CORREIA GROUP OF COMPANIES

TRANS GUYANA AIRWAYS LTD

DOMESTIC FLIGHT, CARGO & FUEL STORAGE, SHUTTLE OPERATIONS

PROJECT SUMMARY

NAME OF PROJECT: Domestic Flight, Cargo & Fuel Storage Shuttle Operations

NAME OF DEVELOPER/ COMPANY: Trans Guyana Airways Limited

CONTACT DETAILS: 222-2150 ext. 1290 / AFerguson@correiagroup.net

DATE PREPARED: 19th February, 2025

PREPARED BY: Allison Ferguson- Bacchus

TABLE OF CONTENTS

1. **INTRODUCTION** 3

1.1 Mission Statement 3

1.2 Company History 3

2. **PROJECT SITE** 4

3. **PROJECT DESIGN** 6

3.1 Flight Operations 6

3.2 Maintenance Operations 6

3.3 Storage Bond (Cargo- dry goods & Fuel) 7

3.4 Fuel Storage Tank/ Depot 7

3.5 Receiving Fuel 8

3.6 Utilities 10

3.7 Waste Management 10

4. **PROJECT SIZE** 11

4.1 Capital investment 11

4.2 Number of employees used 11

5. **NON-TECHNICAL EXPLANATION** 12

6. **PROJECT DURATION** 13

7. **POTENTIAL EFFECTS & MITIGATION PLAN** 14

1. INTRODUCTION

Trans Guyana Airways Limited (TGAL) owns and provides a fleet of three (3) Beech 1900 aircraft and eleven (11) Cessna Caravans. With service to both domestic & international locations, TGAL provides air transportation services in support of primarily the mining/ tourism sector, mostly to interior locations. TGAL also provides Ground handling services to international carriers, for example, Caribbean Airlines. TGA head office and main passenger terminal are located at the EFCIA, Ogle, East Coast Demerara, approximately 11km (7 miles) from central Georgetown and cover a total area of 3.21 Acres.

In Trans Guyana's initial stage of operation, it provided both passenger flights and supported commercial and agricultural aviation applications. As the only ISSA-certified local air operator, the operation has, over the years, expanded. In this regard, the company has extended its reach to Mahdia by providing cargo, passenger, and shuttle/chartered flights to meet the needs of the expanding commerce and mining operations in Guyana.

TGAL, in keeping with its Policy, to continue to be compliant with international and local laws and regulations while promoting sound environmental management, has now initiated the first phase of applying for an Existing Operations Environmental Permit. This will govern its operation at Mahdia, i.e., Domestic Flight, Cargo & Fuel Storage Shuttle Operations.

1.1 MISSION STATEMENT

TGA's Mission statement read: ***"To provide safe & reliable air transportation service to our customers in Guyana and around the region."***

