REQUEST FOR PROPOSALS

Design Build Services

for

Sewage Disposal Solutions to Specific Districts

RFP # BWA-21/06/13-1

BARBADOS WATER AUTHORITY

June 13, 2021

1.0 Overview

The Barbados Water Authority (BWA) is advertising for proposals (Request for Proposals – "RFP") from qualified and experienced engineering consultants and contractors to provide engineering design and construction services relating to the provision of optimum solutions for sewage collection, treatment where necessary and disposal of effluent, of specific districts in Barbados, and specifically in the St. Michael area. The Scope of Services and description of the subject areas are included in Appendices 1 and 2 of this document.

2.0 Proposal Requirements

Responses to this RFP shall include four printed copies (4), as well as one electronic mail version of the document in pdf format. Proposals must be placed in a sealed envelope labelled "**Proposal for Sewage Disposal Solutions to Specified Districts**" and received at the BWA Pine Headquarters no later than **June 28, 2021, at 10:00 AM (local time)**. The proposals should be addressed to:

The Chairman
Tenders Committee
Barbados Water Authority
Email: bwatenders.committee@bwa.gov.bb

Interested firms must confirm their intention to respond to the RFP by sending a confirmation email to brian.stuart@bwa.gov.bb by 4:00 pm on Friday, June 18, 2021. This will facilitate notification of the date and time of the site visits prior to the bid submission date.

Subject: RFP - Sewage Disposal Solutions to Specific Districts

2.1 Proposers shall be solely and exclusively responsible for all costs incurred in connection with the preparation and submission of the proposals; demonstrations, interviews; preparation of responses to questions and requests for additional information; for contract discussions; or for anything in any way related to this RFP. BWA is not liable for any costs incurred by a proposer in response to this RFP.

Whether or not a proposer is awarded a contract pursuant to this RFP, no proposer shall be entitled to reimbursement for any costs or expenses associated with the proposer's participation in this RFP process.

2.2 Late proposals may not be considered.

2.3 BWA reserves the right to reject any and all proposals received as a result of this RFP. The award of a contract will not be based on any single factor, nor will it be based solely or exclusively on the lowest cost proposal. If a contract is awarded, it will be awarded to the Proposer, who in the judgment of the BWA has presented an optimal balance of relevant experience, technical expertise, price, quality of service, work history and other factors which the BWA may consider relevant and important in determining the best Proposal.

2.4 The BWA reserves the right to cancel or modify this RFP. There is no guarantee that the BWA will award a contract.

2.5 The BWA reserves the right to investigate the qualifications of any proposer under consideration, including proposed subcontractors and parties otherwise related to the Proposer and require confirmation of information furnished by a proposer or require additional evidence of experience and qualifications to provide the services or otherwise discharge the obligations required by this RFP.

2.6 Following the Submission Deadline, the BWA, reserves the right to make copies of all submitted proposals available for inspection and copying by any interested member of the public.

2.7 The BWA reserves the right to approve or disapprove of subcontractors, joint venture partners, or other proposed team members.

2.8 The BWA reserves the right to evaluate responses in terms of the best interests of the BWA, applying criteria provided in this RFP and any other criteria the BWA, in its sole discretion, deems pertinent.

2.9 By the submission of a proposal, each Proposer accepts and agrees to execute a Contract with the BWA, inclusive of terms and conditions relating to indemnification, required insurance and standard of care requirements.

2.10 All proposals must remain valid for a minimum period of ninety (90) calendar days from the date of submission.

2.11 Proposers may withdraw their Proposal before the Submission Deadline.

3.0 Contract Administration

3.1 BWA will assign a representative as the project manager and contract administrator on behalf of the BWA.

4.0 Requests for Information and Addenda

4.1 All questions or requests for clarification shall be submitted via email to Mr Brian Stuart at brian.stuart@bwa.gov.bb, by or before 8:00 p.m. on Thursday, June 17, 2021. BWA will prepare written responses to all RFI's received, and the responses will be emailed to all firms on the RFP email list. The BWA will respond to all RFI's on or before Monday, June 21, 2021.

4.2 If it becomes necessary to revise any part of this RFP, an addendum will be prepared and issued via email to all Consultants on the RFP email list.

4.3 BWA will conduct a tour of the proposed sites at a time to be communicated to the proposers.

5.0 Proposer's Responsibilities

5.1 It is presumed that each Proposer has read and is thoroughly familiar with the scope of services to be performed under this RFP.

