Environmental Protect Agency
Ganges Street, Sophia
Georgetown

Dear Sir/ Madam,

Please see below details regarding the operation of my sawmill.

PROJECT SUMMARY

Name of Developer: Rajendra Ruben

Developers' Address: Lot 3A & 4A, Hubu, East Bank Essequibo

Contact details: 698-8628/677-5275

Business Name: R. Ruben & Sons Sawmill

Project Type: Sawmill

Project Location: Tract 'EVL' being State Land situated at Bamia on the Right Bank Demerara River on the Eastern Side of the Linden/Soesdyke Highway.

Projected Capital Investment: Estimated > Guy$25M

Annual Turnover: Projected Guy$10M

Project Duration: Approx. 20 years

Project Location and Description

The proposed sawmill will be located at Tract 'RR' being a portion of Tract 'EVL' being State Land situated at Bamia, Eastern Side of the Linden/Soesdyke Highway, Right Bank Demerara River. The sawmill can be accessed from the Soesdyke/Linden Highway which is situated north. The soil type of the project site is sandy so the site is adequately drained since water permeates freely through the soil profile. There are no sensitive ecosystems found near the sawmill site. The sawmill site is surrounded by vegetation on the eastern, western and southern sides as shown in the Google Maps in Figures 1 and 2).

