Kawalan Tapak Pembangunan</u></b>				
<i>i.</i>	<i>Sempadan kawasan projek seperti yang ditunjukkan di "Figure 3.2 – Locality Map" dalam laporan EIA hendaklah disukat sebelum aktiviti projek dimulakan. Penyukatan berkenaan hendaklah disahkan oleh juruukur yang berdaftar di bawah Ordinan Juruukur 1960 (Surveyor Ordinance 1960).</i>	<b>Non Compliance</b>	<ul style="list-style-type: none"> <li>• According to the Project Proponent, the boundary survey presented in the previous EIA report was the gazetted plan that was provided by SAFODA, but does not represent the actual boundary of the Project site for Acacia Forest Industries Sdn. Bhd.</li> <li>• SAFODA had previously appointed Jurukur Dhiya Suria, to conduct the survey. However, it was strongly objected by the local community.</li> <li>• SAFODA had also worked with two political representatives as an alternative after a few attempts to enter the area failed;</li> <li>• The current SAFODA surveyor is reportedly making significant progress with the ground survey of Phase II and Phase III. According to</li> </ul>	-	The status of the boundary survey is still work in progress by the SAFODA surveyor. As such, this is beyond AFI's responsibility, control and power.

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
			Project Proponent, an update will be provided by SAFODA at the end of 2023.		
ii.	<i>Pelan Penyukatan sempadan projek berkenaan hendaklah dikemukakan kepada JPAS bersama-sama dengan bacaan koordinat latitud dan longitud sebelum aktiviti projek dimulakan.</i>	<b>Non Compliance</b>	Refer to the comments in <b>AEC 5.1 (i)</b> .	-	-
iii	<i>Sempadan kawasan projek yang telah disukat, hendaklah ditanda di lapangan serta dipasang dengan papan tanda di lokasi-lokasi yang mudah dilihat sebelum aktiviti projek dimulakan.</i>	<i>Comply</i>	<ul style="list-style-type: none"> <li>▪ According to the Project Proponent, physical boundary markers will be installed in tandem with Project operation and progress.</li> <li>▪ Signage sighted in place at the boundary with Gerak Saga Plantation.</li> </ul>	1	-
<b>5.2</b>	<b><u>Kualiti Sumber Air</u></b>				
i	<i>Kaedah pemajuan ladang Acacia mangium and Eucalyptus pellita yang terkawal dan mesra alam serta dengan menyediakan alternatif sumber air kepada penduduk yang terjejas hendaklah diamalkan.</i>	<i>Comply</i>	<ul style="list-style-type: none"> <li>▪ The Project Proponent practices eco-friendly approach towards planting and replanting activities. Rainwater is utilized as an alternative source of water supply.</li> <li>▪ The Project Proponent ensures that water supply will be provided to the affected villagers (if any).</li> </ul>	-	-
ii	<i>Penggunaan baja dan racun perosak (pesticide) secara terkawal hendaklah diamalkan. Pelupusan atau pembuangan bahan baja dan racun perosak adalah <b>tidak dibenarkan</b> di dalam sungai atau alur air.</i>	<i>Comply</i>	<ul style="list-style-type: none"> <li>▪ Disposal of fertilizers or pesticides into any nearest natural waterways was not sighted during the site visit.</li> <li>▪ The Project Proponent assured that chemicals and fertilizers were only utilized as and when necessary.</li> </ul>	6-9	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date				
			<ul style="list-style-type: none"> <li>The agrochemical and fertilizer storage buildings are situated near the nursery.</li> </ul>						
5.2.1.2	<p>Laporan pemantauan kualiti air juga hendaklah dikemukakan kepada JPAS bersama dengan laporan pematuhan tersebut berdasarkan 'Harvesting Programme Schedule' dan 'Proposed Quality Monitoring Programme' sebagaimana dinyatakan dalam Appendix 2.</p> <p>Lokasi dan parameter yang perlu dianalisa adalah seperti berikut:</p> <table border="1"> <thead> <tr> <th>Lokasi</th> <th>Unit/Parameter</th> </tr> </thead> <tbody> <tr> <td>Sebagaimana yang ditanda sebagai 'Existing Water Monitoring Locations' dan 'Additional Water Sampling Locations' di Figure 2.0, 'Harvestig Plan, Mitigation Measures &amp; Monitoring Locations'.</td> <td>Turbidity, pH, Total Suspended Solids, Oil &amp; Grease, Biochemical Oxygen Demand, Chemical Oxygen Demand, Ammoniacal Nitrogen</td> </tr> </tbody> </table>	Lokasi	Unit/Parameter	Sebagaimana yang ditanda sebagai 'Existing Water Monitoring Locations' dan 'Additional Water Sampling Locations' di Figure 2.0, 'Harvestig Plan, Mitigation Measures & Monitoring Locations'.	Turbidity, pH, Total Suspended Solids, Oil & Grease, Biochemical Oxygen Demand, Chemical Oxygen Demand, Ammoniacal Nitrogen	Comply	Surface water sampling was carried out at monitoring locations, <b>W1 – W3</b> , and <b>AW2</b> .	2 - 5	-
Lokasi	Unit/Parameter								
Sebagaimana yang ditanda sebagai 'Existing Water Monitoring Locations' dan 'Additional Water Sampling Locations' di Figure 2.0, 'Harvestig Plan, Mitigation Measures & Monitoring Locations'.	Turbidity, pH, Total Suspended Solids, Oil & Grease, Biochemical Oxygen Demand, Chemical Oxygen Demand, Ammoniacal Nitrogen								

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date						
<b>5.3</b>	<b><u>Perlindungan Sungai</u></b>										
<i>i</i>	<p>Simpanan sungai seperti berikut hendaklah dilindungi, disukat dan ditanda di lapangan:</p> <table border="1"> <thead> <tr> <th>Lokasi</th> <th>Unit / Parameter</th> </tr> </thead> <tbody> <tr> <td>Sg. Gumpa, Sg. Malubang, Sg. Bongkol dan Sg. Kakarangan serta semua sungai lain yang mempunyai kelebaran 3 meter atau lebih</td> <td>Sekurang-kurangnya selebar 20 meter pada jarak mendatar dari tebing sungai.</td> </tr> <tr> <td>Semua sungai yang mempunyai kelebaran kurang daripada 3 meter</td> <td>Sekurang-kurangnya selebar 5 meter pada jarak dari tebing sungai.</td> </tr> </tbody> </table>	Lokasi	Unit / Parameter	Sg. Gumpa, Sg. Malubang, Sg. Bongkol dan Sg. Kakarangan serta semua sungai lain yang mempunyai kelebaran 3 meter atau lebih	Sekurang-kurangnya selebar 20 meter pada jarak mendatar dari tebing sungai.	Semua sungai yang mempunyai kelebaran kurang daripada 3 meter	Sekurang-kurangnya selebar 5 meter pada jarak dari tebing sungai.	Comply	<ul style="list-style-type: none"> <li>The riparian reserve of Sungai Gumpa which was previously cleared by the external contractor appointed by the local authority to repair the collapsed bridge, <b>sighted thriving with revegetation.</b></li> <li>As per the Project Proponent's SOP, demarcation of riparian reserves will be done 6 months prior to any commencement of operation relative to work site(s).</li> <li><b>Signage sighted in place for demarcation of water catchment areas, HCV areas and riparian reserves.</b></li> </ul>	10- 13	-
Lokasi	Unit / Parameter										
Sg. Gumpa, Sg. Malubang, Sg. Bongkol dan Sg. Kakarangan serta semua sungai lain yang mempunyai kelebaran 3 meter atau lebih	Sekurang-kurangnya selebar 20 meter pada jarak mendatar dari tebing sungai.										
Semua sungai yang mempunyai kelebaran kurang daripada 3 meter	Sekurang-kurangnya selebar 5 meter pada jarak dari tebing sungai.										
<i>ii</i>	Sempadan simpanan sungai hendaklah disukat sebelum aktiviti pemajuan ladang Acacia mangium and Eucalyptus pellita dimulakan di kawasan projek berkenaan dan hendaklah mencapai ketepatan pengukuran standard kelas ketiga.	Comply	According to the Project Proponent, survey work for the riparian reserves had been previously carried out.	-	-						

