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NPP – SUMMARY REPORT FOR PLANNING AND MANAGEMENT – J ESTATE

3rd October, 2013

**Sustainability Section
RAIL**

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NPP – SUMMARY REPORT OF PLANNING AND MANAGEMENT – J ESTATE

Section 1.0 Executive Summary

This Summary Report provides a Public Summary of the planning and Management activities proposed for the 'J Estate'; primarily relating to the independent SEIA undertaken in June 2013.

The J Estate is a crop conversion (sugar cane to oil palm) on 2,261 ha of land owned and farmed by Ramu Agri-Industries Limited (a part of the NBPOL Group) involving oil palm planting on some 2,191 ha (after exclusions for buffers, main roads, and electricity transmission easement).

The PNG NI Criterion 7.3 indicates that an HCV Assessment is not required for crop conversion on land “under previous commercial agriculture” where the SEIA indicates that no HCV is present. In this case, sugar agriculture is ongoing up to the time of oil palm development, and the SEIA did not identify any potential HCVs.

The SEIA, and additional internal assessments by RAIL, have identified 5 areas for environmental management (1 of which is adjacent within existing oil palm). These areas have been mapped and management plans have been prepared, and are summarised in this report.

New Britain Palm Oil Limited (NBPOL) is a large-scale producer of sustainable palm oil. NBPOL have over 78,000 hectares of planted oil palm plantations across Papua New Guinea and the Solomon Islands. Ramu Agri-Industries Limited (RAIL) is wholly owned by New Britain Palm Oil Limited (NBPOL).

NBPOL has achieved full RSPO certification of all existing plantation areas by the end of 2012. Many of the company's commitments to sustainable development, including the management of HCV's and associated social and environmental issues are outlined in the company's sustainability report (2011/2012).

All existing HCVs and social and environmental issues are managed locally by Sustainability Manager - Ramu, and supported by the Head of Oil Palm, and the RAIL General Manger.

Section 2.0 Reference Documents

Section 2.1. List of SEIA and HCV Assessment Reports

Narua Lovai (2013) *Social and Environmental Impact Statement – Conversion of J Estate from Sugar Cane to Oil Palm Agriculture*. Consultancy report commissioned by RAIL.

No HCV Assessment was required for this development as it takes place on a crop conversion site, and the SEIA has confirmed that no HCVs are present on the site.

However, a previous (Kumaran, 2009) HCV Assessment of the whole of RAIL identified no HCV within the area now identified as J Estate.

Kumaran, S.,(2009), *HCVF Assessment of Ramu Valley for Ramu Agri-Industries of New Britain Palm Oil Group, PNG*. Consultancy report commissioned by RAIL.