5.2 The Proposer agrees that if a contract is awarded to a proposer, the Proposer shall make no claim against the BWA because of any estimate or statement made by any employees, agents, or consultants of the BWA which may prove to be erroneous in any respect.

6.0 Scope of Services

6.1 The Scope of Services for the assignment, inclusive of background, the scope of works, selection criteria and format of Proposal, are attached as Appendix 1.

7.0 Selection Process

BWA staff will review and rank the proposals and may or may not choose to interview several of the top-ranked proposers.

Appendix 1

Scope of Services

Sewage Disposal Solutions to Specific Districts

1.0 Background

In several communities across Barbados, there remains the use of pit latrines for the disposal of wastewater generated from households. The lack of treatment and subsequent disposal of this wastewater has triggered both environmental and public health concerns. This is of particular concern in the water protected zones to protect against contamination of ground water supply.

This Scope of Services forms part of the Request for Proposal (RFP) document required to solicit proposals from organizations for the provision of wastewater treatment solutions within the following areas, herein after referred to as service areas:

1. Chapman Lane and Environs
2. Belle Tenantry
3. Bellevue Gap
4. Baileys Alley

Appendix 2 provides a description of each area.

2.0 General Objectives

The main goal of the assignment is to provide the BWA with a technical and cost proposal for the design and construction of a collection, treatment if required, and disposal of sewage system at the four areas identified above.

3.0 Specific Objectives

Specific objectives are as follows:

1. Conduct a review of the information provided by the BWA in relation to each site.

2. Conduct a site visit for each of the sites. (An initial site visit will be arranged by the BWA prior to submission of the Proposal.)

3. Conduct a detailed analysis of the number and proximity of houses and sanitary facilities and estimate the flows for each location to determine the design capacities for disposal systems.

4. Determine the optimum technologies to be used for the collection, treatment if required and the best means of disposal of the sewage in each area. The designs should consider reuse of treated effluent

generated within the service area and the safe disposal or use of excess treated effluent, if applicable. The design should continuously and reliably meet effluent and biosolids requirements that are in full compliance with Environmental Protection Department Regulations

5. Provide a cost for the design and build of the identified solutions. The cost should include for all construction costs, engineering design and supervision costs, procurement of equipment, and an estimation of the life cycle maintenance cost for the proposed solution.

6. Provide a proposal that includes a technical analysis of the sites, the justification for the recommended sewering system, and a financial proposal indicating the cost for construction of the recommended system, inclusive of design fees and contingencies. The cost for each site should be identified separately. A comparison of all possible systems considered should be included to highlight the justification of the system proposed. The number of houses being considered should be indicated for each service area.

7. Provide an indicative project implementation schedule for the design and construction activities.

4.0 Proposal Format and Content

The Proposal shall consist of the following:

Executive Summary - The Executive Summary (maximum of two (2) pages) must include a concise overview of the key elements of the Proposal.

Proposer's Background – Background on the Consultant, Contractors and sub-consultants and area(s) of professional expertise relevant to this RFP.

Qualifications and Experience of Proposer's Personnel – Summary of the relevant experience, work history, training, education and special certifications of the Proposer's personnel who will be performing the professional design services contemplated under this RFP

Understanding of the Service Areas
Proposers should indicate their understanding of the service areas by confirmation of the number of structures required to be sewered, a general description of the preferred technology for the service area, as well as any additional infrastructure required to achieve the proposed wastewater treatment solution.

Technical Approach
Proposers should provide a description of the Scope of Works required for the design and build project. The Proposer should provide a narrative of the technology to be adopted in the Design-Build approach, inclusive of the ability of the proposed system to meet local standards in relation to effluent quality. A narrative on the advantages and disadvantages of the proposed technology,

and the anticipated resource requirements to manage and monitor the performance of the proposed system. Proposers should submit any preliminary design schematics, catalogues and brochures of the proposed system. Proposals should clearly demonstrate treatment plant operational flexibility and reliability and how the design will optimize operations and maintenance efforts.

Cost Proposal and Hourly Rates

The Proposal shall indicate the compensation structure for performing specific services identified in the scope of Services (e.g., flat lump sum or hourly rate structure). The Proposal shall also include any and all rates' charges for incurred costs and expenses which the Proposer intends to pass along to the BWA (e.g., photocopying, postage, travel and any pass-through costs and expenses). To the extent that a proposal contemplates the use of sub-consultants to perform any required tasks on the Proposer's behalf, the Proposal shall identify any sub-consultant costs and expenses that will be passed through to the BWA and the compensation structure for such costs and expenses.