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
iii	<i>Pelan penyukatan simpanan sungai dengan skala minima 1:25,000 hendaklah dikemukakan kepada JPAS bersama-sama dengan bacaan koordinat latitud dan longitud sebelum sebarang aktiviti pemajuan ladang Acacia mangium dimulakan di kawasan projek berkenaan.</i>	Comply	According to the Project Proponent, the riparian reserves survey plan has been submitted to the EPD.	-	-
iv	<i>Sempadan simpanan sungai yang telah disukat, hendaklah ditanda di lapangan dengan cat merah serta dipasang dengan papan tanda di lokasi-lokasi yang mudah dilihat sebelum aktiviti pemajuan ladang Acacia mangium and Eucalyptus pellita dimulakan di kawasan projek berkenaan.</i>	Comply	Refer to the comments in <b>AEC 5.3 (i)</b> .	-	-
v	<i>Sebarang aktiviti pemajuan ladang Acacia mangium and Eucalyptus pellita dan penumbangan kayu <b>tidak dibenarkan</b> di simpanan sungai ini.</i>	Comply	<ul style="list-style-type: none"> <li>▪ Refer to the comments in <b>AEC 5.3 (i)</b>.</li> <li>▪ The Project Proponent has given assurance that riparian reserves shall be excluded from Project development.</li> </ul>	10 -13	-
vi	<i>Sebarang pembinaan rumah pekerja, kem pekerja, bengkel, tandas atau struktur bangunan lain <b>tidak dibenarkan</b> di simpanan sungai ini.</i>	Comply	Construction of structures within the riparian reserve was not sighted during the visit.	-	-
vii	<i>Sebarang penyimpanan bahan minyak atau bahan toksik <b>tidak dibenarkan</b> di simpanan sungai ini.</i>	Comply	<ul style="list-style-type: none"> <li>▪ Storage of oils and toxic material inside the riparian reserves was not sighted.</li> <li>▪ The oily / toxic material storage shed is situated near the workshop</li> </ul>	-	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
			area and sited more than 50m away from nearest natural waterways.		
viii	Sebarang bahan tanah lebih, sisa tumbuhan, sisa pepejal, kumbahan, bahan minyak, kimia atau bahan-bahan toksik <b>tidak dibenarkan</b> dilupuskan di simpanan sungai, di dalam sungai atau alur air.		Disposal of overburden or any types of wastes (i.e. biomass, solid, sewage, oily / toxic material, etc.) into the riparian reserves or any nearest natural waterways was not sighted.	-	
<b>5.4</b>	<b><u>Hakisan Tanah dan Pemendapan Kelodak</u></b>				
<b>5.4.1</b>	<b><u>Larangan Aktiviti Pemajuan Ladang Acacia mangium and Eucalyptus pellita atau Pembersihan Kawasan</u></b>				
i.	Sebarang aktiviti pemajuan ladang Acacia mangium and Eucalyptus pellita atau aktiviti pembersihan kawasan <b>tidak dibenarkan</b> di kawasan berkecerunan 25 darjah atau lebih dengan keluasan 49 hektar dan kawasan perkampungan, sebagaimana ditunjukkan di "Figure 6.1" dalam laporan EIA tersebut.	Comply	According to the Project Proponent, no activities are conducted at high-risk areas (slopes with gradient $\geq 25^{\circ}$ ) as these areas are within Bengkoka Forest Reserve.	-	-
ii	Sempadan kawasan yang berkecerunan 25 darjah atau lebih dan kawasan berisiko tinggi serta kawasan perkampungan ini hendaklah ditanda di lapangan dengan cat merah serta dipasang dengan papan tanda sebelum aktiviti pembersihan kawasan dimulakan di kawasan projek berkenaan dan hendaklah mencapai ketepatan pengukuran standard kelas ketiga.	Comply	According to the Project Proponent, demarcation of high risk area (slopes with gradient $\geq 25^{\circ}$ ), will be carried out 6 months prior to start of operation, where applicable.	-	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
iii	Pelan penyukatan kawasan yang berkecerunan 25 darjah atau lebih dan kawasan berisiko tinggi serta kawasan perkampungan berkenaan hendaklah dikemukakan kepada JPAS bersama-sama dengan bacaan koordinat latitud dan longitud sebelum aktiviti pemajuan ladang Acacia mangium and Eucalyptus pellita atau aktiviti pembersihan kawasan dimulakan di kawasan projek berkenaan.	Comply	Refer to the comment in AEC 5.4.1 (ii).	-	-
<b>5.4.2</b>	<b><u>Pembinaan Jalan</u></b>				
i	Sistem perparitan hendaklah disediakan bagi mengalirkan air keluar dari struktur jalan dan dilencongkan ke kawasan yang mempunyai tumbuhan.	Comply	Roadside drainage in place along the internal access road, diverting surface run-off into the vegetated area. However, some areas sighted in need of maintenance. According to the Project Proponent, road maintenance will be carried out soon.	14	To carry out maintenance of roadside drainage along internal access road.
ii	Aktiviti pelupusan atau pembuangan bahan tanah lebih (overburden) ke dalam sungai atau alur air <b><u>tidak dibenarkan</u></b> .	Comply	Disposal of overburden into nearest natural waterways was not sighted during the site visit.	-	-
<b>5.4.3</b>	<b><u>Pembinaan Rumah Pekerja, Kem Pekerja, Bengkel atau Tapak Semaian</u></b>				
i	Rumah pekerja, kem pekerja, bengkel atau tapak semaian hendaklah dibina dengan meminimalkan kerja-kerja tanah dan pembersihan kawasan.	Comply	<ul style="list-style-type: none"> <li>▪ Both the workers' quarters, workshop and nursery are fully established and no new construction has been observed.</li> <li>▪ The Project Proponent utilizes the existing workshop established by</li> </ul>	15 - 20	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
			the previous company, Hijauan Bengkoka Sdn Bhd.		
ii	<i>Sistem perparitan yang berkesan hendaklah disediakan bagi mengawal larian air permukaan dan air buangan dari kawasan rumah pekerja, kem pekerja, bengkel atau tapak semaian dan hendaklah dilencongkan ke kawasan yang mempunyai tumbuhan dan <b>tidak dibenarkan</b> dialir terus ke dalam sungai atau alur air.</i>	Comply	<ul style="list-style-type: none"> <li>▪ Drainages provided at the workers' quarters' sighted diverted into vegetated area.</li> <li>▪ Runoff from the nursery is diverted into the sedimentation pond via earth and concrete drains. The Project Proponent has assured to ensure there will be no development activities along the earth drain towards the sedimentation pond to prevent erosion. Project site remains idle with no site operation during the audit visit.</li> </ul>	18 - 22	-
iii	<i>Kedudukan rumah pekerja atau kem pekerja hendaklah terletak pada jarak mendatar tidak kurang 30 meter dari tebing sungai atau alur air.</i>	Comply	Worker's quarters sited on-site are located more than 30m away from any nearest natural waterways as observed during the site visit.	15	-
iv	<i>Kedudukan bengkel atau tapak semaian hendaklah terletak pada jarak mendatar tidak kurang 50 meter dari tebing sungai atau alur air.</i>	Comply	Both the nursery and workshop sited onsite are located more than 50m away from any nearest natural waterways as observed during the site visit.	16 - 17	-
v	<i>Semua rumah pekerja, kem pekerja, bengkel atau tapak semaian sedia ada yang tidak mematuhi peraturan-peraturan yang dinyatakan dalam syarat-syarat alam sekitar ini, hendaklah</i>	Comply	Siting for these facilities are in compliance with the AEC requirement.	-	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
	<i>dipindah dan dikawal sebagaimana yang ditetapkan.</i>				
<b>5.4.4</b>	<b><u>Kawalan Larian Air Permukaan</u></b>				
<i>i</i>	<i>Sistem perparitan dan kolam perangkap mendap (sedimentation pond) hendaklah disediakan di lokasi yang strategik dalam kawasan tapak projek.</i>	<i>Comply</i>	Surface run-off at the nursery is channelled into the sedimentation pond via earth and concrete drainage. However, same drain areas sighted with overgrown vegetation.	18, 21 - 22	To carry out housekeeping activities ie to remove overgrown vegetation to prevent clogging of drain
<i>ii</i>	<i>Kolam perangkap mendap tersebut hendaklah diselenggarakan dengan mengeluarkan bahan sedimen sekurang-kurangnya satu (1) kali dalam sebulan.</i>	<i>Comply</i>	According to the Project Proponent, this condition will be complied with as soon as operations resume.	21	Project Proponent is reminded to ensure maintenance of the sedimentation pond is done accordingly.
<i>iii</i>	<i>Sebarang penyimpanan atau pelupusan bahan sedimen <b>tidak dibenarkan</b> di kawasan sungai atau simpanan sungai.</i>	<i>Comply</i>	Disposal of sediment into any of the nearest natural waterways or riparian reserves was not sighted during the site visit.	-	-
<i>iv</i>	<i>Sistem perparitan yang berkesan hendaklah dibina bagi mengawal larian air permukaan dari kawasan projek, terutamanya di sekitar kawasan rumah pekerja, kem pekerja, bengkel atau tapak semeaian.</i>	<i>Comply</i>	<ul style="list-style-type: none"> <li>▪ Drainages provided at the workers' quarters and nursery area were diverted towards the vegetated area.</li> <li>▪ According to the Project Proponent, half cut drum is utilized as drip tray to contain oil during maintenance activity at the workshop.</li> </ul>	17, 20 - 22	-
<i>v</i>	<i>Aliran parit tersebut hendaklah dilencongkan ke kolam perangkap mendap dan <b>tidak dibenarkan</b> dialir terus ke dalam sungai alur air.</i>	<i>Comply</i>	Drainage within the nursery diverted into the sedimentation pond.	21 - 22	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
vi	Sebarang pembinaan sistem perparitan dan kolam perangkap mendap <b><u>tidak dibenarkan</u></b> di dalam alur air semulajadi, kawasan simpanan sungai atau di dalam sungai.	Comply	Construction of surface runoff mitigation structures within any of the existing natural waterways and riparian reserves was not sighted during the site visit.	-	-
vii	Semua kawasan yang terdedah hendaklah dilindungi dan ditanam dengan tumbuhan tutup bumi untuk mengurangkan hakisan tanah.	Comply	Exposed Project areas is planted with cover crops to reduce soil erosion.	-	-
<b>5.5</b>	<b><u>Pemajuan Ladang Acacia mangium and Eucalyptus pellita Secara Berfasa</u></b>				
i	Operasi pemajuan ladang Acacia mangium and Eucalyptus pellita hendaklah dilaksanakan secara berperingkat/berfasa dan terancang.	Not Applicable	The development for <i>Acacia mangium</i> and <i>Eucalyptus pellita</i> plantations was carried out in phases as per harvesting plan presented in <b>Appendix D</b> . The company is not conducting planting operations at the time of reporting.	-	-
ii	Pelan pengurusan operasi pemajuan ladang Acacia mangium and Eucalyptus pellita hendaklah disediakan dan dilaksanakan serta satu salinan pelan tersebut hendaklah dikemukakan kepada JPAS.	Not Applicable	The Operation Management Plan was presented in the EIA report. The company is not conducting planting operations at the time of reporting.	-	-
<b>5.6</b>	<b><u>Perlindungan Kawasan Sensitif</u></b>				
i	Zon penampakan sekurang-kurangnya selebar 50 meter hendaklah disediakan di sepanjang sempadan projek dengan	Comply	According to the Project Proponent, the 50m wide buffer zone of Hutan Simpan Semenanjung Bengkoka and Hutan Simpan Bengkoka no longer	-	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
	<p>Hutan Simpan Bengkoka dan Tambalugu (Kelas I), Hutan Simpan Semenanjung Bengkoka (Hutan Simpan Bakau Kelas V) dan Hutan Simpan Paitan (Kelas II). Sebarang aktiviti pemajuan ladang Acacia mangium and Eucalyptus pellita atau aktiviti pembersihan kawasan <b>tidak dibenarkan</b> di dalam kawasan zon penampian ini sebagaimana yang dinyatakan di bawah perkara “2 (ii)” serta ditunjukkan di “Figure 6.1” dalam maklumat tambahan laporan EIA tersebut.</p>		<p>applies since these forest reserves is now developed by other planters.</p>		
ii	<p>Sempadan kawasan zon penampian ini hendaklah dilindungi dan disukat sebelum aktiviti pemajuan ladang Acacia mangium and Eucalyptus pellita atau aktiviti pembersihan kawasan dimulakan di kawasan projek berkenaan dan hendaklah mencapai ketepatan pengukuran standar kelas ketiga.</p>	Comply	<p>The survey work for the buffer zone had been previously carried out by the Project Proponent.</p>	-	-
iii	<p>Pelan penyukatan kawasan-kawasan zon penampian berkenaan hendaklah dikemukakan kepada JPAS bersama-sama dengan bacaan koordinat latitud dan longitud sebelum aktiviti pemajuan ladang Acacia mangium and Eucalyptus pellita atau aktiviti pembersihan kawasan dimulakan di kawasan projek berkenaan.</p>	Comply	<p>The survey map was submitted via the EIA report.</p>	-	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
iv	Sempadan kawasan zon penampungan yang telah disukat, hendaklah ditanda di lapangan dengan cat merah serta dipasang dengan papan tanda di lokasi-loasi yang mudah dilihat sebelum aktiviti pemajuan ladang Acacia mangium and Eucalyptus pellita atau aktiviti pembersihan kawasan dimulakan di kawasan projek berkenaan.	Comply	According to the Project Proponent, physical demarcation will be carried out in tandem with Project Progress.	-	
<b>5.7</b>	<b><u>Bahan Minyak dan Sisa Toksik</u></b>				
i	Bahan minyak dan sisa toksik yang digunakan dalam aktiviti pemajuan ladang Acacia mangium and Eucalyptus pellita ini adalah <b><u>tidak dibenarkan</u></b> dilupuskan atau dibiarkan mengalir ke dalam parit, sungai atau alur air.	Comply	Disposal of oil and toxic material into the nearest natural waterways was not sighted.	-	-
ii	Bahan minyak dan sisa toksik hendaklah dikumpul dan disimpan dalam bekas yang kukuh dan tidak mudah bocor. Bekas-bekas penyimpanan tersebut hendaklah dilabel.	Comply	<ul style="list-style-type: none"> <li>▪ Agrochemicals, fertilizers, and scheduled waste sighted contained in proper storage containers as well as labelled accordingly.</li> <li>▪ According to the Project Proponent, the disposal of scheduled wastes is handled by a licensed scheduled waste transporter (Lagenda Bumimas Sdn. Bhd.), as and when scheduled waste is generated by operations.</li> <li>▪ Diesel supply sighted contained in skid tanks.</li> </ul>	6 – 9, 23, 26	-
iii	Kawasan penyimpanan bahan minyak dan sisa toksik tersebut hendaklah	Comply	<ul style="list-style-type: none"> <li>▪ The agrochemical and fertilizer storage sheds are located at least</li> </ul>	7-9,	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
	<i>terlindung dari hujan dan hendaklah terletak pada jarak mendatar tidak kurang 50 meter dari tebing sungai atau alur air.</i>		50m away from natural waterways and sheltered from the elements. <ul style="list-style-type: none"> <li>Both the skid tanks and scheduled waste storage sheds located near the existing workshop, are sheltered and located more than 50m away from nearest natural waterways.</li> </ul>	23 & 26	
iv	<i>Kawasan penyimpanan bahan minyak dan sisa toksik hendaklah disediakan dengan sistem saliran perangkap minyak.</i>	Comply	<ul style="list-style-type: none"> <li>Both the skid tanks and scheduled waste storage sheds located near the existing workshop are equipped with a perimeter concrete containment bund.</li> <li>The skid tanks' shed is equipped with an oil trap.</li> <li>The scheduled waste storage shed is equipped with drainage connected to an oil trap.</li> </ul>	23 - 27	-
v	<i>Bahan minyak dan sisa toksik tersebut hendaklah dilupuskan mengikut garis panduan, peraturan atau undang-undang kerajaan yang sedang berkuatkuasa.</i>	Comply	Refer to the comment in AEC 5.7 (ii).	-	-
<b>5.8</b>	<b><u>Bahan Sisa Pepejal dan Sisa Biomass</u></b>				
i	<i>Sebarang aktiviti pelupusan bahan sisa pepejal dan sisa biomass <b><u>tidak dibenarkan</u></b> ke dalam parit, alur air, di dalam sungai atau simpanan sungai.</i>	Comply	Disposal of solid wastes and biomass within the riparian reserves or any nearest natural waterways was not sighted during the site visit.	-	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
ii	<i>Kemudahan mengumpul dan mengutip bahan sisa pepejal dan sisa biomass hendaklah disediakan. Lokasi kawasan pengumpulan bahan sisa pepejal dan sisa biomass hendaklah dikaji agar tidak mendatangkan kesan negatif kepada penduduk sekitar.</i>	Comply	<ul style="list-style-type: none"> <li>▪ Garbage bins were provided at the workers' quarters and workshop area.</li> <li>▪ Recycle bins were provided at the workshop to facilitate solid waste segregation.</li> </ul>	28 - 30	-
iii	<i>Semua kawasan pengumpulan bahan sisa pepejal dan sisa biomas hendaklah terletak pada jarak mendatar tidak kurang 30 meter dari alur air atau tebing sungai.</i>	Comply	These bins are located more than 30m away from nearest natural waterways.	28 - 30	-
iv	<i>Semua bahan sisa pepejal seperti botol, tin, plastik, dan besi hendaklah dikumpul secara berasingan dan dikitar semula.</i>	Comply	Refer to the comments in <b>AEC 5.8 (ii)</b> .	-	-
v	<i>Sekiranya tiada kawasan pelupusan yang sesuai dalam kawasan projek, bahan sisa pepejal dan sisa biomas tersebut hendaklah dilupuskan di kawasan yang disediakan oleh pihak berkuasa tempatan.</i>	Comply	Refer to the comments in <b>AEC 5.8 (ii)</b> .	-	-
<b>5.9</b>	<b><u>Kawalan Kualiti Udara dan Kebakaran</u></b>				
i	<i>Pembakaran terbuka adalah <b><u>tidak dibenarkan</u></b>.</i>	Comply	The Project Proponent assured that no open burning conducted during Project development stage.	31-32	Project Proponent is reminded to adhere to "no-open burning" policy throughout project stage.
ii	<i>Pelan pengurusan dan pencegahan kebakaran kawasan pemajuan ladang Acacia mangium and Eucalyptus pellita hendaklah disediakan dan satu salinan</i>	Comply	The Fire Prevention and Management Plan had been submitted to the EPD via the November 2010 – February 2011 ECR (Ref: Y1/2011).	-	-