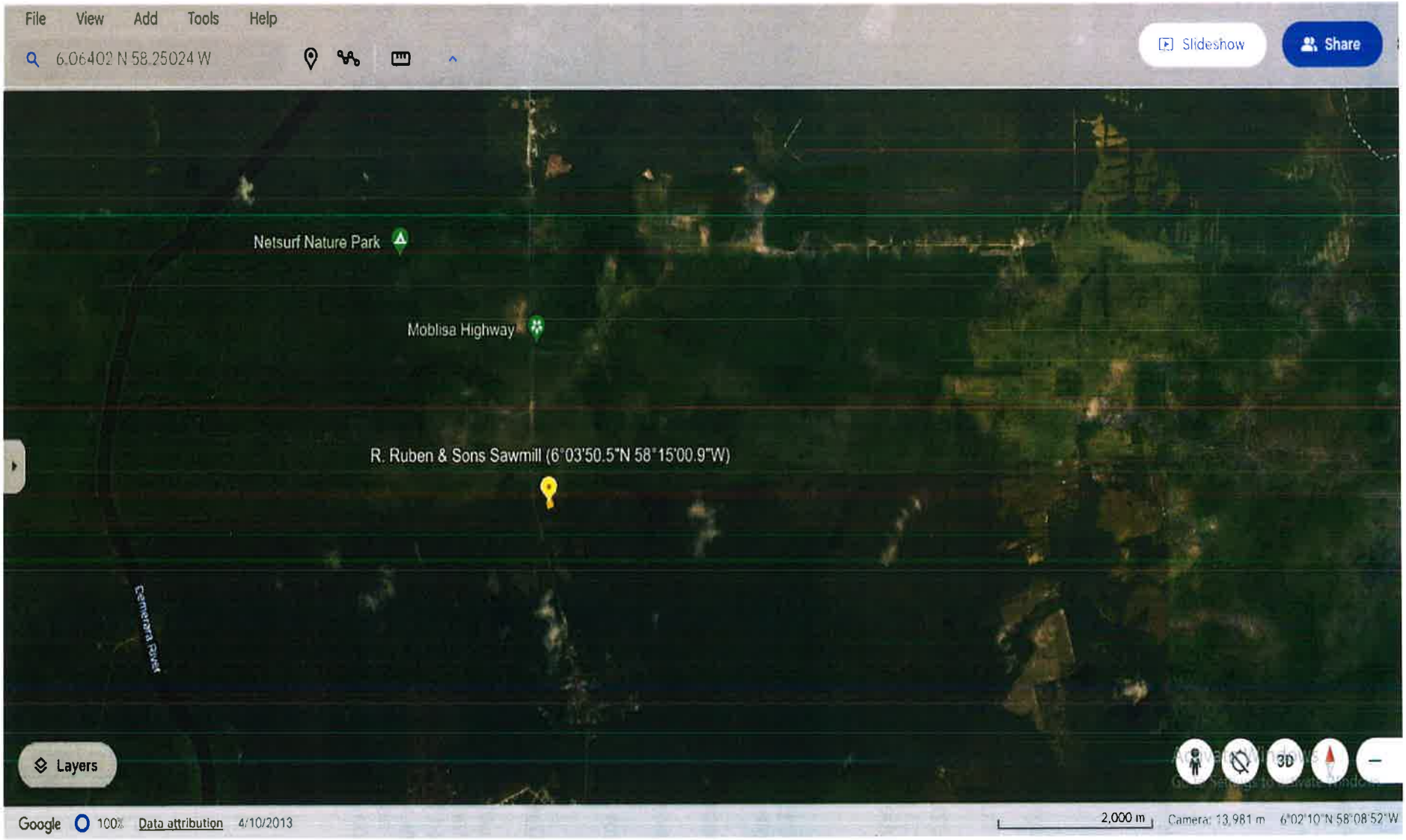

Figure 1: Showing the project location and surrounding land uses

Operational phase

The sawmill has been in existence for almost a year now and produces both dressed and rough lumber using logs primarily obtained from my logging concessions SFAs Ess 08/18 and Ess 07/17. However, when the supply of logs from my concessions falls short, logs are sourced from other concessionaires in areas such as Unamco, Kwakwani, Ituni, Mabura, Bartica. Logs are transported to the site by hired log trucks. The logs are offloaded from the log truck by the log loader and discharged in the log pond. The logs are temporarily stored in the log pond, which has the capacity to hold around 200 m^3 of logs. From the log pond, the log loader transports the logs to the mill for processing to remove the bark and saw it into the boards. From the mill, the boards are further processed by either the planer, edger depending on the finishing. Both dressed and rough lumber will be produced. Among the species processed on site are Tatabu, Torinario, Farm Board or Baroamalli, Antwood, Karatie, Silverballi, Dukalie, Purpleheart, Greenheart, etc. The monthly production at the sawmill is 1000 m^3. The sawmill is equipped with three (3) mills, one (1) edger/ripsaw, one (1) planer, four (4) circle saws, one (1) chainsaw, one (1) log loader and three (3) single axle trucks.

The on site infrastructure includes a mill shed measuring 40 ft x 140 ft x 20 ft and a 2-story concrete building of 30 ft x 60 ft x 10 ft. The mill shed's foundation is concrete, while its structure is supported by wooden columns and covered with zinc.

Twenty-two (22) people are employed to work daily at the sawmill, performing specific tasks based on their knowledge and experience. Working hours will be 8:00 hr to 17:00 hr, Monday to Saturday. All loading and offloading of logs and lumber occur during the working hours. Personal Protective Equipment (PPE) provided to the workers is gloves, visibility vests, helmets, goggles and steel tip boots. A First Aid Kit is placed in the office to treat any minor cut(s) or bruise(s) and a vehicle is on standby to transport any injured person to the Long Creek Health Centre.

Water for both domestic and drinking purposes is sourced from the harvesting of rain water and pumping water from Black Creek which is located approximately 1233.86 m. Electricity is provided by Guyana Power and Light Incorporated (GPL). Solar lights will be utilized to provide lights for the dwelling house, office and mill shed. No generator will be used. There are no landline services provided in the area by the Guyana Telephone and Telegraph Company (GTT) but only cell phone services are available.

Firefighting equipment present on site is extinguishers and sand buckets which are placed at strategic points of the operation.

Environmental Effects

The following environmental effects may be generated from the operation of the sawmill:

Noise Nuisance

Sawmill operations can produce noise pollution from machinery and equipment, disturbing wildlife and nearby communities and workers may find it annoying when machinery and other equipment are running. The machinery and equipment shall be repaired and maintained in accordance with the manufacturer's specifications.

Vibration

Heavy equipment and mechanical use can cause vibrations. for example, unloading logs from the truck.

