

Project Summary- Logging Activities within SFA ESS 34/13

Name of Developer: Lakeram Persaud

Developer's Address: Lot 11, De Kinderen, West Coast Demerara

Contact details: 628-2231

Project Type: Logging

Project Location: SFA Ess 34/13, Left Bank Little Arimu River, Right and Left Banks Middle Arimu River

Sector of Operation: Forestry



Project size and duration

Approximately five (5) are employed to carry out various operational tasks as they relate to the logging activities and these include chainsaw operators, choker-men, tractor driver, etc. The expected lifetime of the logging operations is dependent on the renewal of the SFA Agreement by GFC. This SFA Agreement expired on December 31, 2023, and is currently being renewed by GFC. Once this process is completed, the renewed SFA will be submitted to the EPA.

Site Description

The logging operations is conducted concession within State Forest Authorizations (SFA) No: Ess 34/13 and located at the aforementioned project address. According to the SFA Agreement issued by GFC, the total land area is 2963 hectares (7322 acres). There are similar small scale logging concessions surrounding this concession and these include Rajendra Ruben Ess 07/17, Bhola Sawmill Ess 53/13, Ragnath Persaud Ess 75/11, etc., see surrounding map for the information. The concession can be accessed from the Itaballi Trail, turned off by the Guyana Geology and Mines Commission's (GGMC) suboffice, Itaballi Mining Office.

Project Operation

The project activity is to undertake logging operations within SFA Ess ^{01/029} _{34/13} and operations have commenced since in 2013. Logs are harvested based on the stipulated measures set out in the Guidelines for Forest Operations, 2018 by GFC. The logs are selected by a tree spotter, which is the chainsaw operator(s). There are approximately two (2) chainsaw operators, a choker-man who

assists the chainsaw operators, and a tractor driver. The logs are harvested based on the tags issued by the Guyana Forestry Commission (GFC). However, the stipulated quota in the SFA Agreement is 2400.03 m³ per year and some of the species harvested are Purple-heart, Greenheart, Kabukalli, Shibidan, Kerati, etc.

A tarpaulin camp of 25 ft L by 20 ft W by 10 ft H in dimensions is established within the concession to house the four (4) workers and solar lights are used at night. The toilet facility entailed one (1) pit latrine.

Working hours will be from 8:00 hrs. to 4:00 hrs. from Monday to Saturday. Work is carried out on some weekends in fulfillment of orders.

Water for drinking and domestic purposes is sourced from a nearby creek within the concession, and rainwater is collected for drinking too.

Personal Protective Equipment (PPE) is provided to all employees, including long boots, helmets, gloves, and visibility vests. Additionally, a first aid and snake bite kit are present on site at all times.

Environmental Impacts and Mitigation Measures

The following environmental impacts may be generated from the logging operations, and these impacts are not likely to be significant:

Environmental Impacts

Noise Emissions

The noise emissions emanated from the chainsaws and tractor.

Particulate Matter (dust)

Sawdust is emitted during log harvesting, as well as dust generated when vehicles travel along the trail during dry weather.

Hazardous materials/waste

If these materials or wastes are not properly stored, it can result in an accidental spill or discharge may occur, resulting in soil pollution.

Fire

Flammable substances such as gas and diesel are stored onsite and if not managed properly, can be ignited if a worker who smokes discards a burning cigarette butt.

Water quality impacts

The removal of trees and disturbance of forest soils can cause increased sedimentation in rivers and streams, which can have detrimental to water quality and the aquatic ecosystems.

Habitat Loss and Fragmentation

Logging can destroy and fragment habitats for a wide range of species, including animals, birds, insects, and fungi. This can lead to a decrease in biodiversity and ecosystem health.

Soil erosion and degradation

Logging can disturb the natural structure of forest soils, causing erosion and reduced soil fertility and making it more difficult for new trees to grow. Also, this can have an adverse effect on water quality during rainy weather conditions.