AEC No.	Approved Environmental Conditions	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
	<i>pelan tersebut hendaklah dikemukakan kepada JPAS.</i>				
<b>5.9</b>	<b><u>Penghentian Projek</u></b>				
<i>i</i>	<i>Semua struktur binaan yang tidak digunakan hendaklah dibuka secara teratur apabila berlaku penghentian projek tersebut</i>	Not Applicable	Not applicable in relation to current Project stage.	-	-
<i>ii</i>	<i>Semua struktur binaan yang didapati tidak selamat atau yang tidak dapat dipastikan selamat, hendaklah dibuka.</i>	Not Applicable	Refer to the comments in <b>AEC 5.9 (i)</b> .	-	-
<i>iii</i>	<i>Semua tanah yang tercemar dengan bahan minyak dan bahan berbahaya hendaklah dikeluarkan dan dibersihkan.</i>	Not Applicable	Refer to the comments in <b>AEC 5.9 (i)</b> .	-	-

## 6.0 CONCLUSION

### 6.1 Overall Compliance for November 2023 – February 2024

The Project (*Proposed Replanting and Planting of 25, 000 Ha of Acacia mangium and Eucalyptus pellita at Bengkoka Peninsula, District of Pitas, Sabah by Acacia Forest Industries Sdn. Bhd.*), generally complied with the EIA approval conditions, albeit with only **two (2) non-compliances** recorded.

