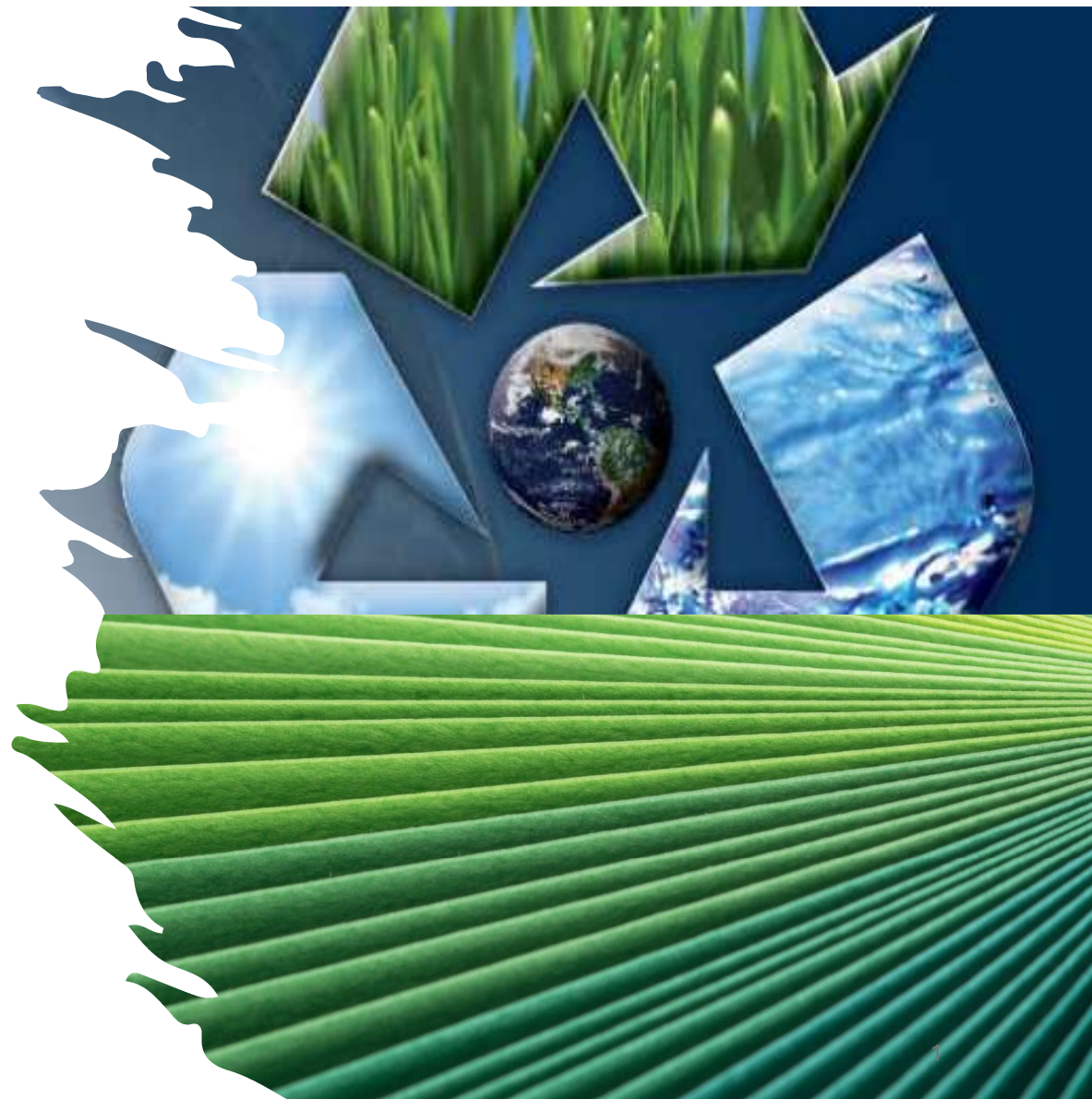


Environmental Impact Assessment for the Establishment of a New Waste Disposal Facility at Kangawood Road, Forres Park, Claxton Bay