In so far as the Proposer's Proposal contemplates an increase in compensation rates or charges prior to the completion of the assignment, or any extended term, the Proposal shall clearly indicate when such increases will take effect and by how much.

Schedule

The Proposal shall include an indicative schedule detailing the duration and proposed completion of major tasks. Proposers should factor in additional time that may be required due to reasonably foreseeable types of delays. The schedule shall also factor in reasonable review and feedback periods for draft deliverables by BWA staff as well as any and all legally mandated review period and comment period, including those that may be required by regulatory agencies.

5.0 Responsiveness

Each Proposal will be reviewed to determine if it is responsive to the RFP. Failure to comply with the requirements of this RFP may result in a proposal being rejected as non-responsive.

6.3 Comparative Evaluation Criteria

The Proposals will be evaluated, and the responsive Proposals ranked by applying the weighted evaluation criteria set forth below.

Table 1: *Evaluation Criteria and Points*

Criteria	**Points**
Cost	20 Points
Key Personnel	20 Points
Total Projected Completion Date of Project	10 Points
Technical Approach and Designed Solution	50 Points
Total =	100 Points

Appendix 2

Description of the Service Areas

Chapman Lane and Environs

The Ministry of Public Works is in the process of executing civil works in the area of Murphy's Pasture just northeast of the Bridgetown Sewage Treatment Plant within the City of Bridgetown, Barbados. This work proposes to alleviate the problems of flooding at Murphy's Pasture and surrounding areas such as Chapman Lane and Emmerton Lane. Such flooding poses a direct threat not only to property but also to the health of residents as floodwaters almost always contain black water carrying pathogens and grease, which could adversely impact the health of those who encounter the water.

Despite its proximity to the Bridgetown Sewage Treatment Plant (BSTP), this densely housed area is not currently connected to the nearby sewer system but is serviced by wells or pit latrines. Sewer mains are laid within proximity to the area, and as such, it may be possible, if the necessary levels can be attained, to direct wastewater generated from this area into existing sewer mains either by gravity or through the use of a small lift station to the BSTP for treatment.

In addition to 3rd Avenue Chapman Lane, flooding has also been reported within the avenues south of Westbury Road as well as in the lower section of Passage Road with its intersection with Baxters Road. In an effort to avoid similar public health concerns to residents, the design and installation of sewerage infrastructure for approximately seven hundred and fifty (750) houses within the aforementioned areas are deemed necessary.

Evaluation of the additional wastewater flows generated, and the ability of the BSTP to accommodate these additional flows should be discussed with BWA's Wastewater Division's Engineers and senior technical staff.