Recommended mitigation measure(s) for following non-compliances as follows:

AEC No.	Recommendation
<u>Kawalan Tapak Pembangunan</u> 5.1 (i) & (ii)	The Project Proponent is advised to continue to consult with SAFODA, the responsible party, to close the prevailing boundary issue.

Other areas for improvement:

- i. To carry out maintenance of roadside drainage
- ii. To remove overgrown vegetation inside the drain to prevent clogging, at the nursery area.

### **PERAKUAN PAS**

Dengan ini saya mengaku telah turut serta dalam odit yang dijalankan oleh perunding alam sekitar dan telah meneliti dan bersetuju dengan isi kandungan Laporan Pematuhan Alam Sekitar bagi projek ini.

Tandatangan :

Nama :

Jawatan :

Tarikh :

Cop Rasmi :  
syarikat

### **PERAKUAN PERUNDING ALAM SEKITAR**

Dengan ini saya mengaku dan mengesahkan semua kenyataan dan butir-butir dalam Laporan Pematuhan Alam Sekitar yang dikemukakan adalah benar.

Tandatangan :

Nama : **Jessica Malagkas**

Tarikh :

Cop Rasmi :  
syarikat

# APPENDIX A

Plates



**Kawalan Tapak Pembangunan**



**Plate 1**

Signage sighted in place at the boundary with Gerak Saga Plantation.

**Kualiti Sumber Air**



**Plate 2**

Surface water sampling at monitoring location, W2.

**Kualiti Sumber Air**



**Plate 3**

Surface water sampling at monitoring location, **W1.**



**Plate 4**

Surface water sampling at monitoring location, **W3.**

**Kualiti Sumber Air**



**Plate 5**

Surface water sampling at monitoring location, **AW2**.



**Plate 6**

View of the Chemical Store located near the nursery.

The building is divided into various compartments. It housed the storage compartment for fertilizers (Plate 9) and agrochemicals (Plate 10).

**Kualiti Sumber Air**



**Plate 7**

View showing the fertiliser storage area. It is sited more than 50m away from any waterways and equipped with rooftop



**Plate 8**

View showing the agrochemical storage area

It is sited more than 50m away from any waterways and equipped with rooftop

**Kualiti Sumber Air**



**Plate 9**

Another view showing the agrochemical storage area

It is sited more than 50m away from any waterways and equipped with rooftop.

6°49'56.91"N 117°9'32.226"E  
74° E  
Kg. Bangkoka, Sabah, Malaysia  
Tuesday, February 13, 2024 17:43:51

**Perlindungan Sungai**



**Plate 10**

Signage in place demarcating High Conservation Value (HCV) areas.

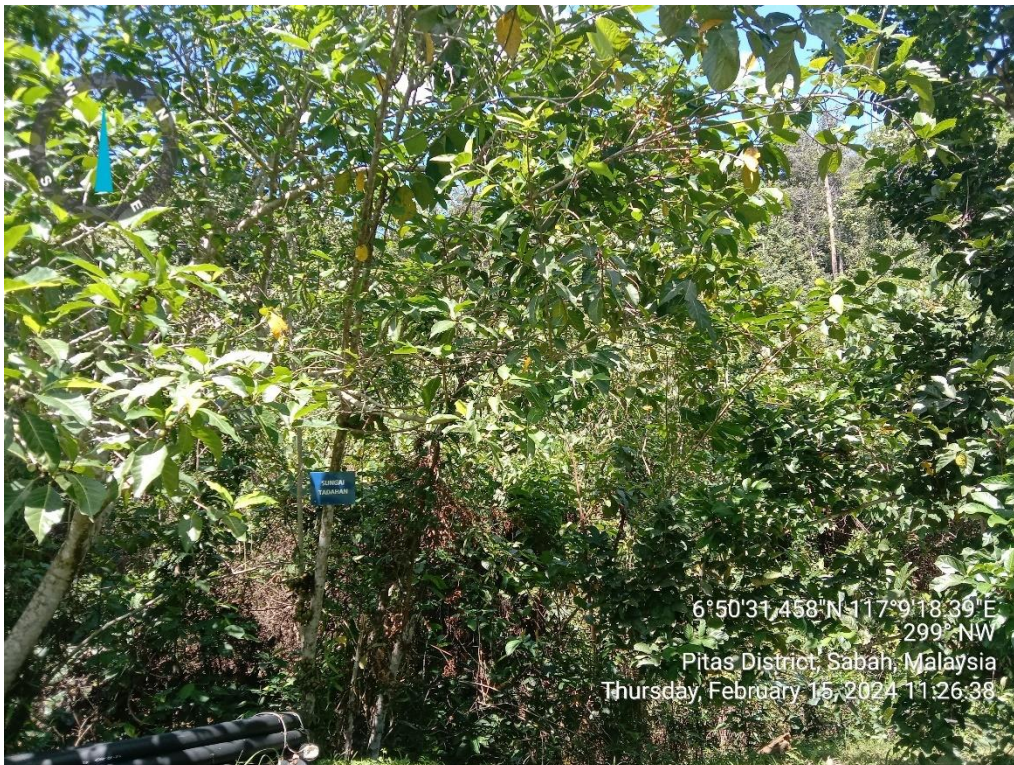
6°57'38.004"N 117°9'23.268"E  
292° W  
Tuesday, February 13, 2024 16:03:20

**Perlindungan Sungai**



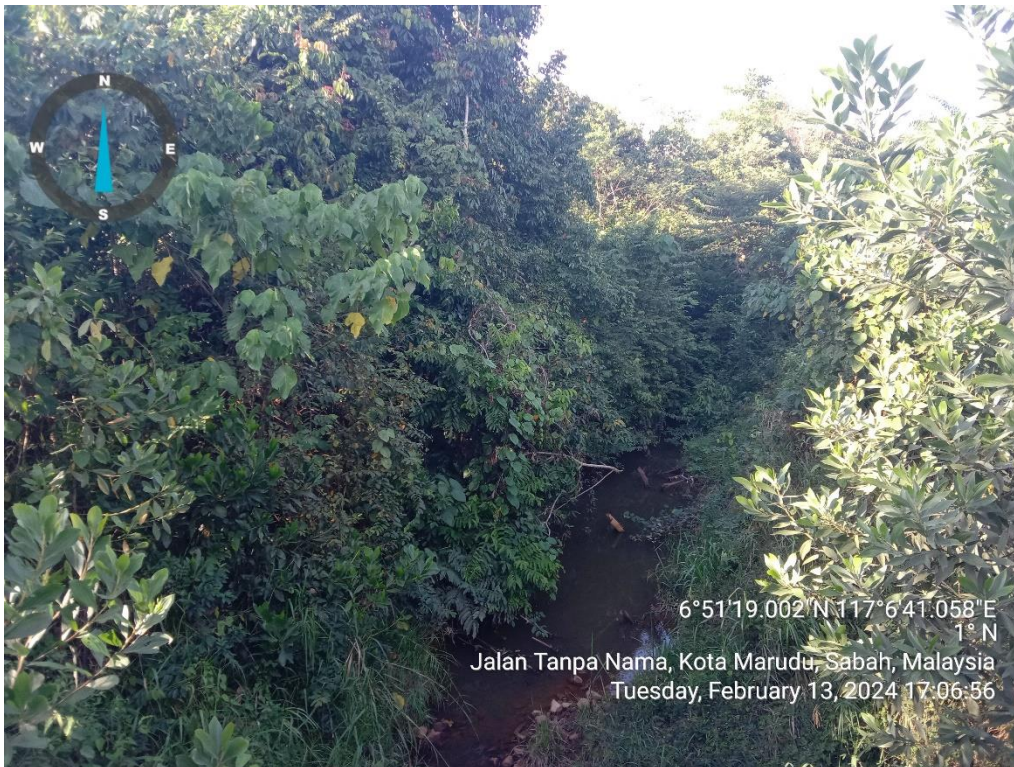
**Plate 11**

Another signage sighted in place demarcating High Conservation Value (HCV) areas.



**Plate 12**

Signage in place demarcating Water Catchment areas.

**Perlindungan Sungai****Plate 13**

Downstream view of Sg. Gumpa near W1 sighted undisturbed - the riparian reserve of Sungai Gumpa which was previously cleared by the external contractor appointed by the local authority to repair the collapsed bridge, sighted thriving with revegetation.

**Pembinaan Jalan****Plate 14**

Roadside drainage in need of maintenance along the internal access road.

According to Project Proponent, road maintenance will be carried out soon.

**Pembinaan Rumah Pekerja, Kem Pekerja, Bengkel atau Tapak Semaian**



**Plate 15**

Workers' quarters is located more than 30m away from the nearest natural waterways.