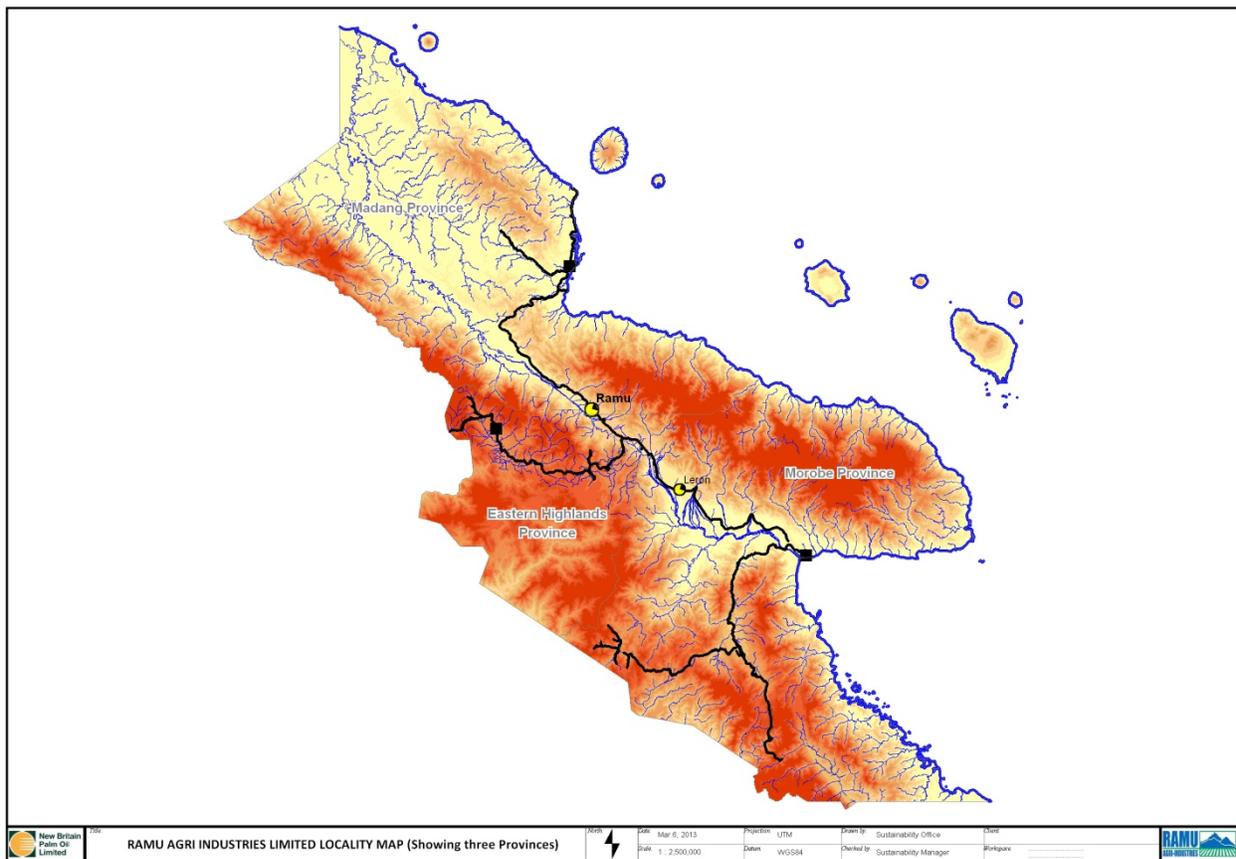


Figure 1; Location of RAIL within the three closest provinces

Section 2.1. List of Legal Documents and regulatory permits

The land is entirely owned by RAIL under State Lease portions 2 and 226 that are leased for the purpose of Agriculture.

The Department of Environment and Conservation, PNG, have confirmed in writing that, as part of the company wide review and amalgamation of existing Environment Permits into Project or Umbrella Permits, the J-Estate has been included under the Oil Palm development permit for Water Extraction and Waste Discharge.

Section 2.2. Location Maps

Figure 1 shows the general location of RAIL within PNG. Figure 2 indicates the area of the J Estate within the RAIL agricultural areas.

