

PROJECT SUMMARY

PORT FACILITY; BULK STORAGE OF AGGREGATES AND LOAM
INSERVE (GUYANA) INC.

INTRODUCTION

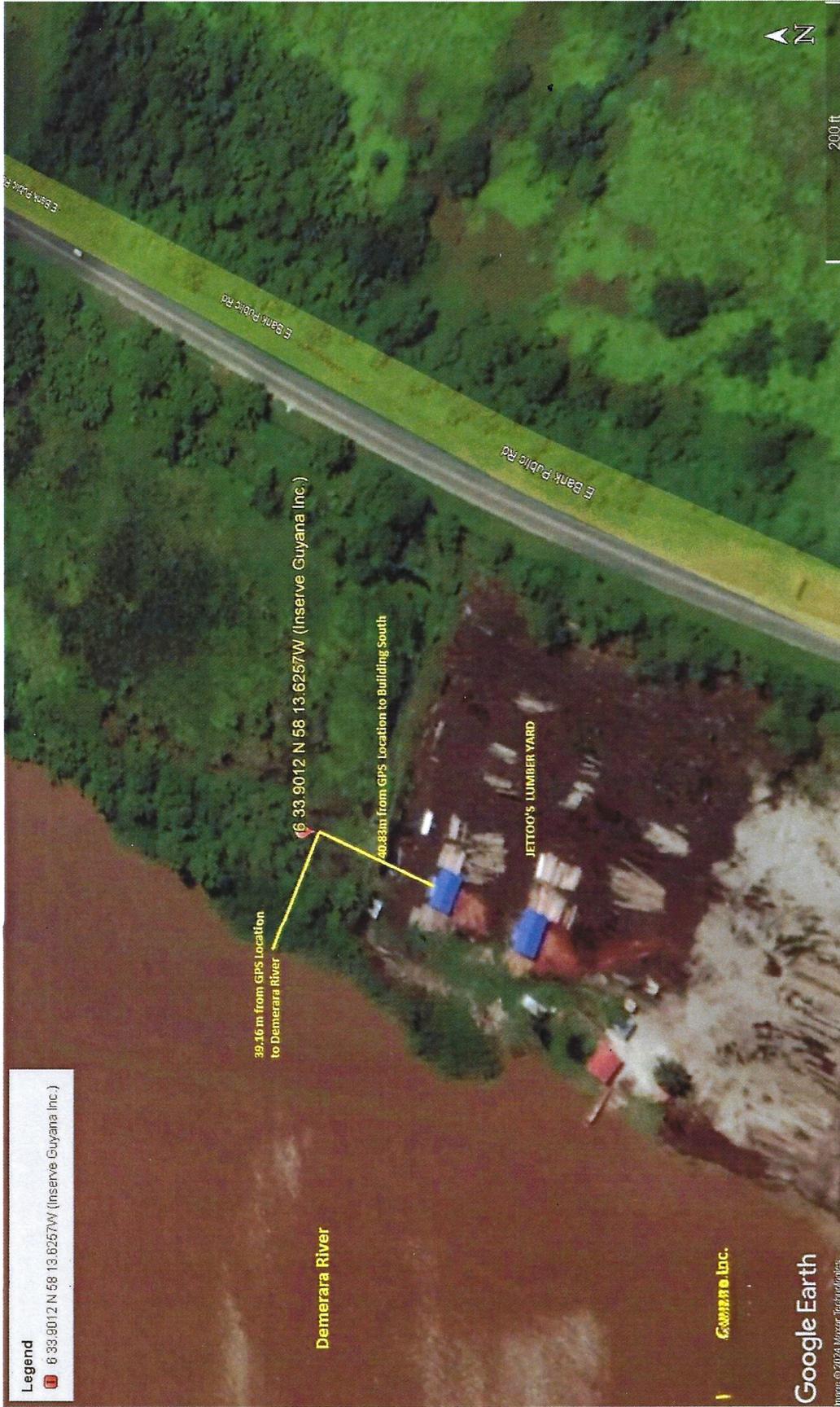
INSERVE (GUYANA) INC. is a company incorporated under the Companies Act of Guyana with a primary focus on storing and supplying materials, including but not limited to construction and oil and gas materials at its Port Facility located at Coverden, East Bank Demerara. To support the development of activities/operations such as the bulk storage of aggregates and loam (construction materials) at the Port Facility, Inserve Inc. is seeking environmental authorization from the Environmental Protection Agency (EPA).

PROJECT LOCATION

Inserve Inc. Port Facility and bulk storage of aggregates and loam operation is located at Tract "A" Te Huiste, Coverden, East Bank Demerara. The project includes the existing wharf which is the entry point for materials and supplies to the Port Facility and 1.0540 acre of land space. The project site which was previously undeveloped land is situated on the eastern bank of the Demerara River and immediately west of the East Bank Road Corridor. Located within a 500-meter proximity of the Port Facility/Project are industrial activities including concrete manufacturing, lumber yard, and hazardous waste treatment operations. The areas surrounding the project site are frequently covered with vegetation and sparsely populated by residents, with the nearest resident located outside the 500-meter proximity.



