



MINISTRY OF
HEALTH & CULTURE
CAYMAN ISLANDS GOVERNMENT

Integrated Solid Waste Management System (ISWMS)

Outline Business Case

Frequently Asked Questions

Why is there an Outline Business Case (OBC)?

The OBC assesses the overall affordability, implementation and delivery options for the Integrated Solid Waste Management System (ISWMS) project. The OBC was prepared in accordance with UK Treasury Green Book standards, which set out the guidelines by which outline business cases are compiled. The OBC builds upon the now-approved National Solid Waste Management Policy and the National Solid Waste Management Strategy (NSWMS) which were published over the last two years. This is an ongoing process in which the publication of the business case is the latest part. Inevitably, it draws heavily on the two preceding documents, as the business case represents the means by which the previously developed strategy will be delivered and implemented.

What are the recommendations of the OBC?

The OBC concludes that national solid waste management in the Cayman Islands would be best dealt with through a public private partnership (PPP) and that the PPP arrangement to “design, build, finance, operate and maintain (DBFOM) contract” offers the best value for money.

What policy principles will be followed by the NSWMS and the ISWMS?

The NSWMS and ISWMS options collectively contribute to: sustainable management, waste hierarchy, polluter/waste generator pays concept, environmental considerations, climate change, generation proximity and incorporate the best practicable environmental option.

What is the purpose of the NSWMS?

It sets out key policies and objectives for the future management of solid waste and the delivery of an Integrated Solid Waste Management System (ISWMS) within the Cayman Islands. It also identifies important steps and actions that will be taken to deliver the ISWMS project. These actions will be targeted to improve the sustainability of waste management practices, make increased use of waste as a resource and ensure the protection of the environment and amenity of the islands.

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

According to United Nations Environmental Programme (UNEP), “*Integrated Solid Waste Management refers to the strategic approach to sustainable solid wastes covering all sources and aspects, covering generation, transfer, sorting, treatment, recovery and disposal in an integrated manner, with an emphasis on maximising resource use efficiency*”.

What is the main objective of the ISWMS?

The main objective is to have a national system in place that will incorporate the waste hierarchy as outlined below in the following diagram:-



The waste hierarchy is at the heart of the modern approach to managing waste. The hierarchy firstly focuses on waste reduction, and then examines each subsequent option before disposal as follows:

- Reduction: Using less material in design and manufacture, keeping products for longer; re-use, using less hazardous materials;
- Re-use: Checking, cleaning, repairing, refurbishing, whole items or spare parts;
- Recycling: Turning waste into a new substance or product and includes composting;
- Recovery: Energy is recovered from waste through a variety of methods such as thermal treatment and gasification; and
- Disposal: Landfill

What is the proposed reference project for the future ISWMS?

The reference project for the future ISWMS includes the following system components, with the ultimate aim of reducing the amount of waste going to landfill by up to 95 per cent from current landfill amounts. The ISWMS project also includes costing for the future remediation/closing of the three existing unlined landfills on the islands:

- Waste reduction measures - including waste education and pragmatic waste minimisation initiatives (e.g. home composting/material return schemes such as bottles, plastic bag charges);
- The reuse and refurbishment of bulky waste, waste electrical and electronic equipment (WEEE);
- Community recycling depots and household waste recycling centre (HWRC) facilities;
- Transfer and bulking facilities (one per island);
- The windrow composting of yard/garden waste from landscapers and HWRCs in Grand Cayman and Cayman Brac;
- The treatment of residual waste in a waste recovery plant (waste-to-energy facility);

- Closure of landfills on Little Cayman and Cayman Brac, with waste sent to Grand Cayman for processing;
- The potential introduction of kerbside yard and garden waste collection (post 2020);
- The potential introduction of kerbside dry recyclable collections with a materials recovery facility (post 2020); and
- Remediation of the George Town landfill and construction of an adjacent engineered landfill to handle residuals from the waste-to-energy plant.

What international framework was used in the development of the ISWMS?

As an overseas territory of the United Kingdom, the development of the Cayman Islands' policy and strategy was guided by the Waste Framework Directive of the European Commission (directive 2008/98/ED) which sets out the basic concepts, definitions and principles related to waste management. Waste legislation and policy of the EU Member states, such as the United Kingdom, shall apply as a priority order the waste management hierarchy outlined in the directive of: *prevention, reuse, recycling, recovery and disposal*.