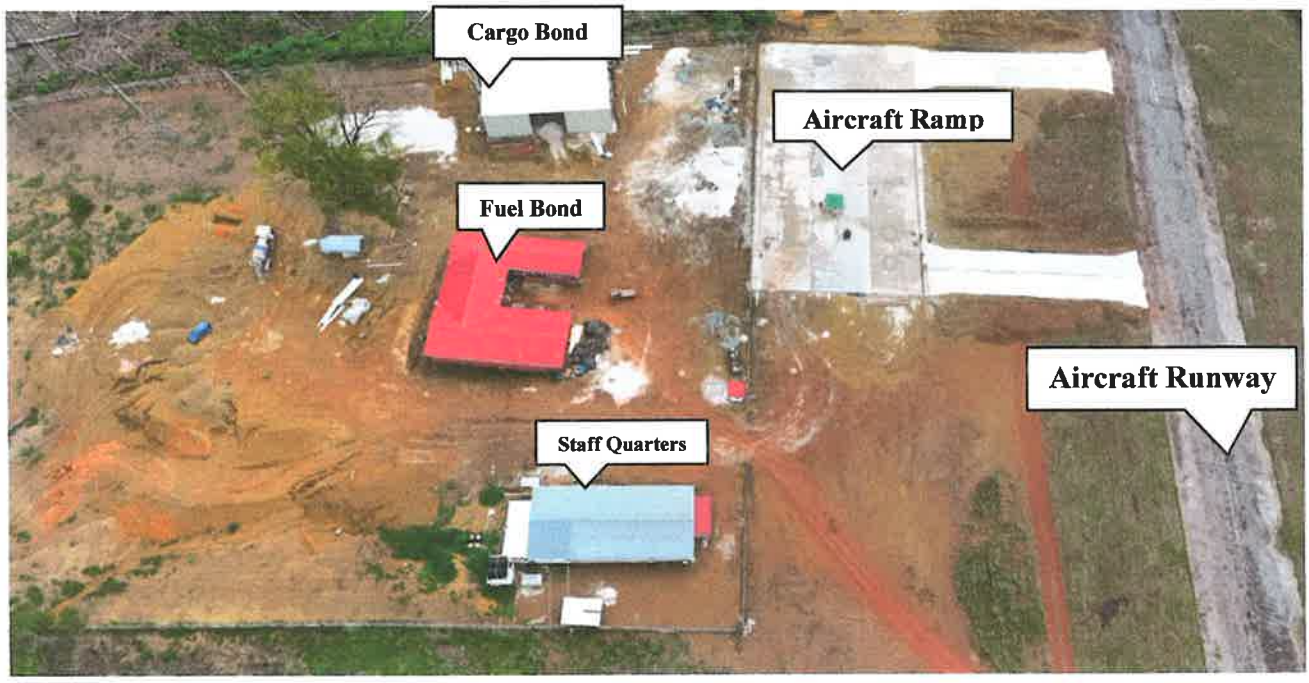
1.2 COMPANY HISTORY

Originating in 1956 from a single float plane air service, Trans Guyana Airways (TGA) has grown into Guyana's premier and most dynamic domestic commercial airline, developing over a 67-year legacy of aviation experience and excellence as a member company of the Correia Group of Companies.

TGAL was formed to support the Correia Mining Company, a family-owned business, which was founded by Manoel and Mary Olive Correia. The company has expanded over the years, and today stands proud of its many achievements. TGAL is the only ISSA-certified local air operator and is

fully compliant with local & international regulatory requirements. Guyana's growing economy has given rise to increasing demand for air transportation services to the country's hinterland locations over the past 20 years.

2. PROJECT SITE



Present Land Use of Project Area

(Surrounding Land Use)

3. PROJECT DESIGN

This project covers three primary aspects of TGAL's operation, namely its flight shuttling operations, storage bonds (dry goods & fuel) & refueling aspect from the fuel depot. All are in the operational phase, and one of the three 3 areas forms a critical part of TGAL's revenue-generating capacity.

3.1 Flight Operations

TGAL Mahdia's location provides domestic flight shuttling services to & from the interior locations of Guyana. The base operates 7 days per week; however, planned arrival and departure of flights occur by a flight schedule based on bookings received, and generally does not include flights occurring beyond sunset.

3.2 Maintenance Operations

To support all flight operations, TGAL facilities and the fleet of aircraft require continuous maintenance. Maintenance activities include scheduled and unscheduled maintenance and equipment upkeep, general quality assurance, and quality control. Such activities are led by qualified and skilled Engineers and an extensive facilities maintenance network of workers. While light maintenance work, such as removal and checking of aircraft wheels, refueling of aircraft, etc., is conducted at Mahdia, key maintenance work planned for the aircraft is facilitated by CAMS and is conducted in their Hangar at Ogle.

TGAL's operation includes a fleet of aircraft, vehicles, and equipment, essential to support operations as follows:

1. Eleven (11) C208B Grand Caravans
2. Three (3) Beechcraft 1900D
3. Four (4) Ground Power Units (GPU)
4. One (1) small refueling bowser holding approximately 800- 1000 gallons of fuel. Note- This will be replaced once the Fuel depot is operationalized.
5. Two (2) Generators ((5Kva and 50Kva) & One (1) Tractor

All equipment is owned by Trans Guyana Airways and is serviced/maintained by a mechanic located in Mahdia, while the aircraft are serviced by Caribbean Aviation Maintenance Services.