Google Map shows the project location within a 500-meter radius



Google Map showing the distance of the project site to the Demerara River and closet commercial building

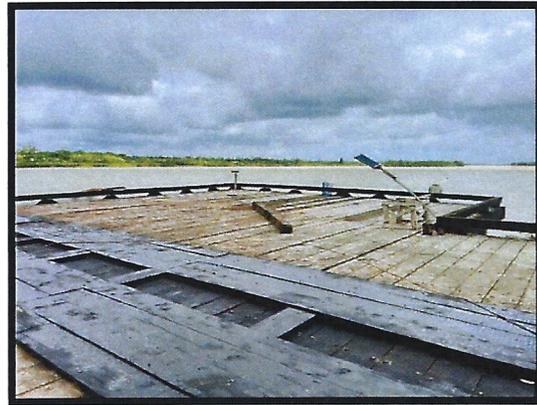
PROJECT DESCRIPTION

The project will be implemented in two phases:

1. Construction
2. Operation

Construction Phase

This phase includes the **rehabilitation of the existing wharf**. The wharf consisting of one berth was rehabilitated whereby the supporting beams and columns were strengthened and damaged boards on the platform were replaced.



Photos 1 & 2: Rehabilitated Wharf

Site Preparation – this includes compacting and strengthening the base of the project site with sand and crusher-run. The internal drainage network will be defined and constructed to allow the removal or run-off of stormwater from the project site and discharge to the Demerara River.

Identification signs will be installed at the northern section of the project site, demarcating the aggregates and loam stockpile areas. Dust screens will be installed on the northern and eastern perimeter fence to reduce fugitive emissions of dust from stockpile areas. An office, supplies warehouse, and scale area will be constructed south of the aggregate stockpile area.



Photo 3: Current status of the project site

Operation Phase

This phase will involve bulk aggregates of varying grades and loam transported to the site via Barge/vessel that will dock at the wharf. The aforementioned construction materials will be offloaded from the barge using a front-end loader and stockpiled within the designated area.

Aggregate and loam will be retail to customers or clients. This will involve the materials being loaded into the customer's truck or transport vehicle and weighed on the scale before exiting the site. Approximately 500-1000 tons of aggregate and loam will be stockpiled per month.

POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This section identifies and describes the potential adverse environmental impacts of the Project. Mitigation measures, both existing and planned are described in detail to reduce or mitigate the identified impacts.

Project Activities	Potential Environmental Impacts	Planned Mitigation Measures
<p>Bulk Storage of Aggregates and Loam.</p>	<p>Dust Emission Dust emissions occur at several points in the storage cycle of aggregates, such as material loading onto the pile, disturbances by strong wind currents, and load out from the pile. The movement of trucks and loading equipment in the storage pile area is also a substantial source of dust.</p> <p>The quantity of dust emissions from aggregate storage operations varies with the volume of aggregate passing through the storage cycle. Emissions also depend on three parameters of the condition of a particular storage pile: age of the pile, moisture content, and proportion of aggregate fines.</p> <p>When freshly processed aggregate is loaded onto a storage pile, the potential for dust emissions is at a maximum. Fines are easily disaggregated and released to the atmosphere upon exposure to air currents, either from aggregate transfer itself or from high winds. As the aggregate pile weathers, however, the potential for dust emissions is greatly reduced. Moisture causes aggregation and cementation of fines to the surfaces of larger particles. Any significant rainfall soaks the interior of the pile, and then the drying process is very slow.</p> <p>Shifting or movement within the foundation as a result of the weight/volume of the aggregates stored by the project – the storage capacity of the project site.</p>	<p>Installation of dust screens at the aforementioned boundaries to reduce wind erosion thus reducing emissions.</p> <p>Apply chemical agents (such as surfactants) to aggregate stockpiles - Continuous chemical treating of material loaded onto piles, coupled with watering or treatment of roadways, can reduce total particulate emissions from aggregate storage operations by up to 90 percent.</p> <p>Frequent wetting of aggregate stockpiles, primarily during dry and windy weather conditions.</p> <p>Aggregate stockpiles are maintained below the height of the boundary fence.</p> <p>Aggregate stockpiles will be distributed across the designated storage areas in piles not exceeding 6ft. This allows for even distribution of the load capacity across the 1 acre allotted for storage of aggregates.</p>

<p>A front-end loader will be maintained at the project site to ensure that stockpiles maintain a horizontal layout.</p>	
<p>Limiting the hours during which site activities are likely to create high levels of noise or vibration to between 6 am and 6 pm.</p>	
<p>Establish channels of communication with the Local Authority and residents. Activities exceeding the working hours will be communicated via signs posted at the project boundaries.</p>	
<p>Monitor the levels of noise and vibration during critical periods and at sensitive locations to ensure compliance with noise standards.</p>	

CONCLUSION

Bulk stockpiling of aggregates and loam may give rise to environmental hazards. It is with this understanding that Inserve Inc. will construct and operate this project with the controls to reduce fugitive emissions of Particulate Matters thus minimizing adverse impact on the environment.