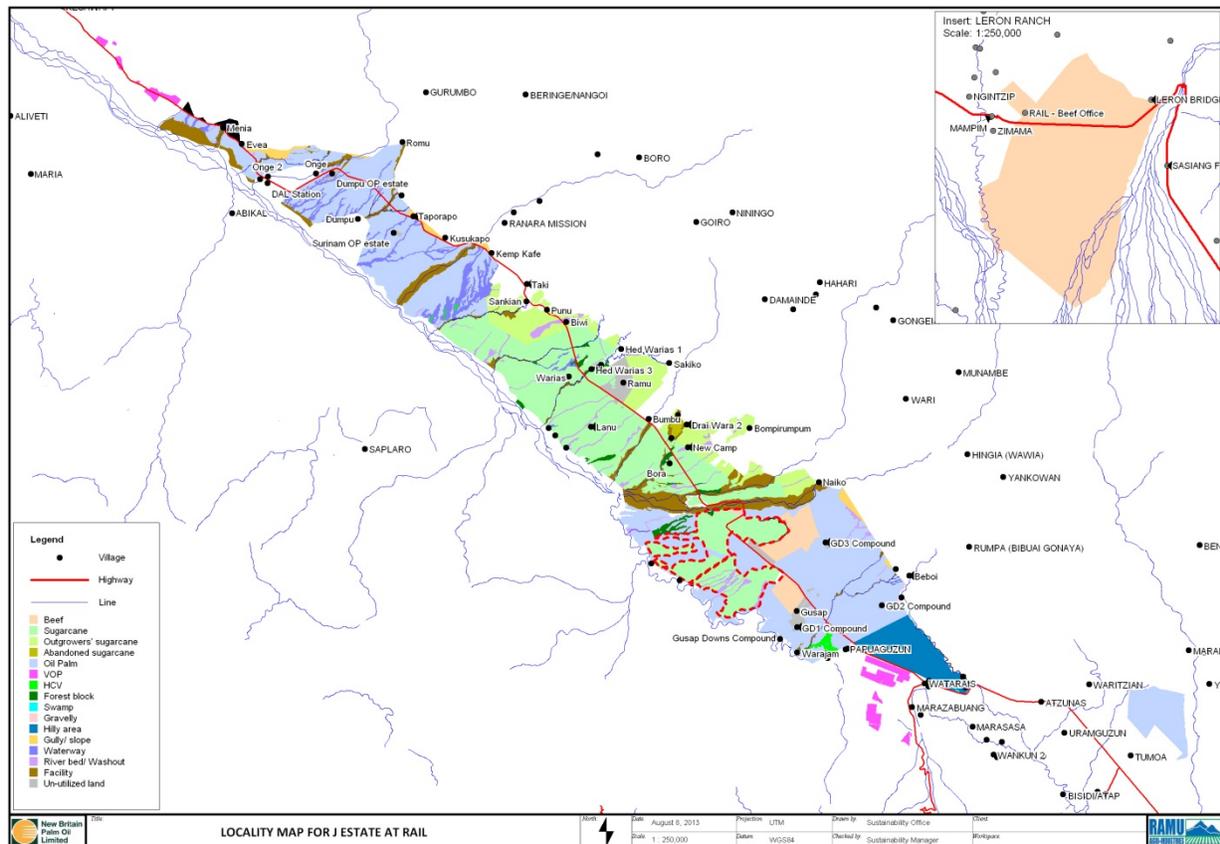


Figure 2; Location of J Estate (Red dashed outline) within RAIL

Section 2.3. Area of New Planting and Phasing Plan

The total size of the areas identified as J Estate is 2,261ha. This defined area has expanded since the SEIA to include the currently vacant land (grassland and scrub) around the sugar cane that will also be partially converted to Oil Palm. Of the total area, only 2,191 ha will be planted to oil palm to allow for the presence of riparian buffers, areas identified for conservation, setbacks from main roads, and the setback from the power easement (required for the safety of workers).

Due to the size of the J-Estate, and the need to ensure the maximum benefit returned from sugar cane already planted on the site, the oil palm development will be phased over three years. Table 1 and Figure 3 indicate the phasing of planting.

Table 1; Planting Phasing Plan

	Proposed ha	Timing
2013-2014	792 ha	Q4
2014-2015	489 ha	Q4
2015-2016	825 ha	Q4

NB. The planting season at RAIL is limited to the wet season. 2013-2014 indicates October 2013 to March 2014.

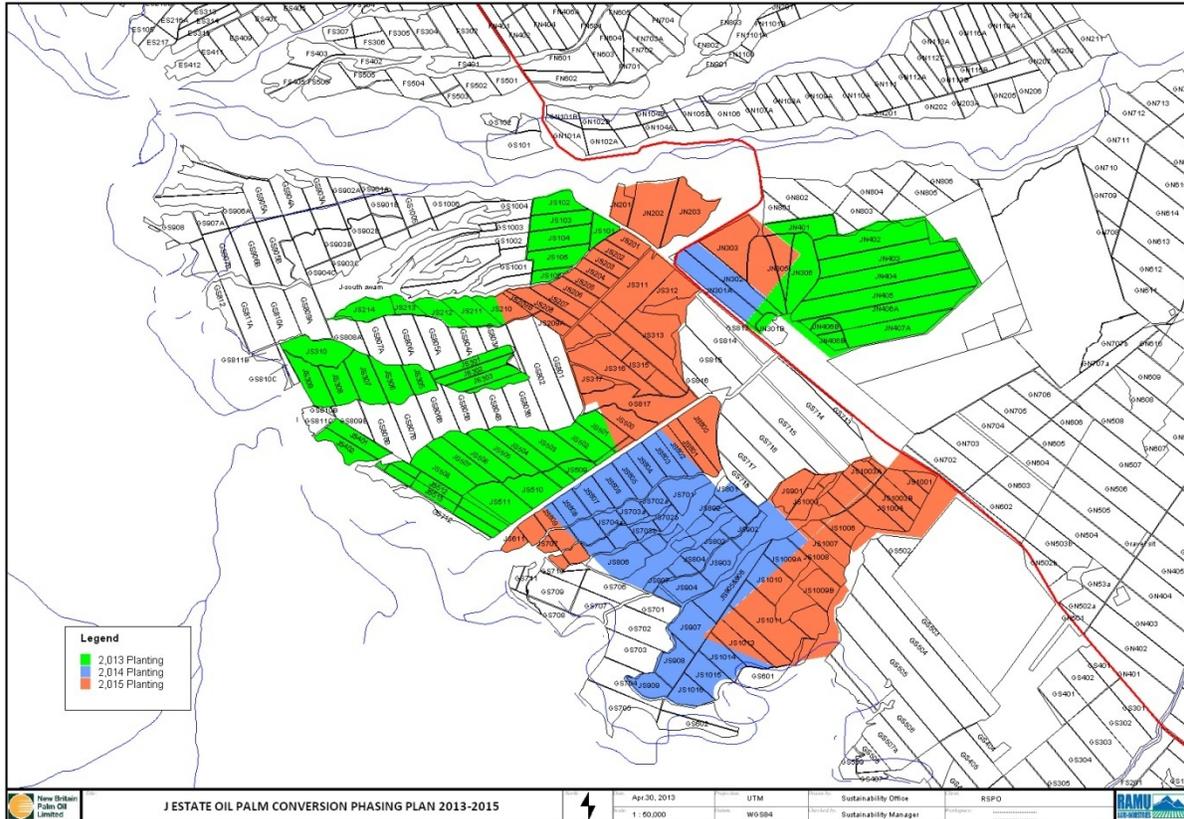


Figure 3; Development Phasing Plan

Section 3.0 SEIA and HCV Management & Planning Personnel

Section 3.1. Organisational Information and contact persons

The primary contact details for RAIL are as follows

Jamie Graham

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Section 3.2. Personnel Involved In Planning and Implementation

The Planning for this New Development has been undertaken by the RAIL New Development committee consisting of

- Jamie Graham - General Manager
- William Unsworth – Sustainability Manager
- Ruari Macwilliam – Head of Oil Palm
- John Komni – New Development Manager
- Philip Young – Head of Administration
- Alex Orme – Lands Coordinator
- Ian Ellery – Community Engagement Manager

Implementation of the recommendations will be overseen by

- Ruari Macwilliam – Head of Oil Palm
 - John Komni – New Development Manager
- with support from
- William Unsworth – Sustainability Manager

Section 3.3. Stakeholders to be involved

As this development is taking place on State Lease Land, there are no landowner groups involved with this development.

However, the process of planning and implementation has, and will continue to, involve the following stakeholders

Department of Environment and Conservation – for review and approval of the Waste Management Plan, Environmental Monitoring Plan, and finalisation of the amalgamated Environment Permits.

Markham District Administrator (and associated government departments, including DLPP and DAL) – ongoing advice and guidance.

Yaru Clan – as the closest community to the site will seek to gain the maximum benefits from this development in terms of employment and business opportunities.

Section 4.0 Summary of Management and Mitigation Plans (SEIA)

The findings of the SEIA have been incorporated into the various Management Plans that are in place for RAIL Estates (Section 4.1 – 4.5).

- Pollution Register
- Water Management Plan
- Waste Management Plan
- Social Register
- Biodiversity and HCV Management Plan