3.3 Storage Bond (Cargo- dry goods & Fuel)

The project site has two (2) storage bonds that were constructed to facilitate the temporary storage of food, equipment, household items, hazardous and non-hazardous materials/chemicals, pending their dispatch to other locations. All dry goods are housed inside the cargo bond, while fuel, being a flammable liquid, is stored in a separate bond as this provides adequate ventilation to prevent the accumulation of VOCs and therefore reduces the risk of fire, which may result from fuel being stored near an ignition source. The fuel storage bond is provided with adequate fire prevention and control equipment.

Operations of the bond, as it relates to handling, storage, and transportation of hazardous cargo by air, are primarily governed by the International Air Transport Association's (IATA's) 65th Edition of the Dangerous Goods Regulations (DGR).

The fuel bond temporarily stores approximately 100 (225) USG sealed corrosive resistant tankers for customers & (80) 55 USG drums for company use, all of which are filled with Gasoline, Diesel, and Av Jet, These hazardous substances are housed in a separate section of the bond for approximately 1½ weeks (worst-case scenario) pending their departure and/or use. A containment wall is constructed around the fuel storage bond, on an impervious base with steel & reinforced concrete to contain at least 25% of the total volume of fuel stored in the event of a spill.

3.4 Fuel Storage Tank/ Depot

The fuel storage tank is an essential component of the company's operation. The tank is designed to store approximately 10,000 gallons of aviation fuel (Av Jet) in a safe & efficient manner. To ensure the safety and integrity of the fuel storage tank, it has been equipped with various features. These may include emergency venting systems, overfill protection devices, and leak detection systems. The emergency venting systems allow excess pressure to be safely released from the tank, preventing potential explosions. With this in mind, the fuel storage tank will be visibly inspected to check the integrity of the storage system and associated plumbing. A daily check will also be conducted to verify its contents.

A recorded logbook of these inspections, including internal cleaning of the tank, will be maintained at the operations office and will be carried out by Caribbean Aviation Maintenance Services. Included within the log book will be the date of inspection, the name of personnel, and results for all maintenance and inspections.

The tank will be numbered and have the type of fuel and maximum capacity clearly marked. All valves will be tagged and numbered to facilitate clear identification during operation. All pumps, valves, and associated equipment will be maintained to ensure they're in good working order. Any defective fixtures or fittings will be replaced or repaired as soon as is practicable.

Additionally, a secondary containment wall is constructed around the fuel storage tank, measuring 25 feet by 25 feet by 2 feet. It can provide 110% containment of the total volume of fuel stored. The Secondary containment wall is constructed of steel, reinforced concrete & reinforced masonry to be liquid tight as well as capable of withstanding the hydrostatic pressure of the contained liquid when full. The containment wall will be sealed to prevent any part of the tank infrastructure (e.g., filling hoses and valves) from protruding outside.

It has been constructed on an impervious base and is established under all piping systems to and from the fuel depot.

3.5 Receiving Fuel

Approximately 80 (55) USG plastic fuel drums filled with Av Jet Fuel are currently transported by heavy-duty trucks from TGAL's main base located at Ogle to Mahdia, for refueling of fuel trucks for dispensing into aircraft. Fuel such as diesel & gasoline is also transported to the TGA Mahdia location by customers. It is stored temporarily for approximately (5 days- 1½ weeks worst-case scenario) until the flight is scheduled for shuttle operation. Upon arrival at Mahdia, the sealed drums are inspected, removed & stored at their designated location until it is ready to be used, shuttled, and/ is uplifted by the customers.

The procedures below will be followed before loading fuel into the fuel tank/depot;

- Before the fuel is transported from the 55 USG drums into the fuel depot using the portable re-fueler, the receiving tank levels will be checked to ensure the tank can hold the quantity of fuel being delivered.
- All required quality tests will be conducted before fuel is discharged.
- The fuel drums will be required to sit stationary for at least 30 minutes at the unloading point to allow water and particles to settle. Checks will be done to ensure that all compartment seals are intact.
- Bonding cable will be attached from the fuel receiving equipment to the carrier.