**Plate 16**

View showing the existing workshop sited on-site.

This facility is situated more than 50m away from any natural waterways.

**Pembinaan Rumah Pekerja, Kem Pekerja, Bengkel atau Tapak Semaian**



**Plate 17**

View towards the nursery situated near the project site office.

It is located more than 50m away from natural waterways.



**Plate 18**

The nursery is equipped with concrete drainage (red arrow) diverting flow into the nearby sedimentation pond

**Kawalan Larian Air Permukaan**



**Plate 19**

The workers' quarters sighted equipped with perimeter concrete drainage diverting flow into the nearby main drain.

6°49'57.066"N 117°9'16.41"E  
26° NE

Jalan Tanpa Nama, Kota Marudu, Sabah, Malaysia  
Tuesday, February 13, 2024 18:03:32



**Plate 20**

View of the main drainage at the workers' quarters diverting flow into vegetated areas.

6°49'57.246"N 117°9'16.236"E  
96° E

Jalan Tanpa Nama, Kota Marudu, Sabah, Malaysia  
Tuesday, February 13, 2024 18:02:59

**Kawalan Larian Air Permukaan**



**Plate 21**

Access way towards the sedimentation pond collecting runoff from the nursery - red arrow.

Project site remains idle (no site operation during the audit visit).



**Plate 22**

Runoff from the nursery is channelled into the sedimentation pond via concrete and earth drainage.

However, some of the drains sighted overgrown with vegetation.

The Project Proponent is advised to remove the vegetation inside the drain to prevent clogging.

**Bahan Minyak dan Sisa Toksik****Plate 23**

Scheduled waste storage shed is sited more than 50m away from any waterways.

It is sheltered from weather exposure, equipped with concretized floor and perimeter concrete containment bund.

**Plate 24**

There was no scheduled waste generated / sighted at the storage area during the visit.

**Bahan Minyak dan Sisa Toksik****Plate 25**

The scheduled waste shed is equipped with drainage connected to an oil trap (red arrow)

**Plate 26**

Diesel skid tanks storage shed is equipped with concretized floor, bunded and sheltered from weather exposure.

It is located more than 50m away from any nearest natural waterways.

**Bahan Minyak dan Sisa Toksik**



**Plate 27**

Oil trap connected to the diesel tanks' shed (red arrow).

**Bahan Sisa Pepejal dan Sisa Biomass**



**Plate 28**

Garbage bins sighted provided at the workers' quarters to facilitate solid waste collection and disposal.

**Bahan Sisa Pepejal dan Sisa Biomass**



**Plate 29**

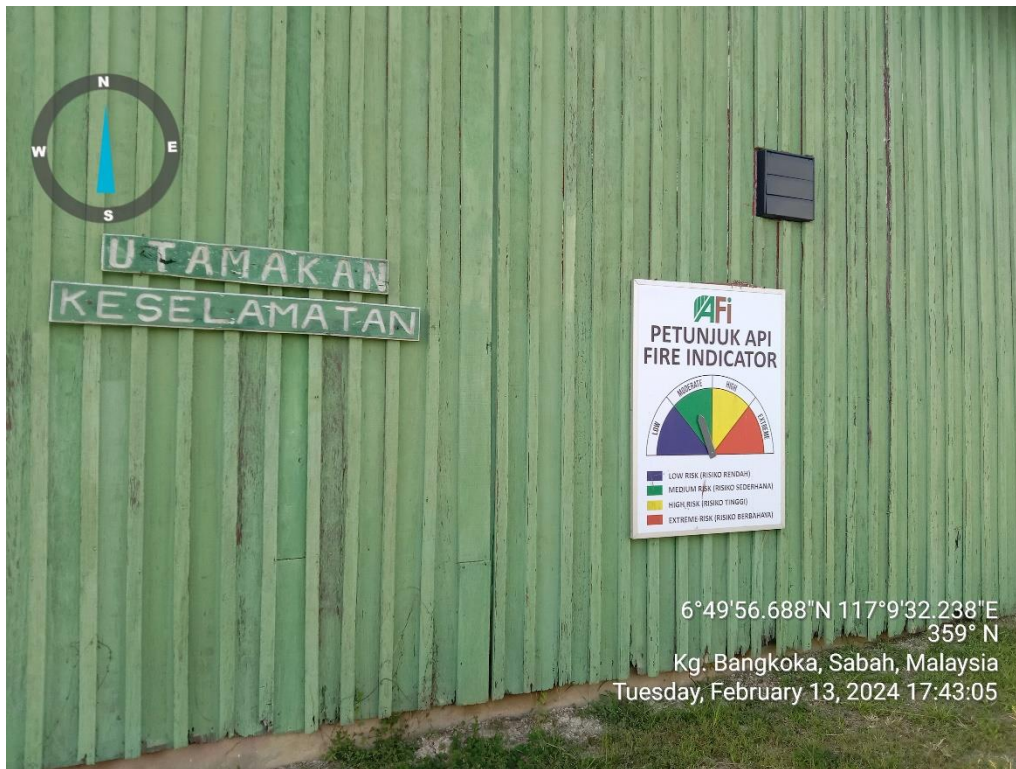
General and recycle waste bins sighted provided at the workshop area to facilitate solid waste segregation.



**Plate 30**

General waste bins sighted provided at the site office to facilitate solid waste segregation.

**Kawalan Kualiti Udara Dan Kebakaran**



**Plate 31**

Fire indicator signage sighted in place at the site office.



**Plate 32**

View of fire storage equipment

# **APPENDIX B**

Environmental Monitoring Report



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## 1.0 SURFACE WATER QUALITY

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### 1.1 MONITORING LOCATION

Surface water sampling was scheduled to be carried out on the 13<sup>th</sup> February 2024 at three (3) existing monitoring locations, **W1**, **W2** and **W3** as well as additional water sampling at active Project area, **AW2**, as shown in **Figure 1.0**.

### 1.2 SURFACE WATER

Surface water monitoring was designed to determine the chemical and physical characteristic of water at the designated monitoring locations shown in **Figure 1.0**. Water samples were collected, preserved and transported to the lab for analysis. Parameters of interest includes pH, Total Suspended Solids (TSS), Turbidity, Biochemical Oxygen Demand (BOD), Oil & Grease, Chemical Oxygen Demand (COD) and Ammoniacal-Nitrogen (as NH<sub>3</sub>-N). Analytical methodologies for these parameters summarised in **Table 1.0**.

**Table 1.0:** Analytical methodologies

Parameter	Method Reference
pH value	APHA 4500-H <sup>+</sup> B, 2017
Total Suspended Solids (TSS)	APHA 2540 D, 2017
Turbidity	APHA 2130 B, 2017
Biochemical Oxygen Demand (BOD)	APHA 5210 B & 4500-O G, 2017
Oil & Grease	APHA 5520B B, 2017
Chemical Oxygen Demand	APHA 5220 C, 2017
Ammoniacal-Nitrogen (as NH <sub>3</sub> -N)	APHA 4500-NH <sub>3</sub> F, 2017

### 1.3 RESULTS

Surface water quality results are to be compared against **Class IIB** of **National Water Quality Standards for Malaysia (NWQSM)**.

Test reports are presented in **Appendix C** whilst **Charts 1.0 – 7.0** represent the historical surface water quality results for existing monitoring locations, **W1 – W3**, as well as the additional water sampling (**AW2**).

**Table 2.0: Surface Water Quality Monitoring Results**

Monitoring Location	W1	W2	W3	AW2	<sup>1</sup> LIMIT (Class IIB)
Monitoring Date Sampling Time	13/2/24 5.05PM	13/2/24 4.41 PM	13/2/24 5.24 PM	13/2/24 5.00 PM	
<b><u>Physical / Chemical Analysis</u></b>					
pH Value	7.4	7.4	7.3	7.5	6 – 9
Total Suspended Solids, mg/L	11.0	12.0	47.0	47.0	50
Turbidity, NTU	15	34	7	<5	50
Biochemical Oxygen Demand, mg/L	<1.0	<1.0	<1.0	<1.0	3
Oil & Grease, mg/L	<1.5	<1.5	<1.5	<1.5	40;N, 7000;N
Chemical Oxygen Demand, mg/L	16.4	<b><u>60.6</u></b>	<b><u>26.2</u></b>	<10.0	25
Ammoniacal Nitrogen, mg/L	<b><u>0.32</u></b>	0.12	0.24	<b><u>0.38</u></b>	0.3

Notes:

&lt; &gt; Below / above detection limit

(N) denotes Free from visible film sheen, discolouration and deposits

## 1.4 OBSERVATION

Surface water quality results at locations, **W1 – W3**, and **AW2**, complied with **Class IIB (NWQSM)**, exception are Chemical Oxygen Demand (**W2, W3**) and Ammoniacal Nitrogen (**W1, AW2**).

Exceedance in COD may have been caused by an increased in decayed organic matter inside the waterbody. The presence of decayed organic matter led to the increase of nitrate level sufficient to trigger attained COD levels. In addition, leaves and wooden debris which entered the waterbody (washed out by rain) could have also contributed to the COD result.

Ammonia is one of the several forms of nitrogen that exist in the aquatic environment. It enters the aquatic environment via direct means such as sewage from surrounding settlements, as well as excretion of nitrogenous wastes from animals, and indirect means such as nitrogen fixation, air deposition and runoff from agricultural lands. The elevated level of ammoniacal-nitrogen could likely be attributed by animal waste as well as sewage from nearby community settlements, which are washed into the river from rain events.