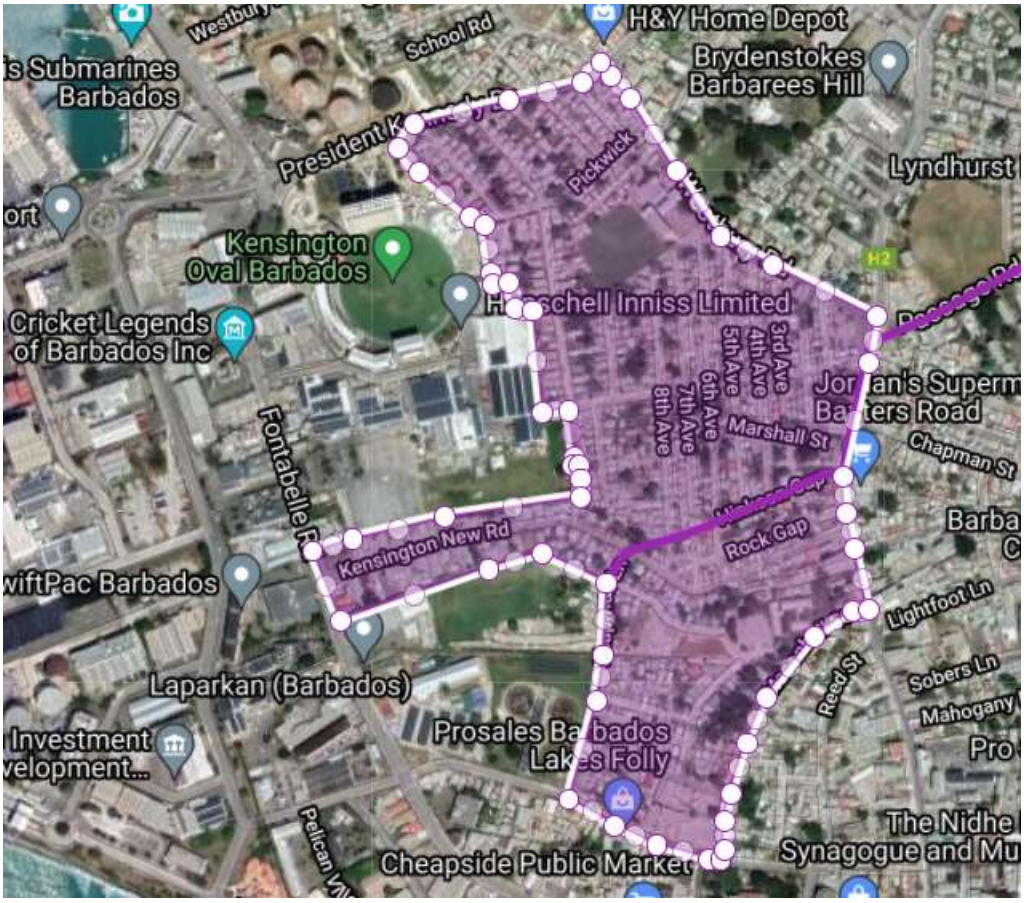

Figure 1: *Chapman Lane and Environs Service area*

Belle Tenantry

Within the Belle Zone A area, and adjacent to the southern boundary of this Zone A area, is an area of land (referred to as the Belle Tenantry service area comprised of approximately 5.20 hectares), containing 105 residential structures, and the Belmont Primary School is considered to be an area that could negatively impact the Belle well water supply quality due to a lack of proper means of disposal of wastewater generated in the area.

The service area has developed over the years and can now be classified as a significantly built-up community, with some properties having fenced boundaries and water closets. Commercial activity was also observed, with at least one food service establishment/bar being in operation. There is evidence of the provision of various utilities, including water (numerous PVC schedule 40 pipes or “banjo strings” laid across the ground surface) and poles erected to facilitate above-ground delivery of electricity to houses. Additionally, the area has roughly laid out roads that allow for vehicular access to and egress from the service area. The number of houses constructed within the service area has increased over the years.

Under current investigation is an area within the service area, containing approximately 35 house structures which is reported to have been a quarry that has since been filled (see figure 3 in appendix). The Ministry of Energy (MOE) have indicated that they have no records of any registered quarries within the Belle Tenantry. The MOE, however, noted that within a listing of quarries across the island, an entry is made under the Belle, Belle Tenantry. As such, the past existence of a quarry within the service area remains unclear and should be confirmed**. Any housing structures built upon any backfilled quarry are to be excluded from the service area and shall not be included in the sewering plan.**