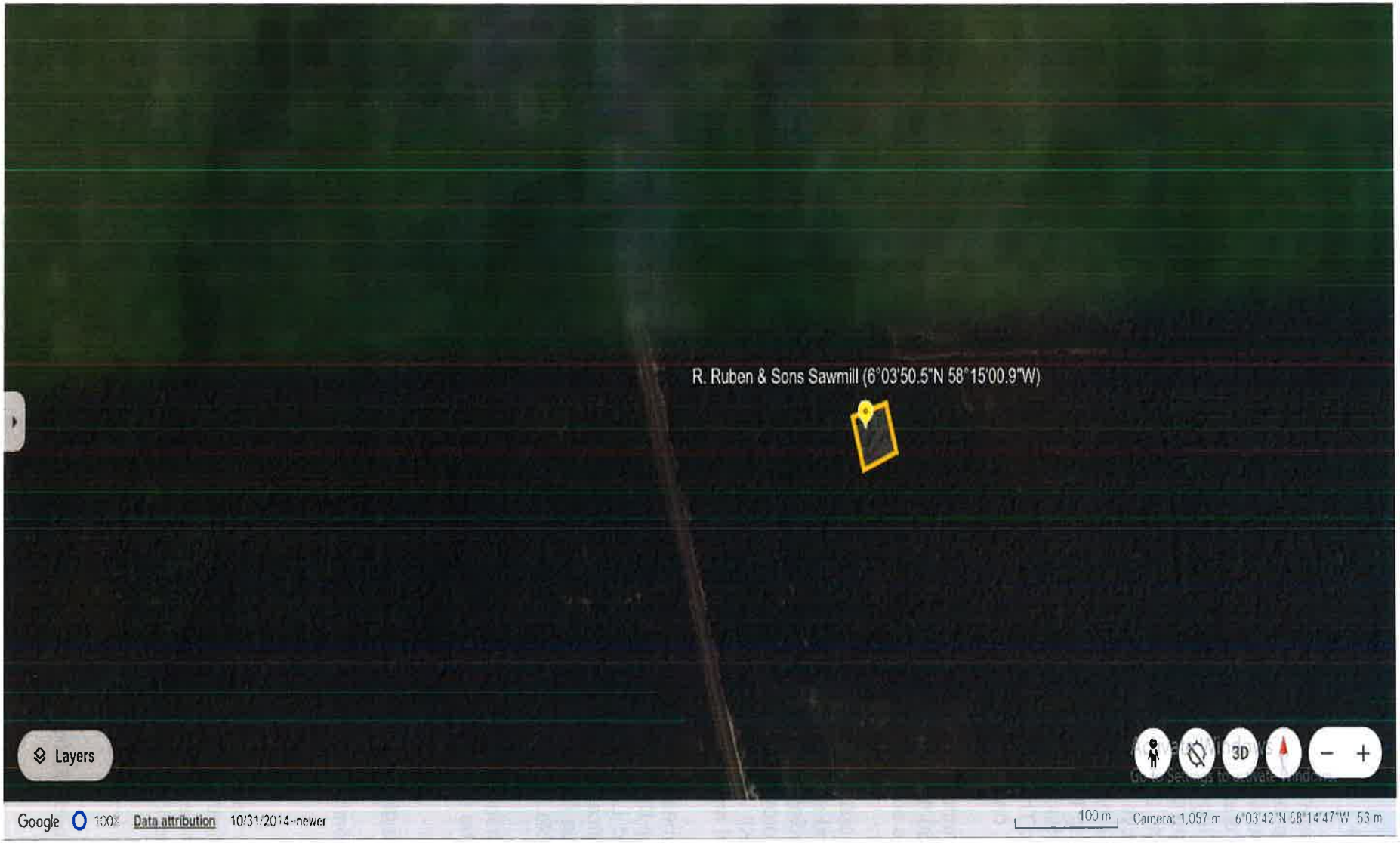

Figure 2 showing a zoom in image of the sawmill site

Fire

It's possible that defective electrical equipment, such as weak wiring or overload sockets, arson, or carelessness on the part of workers who could be smoking on the work site are potential causes of the fire.

Air Quality (dust and harmful gasses)

Dust emission from equipment like mills and planer is expected as well as the open storage of shavings and sawdust. The emission of volatile organic compounds (VOCs), carbon dioxide and carbon monoxide from the combustion of fossil fuels in machinery and equipment. These pollutants can contribute to air quality degradation and respiratory issues in nearby communities and workers.

Mitigation Measures

Noise Nuisance

Since machinery is modern, the noise levels it produces won't be as annoying as they would be with older models. During regular business hours, the machinery and equipment will be utilized. According to the manufacturer's guidelines, these will be maintained and kept updated. TBlades will be checked and replaced with sharp ones. The required PPE, which includes hearing protection, will be provided to the workforce.

Fire

Fire extinguishers and sand buckets will be placed at strategic points within the sawmill so they may be used in the case of a fire emergency. The staff members will receive training on how to use fire extinguishers. The electrical points and circuits will undergo routine checks.

Vibration

The equipment will only be used when it is required to "feed" wood into the mills, and it is mounted on a concrete platform to lessen vibrations. During regular business hours, the machinery and equipment will be utilized and maintained in accordance with the manufacturer's instructions.

Particulate Matter (dust)

A dust containment container will be used to collect dust from the planer's extractor devices. The mill floor will be cleaned of the sawdust produced by the mills and planer, and personnel will be given the appropriate PPE to protect themselves from dust. The mill floor will occasionally be wet to help reduce dust.

Waste Generation

Solid Waste Management

Domestic waste, such as food packaging and drink cans, will be gathered in a covered rubbish container and placed in 45-gallon barrels before being buried in a designated pit. Persons making charcoal will collect wood ends, strips, and slabs while farmers and others who might want shavings

and sawdust will collect such. An extractor device is installed on the planer and connected to a dust collection container. The volume of shaving and sawdust produced by the planer will decide the bin's size.

Effluent

Grey and sewage water produced by employees and customers will be dumped into the septic tank for anaerobic treatment. The septic tank is accessible for maintenance, and Puran Waste Disposal Service will empty it once it is full.

Hazardous Waste

No fuel is stored on site. Fuel is purchased as required. Lube oil is stored in its original container (5 gallon plastic pail). The servicing of the loader and chainsaw will generate roughly 2-3 gallons of waste oil. To avoid spillage, the waste oil will be stored in a carefully covered 5-gallon plastic pail in the storeroom. The used oil will be reused on the chainsaw. No chemicals such as preservatives, pesticides, fungicides or weedicides are stored on site.

Prepared by : Rajendra Ruben
(Owner)

Date: February 22, 2024