When will the George Town landfill reach maximum capacity and then, after that, will a new landfill need to be constructed elsewhere on Grand Cayman?

The existing George Town landfill is likely to run out of capacity in 5 to 6 years at current rates of infill. Implementing the proposed new arrangements will slow down current rates, whereby the life of the existing landfill can be extended through early implementation of recycling and composting initiatives. Thereafter, the waste-to-energy facility will reduce the landfill requirement still further as it is only necessary to landfill about three per cent of the total volume of waste it treats. Some ongoing provision for landfill will still be required, but the large reduction means no new site will be required and, instead, the landfill requirement will be met by the design of a new engineered landfill that can be accommodated within the present boundary of the George Town landfill.

Why was mining of waste at the George Town landfill not included in the future ISWMS project moving forward?

The potential of long-term nuisance conditions from mining waste, such as odours, outweigh the benefit of gaining back the small area of the existing landfill space. Therefore a policy decision has been made to exclude mining of waste from the ISWMS project.

Is Government looking to partner with the private sector because it does not have the resources to pay for the construction or operation of the ISWMS project? The OBC recommends that the project should be delivered through a partnership with the private sector and it has nothing to do with whether or not the Government has the resources. Rather, it is because that approach gives better value for money than the Government seeking to deliver the project itself, largely because it allows significant risk transfer to the private sector.

Why was this OBC report released? It seems as though it brings Cayman no nearer to solving our country's waste management problems than we were three years ago?

The OBC report is the basis on which a permanent, sustainable solution can be procured. Following the consultation, an updated business case including proposed solutions to issues such as bridging the affordability gap will be presented to Cabinet. At that point, a request for proposals will be issued and procurement of the project will commence. The procurement process may take around a year from commencement to ground-breaking. Three years ago, the country had no solution on the table except

for a proposed new landfill site - something which was environmentally unsustainable and unacceptable to our communities. We now have a long-term, sustainable solution which has been assessed for feasibility using the UK Treasury 5-case model. This assessment has confirmed that the proposed solution is feasible, addresses the guiding principles and goals identified in the National Solid Waste Management Policy, represents value for money, and can be delivered to address the long-term needs of the country.

How can the ISWMS deliver up to a 95 per cent diversion of waste from landfill?

With integrated waste management, recyclable and compostable materials will be treated first and then remaining waste materials will be treated at a waste-to-energy facility, where much of the ash left over after burning is inert and therefore can be utilised for activities such as road building. By treating waste in an integrated manner, following the approved waste hierarchy, Cayman can achieve diversion rates of up to 95 per cent.

How does this draft OBC fit into the overall work being done towards an Integrated Solid Waste Management System – where are we now?

The steps toward ISWMS must respect the rights and responsibilities specified in the Framework for Fiscal Responsibility (FFR) and the revised Public Management and Finance Law (PMFL). The FFR ensures effective medium-term planning, to ensure that the full impact of fiscal decisions is understood, by: putting value-for-money considerations at the heart of the decision-making process, the effective management of risk, and delivering improved accountability in all public sector operations.

- **Completed (April, 2014):** Pre-procurement stage: Preparation of a Strategic Outline Case (SOC)
- **Completed (October, 2014):** RFP for procurement of consultants
- **Completed (August, 2015):** National Solid Waste Management Policy (NSWMP)
- **Completed (March, 2016):** Environmental Investigations Report on the existing landfills on the islands
- **Completed (March, 2016):** National Solid Waste Management Strategy (NSWMS)
- **Completed (September, 2016):** Draft Outline Business Case (OBC)
- **(October, 2016 to Spring, 2017):** Procurement of ISWMS
- **(Spring, 2018):** Environmental Impact Assessment (EIA) and planning approval
- **(End of 2019):** Construction completion and start-up of ISWMS

Where can the public obtain further information?

The public can obtain further information by:-

- Visiting the Ministry of Health & Culture website at www.ministryofhealth.gov.ky or Facebook page
- Telephoning (345) 244-2369