- Approved dry chemical fire extinguishers will be on site, within 30 feet of the receiving tank.
- All fittings will be checked for tightness to ensure no leaks and no contamination is introduced into the fuel.
- All seals will be checked on the portable refueler to ensure no tampering has taken place.
- Fuel will be transferred into the Fuel Storage Tank/ Depot, where it will be allowed to settle before being dispensed into aircraft.

Fuel Storage Tank/ Depot

Containment Wall

3.6 UTILITIES

Utilities are provided by the following companies:

- Water is supplied from a well & is stored in 4 (450 gallons) black tanks for usage on the premises and is distributed by pipes.
- Electricity is sourced from Mahdia Power & Light. However, there are two back-up generators on site (5 KVA and 50 KVA) that are used in the event of a power outage.
- Telecommunication services are sourced from Digicel.
- Internet services are provided by Star link/ Date

3.7 WASTE MANAGEMENT

TGAL's Mahdia operation has the potential to generate hazardous and non-hazardous waste from operational activities at the project site. However, waste generation is expected to be minimal, and due to the safety mechanisms the company has in place, it's not foreseen to constitute a major threat. The following categories of wastes are therefore anticipated, along with the method of waste disposal/ treatment:

WASTE MANAGEMENT	
CATEGORIES OF WASTES	**METHOD OF WASTE DISPOSAL/ TREATMENT**
Municipal solid waste- This will be generated from public areas, operations, administrative offices, staff accommodation, the storage bond, and cleaning of aircraft. Municipal solid waste expected includes food boxes, plastic bottles, aluminum cans, paper, cardboard, and other packaging material.	All municipal waste produced through the daily operation of the company is stored in 55-gallon plastic drums. It is emptied once per week by K & K&D Construction, a waste disposal service provider located in Mahdia.
Sewage Waste This is generated from all washrooms located at the project site in which all employees & customers utilize.	All employees & customers utilize the washroom located at the project site. The washrooms are connected to the sewage system, which collects and stores fecal waste in the septic tanks. A suitable service provider will be contacted to empty the sewage system when it's full.

Compostable and biodegradable wastes- During routine compound maintenance and landscaping of areas, small quantities of compostable waste, such as grass, are anticipated. Further, biodegradable waste will be generated from employees' and visitors' discarded food.	Compostable waste generated from employees and customers will be buried for further decomposition.
Hazardous waste- This category of waste will be generated from activities directly or indirectly associated with flight operations. As such, hazardous wastes expected from the facility include, waste water from washing, waste oil, filters and used hydraulic fluids from light maintenance of aircraft, GPU and generator; containers with residual lubricants and hydraulic fluids; and debris from the clean-up of fuel, lubricants or hydraulic fluid, other expired/obsolete hazardous chemicals at the storage bond which may spill.	TGAL has constructed an oil-water separator in the vicinity of the fuel storage area before the final effluent discharge point. This is necessary to capture and retain any waste oil that may be accidentally released during operation. All hazardous waste generated from the operation will be disposed of by an authorized waste oil disposal company recommended by the EPA.

4. PROJECT SIZE

4.1 Capital investment

- Expenditure- $ 165,807,961
- Annual Turnover (2024)- $ 990,448,477

4.2 Number of employees used

For each stage of the project.

- Construction was broken into 3 phases, namely land clearing &/ preparation, digging of the foundation, and construction/installation of pre-fab building's all of which required a total of approximately 10 construction workers.
- Operations (on a given day) has approximately 9 staff, which includes 1 supervisor, 1 engineer, 1 operations staff, 1 ground handler, and 5 loaders.

