

# Integrated Solid Waste Management System

## FAQS – WHAT YOU NEED TO KNOW



### What is an Integrated Solid Waste Management System (ISWMS)?

ISWMS is a strategic approach to managing refuse with a focus on the environment. It includes waste reduction, reuse, recycling and energy recovery to minimise the volume of waste ultimately disposed in landfill.



**Reduce, Reuse, Recycle,  
Recover, and Dispose**

**WASTE MANAGEMENT  
IN THE CAYMAN ISLANDS**

### What is the current situation at the George Town landfill?

- Expected to reach capacity by 2021
- Over decades, it has grown to around 80ft above sea level and is highly visible
- Unengineered, unlined site poses unacceptable risk of environmental contamination

### How does government want to address the problem?

Government aims to implement a plan to reduce waste going to landfills by up to 95%, by providing systems and facilities to manage waste in a way that maximises the resources inherent in waste and only disposes waste that has no further value.

### What is a Waste-to-Energy Facility (WtE)?

- A form of waste treatment that generates electrical energy and reduces carbon footprint also known as “Energy Recovery Facility”
- Waste is combusted to create steam to drive a generator
- Air pollution control system captures air emissions to meet internationally recognised emission standards

### What components of ISWMS are included in the tender?

- Reduce, reuse and refurbishment
- Community recycling depots
- Transfer & bulking facilities
- Windrow composting of horticulture/yard waste debris
- Waste-to-Energy
- Landfill remediation at George Town, Cayman Brac and Little Cayman landfills

Public education will play a significant role to change current habits and incorporate recycling practices as part of daily routine.

### Who are Government’s consultants?

- Technical: Amec Foster Wheeler
- Financial: KPMG
- Legal: Maples & Calder and Burges Salmon
- Internal: Jim Schubert, Public Works Department, Major Projects Office

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### What is the procurement process?

In line with the Framework for Fiscal Responsibility (FFR), the UK mandated process for the awarding of capital projects, Government chose a Competitive Dialogue process which includes: prequalification of interested parties, short list, solicitation of tenders via a competitive dialogue process in line with UK standard practice.

### Advantages of Competitive Dialogue:

- Allows for a technology neutral approach
- Criteria for decision making: financial, technical and legal
- Allows for innovative solutions
- Dialogue can re-open if final tenders are not considered acceptable

### What is the timeline?



### How will the project be funded?

A public-private partnership was recommended as providing best value for money using a Design, Build, Finance, Operate and Maintain (DBFOM) contract. Funding for the project will be provided in full by the selected contractor. Operating costs will be offset by revenue from electricity produced at the WtE and existing Government revenue streams.

### Next steps

- Contract finalisations between Government and the preferred bidder
- Environmental Impact Assessment slated to be undertaken
- All facilities operational by 2021

### Interim measures

Prior to construction of new facilities, Government is taking steps to reduce waste and increase time before reaching landfill capacity by:

- Shredding of tyres
- Recycling materials
- Baling scrap metal
- Educating public on home waste reduction (home composting, reduce, reuse incentives)

### How does this compare to the current situation?

Maintaining the status quo is not a viable option as the George Town landfill will reach capacity in approximately 4 years. A sustainable, environmentally-responsible solution with a long term vision is an urgent priority. Rather than creating a new landfill, Government's proposed solution requires an additional expense of approximately \$4.8m per year (less than 1% of Government's total budgeted expenditures for 2016/17) to establish a modern Integrated Solid Waste Management System that greatly reduces the landfilling of waste and ensures the country has a sustainable process for years to come.

\* The Outline Business Case is available to read online at <http://www.ministryofhealth.gov.ky/integrated-solid-waste-management-system>.



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### What is the DECCO Consortium's proposal?

The proposed solution meets the Government's strategy for Integrated Solid Waste Management System (ISWMS) defined in the Outline Business Case. Negotiations to confirm the technical, financial and legal details will commence following the appointment of the consortium as Preferred Bidder. Components of the proposal include:

- **Waste-to-Energy**

The proposed Waste-to-Energy facility is sized to accommodate the projected annual volume of waste over the next 25 years and will contribute electricity to the local grid. It is designed with the robust and well-proven mass burn technology and includes state-of-the-art air pollution control and continuous emissions monitoring.

- **Recycling**

As part of the ISWMS, the DECCO Consortium will promote and support recycling by providing convenient facilities that encourage residents and businesses on all three islands to recycle materials.

- **Composting**

Horticultural/yard waste is a significant percentage of the waste stream. It will be recycled into usable compost through simple, low-tech windrow composting facilities on all three islands.

- **Location**

The DECCO Consortium plans to use Dart lands that provide an environmentally acceptable location and are suitable for proposed industrial development. Subject to approval by Government, the proposed site is immediately to the east of the Waste Water Treatment plant.

- **Landfill**

The ISWMS goal is to reduce the volume of waste going to landfill for disposal by up to 95%, however a small lined landfill is required for some waste material that cannot be managed in any other way. This waste includes the fly-ash generated by the air pollution control system of the WtE facility. This relatively small engineered landfill will be developed on the land mentioned above or on the George Town landfill lands.

- **Remediation**

Remediation of all three existing landfills will include closure, surface water management, landfill gas management, final cover, long-term maintenance, and monitoring to ensure the sites are performing in accordance with approved design parameters. The end goal is to create a green space in their place.

- **Public Relations & Education**

A fully integrated communications plan will be developed to establish a community mindset that focuses on recycling and reduction, and supports the country's new waste management system.

*All waste collection functions will remain with the Department of Environmental Health and existing private collection firms for the ISWMS project.*

