

# **BELIZE SOLID WASTE MANAGEMENT PROJECT ENVIRONMENTAL IMPACT ASSESSMENT REVISED**

## **8.0 INSTITUTIONAL NEEDS**

### **8.1 STAFFING AND TRAINING**

In order that the proposed new waste disposal facility is operated in a satisfactory and environmentally sound fashion, it is essential that operational staff are adequately trained and equipped to fulfill their functions. The following are some areas in which trained and qualified staff should be available for successful implementation of the disposal phase of the program:

- Multi media inspection training
- Environmental compliance monitoring
- Sampling and laboratory issues related to leachate, landfill gases and hazardous substances
- Conflict Resolution;
- Solid waste and hazardous waste management, including reduction, recovery, reuse and recycling systems.
- Environmental and solid waste legislation
- Negotiating solid waste contracts for collection and management of disposal sites
- Solid waste disposal/ treatment technologies
- Health and safety;
- Waste segregation and handling;
- Identifying/removing hazardous and recyclable wastes in solid waste stream;
- Leachate level monitoring;
- Leachate pumping equipment;
- Landfill gas collection, treatment and monitoring, and use of hardware;
- Ground water quality sampling procedures;
- Surface run-off water quality sampling procedures;
- Leachate sampling procedures;
- Awareness of relevant environmental issues (i.e., purpose of applying daily



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- cover, dealing with public complaints, etc.).

In order to fully outline the above areas an Operational Manual should be prepared and approved to provide information and training to all staff.

## **8.2 LEGISLATION**

### **8.2.1 Background**

A review of the state of environmental and related legislation and institutional mechanisms in Belize, as related to the SWMP, has been conducted as part of the Feasibility Study and is presented in those reports (Stantec 1999b and Section 8 of Stantec 1999c). Among other things, the review addresses needs for refinements and additions to:

- The Solid Waste Management Authority (SWMA) Act;
- The relationship between the Department of Environment and the SWMA;
- Amendments to the Environmental Protection Act; and
- Littering and Derelict Vehicle regulations.
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Further details may be obtained by reference to Stantec 1999b and Section 8 of Stantec 1999c. The following gives a summary of the points relevant to the disposal aspects of the SWMP.

### **8.2.2 Solid Waste Management Authority (SWMA) Act**

A number of amendments are proposed to the SWMA Act. These include:

- Added or refined definitions relevant to disposal (e.g., “sanitary landfill”);



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- Refinements to the objectives of the SWMA;
- Funding mechanisms for the SWMA;
- Specification of offences relevant to the disposal phase; and
- Enhanced power to make certain additional classes of regulations (e.g., management of sanitary landfills, and reduction, re-use and recycling of solid waste).

### **8.2.3 Relationship Of The Department Of Environment (DOE) and SWMA**

The Department of Environment (DOE) has overall responsibility for the enforcement of environmental legislation, and is empowered to enforce the provisions of the Environmental Protection Act and its regulations. SWMA is the regulator of the Solid Waste Management system, and will essentially have regulatory oversight over the implementation of the Solid Waste Management Plan. The DOE will have oversight of the operations of the SWMA insofar as they impact on the environment. Thus, solid waste management sites including landfills will be established only with the approval of the DOE. Accordingly, it is recommended that the respective roles of DOE and SWMA be as follows:

*SWMA: regulating* operation and management of solid waste facilities.

*DOE:* granting permits for the location, design and operational parameters of landfills and solid waste sites; compliance monitoring and enforcement and of the pollution and effluent regulations and policy development.

### **8.2.4 Environmental Protection Act**

It is recommended that the Environmental Protection Act be amended to:

- Establish regulatory mechanisms for the issuance of permits to construct and operate landfills; and
- Empower the Department of Environment to license redemption depots where containers could be deposited as well as the licensing



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of the processing of recyclables; and the licensing of other solid waste processing facilities.

## **8.2.5 Other Recommended Legislative Enhancements**

A number of amendments are required to the Littering Regulations, relating to the adequate provision of containers by businesses and the control of promotional literature such as posters and signs. An amendment to the Derelict Vehicle regulations is that the SWMA should be added as a “competent authority” to allow it to participate in the recycling and handling of derelict vehicles.