Project Introduction

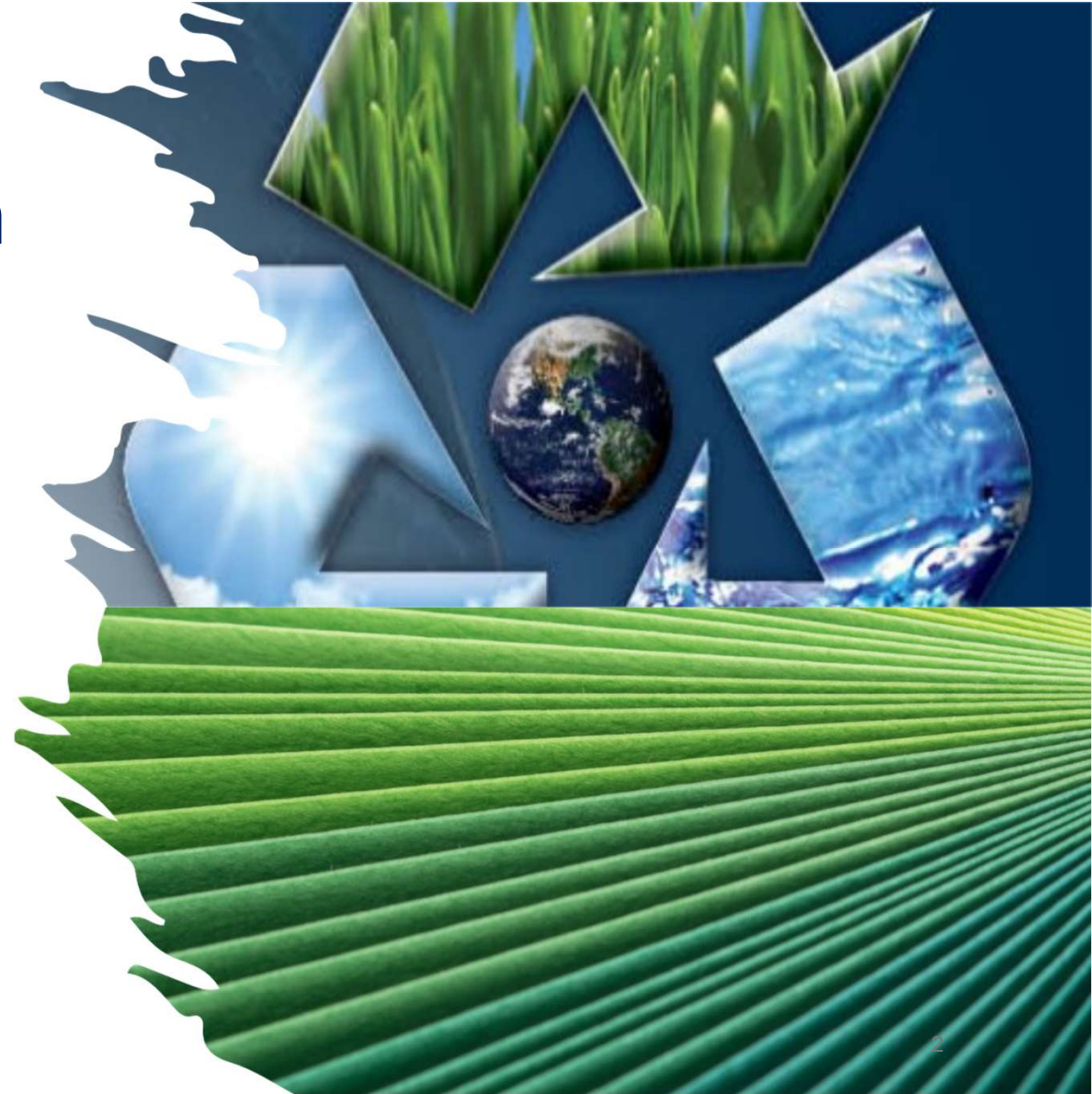


Project Introduction

Need for Project

Conceptual Design

Project Benefits



Need for Project

SWMCOL's Mandate:

"to manage the collection, treatment, and disposal of Municipal Solid Waste while preserving and upgrading the environment"

Growing Population

Increased urbanization,
consumerism and
industrialization

Increase in generation of
waste

Increasing demand on
solid waste
management systems

Forres Park Landfill, Claxton Bay

Guanapo Landfill, Arima

• Beetham Landfill, Port of Spain

Current Challenges with Waste Management in Trinidad and Tobago

The absence of a single overarching body for waste management.

Inefficient MSW collection and disposal systems

Non-compliance with international best practices as it relates to environmental management practices at existing landfill disposal sites

The proximity and location of informal settlements to landfills

The absence of a data collection infrastructure and systems

Slow progress towards developing a recycling framework

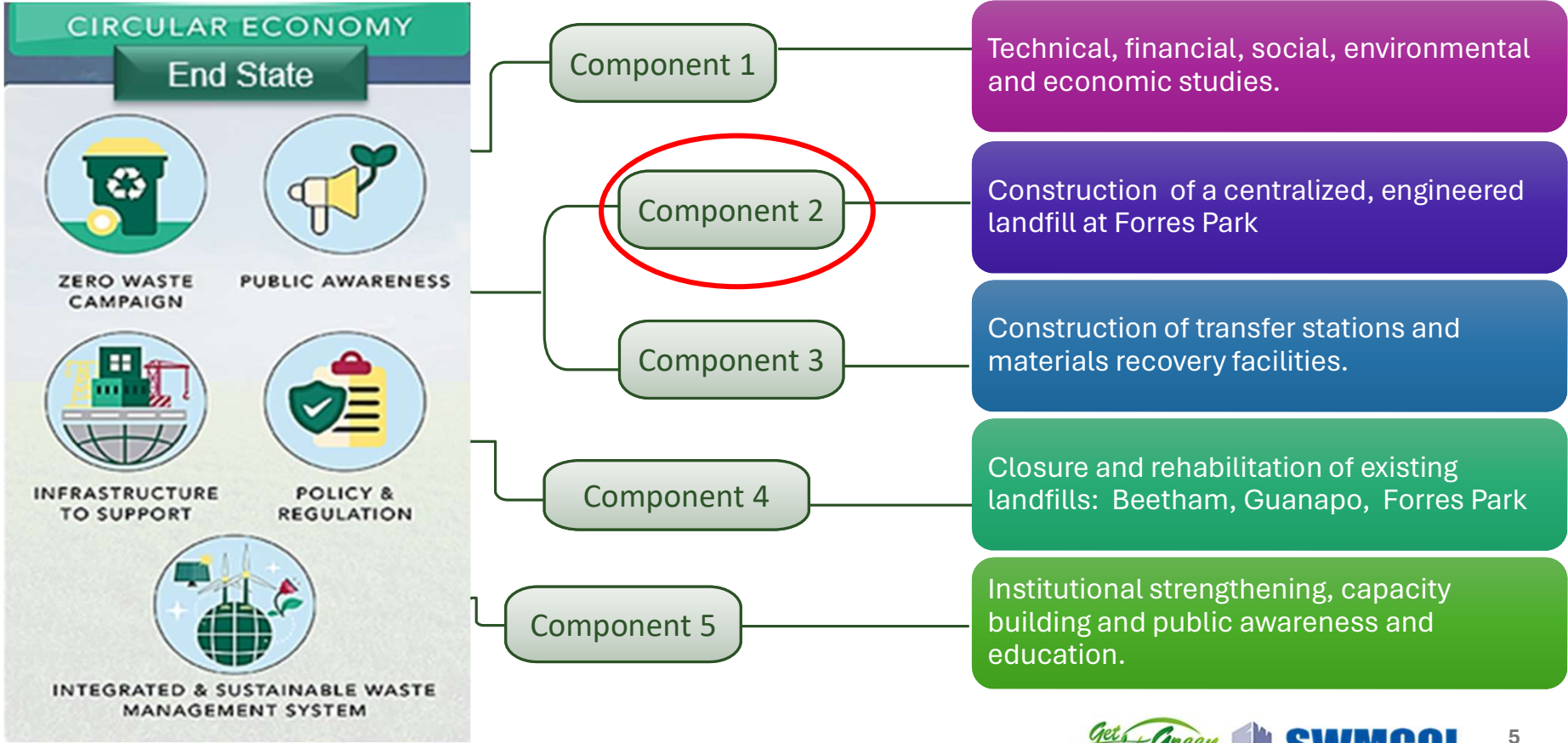
Health, safety, and citizen security risks emanating from salvaging activities

Frequent landfill fires which pose serious health concerns to surrounding communities