Section 4.1. Pollution Register

Affects	Potential Type of Pollution	Locations	Specific location	Control	Monitoring	Continuous Improvement
Air	Noise	Housing Compound	Genset	Exhaust baffle Space around generator	Undertake noise mapping	
Land and Water	Wastewater leaks	Housing Compound	Septic Tanks	Setback from waterways Standard designs Monitoring and pumpout as required	Internal Audits Housing inspections Employee reports	
Land and Water	Potential chemical runoff	Estate Compound	Chemical Shed	Bunded Mixing area Ground soakaway		
Land and Water	Sediment Runoff	Gravel Extraction Sites	If required	Operational procedures Site rehabilitation	Form WTR-002 C - Monitoring of Gravel Extraction Sites	
Land and Water	Field erosion and runoff	Agricultural areas		Site planning Road maintenance	Soil erosion monitoring	
Land and Water	Nutrient enriched runoff	Agricultural areas		No fertiliser within 10m of waterways	Water Quality monitoring	
Land and Water	Pesticide tainted runoff	Agricultural areas		No pesticides within 10m of waterways Riparian buffers	Waterways Assessments	enhance buffers
Land and Water	Pesticide overspray	Agricultural areas		Operational controls and Training		

Section 4.2. Water Management Plan

J Estate Hydrology

Throughout the J-South sugar, and Gusap East Division 3, several small waterways appear in this area and coalesce into a swampy forested area that contains several small waterbodies. This area is known as the J-South swamps; the original name having now been lost.

A small waterway flows west out of this wetland into the Ramu River (Gusap East Estate, not J Estate). Past reforestation work has reverted some of this area into a forested area, though much rehabilitation work remains to be done in this area.

The last river of J Estate is the Ramu River itself that defines small sections of the Southern/Western boundary of the Estate. The Ramu river in this area is retained within its banks and has a natural aspect to it.

Section 4.3. Waste Management

J Estate Waste Register and Management

Locations	Types of Waste	Requirements
Clinics	<ul style="list-style-type: none"> Medical Waste 	<ul style="list-style-type: none"> Regular collection from all clinics and storage at Central clinic until incineration
Estate Compounds	<ul style="list-style-type: none"> Fertiliser bags 	<ul style="list-style-type: none"> Collected back and washed; used for loose fruit collection
	<ul style="list-style-type: none"> Pesticide containers 	<ul style="list-style-type: none"> Recording before disposal Absorbent materials from spill kits to Pesticides Pit Tainted objects sent to Pesticides Pit
	<ul style="list-style-type: none"> Domestic Waste 	<ul style="list-style-type: none"> Waste bin
	<ul style="list-style-type: none"> Green waste 	<ul style="list-style-type: none"> 1 tonne bags or piles of green waste; collection and disposal to landfill
Agriculture Operations	<ul style="list-style-type: none"> Palm fronds 	<ul style="list-style-type: none"> Stacked in frond rows and mulched
	<ul style="list-style-type: none"> Domestic Waste 	<ul style="list-style-type: none"> Domestic Waste Bins at the Estate compound/Muster ground
Transport Operations	<ul style="list-style-type: none"> Hydrocarbons 	<ul style="list-style-type: none"> Absorbent materials from spill kits to Hydrocarbon Pit
	<ul style="list-style-type: none"> Tyres 	<ul style="list-style-type: none"> Disposed at Tyre Pit (or re-used by Beef Dept)
Housing areas	<ul style="list-style-type: none"> Domestic Waste 	<ul style="list-style-type: none"> Drums for Domestic Waste collection; collection and disposal to landfill
	<ul style="list-style-type: none"> Green Waste 	<ul style="list-style-type: none"> Drums or 1 tonne bags or piles of green waste; collection and disposal to landfill
Offices	<ul style="list-style-type: none"> Domestic Waste 	<ul style="list-style-type: none"> Collected in Domestic Waste Bins and disposed to landfill in domestic Waste Pit
Nurseries	<ul style="list-style-type: none"> Green Waste 	<ul style="list-style-type: none"> 1 tonne bags or piles of green waste; collection and disposal to landfill
	<ul style="list-style-type: none"> Fertiliser bags 	<ul style="list-style-type: none"> Combined in Domestic Waste Bins and disposed to landfill in domestic Waste Pit

Section 4.4. Social Register

Due to the greater distance from any resident population, the social impacts of the J-Estate are expected to be lower than the overall social impacts of RAIL as a whole.

The primary issues amongst external communities continue to be land conflicts with settlers (who arrive in the area hoping to earn an income based on RAIL's economy), and access to employment and business opportunities.