5. NON-TECHNICAL EXPLANATION

TGAL Mahdia Domestic Flight, Cargo & Fuel Storage Shuttle Operations plays a critical role in supporting Guyana's mining sectors by transporting cargo/fuel and passengers to various areas in the interior locations. To facilitate smooth operations, an administrative/check-in building is currently being used for flight coordination. The base operates 7 days per week from 6 am-6 pm; however, planned arrival and departure of flights occur by a prepared schedule, which generally does not include flights beyond sunset. The 6 am – 6 pm operations ensure seamless dispatch and arrival of flights. The operations activities include tasks such as dispatching, flight planning, operations control, ground-to-air communications, and integration with crew, flight schedules, and maintenance planning. These activities are supported by skilled administrative and engineering personnel to allow for the smooth running of flight operations to all locations.

To support all flight operations, aircraft require continuous maintenance. These maintenance activities include scheduled and unscheduled maintenance as well as equipment upkeep, stringent quality assurance, and quality control. Such activities are led by qualified Engineers and an extensive facilities maintenance network of workers.

Moreover, a fuel storage tank is located on the project site, a safe distance away (more than 100ft) from the general operation. Regular visible & scheduled internal cleaning will be conducted to check the integrity of the storage/ filtration systems and associated plumbing fixtures. The tank will be inspected monthly for cracks and breakage to ensure they are liquid tight to withstand hydrostatic pressure for any contained spill when full. All findings will be documented in a record logbook to capture the date of inspection, the name of personnel, and results for all maintenance and inspections. The tank will be labelled with a number, the type of fuel, and maximum capacity, in addition to the valves being tagged and numbered to facilitate clear identification during operation.

Additionally, in receiving fuel for the storage tank, standard fuel quality checks will be conducted before the fuel is discharged. The fuel carrier/transport tanker will be required to sit stationary for at least 30 minutes at the unloading point to permit water and particulates to settle. Following this, an inspection will be carried out to ensure that all compartment seals are intact. A bonding cable will then be attached from the fuel receiving equipment to the carrier/transporters. Once

completed, the fuel will be transferred into the storage tanks where it will be allowed to settle before loading into Fuel Bowser trucks for dispensing into aircraft.

Note a secondary containment structure made out of steel & reinforced concrete has been constructed on an impervious base around the fuel tank, capable of providing 110% containment of the total volume of fuel stored.

6. PROJECT DURATION

The duration of the project is indefinite as Mahdia flight operation & Bond storage (Fuel & Cargo) will continue to be operational as long as there is demand for cargo/ passenger flights at Mahdia air strip. Trans Guyana holds a Land Title for the Mahdia Project site.

7. POTENTIAL EFFECTS ON THE ENVIRONMENT & MITIGATION PLAN

MAHDIA HANGAR & FUEL FARM OPERATION	
OPERATION	
Potential Environmental Effects **Brief description**	**Proposed Mitigation Plan** **Brief description**
Noise Emission -high sound levels generated by aircraft engines and the supporting activities at the project site, including the use of ground power units (GPUs) and generators. Project-related noise emissions are anticipated to occur during operational hours. The noise generated from this activity is expected to be short-term and periodic.	Noise level detected from an aircraft varies during takeoff, landing, and while in flight, and is influenced by weather, height, and position, changes in engine thrust, Aircraft type, & topography. Listed below are brief mitigations that will/be implemented. • **Land Use Planning-** The project is sited at an area appropriately zoned for aircraft operations and where similar activities occur. • **Reduction of Noise at Source-** aircraft was designed with noise reduction mechanisms, which allow for noise emissions to remain within the regulatory limit. • **Aircraft Operation Restrictions-** As far as possible, most flights are scheduled during the daytime when higher sound levels are more tolerable. • **Compliance with GNBS Noise Limits-** This is achieved by restricting noise-producing activities to the daytime, ensuring that flights are scheduled only between sunrise and sunset. • **Equipment and vehicle maintenance-** All aircraft and support equipment are subject to routine maintenance in accordance with the manufacturer's specifications and best safety practice to ensure efficiency and reduce the level of

