# APPENDIX A - RFI Respondent Form

The Respondent should complete and submit the Respondent Form (including all supporting documents), inserting additional pages as is necessary.

**CATEGORY 1: The Project**

The outcome of the projects (Track 2 and 3) is to close the current landfill urgently and make the transition to sanitary landfilling in combination with other waste management methods (i.e. WTE, recycling. etc.), which are more in line with a circular economy.

Both projects shall be designed to incorporate all the above health and environment requirements.

**Information about Serlimar** Sui Generis

Serlimar Sui Generis (Serlimar) is the largest waste management company in Aruba, with the Aruban Government as the only shareholder. Serlimar provides refuse collection services to residential and commercial customers. Currently the waste collected by Serlimar is brought directly to the Parkietenbos Landfill & Containerpark, also operated by Serlimar. The facility has been Aruba’s official public refuse dumping-site since the 1960s and is organized in two main deposit sections, the container park and the landfill. The container park is a residential Public Transfer Station (PTS) intended for waste materials separation with the purpose of materials recycling. Materials such as wood, tires, cardboard, paper, glass, green & yard waste, construction waste and metals can be brought to the container park. Hazardous or flammable materials such as car batteries, waste oil, asbestos containing materials, acid containing materials, and animal carcasses are not accepted with household waste; and need to be transported separately to the container park at Parkietenbos. The envisioned future of Serlimar is to achieve a modernized waste management solution that is sustainable from both an environmental and economic point of view.

**CATEGORY 2: Characterizing Respondent**

1. Name and Contact Details of Respondent:
   1. First Name
   2. Last Name
   3. Company Name
   4. Business Address
   5. Telephone Number
   6. Email Address
2. Submit your company/ organization profile.
3. Specify the locations where you do most of your work.
4. Please provide the following information regarding your previously executed Landfill Remediation and Sanitary Landfill project(s) in Table A‑1. You may provide information of up to three (3) representative projects.

Table A‑1. *Past Projects*

| Description | Project #1 | Project #2 | Project #3 |
| --- | --- | --- | --- |
| 1. Project name |  |  |  |
| 1. Project location |  |  |  |
| 1. Solid waste treated annually (ton) |  |  |  |
| 1. Project duration - months |  |  |  |
| 1. Project cost - USD/MT |  |  |  |
| 1. Facility cost estimate - USD/MT |  |  |  |
| 1. Facility cost - USD/MT |  |  |  |
| 1. Total area of landfill |  |  |  |
| 1. Total solid waste excavated |  |  |  |
| 1. Facility Life Cycle - years |  |  |  |
| 1. Facility Economic Life Cycle - years |  |  |  |
| 1. Type of contracting strategy |  |  |  |
| 1. Project financing strategy |  |  |  |
| 1. Project owner |  |  |  |
| 1. Project reference person contact information |  |  |  |

**CATEGORY 3: Technical information**

**Input requirements**

1. What are the utilities (i.e. water, electricity etc.) that need to be supplied to the Track 2 and 3 Projects?
2. What are the quantities of these required utilities?
3. What are the waste characterization information that you need for a design of the remediation of the current landfill and sanitary landfill projects?

**Mining and material recovery option (Track 2 Project)**

1. What are your options and typical steps in the mining process?
2. Based on the given solid waste profile, what is your estimated percentage (range) of the solid waste that could be recycled/recovered?
3. What is the percentage of the given solid waste profile that would be suitable for a WTF process?
4. Provide technical waste separation limitations (and efficiency reduction %) details as well as related operational conditions.
5. What are your experiences on the international markets of solid waste and recyclable materials import/export?
6. Which remediation measures or strategies do you propose for the landfill to mitigate health- and environmental risks in the mining option?
7. Do you foresee any possibility to export the waste of the current landfill out of Aruba?
8. Do you have any suggestions on what to do with the current waste if it is to remain in Aruba?
9. What safety measures would you introduce for landfill employees during the remediation process?
10. Describe the future purposes that the landfill site can be used for after remediation according to your proposal
11. Was your company/ organization involved in similar projects elsewhere ? – please provide references

**Capping option current landfill (Track 2 Project)**

1. Which remediation measures or strategies do you propose for the landfill to mitigate health- and environmental risks in the capping option?
2. What capping system and material would you suggest for the Parkietenbos landfill
3. To what extent do you expect that you can source the capping material locally or abroad?
4. What safety measures would you introduce for landfill employees during the remediation process?
5. Describe the future purposes that the landfill site can be used for after remediation according to your proposal
6. Was your company/ organization involved in similar projects elsewhere ? – please provide references