This is deemed beyond the Project Proponent's control.

<sup>1</sup> National Water Quality Standards for Malaysia, Malaysia Environmental Quarry Report (DOE, 2006)

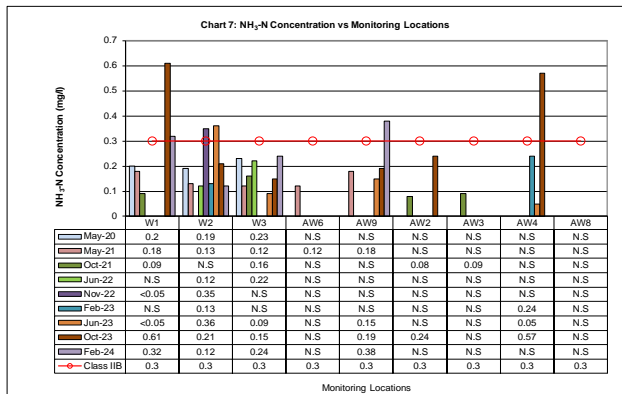
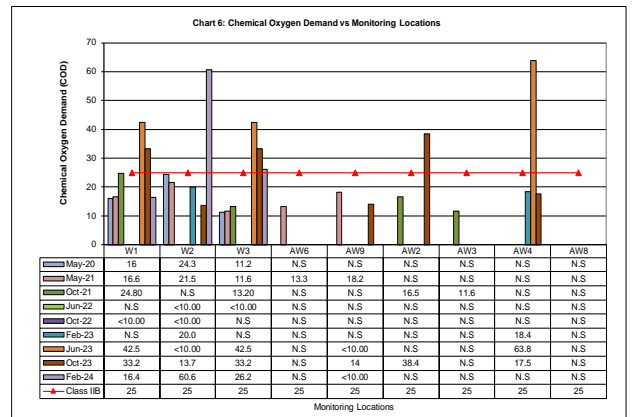
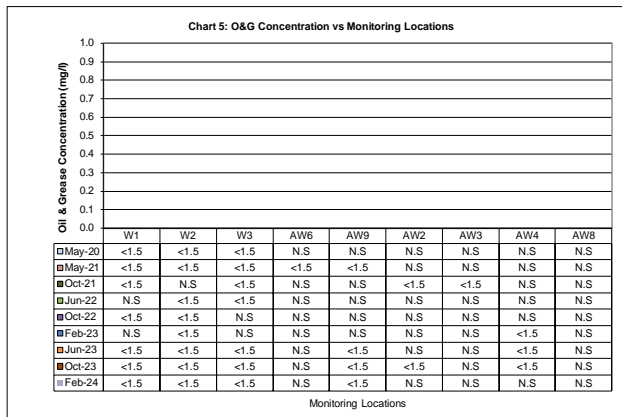
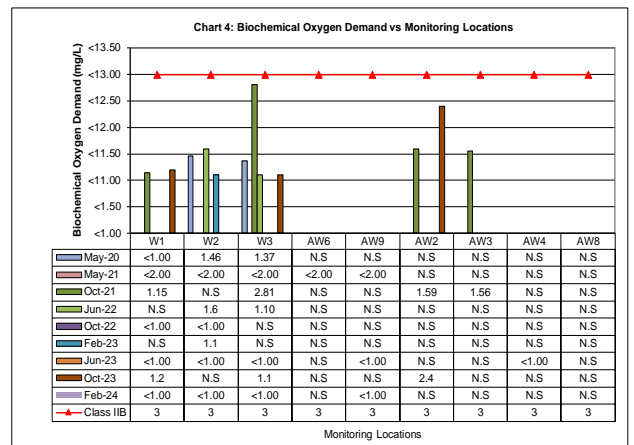
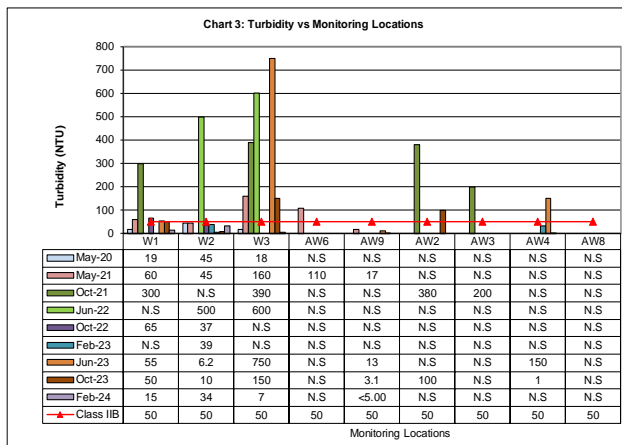
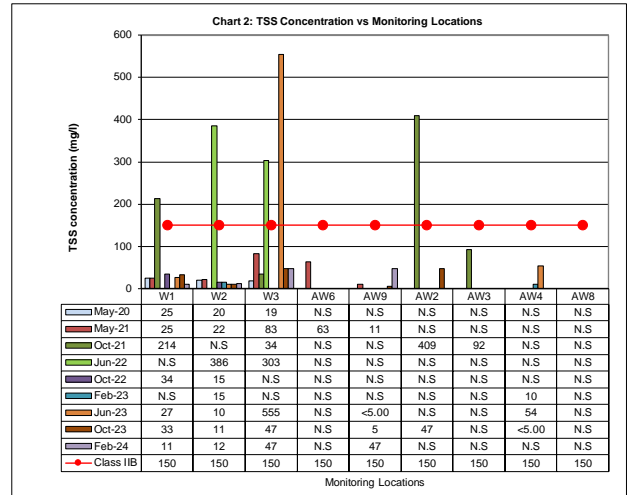
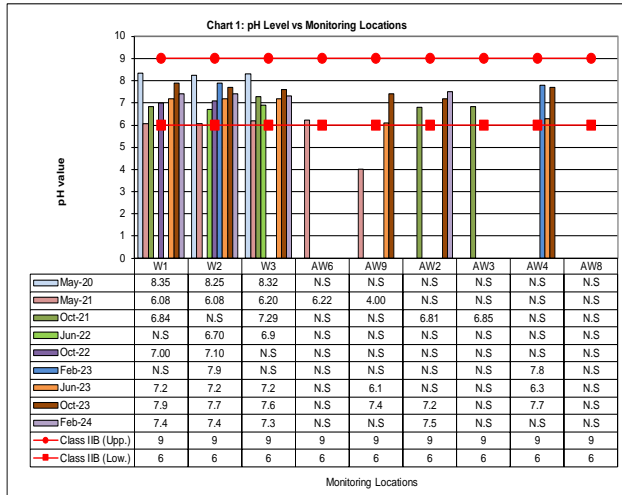


## 1.5 RECOMMENDED MITIGATION MEASURES

- Records to show regular maintenance of the earth drainage systems and sedimentation pond is advised to be kept/ provided.
- Any maintenance of vehicles and machinery or storage of oily waste and fuel must be carried out at more than 50 meters away from any source of water.
- Clearing should be done in phases to minimise soil erosion. Cleared and exposed areas not utilized shall be re-vegetated with fast growing cover crops.



# HISTORICAL WATER QUALITY RESULTS



**Notes:**  
 (<>) below / above detection limit  
 (N.S) denotes No Sample Available

# **APPENDIX C**

Surface Water Quality Test Report  
National Water Quality Standards for Malaysia  
(NWQSM)



## National Water Quality Standards for Malaysia

PARAMETER	UNIT	CLASS				
		I	IIA/II B	III*	IV	V
Al	mg/l	↑	-	(0.06)	0.5	↑
As	mg/l		0.05	0.4 (0.05)	0.1	
Ba	mg/l		1	-	-	
Cd	mg/l		0.01	0.01* (0.001)	0.01	
Cr (IV)	mg/l		0.05	1.4 (0.05)	0.1	
Cr (III)	mg/l		-	2.5	-	
Cu	mg/l		0.02	-	0.2	
Hardness	mg/l		250	-	-	
Ca	mg/l		-	-	-	
Mg	mg/l		-	-	-	
Na	mg/l		-	-	3 SAR	
K	mg/l		-	-	-	
Fe	mg/l		1	1	1 (Leaf) 5 (Others)	
Pb	mg/l		0.05	0.02* (0.01)	5	
Mn	mg/l		0.1	0.1	0.2	
Hg	mg/l	N	0.001	0.004 (0.0001)	0.002	L
Ni	mg/l	A	0.05	0.9*	0.2	E
Se	mg/l	T	0.01	0.25 (0.04)	0.02	L
Ag	mg/l	U	0.05	0.0002	-	S
Sn	mg/l	R	-	0.004	-	A
U	mg/l	A	-	-	-	B
Zn	mg/l	L	5	0.4*	2	O
B	mg/l		1	(3.4)	0.8	V
Cl	mg/l	L	200	-	80	E
Cl <sub>2</sub>	mg/l	E	-	(0.02)	-	I
CN	mg/l	V	0.02	0.06 (0.02)	-	V
F	mg/l	E	1.5	10	1	I
NO <sub>2</sub>	mg/l	L	0.4	0.4 (0.03)	-	S
NO <sub>3</sub>	mg/l	S	7	-	5	O
P	mg/l	O	0.2	0.1	-	R
Silica	mg/l	R	50	-	-	A
SO <sub>4</sub>	mg/l		250	-	-	B
S	mg/l	A	0.05	(0.001)	-	S
CO <sub>2</sub>	mg/l	B	-	-	-	E
Gross-α	Bq/l	S	0.1	-	-	N
Gross-β	Bq/l	E	1	-	-	T
Ra-226	Bq/l	N	< 0.1	-	-	
Sr-90	Bq/l	T	< 1	-	-	
CCE	µg/l		500	-	-	
MBAS/BAS	µg/l		500	5000 (200)	-	
O & G (Mineral)	µg/l		40; N	N	-	
O & G (Emulsified Edible)	µg/l		7000; N	N	-	
PCB	µg/l		0.1	6 (0.05)	-	
Phenol	µg/l		10	-	-	
Aldrin/Dieldrin	µg/l		0.02	0.2 (0.01)	-	
BHC	µg/l		2	9 (0.1)	-	
Chlordane	µg/l		0.08	2 (0.02)	-	
t-DDT	µg/l		0.1	(1)	-	
Endosulfan	µg/l		10	-	-	
Heptachlor/Epoxide	µg/l		0.05	0.9 (0.06)	-	
Lindane	µg/l		2	3 (0.4)	-	
2, 4-D	µg/l		70	450	-	
2,4, 5-T	µg/l		10	160	-	
2,4, 5-TP	µg/l		4	850	-	
Paraquat	µg/l	↓	10	1800	-	↓

Notes :

\* = At hardness 50 mg/l CaCO<sub>3</sub>

# = Maximum (unbracketed) and 24-hour average (bracketed) concentrations

N = Free from visible film sheen, discolouration and deposits

PARAMETER	UNIT	CLASS					
		I	IIA	IIB	III	IV	V
Ammoniacal Nitrogen	mg/l	0.1	0.3	0.3	0.9	2.7	> 2.7
Biochemical Oxygen Demand	mg/l	1	3	3	6	12	> 12
Chemical Oxygen Demand	mg/l	10	25	25	50	100	> 100
Dissolved Oxygen	mg/l	7	5 – 7	5 – 7	3 – 5	< 3	< 1
pH	-	6.5 – 8.5	6 – 9	6 – 9	5 – 9	5 – 9	-
Colour	TCU	15	150	150	-	-	-
Electrical Conductivity*	µS/cm	1000	1000	-	-	6000	-
Floatables	-	N	N	N	-	-	-
Odour	-	N	N	N	-	-	-
Salinity	%	0.5	1	-	-	2	-
Taste	-	N	N	N	-	-	-
Total Dissolved Solid	mg/l	500	1000	-	-	4000	-
Total Suspended Solid	mg/l	25	50	50	150	300	300
Temperature	°C	-	Normal + 2 °C	-	Normal + 2 °C	-	-
Turbidity	NTU	5	50	50	-	-	-
Faecal Coliform**	count/100 ml	10	100	400	5000 (20000) <sup>a</sup>	5000 (20000) <sup>a</sup>	-
Total Coliform	count/100 ml	100	5000	5000	50000	50000	> 50000

Notes :

N No visible floatable materials or debris, no objectional odour or no objectional taste

\* : Related parameters, only one recommended for use

\*\* : Geometric mean

a : Maximum not to be exceeded

**CLASS USES**

Class I	Conservation of natural environment. Water Supply I – Practically no treatment necessary. Fishery I – Very sensitive aquatic species.
Class IIA	Water Supply II – Conventional treatment required. Fishery II – Sensitive aquatic species.
Class IIB	Recreational use with body contact.
Class III	Water Supply III – Extensive treatment required. Fishery III – Common, of economic value and tolerant species; livestock drinking.
Class IV	Irrigation
Class V	None of the above.

*Extracted from Malaysia Environmental Quality Report, 2006 (DOE).*



## Test Report

\*Not for Advertisement Purposes\*

Customer : Acacia Forest Industries Sdn Bhd  
1<sup>st</sup> Floor, Wisma Perkasa, Jalan Gaya,  
88100 Kota Kinabalu, Sabah

Lab No. : CK/CL405/0856/24  
Type (No.) of Sample : River Water (4)  
Date Received : 14<sup>th</sup> February 2024  
Date of Report : 23<sup>rd</sup> February 2024  
Project Code : CK/MO411/1187/24

Lab No.:	0856-1	0856-2	Test Method	* Standard Limit
Parameter(s)	W1 Date: 13/02/24 Time: 5.05 pm	W2 Date: 13/02/24 Time: 4.41 pm		
pH Value (in-situ / 13.02.2024)	7.4	7.4	APHA 4500-H <sup>+</sup> B, 2017	6-9
Turbidity, NTU	15	34	APHA 2130 B, 2017	50
Total Suspended Solids, mg/L	11.0	12.0	APHA 2540 D, 2017	50
Biochemical Oxygen Demand in 5 days @ 20°C, mg/L	<1.0	<1.0	APHA 5210 B & 4500-O G, 2017	3
Oil & Grease, mg/L	<1.5	<1.5	APHA 5520 B, 2017	40;N, 7,000;N
Chemical Oxygen Demand, mg/L	16.4	60.6	APHA 5220 C, 2017	25
Ammoniacal Nitrogen (as N), mg/L	0.32	0.12	APHA 4500-NH <sub>3</sub> F, 2017	0.3

*Yong*

Page 1 of 2

Note:

1. This Test Report shall not be reproduced, except in full, without the approval of the laboratory.
2. The above result(s) apply to the sample(s) as received.
3. The above result(s) relate only to the sample tested.





## Test Report

\*Not for Advertisement Purposes\*

Lab No.: CK/CL405/0856/24

Lab No.:	0856-3	0856-4	<u>Test Method</u>	<u>* Standard Limit</u>
<u>Parameter(s)</u>	W3 Date: 13/02/24 Time: 5.24 pm	AW2 Date: 13/02/24 Time: 4.00 pm		
pH Value (in-situ / 13.02.2024)	7.3	7.5	APHA 4500-H* B, 2017	6-9
Turbidity, NTU	27	0.30	APHA 2130 B, 2017	50
Total Suspended Solids, mg/L	7.0	<5.0	APHA 2540 D, 2017	50
Biochemical Oxygen Demand in 5 days @ 20°C, mg/L	<1.0	<1.0	APHA 5210 B & 4500-O G, 2017	3
Oil & Grease, mg/L	<1.5	<1.5	APHA 5520 B, 2017	40;N, 7,000;N
Chemical Oxygen Demand, mg/L	26.2	<10.0	APHA 5220 C, 2017	25
Ammoniacal Nitrogen (as N), mg/L	0.24	0.38	APHA 4500-NH <sub>3</sub> F, 2017	0.3

Date of commencement of BOD<sub>5</sub> analysis: 14<sup>th</sup> February 2024

\* Class IIB of National Water Quality Standards for Malaysia.

Remark(s): Sample(s) was not properly preserved and results reported may be affected by deviation.

End

*Ghois*  
CHEMSAIN KONSULTANT SDN. BHD.  
Laboratory  
Kota Kinabalu  
ChM. HO LI SIN  
B. Sc. (Hons)  
MMIC (5196/7297/16/19)  
SENIOR CHEMIST  
(130904-U)

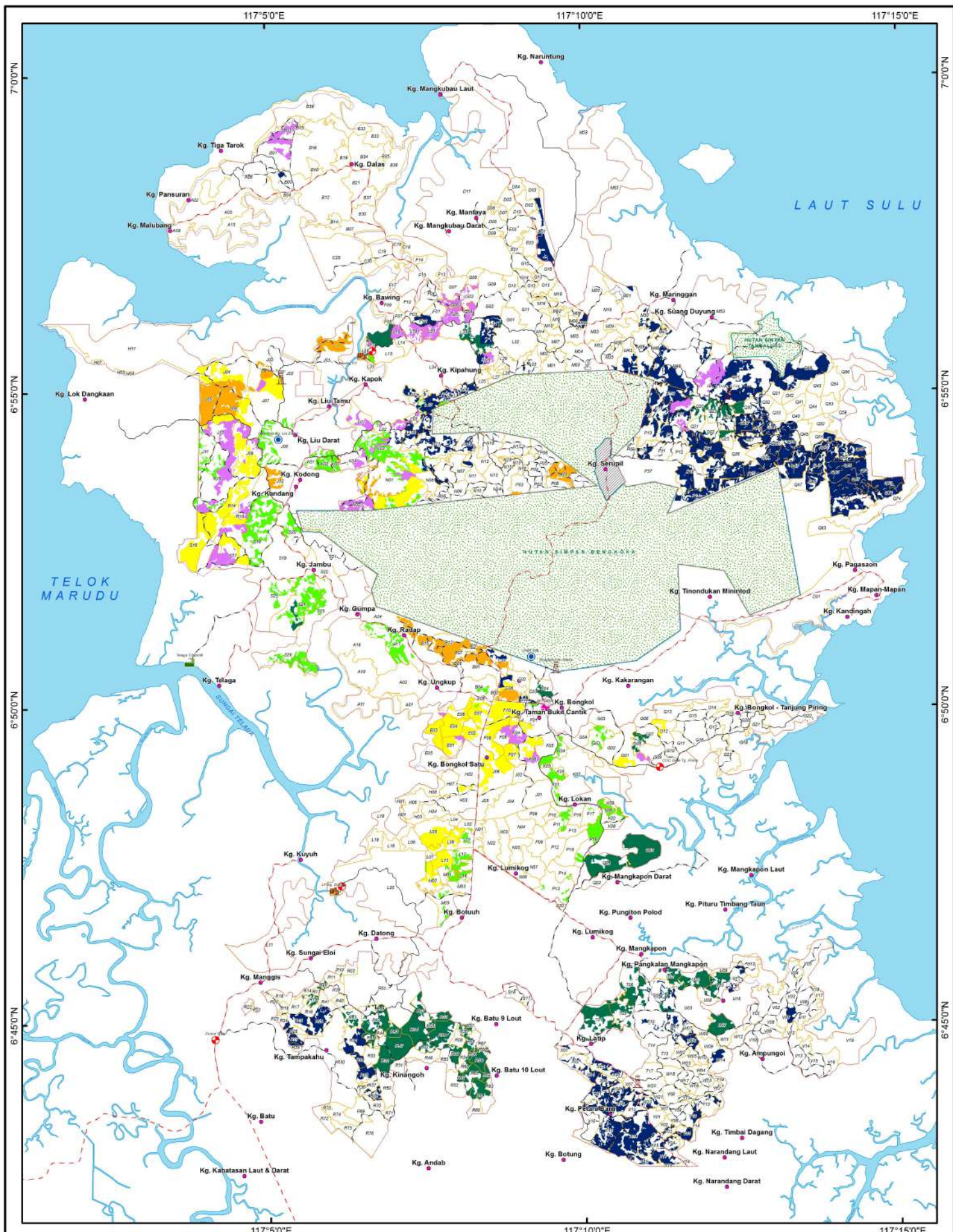
Note:

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# APPENDIX D

Harvesting Plan



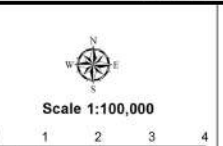


- LEGEND:**
- SAFODA Gazette Boundary
  - Compartment
  - River
  - Water
  - Forest Reserve
  - Village Reserve

**Harvesting Plan**

<span style="background-color: #FFD700; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2016 - 0 ha.	<span style="background-color: #90EE90; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2021 - 0 ha.
<span style="background-color: #FFA500; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2017 - 356 ha.	<span style="background-color: #3CB371; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2022 - 0 ha.
<span style="background-color: #FFD700; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2018 - 774 ha.	<span style="background-color: #3CB371; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2023 - 560 ha.
<span style="background-color: #FF69B4; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2019 - 446 ha.	<span style="background-color: #008000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2024 - 1300 ha.
<span style="background-color: #FFD700; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2020 - 0 ha.	<span style="background-color: #00008B; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2025 - 1400 ha.

- Road Network**
- JKR Road
  - Primary Road
  - Secondary Road
- Places**
- ▲ Camp
  - Checkpoint
  - Cabin
  - Fire Tower
  - Gate
  - Log Yard
  - Office
  - Villages



**Harvesting Plan  
2016 - 2025**

**AFI ACACIA FOREST INDUSTRIES SDN BHD**  
(Company No. 811078-A)

Publication Date: 30/10/2019  
Reference Map: FMP191030-001  
Author: Hairynatal Genus  
Print Size: A3  
Data Source: AFISB, SAFODA

# APPENDIX E

Other Approvals





Ruj:AFI/PLN/EPD/17 (1)

Tarikh: 7hb Jun 2017

Pengarah,  
Jabatan Perlindungan Alam Sekitar, Tingkat 1-3,  
Wisma Budaya,  
Jalan Tunku Abdul Rahman,  
Beg Berkunci No.2078,  
88999, Kota Kinabalu, Sabah

(U/P: Hj.Mohd Yusrie Abdullah)

Tuan,

F A X O U T  
7/06/2017  
238120 / 238390

### MEMOHON KEBENARAN PERUBAHAN KONSEP PROJEK

Dengan segala hormatnya saya merujuk JPAS/PP/15/600-1/01/3/29 bertarikh 19 Mei 2010 dan JPAS/PP/15/600-1/01/3/18(29) bertarikh 25 Okt 2009.

2. Saya ingin merujuk kepada kepada perkara 4.1 (iv) JPAS/PP/15/600-1/01/3/29 yang memerlukan pihak Acacia Forest Industries Sdn Bhd (AFI) memaklumkan dan meminta kebenaran bertulis daripada JPAS mengenai sebarang perubahan konsep projek tersebut seperti komponen projek, keluasan projek, lokasi dan kapasiti pengeluaran serta langkah-langkah mitigasi yang telah pun dipersetujui. Untuk pengetahuan tuan, operasi Hijauan Bengkoka Sdn Bhd (HBP) iaitu pemegang separuh syer AFI Sdn Bhd telah dihentikan pada bulan Oktober 2016 secara rasminya. HBP merupakan syarikat yang bertanggungjawab ke atas pengambilan kayu (dikenali sebagai Syarikat Mangium Plantations Sdn Bhd) melalui kelulusan surat kelulusan JPAS/PP/15/600-1/01/3/18(29). Semua pekerja dan aset HBP telah digabungkan dengan AFI berkuatkuasa daripada bulan Jun 2016. Oleh yang demikian terdapat beberapa isu yang telah berubah dan memerlukan kelulusan daripada Jabatan Perlindungan Alam Sekitar Sabah seperti berikut;

**i. Menambah spesies kayu tanaman**

Kelulusan telah diberikan kepada AFI untuk menanam *Acacia mangium* sebagai spesies tanaman. AFI ingin memohon supaya *Acacia spp* dan *Eucalyptus spp* ditambah sebagai spesies tanaman.

**ii. Laporan Pematuhan Alam Sekitar**

Operasi AFI Sdn Bhd dan HBP Sdn Bhd telah digabungkan dan operasi pengambilan kayu yang dinyatakan dalam kelulusan JPAS/PP/15/600-1/01/3/18(29) bertarikh 25 Okt 2009 telah siap dituai. Oleh yang demikian, kami memohon supaya hanya satu laporan pematuhan dihantar kepada Jabatan Perlindungan Alam Sekitar.

3. Pertimbangan daripada pihak tuan di dalam perkara ini amatlah kami perlukan dan kami dahului dengan ucapan ribuan terima kasih.

Sekian.



sambungan m/s 2 .....AFI/PLN/EPD/17 (1)- 7hb Jun 2017

b/p **ACACIA FOREST INDUSTRIES SDN BHD**

  
**Junextopher J Maing**  
Pengurus

Bahagian Pengurusan Risiko



**JABATAN PERLINDUNGAN ALAM SEKITAR**

(ENVIRONMENT PROTECTION DEPARTMENT)

Tingkat 1 - 3, Wisma Budaya

Jalan Tunku Abdul Rahman

Beg Berkunci 2078

88999 Kota Kinabalu, Sabah, Malaysia

No. Tel. : 088-251290/251291/267572/268572

No. Faks : 088-238120/238390 E-mel : [jpas@sabah.gov.my](mailto:jpas@sabah.gov.my)

<http://www.sabah.gov.my/jpas>

(Sila catatkan Rujukan fail Jabatan ini apabila menjawab)



**RUJUKAN : JPAS/PP/15/600-1/01/3/18 (44)**

**TARIKH : 6 Julai 2018**

Teloh difaks

Pada 6 Julai 2018

Pengurus  
Bahagian Pengurusan Risiko  
Acacia Forest Industries Sdn Bhd  
Metro Town, Block L, Unit No. 1  
2nd Floor, Jalan Lintas  
**88300 KOTA KINABALU**  
(u.p.: Encik Junextopher J. Maing)



Faks: 088-434077

Tuan,

**MEMOHON KEBENARAN PERUBAHAN KONSEP PROJEK**

Dengan hormatnya, saya diarah merujuk kepada surat tuan rujukan AFI/PLN/EPD/17 (2) bertarikh 7 Jun 2017 mengenai perkara di atas.

2. Terlebih dahulu jabatan ini memohon maaf di atas kelewatan memberikan maklumbalas ke atas surat tuan di atas. Adalah dimaklumkan bahawa jabatan ini tiada halangan ke atas cadangan tuan untuk menambah spesies tanaman iaitu *Acacia* spesies dan *Eucalyptus* spesies dalam projek sedia ada. Turut dimaklumkan bahawa jabatan ini juga telah memaklumkan "lead auditor" ASI mengenai dengan perkara di atas pada April 2018.

3. Bagi perkara melibatkan keperluan pengemukaan laporan pematuhan syarat alam sekitar, pada dasarnya pengemukaan satu laporan pematuhan boleh dilaksanakan ke atas projek yang digabungkan atau telah selesai. Sehubungan dengan itu, jabatan meminta pihak tuan agar mengemukakan surat permohonan melalui perunding yang dilantik dengan memberikan latarbelakang dan status terkini di lapangan, untuk pertimbangan jabatan ini.

Sekian, terima kasih.

**"BERKHIDMAT UNTUK NEGARA DENGAN BERSIH, CEKAP DAN AMANAH"**

Saya yang menurut perintah,

**(DAISY ALOYSIUS)**

b.p. Pengarah