	noise produced. Also, the generator is equipped with appropriate mufflers and is enclosed in suitable acoustic enclosures where necessary to reduce noise level impacting the environment. • **Use of appropriate PPE-** Occupationally exposed staff are provided with personal hearing protection equipment and are required to use it along with other issued PPE.
Air Emission - Aircraft engines produce emissions that are similar to what is produced during fossil fuel combustion in other engines. However, a significant proportion of aircraft emissions is released at high altitudes. Sources of air emission include: Aircraft engine start-up and operation during light maintenance, take-off, and landing, Operation of GPU, Operation of Generator, Refueling of Aircraft, GPU, and Generator.	• **Use of appropriate PPE-** Respirators and dust masks are provided to employees of TGAL, particularly those working in the storage bond, who may be occupationally exposed to air emissions from hazardous chemicals and dust, which may accumulate on materials stored for long periods. • **Maintenance of aircraft, vehicles, and equipment-** TGAL has a rigid, well-structured aircraft & equipment maintenance schedule. As such, only regularly maintained aircraft, vehicles, and equipment (inclusive of refueling equipment) will be used. • **Location of Operation Base-** The proximity of the operation base to the runway minimizes the taxiing distance from one point to another, thereby minimizing aircraft time in inefficient modes, which reduces emissions. • **Exhaust stack for generator-** the generator is fitted with an exhaust stack and will be operated considering the requirements of the EPA, and the safety precautions required when operating at an aircraft shuttle operation base.

Water Quality - The potential impairment of water quality at the project site and its environs may result from the accidental or deliberate discharge of contaminants into the waterways. The uncontrolled release of contaminants into waterways surrounding the project site can cause algal blooms and deplete dissolved oxygen in the water, resulting in fish kills. Pollutants associated with the release of fuel can accumulate on runways and other surfaces and eventually be washed into waterways. Runoff pollutants may include oils, greases, and other hazardous chemicals	• **Institution of spill prevention measures-** This includes conducting light maintenance of aircraft and equipment on a flat, impermeable concrete surface to prevent absorption of spill into the soil; conduction of inspections to identify potential sources of fuel and chemical leaks and institution of corrective measures; careful inspection of refueling equipment, and promotion of safe handling and storage of fuel and chemicals at the bond. All spills and potential spill sources will be promptly contained and cleaned up by our spill management plan. Our personnel are trained and equipped to effectively use the available spill kits, which include PPE, spill pads, and containment socks. • **Construction of a fuel storage bund-** The fuel storage area has been modified with a containment wall, which is capable of withstanding 110% of the volume of the largest fuel container stored in the area. Additionally, this area also has a shed to prevent the entry and accumulation of rainwater, which may become contaminated before runoff. • **Installation of oil water separators-** TGAL has constructed an oil water separator in the vicinity of the fuel storage tank/ depot before the final effluent discharge point at the project site. This is necessary to capture and retain any waste oil/ fuel residue that may be accidentally released during operation. • **Discharge of wastewater septic tank-** All wastewater generated from the use of washroom facilities is channeled into a septic tank, which will be cleared regularly and

	inspected to ensure that connecting pipes are in good condition and devoid of any leakages. This applies to operations at the administrative office, storage bonds & staff quarters. Although the risk of water pollution from TGAL's operation is low, the scenarios that may be a precursor for water pollution may occur during the operation of both the fuel storage bond and the Fuel Storage Tank/ Depot.
Littering of Solid Waste- Municipal solid waste consists of materials from plastics to food scraps. All of which can be littered into the environment by consumers and contribute to pollution. The amount of waste produced at the project site is influenced by consumption, and customers utilizing the air transportation services.	Once generated, wastes will be managed through reuse, recycling, storage, and/or disposal. The below will be/ are implemented; • **Provision of waste receptacles**- TGAL provides an adequate number of waste receptacles, placed at strategic locations, to discourage dumping/littering. • **Reuse of waste-** As far as possible, nonhazardous wastes such as cardboard and wooden pallets are reused in the storage bond. • **Frequent waste collection**- Non-hazardous wastes, primarily municipal waste, are collected by K & K&D Construction once per week. • **Staff sensitization**- During toolbox talks and safety meetings, employees will be sensitized on waste management-related matters such as waste minimization (e.g., encouraging the reuse of water bottles), storage and disposal of waste, and spill response, to improve their waste management efficiency