**Sanitary landfill (Track 3 Project)**

1. Where in your view could a sanitary landfill be established in Aruba? Please motivate your view.
2. Describe your approach to sanitary landfilling in terms of coverage system to avoid air contact and pollution.
3. What measures will you take to avoid leakage from the base of the site (leachate) and reduction of contamination of groundwater and surrounding soil?
4. What would be the key functions included in your sanitary landfill (e.g. level of waste separation, hazardous waste storage, etc.)
5. Which international standards for sanitary landfilling would you adhere to?
6. Give you approach with respect to:
   * + Chemicals waste
     + (Bio-)medical waste
     + Asbestos
     + Sludge
     + Vector control
     + Etc.
7. What safety measures would you introduce for landfill employees?
8. Was your company/ organization involved in similar projects elsewhere ? – Please provide references
9. What will be the lifetime and required space for the sanitary landfill?

| Lifespan/capacity of landfill | Area required [m2] |
| --- | --- |
| 30 years |  |
| 40 years |  |
| 50 years |  |
| 60 years |  |

**Other Facility characteristics**

1. Provide a typical plot plan layout, configuration, location of cells and dangerous waste etc. for both tracks.
2. List what equipment is used for both tracks.

**Environmental aspects**

1. What are the environmental laws, regulations, conditions of operation and other compliances (e.g. vibration, odor, etc.) that are valid for your sanitary landfill? According to which environmental standards is your track 2 and track 3 projects designed?
2. Indicate possible environmental impacts.

**Operation and maintenance**

1. Provide details on the operating philosophy for your sanitary landfill.
2. Provide a typical Operation & Maintenance organization requirement to operate the facility.
3. What is the estimated number of personnel required to operate the sanitary landfill and/or the mining project?
4. What are the training and competence requirements for personnel to operate the facility? Please indicate how the required skills and competencies can be developed.
5. What are your guidelines and solutions regarding occupational health and safety for personnel working in the facilities? Please specify the applied international standards.

**Economics related data**

1. What is the estimated average capital cost per given solid waste available (USD/MT) for track 2 and Track 3?.
2. What are the estimated amount, composition and potential economic value of the recyclable materials and residual waste resulting from the mining activities?

**CATEGORY 4: Project Management & Contracting Strategy**

1. What is the typical completion period for the project; from Engineering to completion of construction?
2. What are the typical bottlenecks and how can they be eliminated?
3. Does your company perform Hazard and Operability assessments of the sanitary landfill?
4. What are the guarantees, warranties that you offer for your projects?
5. What contracting strategy do you recommend?
6. Indicate the budgetary estimated cost per the following contracting strategies:
   1. Engineering, Procurement, Construction (EPC).
   2. Engineering, Procurement, and Construction by the Government of Aruba (EP).
   3. Build Own Operate (BOO).
   4. Build Operate Transfer (BOT), with estimates to cover transfer period after 4, 8, 12 years.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Contracting Strategy** | **Transfer periods** | | | |
| **4 years** | **8 years** | **12 years** |  |
| BOT |  |  |  |  |

* 1. Build Lease Transfer (BLT); design & build the sanitary landfill and lease it to the Government of Aruba who will operate and maintain the facilities. At expiry of lease agreement, the facilities will be transferred to the Government of Aruba.

**CATEGORY 5: Financial Aspect of Project**

1. The Government of Aruba is currently exploring multiple financing options and is therefore requesting respondents to clearly provide capital financing options your company can provide and proposals regarding financing possibilities. Financing options should include percentage of interest rate for each option.
2. Respondents to include a recommendation on a Lease to Purchase option whereby Respondent finances, designs & constructs the facilities and the Government of Aruba leases the facility from the respondent. The Government of Aruba will operate and maintain the facility.
3. Provide a general background on how you intend to finance this project if chosen for the finance option:
   1. Company Profile, financial and management capacity to handle a project as described above.
   2. What local government support do you anticipate being required to optimize the financing for the Project?

**CATEGORY 6: Other Considerations**

1. Provide the economic benefits (e.g. value creation through energy, recyclable materials, carbon credits) of your proposed solutions.
2. Provide the economic and/or environmental challenges resulting from your proposed solutions.
3. Provide any novel or alternative technology that may benefit this project.
4. Propose an integral waste management plan that includes the end-to-end value chain for cost recovery.
5. How can your company support the development of a business model and financing structure that validates the proposed integral waste management plan and value chain?
6. How will your company provide a socio-economic, public health and environmental impact assessment?

**CATEGORY 7: Alternative proposal**

1. Please provide any comments on other creative project scope ideas, procurement options, technical considerations, etc. that have proven to be successful and that would be of interest to The Government of Aruba.