The number of employees living off-site on customary land has been largely addressed by the 2011-2012 house building program, and additional housing included in this development will not cause employees to live outside of the compound

Work over the last 12 months to implement a dedicated 'As-Ples' recruitment scheme that prioritises local employees has seen an increase in locally recruited employees who live off-site in their own house. This has been beneficial to both local communities, and the company.

Work funded through the NBPOL foundation will be identifying under-performing public services, and working with communities and government agencies to improve public service provision, as well as internal community development.

For employees, provision of safe, secure housing with adequate power and water supply is essential for their wellbeing.

Section 4.5. Biodiversity and HCV Management

The Biodiversity and HCV Management Plan for J Estate was prepared in September 2013 based on the SEIA and the 2009 HCV Assessment of the whole of RAIL.

Table 2; Biodiversity and HCV Management Plan

Conservation Value	HCV Criteria	Management Plan	Monitoring Criteria	Long Term Objectives	Indicators of Success
J-South Ponds (see also Gusap East Estate)	-	<ul style="list-style-type: none"> • Replant site appropriate trees around the ponds • Maintain upper areas (fingers) as grassland habitat for grassland species. This may require regular clearance of trees/bushes through slashing, or controlled burning. • Ensure long term persistence of groundwater resource • Ensure only sustainable resource use (fishing, material collection, etc.) through awareness and monitoring to employees • Provide signage 	<ul style="list-style-type: none"> • Survival of planted trees • Maintenance of natural grasslands • Grassland bird species continue to be present in the area • Monitor water quality, and persistence of flow during dry season • Monitor resource use, and damage to area 	To maintain native habitats (grassland and forest) within RAIL lands that are representative of the wider landscape.	Replanted forests reproducing internally and supporting native biodiversity
Habitat value of Cane fields	-	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Monitor the bird species as an indicator of habitat change 		

Ramu River Buffers	-	<ul style="list-style-type: none"> • Ensure no extractive use of resources through awareness and monitoring to employees • Provide signage 	<ul style="list-style-type: none"> • Survival and growth of trees 	To maintain landscape functions conducive to local biodiversity	Zero loss of species recorded on site
Gusap River Buffers	-	<ul style="list-style-type: none"> • Replant site appropriate trees around the ponds • Ensure no extractive use of resources through awareness and monitoring to employees • Provide signage 	<ul style="list-style-type: none"> • Survival and growth of planted trees 	To maintain landscape functions conducive to local biodiversity	Zero loss of species recorded on site
Grassland Habitat Refuge	-	<ul style="list-style-type: none"> • Maintain area as grassland habitat for grassland species. This may require regular clearance of trees/bushes through slashing, or controlled burning. • Provide signage 	<ul style="list-style-type: none"> • Maintenance of natural grasslands • Grassland bird species continue to be present in the area 	To maintain native habitats (grassland and forest) within RAIL lands that are representative of the wider landscape.	Zero loss of species recorded on site
Presence of relic underground hospital	-	<ul style="list-style-type: none"> • Confirm presence of hospital from historical records or site assessments 		To demonstrate respect the presence of a historical site	

		<ul style="list-style-type: none">• Provide signage			
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Table 3; Biodiversity and HCV Management Implementation Plan

	2013		2014				2015			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Bird survey in riparian buffers		Y		Y		Y		Y		Y
Bird Survey in agricultural areas	Y				Y				Y	
Additional planting of native trees in J South Ponds		Y				Y				Y
Monitor species composition in grassland		Y								Y
Water Quality monitoring at J South ponds outlet	Monthly as per Water Management Plan									
Site investigation of potential hospital site		Y								

Section 5.0 Summary of Management and Mitigation Plans (HCV)

No HCV Assessment was required for this development as it takes place on a crop conversion site, and the SEIA has confirmed that no HCVs are present on the site.

A previous (Kumaran, 2009) HCV Assessment of the whole of RAIL identified no HCV within the area now identified as J Estate.

Section 6.0 Internal Responsibility

This summary of Planning and Management has been approved by RAIL Management, and the undersigned assume responsibility for implementing report recommendations, including the management and mitigation plans.

J.W. Graham



4th October 2013

General Manager

signature / name / date



Will Unsworth 04-Oct-13

Sustainability Manager

signature / name / date



Ruari MacWilliam 07.10.13.

Head of Oil Palm

signature / name / date