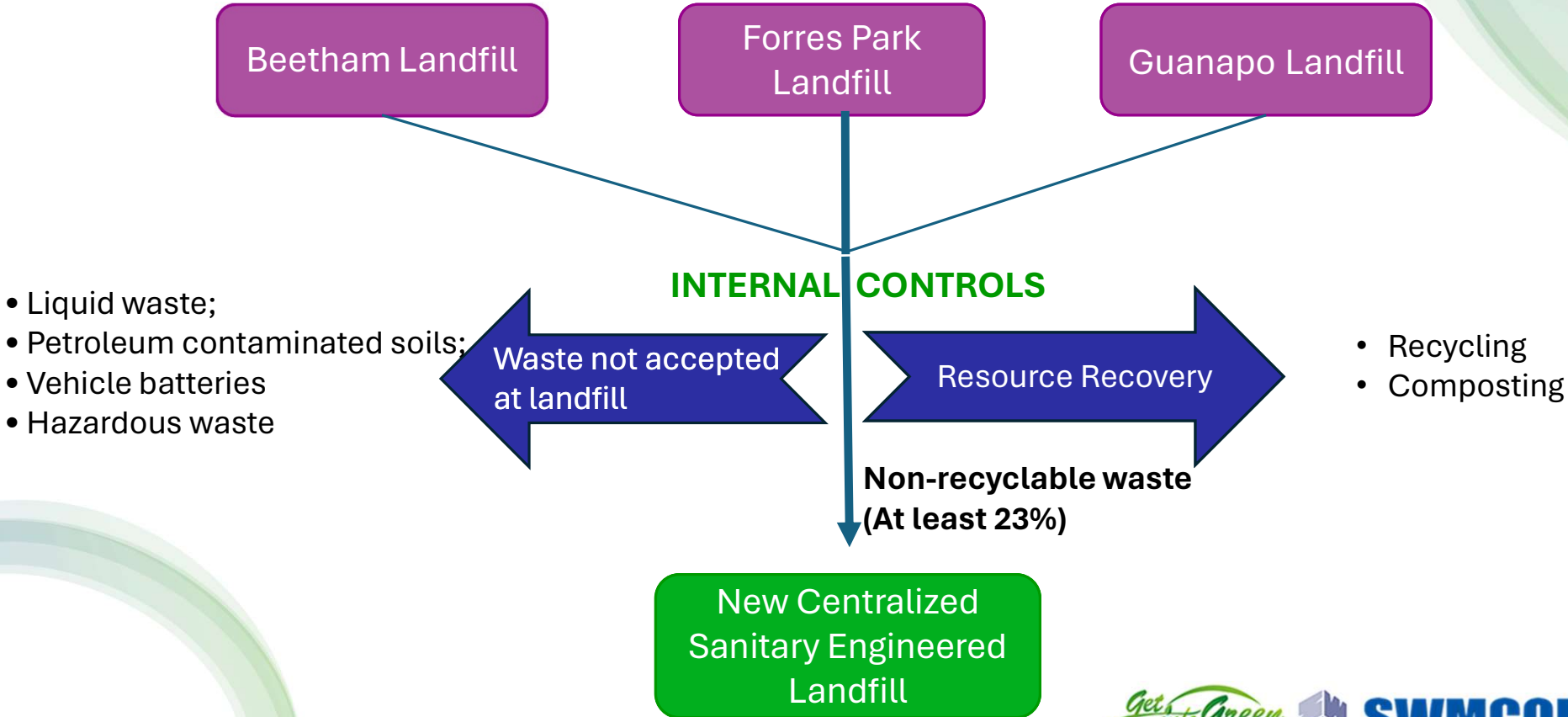
High overall costs of MSW collection and waste disposal

Poor compliance, enforcement and monitoring that contribute to indiscriminate and illegal dumping.

Integrated Sustainable Solid Waste Management System



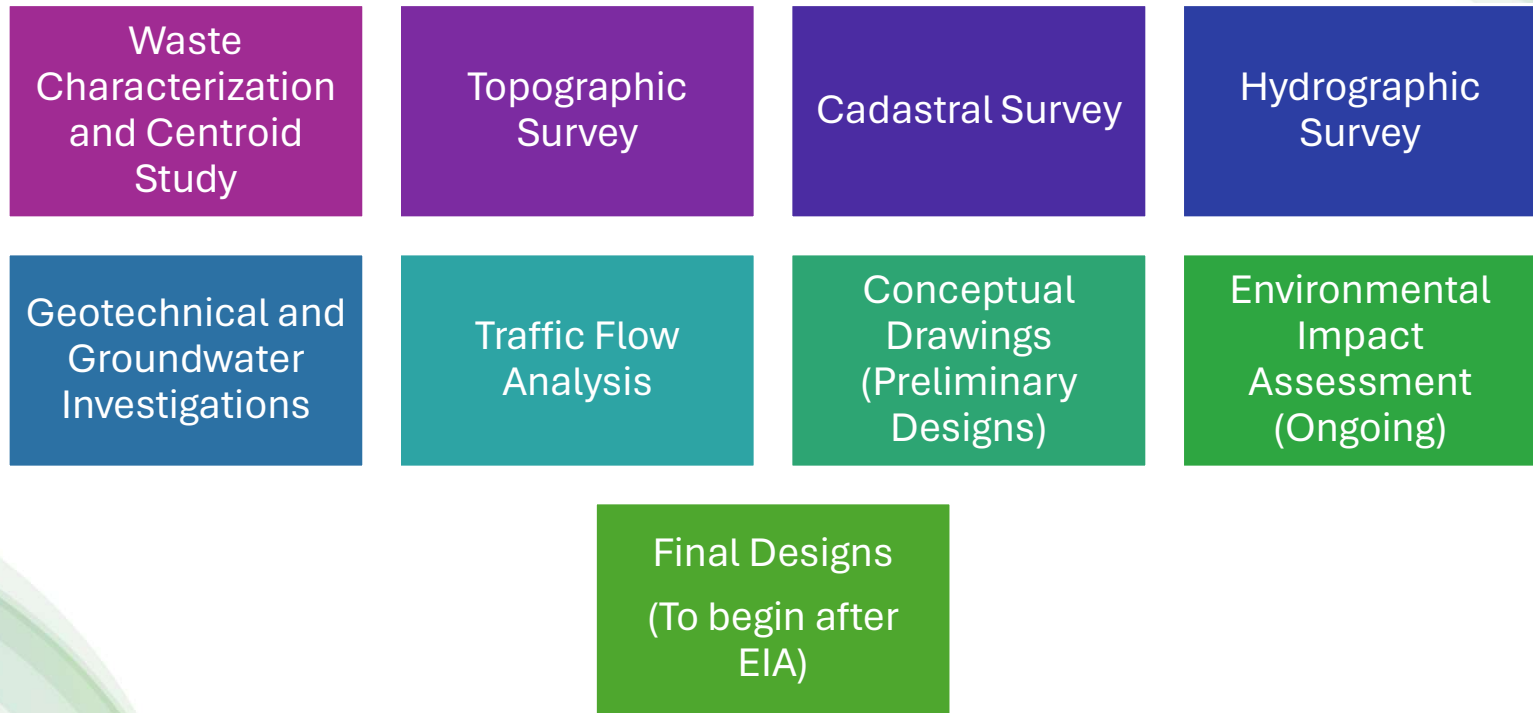
Integrated Sustainable Solid Waste Management System



- Liquid waste;
- Petroleum contaminated soils;
- Vehicle batteries
- Hazardous waste

- Recycling
- Composting

Baseline Studies Conducted



Site Selection

Existing landfill site with significant undeveloped land

- 75 Ha allocated to SWMCOL
- 35 Ha in use
- 40 Ha available for new Engineered Landfill

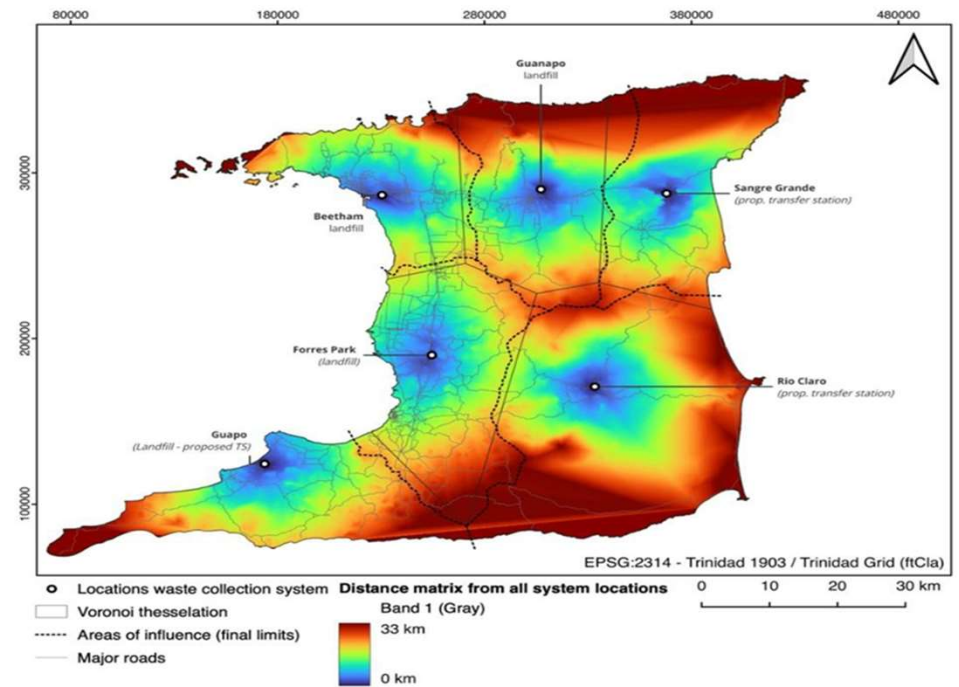
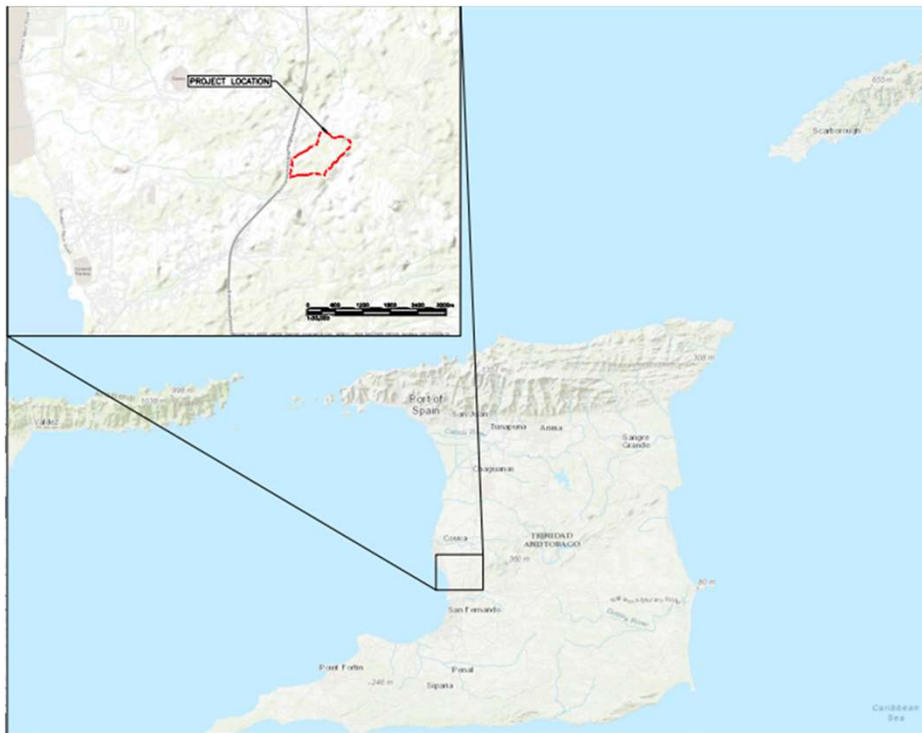
Preferred soil type for liner construction

Central Location in relation to the island of Trinidad

The existing landfill currently serves a large portion of the population



Site Selection



Conceptual Site Plan

Sanitary Engineered Landfill

Material Recovery Facility (MRF)

Leachate Treatment Facility

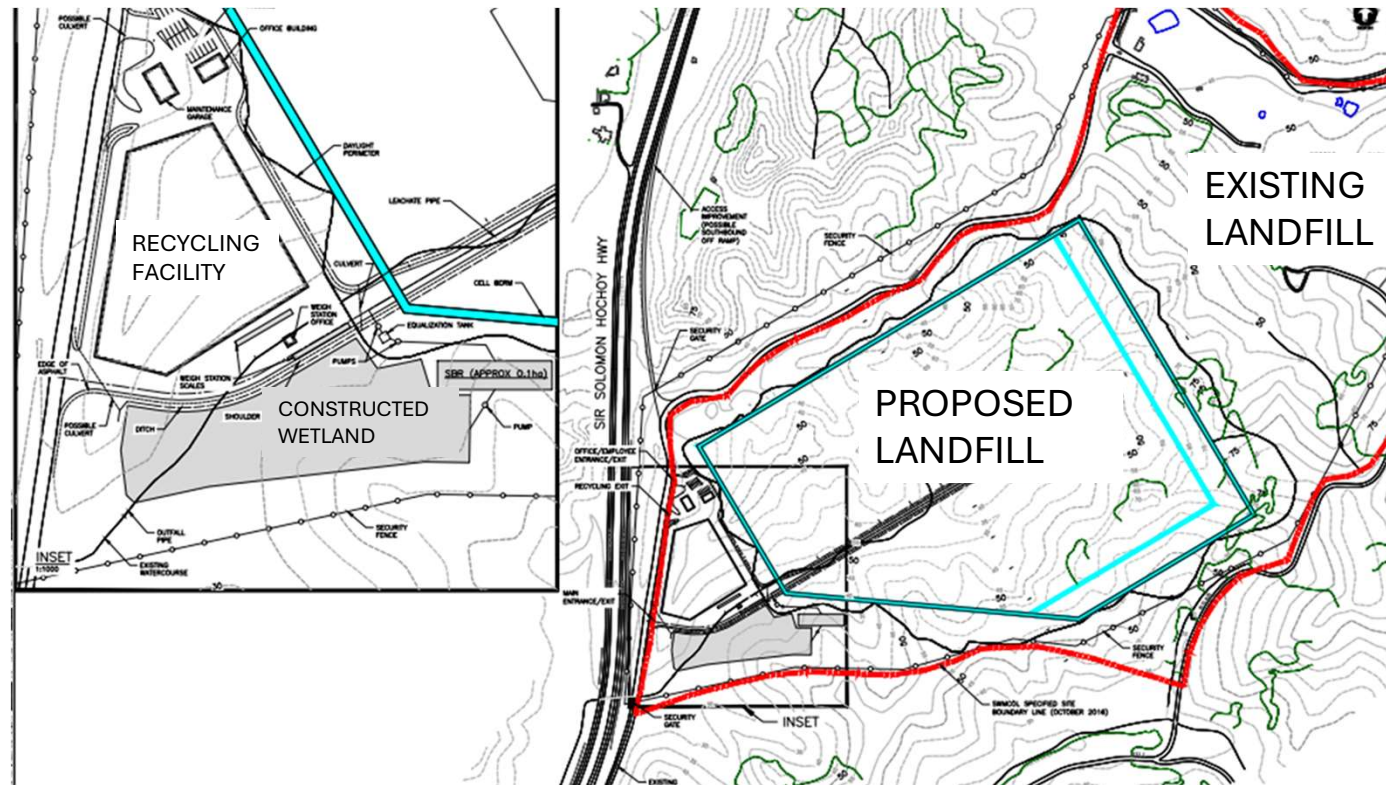
Composting Facility

Weigh Station

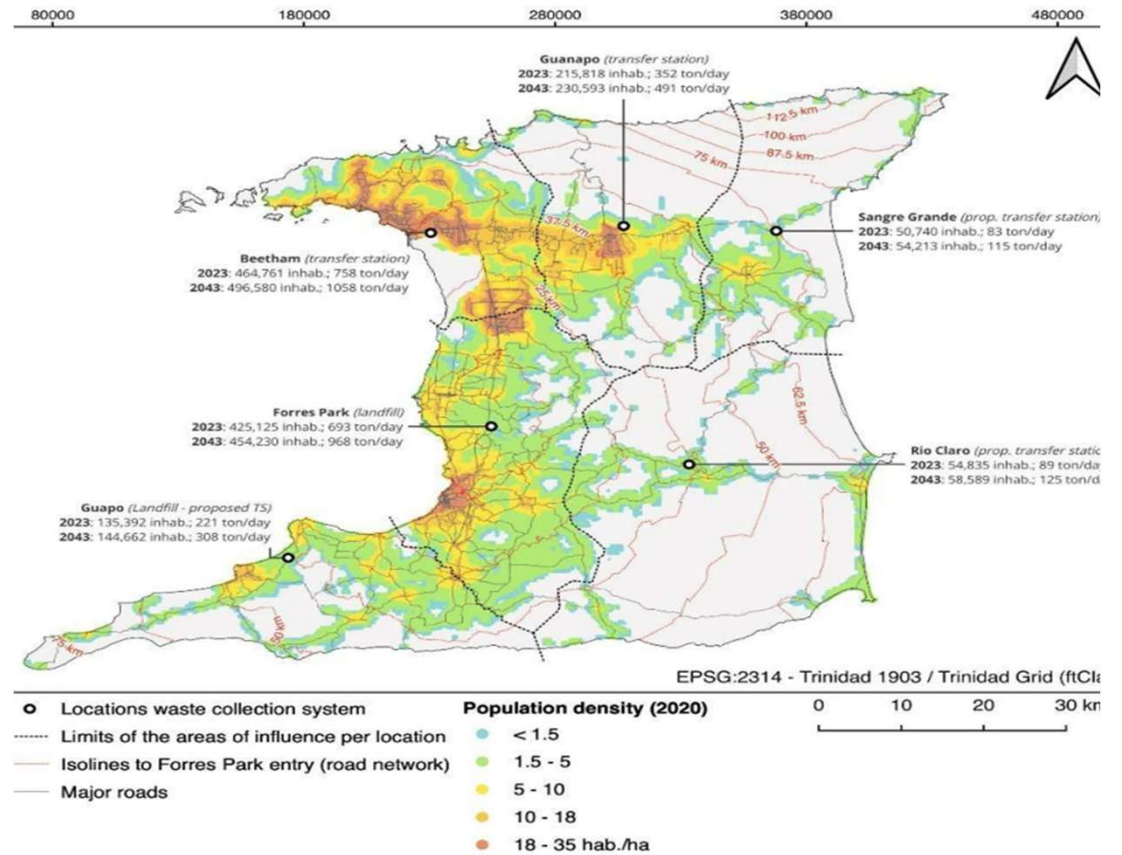
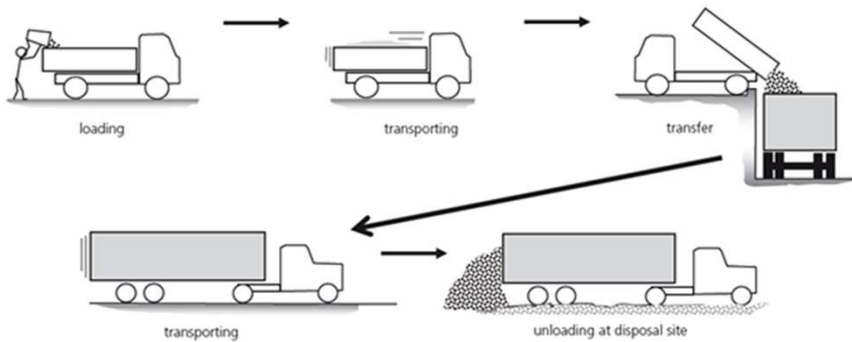
Maintenance Garage

Administrative Building

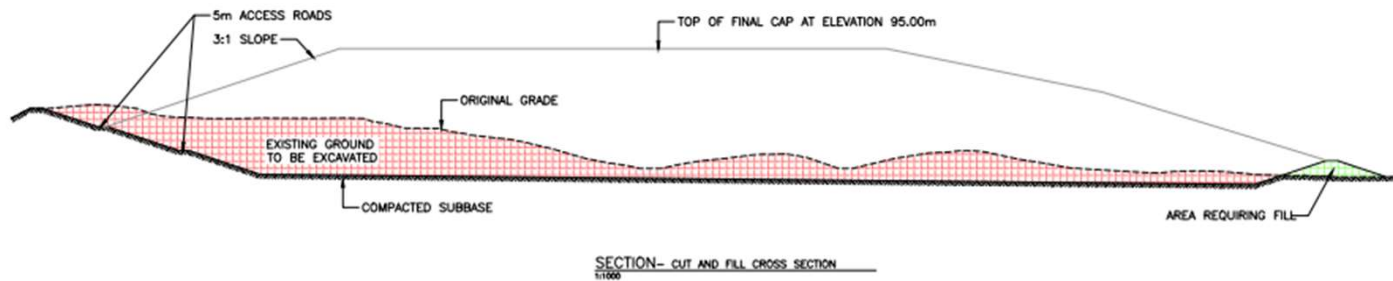
Security Building



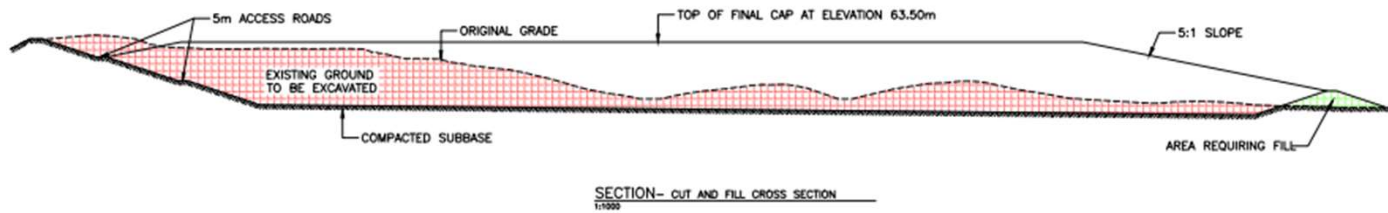
Integrated Solid Waste Management Network



Anticipated Landfill Lifespan



OPTION 1



OPTION 2

Material Tracking



Environmental Protection

Liner System

Landfill Cover

Landfill Gas Management

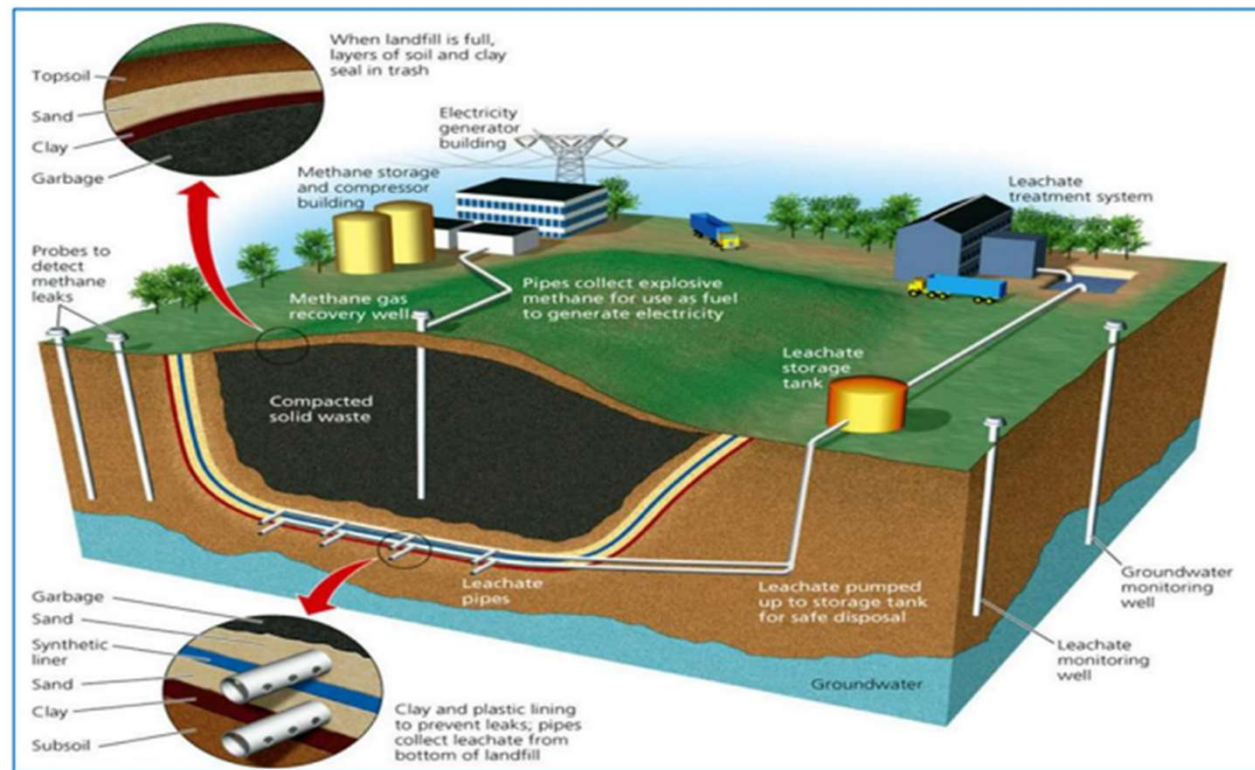
Surface Water Management

Groundwater Monitoring

Leachate Management

Air Quality, Dust and Noise

Closure and Rehabilitation Plan



Liner System

Composite liner

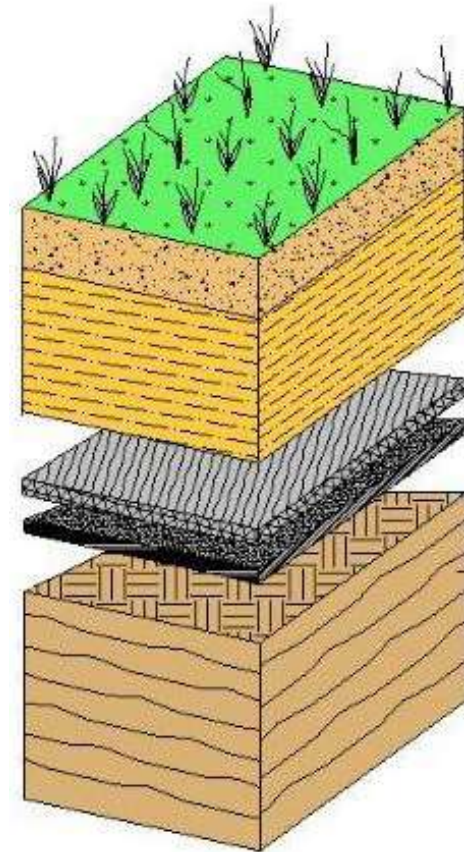
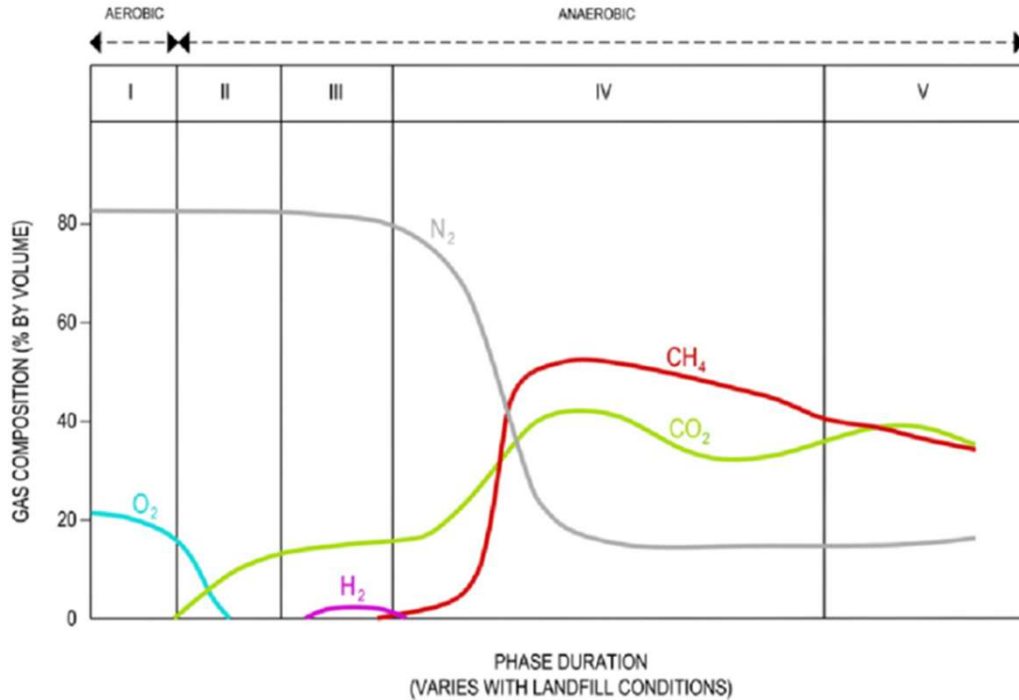
Engineered

Multiple layers

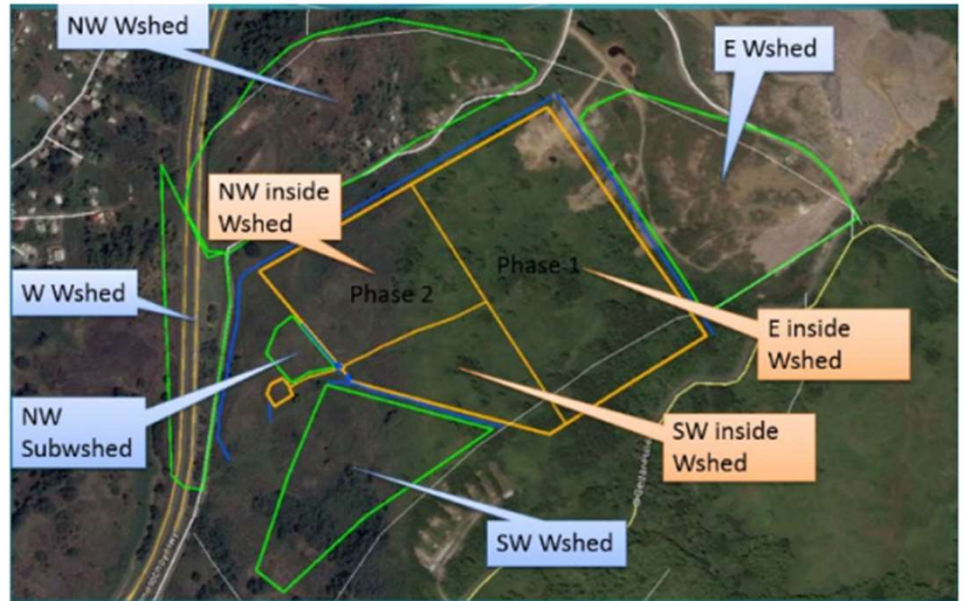
Leachate Collection



Landfill Cover and Landfill Gas Management



Surface Water Management



Groundwater Monitoring



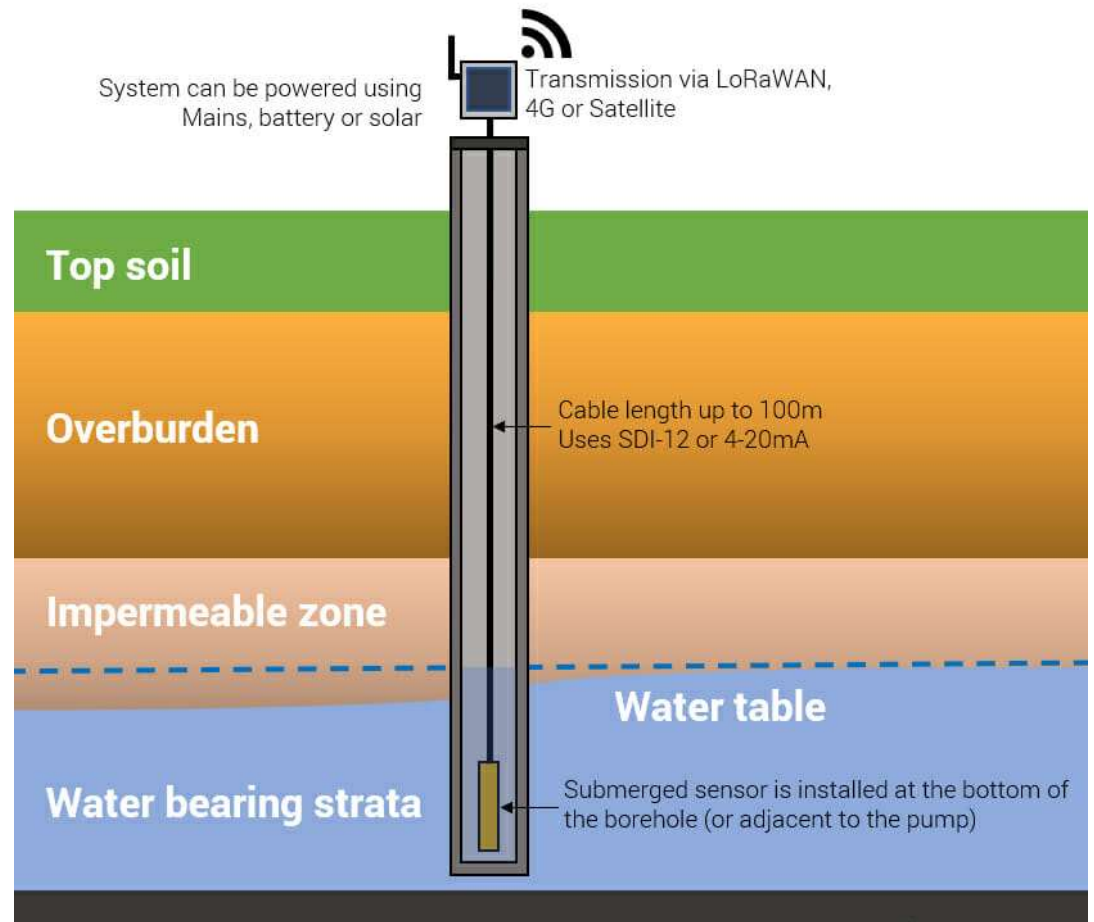
Monitoring program



Detection of contamination



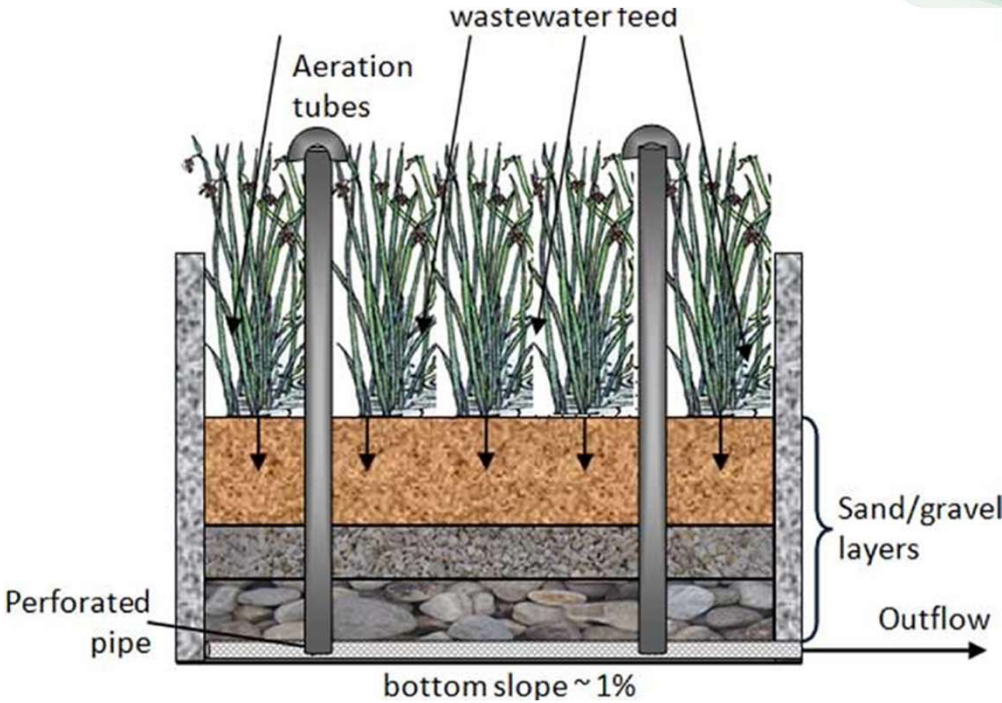
Implementation of mitigation measures.



Leachate Management

Minimize leachate production

Collect and treat leachate before discharge.



Air Quality, Dust and Noise



Preventative measures



Monitoring schedule



Complaints log



Environmental Compliance



Project Benefits



Thank You

Comments can be submitted to:

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Email-: ecoeng04@yahoo.com

Telephone: 217-6544 / 217-4420

<https://swmcol.co.tt/News-Events/Environmental-Impact-Assessment>