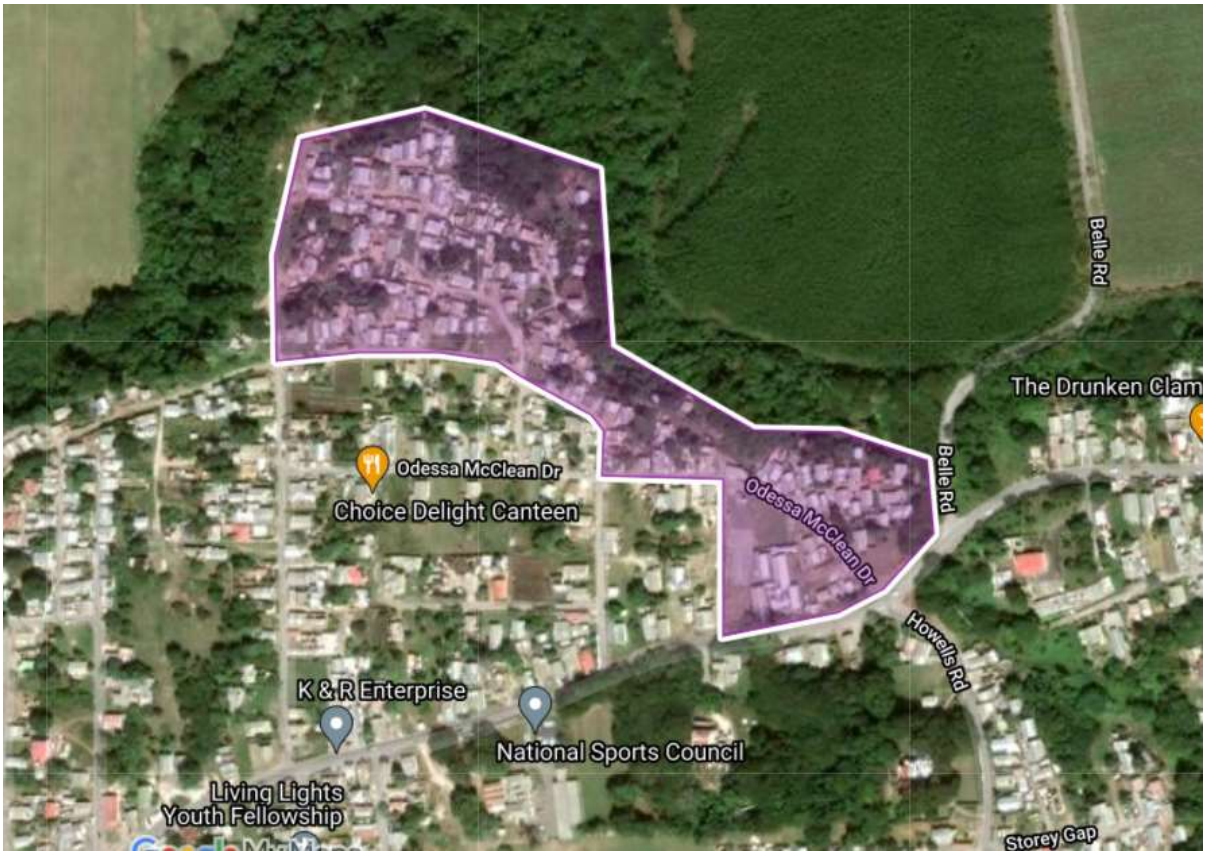

Figure 2: *Belle Tenantry Service Area*

Baileys Alley

Bailey's Alley is an area of approximately 19.5 hectares and comprised of approximately 140 residential structures immediately surrounding the Golden Ridge Reservoir with the potential to negatively impact groundwater supplied from the Sweet Vale boreholes. Bailey's Alley is situated within the Zone A boundary of the Golden Ridge Reservoir.

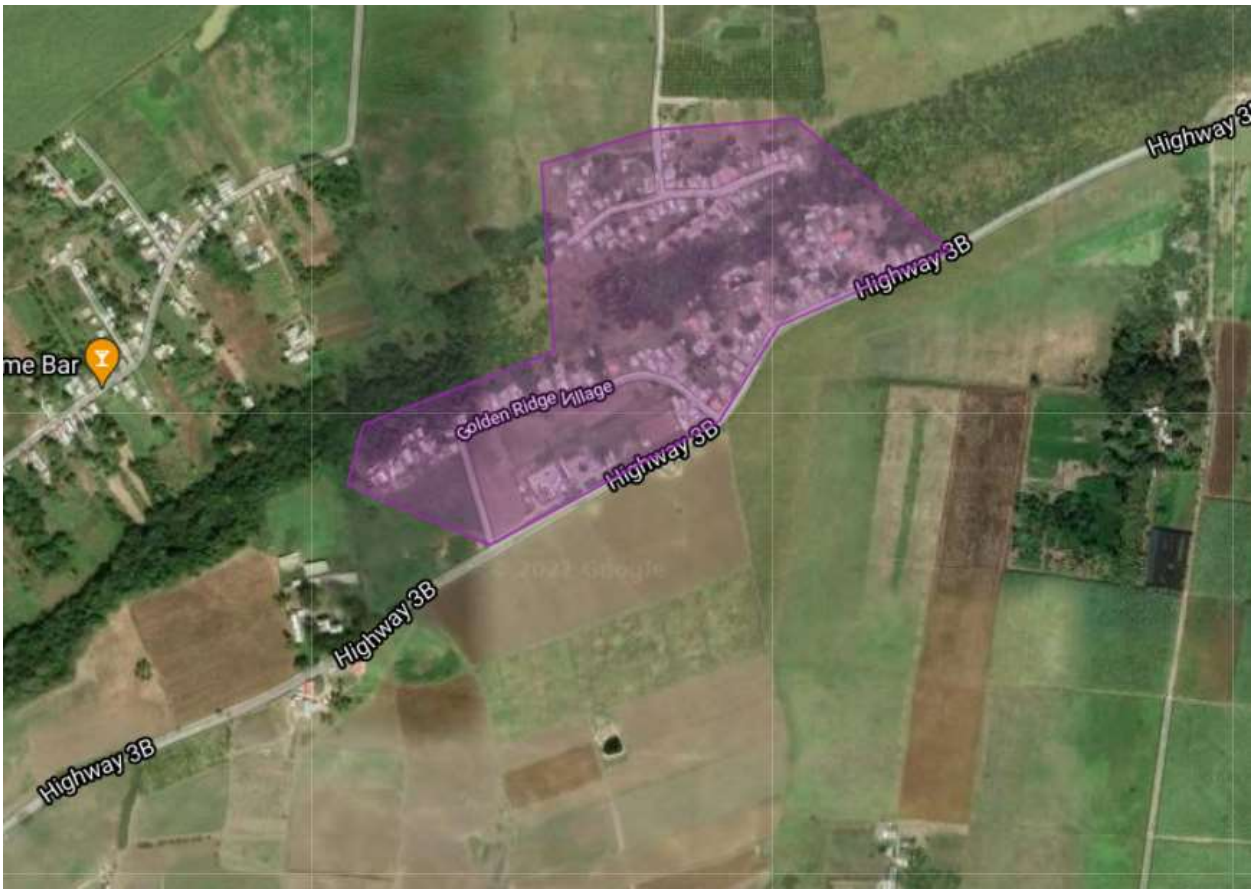

Figure 3: *Baileys Alley Service Area*

Bellevue Gap

Bellevue Gap is an area south of the Combermere Secondary School, approximately 8.6 hectares in size and containing around 120 residential structures. There is a concern about inadequate wastewater treatment in the area, given the existence of pit latrines and the associated public health and environmental concerns.

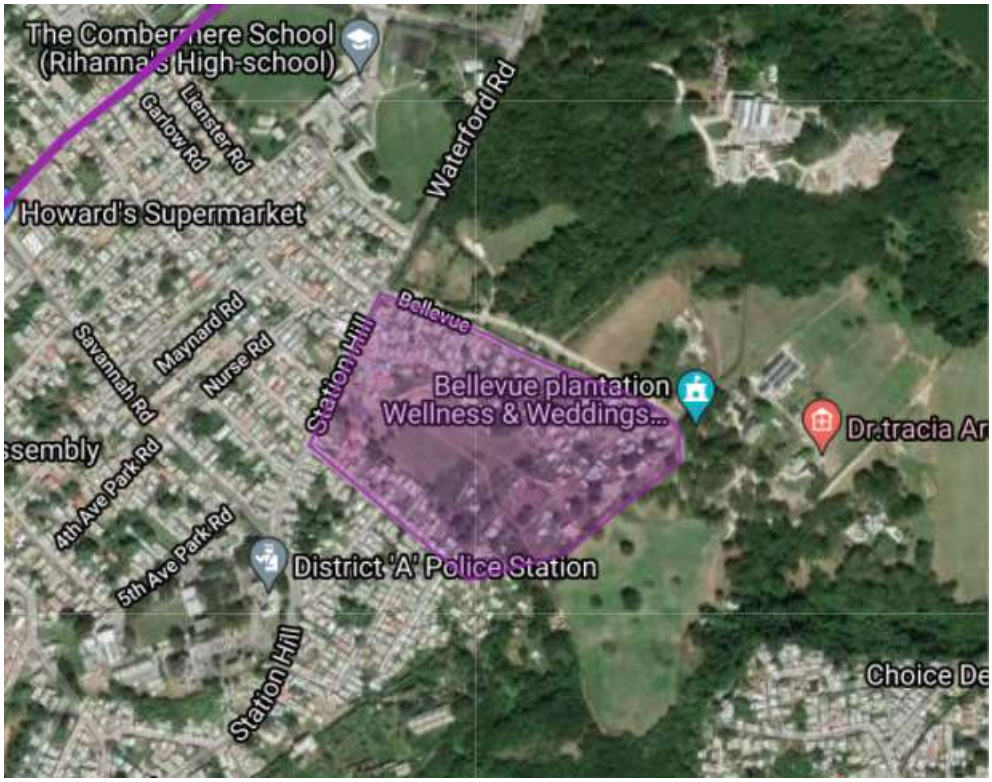

Figure 4: Bellevue Gap Service Area