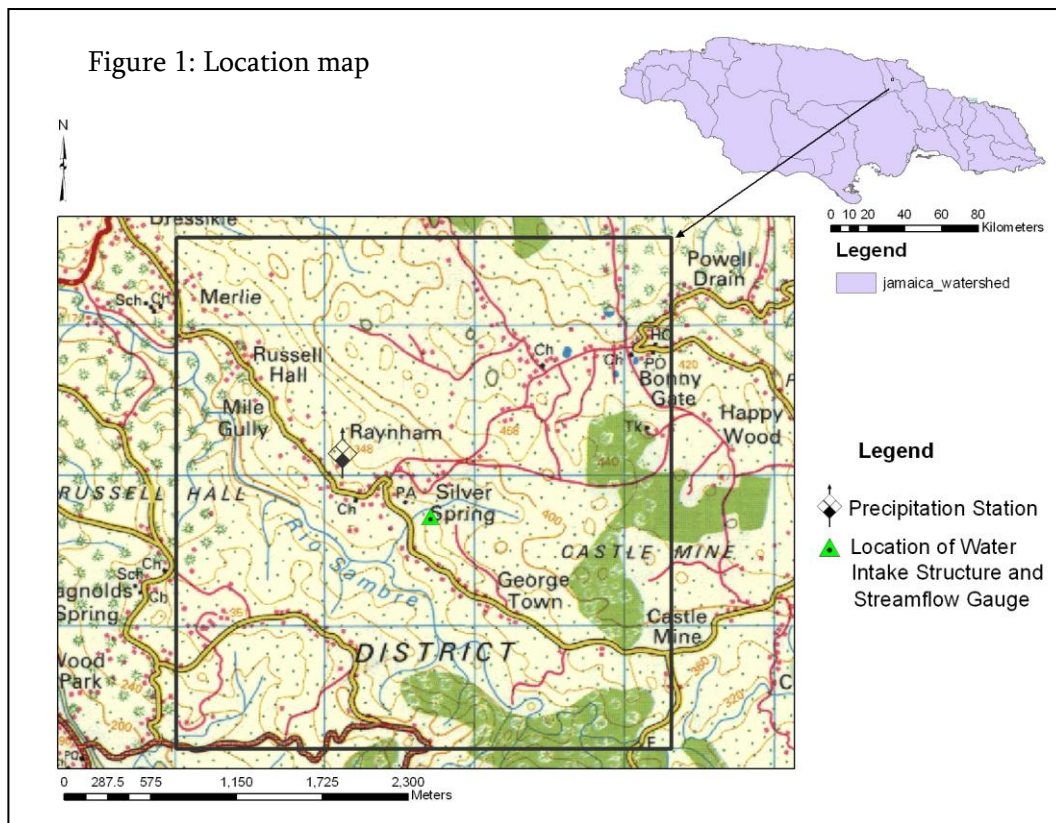


Community Profile Mile Gully, St. Mary/Jamaica

Location

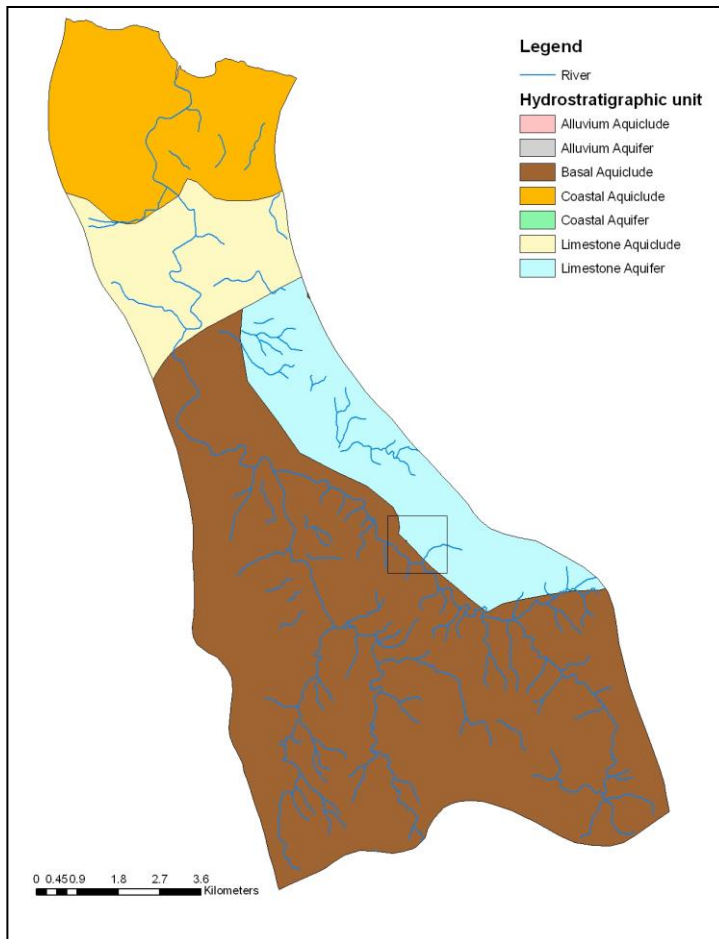
The community of Mile Gully is located in the Parish of St. Mary approximately 5 km southeast of Gayle, the nearest larger commercial centre. The community comprises approximately 650 persons in 182 households and is characterized by the absence of a structured water supply system. Water is collected from stand pipes and washing and bathing takes place in small streams including Silver Spring and the Rio Sambre. Employment levels are low and subsistence farming is the main income source for the majority of residents.



Hydrological Setting

The community is located within the Rio Nuevo watershed which forms part of the Blue Mountain North hydrologic basin. The watershed has a size of 109 km². Some 85 % of the rock material found in this watershed is characterized as an aquiclude with low potential for groundwater development. The remaining 15 % are considered rocks with sufficient permeability that allow for storage and conveyance of significant amounts of groundwater. (Figure 2) The main resource found in this area is surface water associated with the Rio Nuevo and its tributaries. A small limestone aquifer forms the recharge area for the Silver Spring. Groundwater discharged from the spring flows into the Rio Sambre a major tributary of the Rio Nuevo.

Figure 2: Hydrostratigraphic map



Silver Spring is an entombed spring from which residents collect water or use the overflow from the entombment for washing and bathing. The objective of the project is among others is to upgrade this spring to a domestic water supply source by harnessing, treating and conveying water into households.

An automated streamflow recording device is to be installed within the stilling basin forming the water intake feature. A location for installing a rainfall intensity gauge has been identified approximately 500 meters northwest of the water intake structure.

Spot streamflow measurements indicate daily discharge volumes ranging between 1700 m³/day to 24,270 m³/day. According to residents the spring discharges all year and is not known for drying up thus making it a feasible water source.

Plate 1: Proposed Location of Water Intake Structure (upstream of small waterfall)



Plate 2: Proposed Location of Water Intake Structure (0.8 m high bulkhead to be constructed where persons stand)