Carbon dioxide emissions and Climate Change

Trees absorb carbon dioxide from the atmosphere, so logging can increase carbon dioxide emissions, contributing to climate change. In addition, trees play a vital role in managing local and regional climates by cycling water and moderating temperatures.

Solid Waste:

1. Domestic waste, inclusive of plastic bottles, food scraps, etc. is generated by the workers.
2. Sawdust and wood ends during the felling process, and damaged ends, will be removed using the chainsaw(s).

Cumulative Impacts

There are several other active small-scale logging concessions surrounding this concession, which can impact air, water, and land cumulatively.

Mitigation Measures

Noise Emission

The noise levels generated are expected to be insignificant since the tractor and chainsaws are equipped with an exhaust stack. They are serviced and maintained every month so as to reduce emissions into the environment and downtime. Chainsaw blades checked and replaced with sharp ones. Workers will be provided with appropriate PPE, including hearing protection. A 2800 watts gasoline generator is used from time to time for welding works in the concession and at most times, may be switched on for not more than two (2) hours.

Particulate Matter (dust)

During dry weather conditions, the speed limit of 30 km/hr. is adhered to. The chainsaw operators are provided with the appropriate PPE dust masks to protect them from dust, long boots, visibility vests, hard hats (helmets) and gloves. The technique utilized is selective logging thus leaving the majority of the forest intact and adequate forest cover hence minimizing the dust emissions within the concession.

Hazardous materials/waste

Fuel is stored on site, including 2-3-45-gallon drums of diesel and 1-2-45-gallon drums of gasoline, and kept in a designated area located at the campsite. The drums with the respective fuel are tightly covered to avoid any accidental spillage or release.

Waste oil is generated from the servicing of the tractor and chainsaws once per month. The quantity of waste oil generated is 5-6 gallons and is reused on the chainsaws. The waste oil is stored in the 5-gallon tightly closed plastic pail in a designated area at the campsite.

Fire

Workers are briefed verbally on the importance of fire safety almost every week, and a 'No Smoking' sign is placed at the fuel storage area. A sand bucket and a fire extinguisher are placed at the camp site and can be easily accessed should there be a fire emergency. There has been no occurrence of fire onsite.

Water quality impacts

Buffer zones along water bodies such as rivers, streams, etc. are maintained to prevent soil erosion and protect water quality and aquatic habitats.

Habitat Loss and Fragmentation

Logs are harvested based on Reduced Impact Logging (RIL) techniques, which result in the conservation of ecosystems and biodiversity.

Soil erosion and degradation

Logs are harvested in accordance with Condition 5.1(a)(b) of the State Forest Authorizations (SFA) Agreement as well as GFC's Guidelines for Forest Operations, 2018. Also, vegetative cover is maintained on the edges of the trail to reduce the displacement of soil particles. Buffer zones are maintained, and the harvesting of logs is not done within the buffer zones.

Carbon dioxide emissions and Climate Change

Logs are not cleared-fell but are selectively harvested based on a breast height of 1.3 m and a diameter above 35 m. However, if there are more than one (1) tree within an 8-metre radius, only trees over 40cm at breast height will be harvested based on the GFC guidelines. This practice leaves the majority of the forest intact and helps preserve the carbon stored in the trees and soil, thus reducing the release of CO₂ into the atmosphere and also allowing saplings to continue absorbing CO₂ through photosynthesis. Also, it minimizes soil disturbances during logging

activities, thus maintaining the integrity of the forest floor and preventing the release of stored carbon from the soil.

Solid Waste:

1. The garbage is collected in a garbage receptacle and emptied in a solid waste pit located approximately three hundred (300) meters away from the creek that flows within the concession.
2. Small quantities of sawdust and wood ends are expected to be generated and will be left at the tree stumps to decompose. However, some of the wooden boards will be reused as meat boards, stools, etc.

Cumulative Impacts

Cumulatively, the impacts on air, land and water will not be significant since the concessionaires have to adhere to the Code of Practices and regulations established by GFC to ensure that logging is done in a sustainable manner and the Environmental Protection Act and its associated regulations for environmental protection.

Prepared by:



Date:



