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Gauteng Department Agriculture, Conservation, Environment & Land Affairs

Project Business Plan

December 2003 – March 2004

Report Dated: 12th May 2004

Occupational Health & Safety Risk Specialists

Magallan Risk Services cc Reg. No: 2002/072650/23
Members: B Magner, J R Magner

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Glossary of terms

BEC	Bid Evaluation Committee
CEO	Chief Executive Officer
CoP	Code of Practice
CTA	Chief Technical Advisor
DAC	Departmental Acquisition Council
DACEL	Department of Agriculture, Conservation, Environment and Land Affairs
DEAT	Department of Environmental Affairs and Tourism
DoH	Department of Health
DWAF	Department of Water Affairs and Forestry
EHO	Environmental Health Officer
GW	General waste
GDoH	Gauteng Department of Health
GWIS	Gauteng Waste Information System
GSSC	Gauteng Shared Services Centre
HCW	Health Care Waste
HCRW	Health Care Risk Waste
HCWS	Health Care Waste System
HCWIS	Health care waste information system
HW	Hazardous waste
HCWO	Health Care Waste Officer
NWIS	National Waste Information System
SP	Service Provider
TOR	Terms of Reference
WIS	Waste Information System

1. Executive Summary

The DACE Business Plan was devised to provide further support and enhance the sustainability of the outputs and programmes that were developed by the project Sustainable Health Care Waste Management in Gauteng by providing approximately R465 000.

The contract was awarded to Magellan Risk Services with two sub-consultants appointed and was to run from December 03 to March 04 and

Four objectives were identified:

Objectives		Consultant
A	Give support for developing solutions for small scale generators of HCRW in cooperation with Local Government	Kobus Otto
B	Give support for the roll-out of the improved HCW Management Tenders in the Provincial Health Facilities	Janet Magner
C	Give support to the tender implementation process	Kobus Otto
D	Expand the Gauteng Waste Information System	Lynda Godfrey

Delays in the execution of the business plan were experienced with the December holiday break and the April break.

Activity A: Give support for developing solutions for small scale generators of HCRW in cooperation with Local Government

Kobus Otto & Associates drafted the Small Scale HCRW Generator Draft Strategy and Outline Discussion Document and assisted in conducting a small scale generator workshop for local councils and municipalities in Gauteng in February 2004. Following the Workshop proceedings were produced and distributed to attendees and placed for download at the Project web-site www.csir.co.za/ciwm/hcrw.

Activity B: Support to HCW Tender Roll-out

The approach used for Objective B: the roll-out support was to focus on establishing effective regional fora in all three regions for the dissemination and replication of information and learning. Health Care Waste Officers were appointed in all the hospitals and clinic clusters and Task Teams established in these facilities in preparation for the new tender. Time was also allocated to visit every hospital and some of the larger clinics to inform management of the conditions of the new tender and to review the storage requirements.

The Regional Fora were established in all three regions with varying degrees of success. Region A remains difficult and the personnel in this region appear to operate in a fragmented manner which results in a more autonomous approach adopted by the individual facilities. The regional personnel in region B showed a great deal of dedication and commitment and they operate in a cohesive manner

with the facilities in their areas. Region C is also very co-operative and remained involved throughout the process

The CEO Presentations were well received in all the facilities and served to inform the facilities at the senior management level of the basic requirements with regard to the new tender. The inclusion of the procurement departments was also appreciated.

Communication in all three regions was found to be very difficult and fragmented.

The following documents were finalized:

- Generic Code of Practice
- The Awareness Booklet
- Equipment Template
- Final draft of the HCW Officer's Training Course
- Storage audit Report

During the execution of the DACEL Business plan some gaps and areas for improvement were identified that could influence the success of the roll out and the overall sustainability of the improved Health Care Waste Management System. The critical areas are highlighted here: (More detail is given in section 6 of this report)

- Continued running of the Provincial Forum is essential for the sustainability of the new improved system and tender.
- The Regional Forum in Region A is still fragmented and will require more support from the Regional Director and the Department of Health before it can become the an effective Forum that can manage the required tasks. At the moment there is no real formal regional coordination in Region A for the HCW Tender and this could prove to be critically important.
- The appointment of the HCW Officers has not always been accompanied by the necessary authority to carry out their duties and there have been many recent changes in the appointed person. Although replacements have been made, the new appointee knows little or nothing of the new tender and this creates gaps in the implementation process.
- The replacement HCW Officers have not received the HCW Officer's 5-day training through the Wits Technicon. This course will need to be run at regular intervals to keep abreast of the need.
- There is a need to establish and maintain a database of trained HCW Officers to ensure that future HCW Officers are trained and that HCW Officers are replaced when they resign, get appointed to other work etc.
- The upgrading of the storage areas at the hospitals is critical and will require urgent attention. The scales cannot be installed in several hospitals at present
- A GDoH Systems Audit in respect of Health Care Waste is needed to identify the effectiveness of existing systems and procedures. Examples of systems that need urgent attention are expired medication and the management of anatomical waste within the facilities.

- There is a need for generic operating practices to be devised for Gauteng based on the new wheelie bin system. (e.g. loading the wheelies, closing the liners, weighing, capping of sharps etc.)
- There is an urgent need for a methodology to be devised for ongoing monitoring and evaluation of the tender requirements

Activity C: Give support to the tender implementation process

Kobus Otto & Associates assisted in the adjudication of 9 bids received from 7 bidders and prepared a detailed adjudication report and conducted 5 Bid Evaluation Committee meetings including writing minutes of these BEC meetings.

The BEC Recommendation was submitted to the DAC in the end of February 2004 and an additional memo providing further information was submitted to DAC early March 2004. Subsequently the BEC recommendation was approved by the DAC of the Department of Health on the 8th of March and the three winning bidders were informed on the same day.

Subsequent to the award of contracts Kobus Otto and Associates assisted in addressing various queries and provided additional support and guidance to the GSSC and the DACEL for the tender roll-out.

Activity D: Expand the Gauteng Waste Information System

The Gauteng Health Care Waste Information System (HCWIS) was developed and implemented during 2003 at DACEL. The HCWIS captured information on the tonnage of health care risk waste treated within Gauteng Province and transported out of Gauteng Province for treatment or disposal in other provinces. The need to extend the HCWIS to include other waste streams was recognized by DACEL during 2003. As such, the CSIR was contracted to extend the HCWIS into a provincial WIS for Gauteng, with funding from Danida and DACEL. The HCWIS was expanded to also include general and hazardous waste to landfill, hazardous waste transported out of the province for treatment and disposal, waste to recyclers and hazardous waste to treatment facilities. The design of the GWIS was captured in the GWIS Framework Document, available on the project web page at www.csir.co.za/ciwm/iwm.

The GWIS targets GMB, GLB, H:H and H:h landfills, treatment facilities, transporters and recyclers. As with the HCWIS, generators of waste are not required to report to the WIS, however, they are required to register. The GWIS has been developed to capture information all waste roll players, through an on-line the registration component. In addition, all authorised treatment facilities, transporters and transfer stations are available for public perusal on the WIS web page. Although developed as a web based system, users of the system who do not have access to the internet are still accommodated and can submit data to the GWIS via email, fax or post. The Department has a dedicated waste information officer, Assistant Director, Mr. Paul Furness, who is responsible for overseeing the monthly submission of data to the GWIS, the quality control of data, and the preparation of waste reports for the Department.

The extension of the HCWIS into the GWIS is now complete and the project team is currently busy with piloting of the system and training of current and future users. The GWIS can be accessed on-line through the URL: www.dacel.gpg.gov.za. Draft Provincial waste information regulations are in place to enforce reporting to the GWIS and will hopefully be promulgated within the next few months.

2. Project Context

2.1 Aims and Objectives

The DACEL Business Plan was devised to provide further support and enhance the sustainability of the outputs and programmes that were developed by the project Sustainable Health Care Waste Management in Gauteng by providing approximately R465 000. The provision of these additional funds would partially liberate DANIDA funds to be used for the extended presence of the International Chief Technical Advisor and to enhance the sustainability of the Project Sustainable Health Care Waste Management in Gauteng.

The objectives of the DACEL Business Plan were to:

- A: Give support for developing solutions for small scale generators of HCRW in cooperation with Local Government
- B: Give support for the roll-out of the improved HCW Management Tenders in the Provincial Health Facilities
- C; Give support to the tender implementation process
- D: Expand the Gauteng Waste Information System:

2.2 Management Structures

The delivery of the project was awarded to Magallan Risk Services. The nominated contact person was Janet Magner, co-owner of Magallan Risk Services and Health Care Waste Specialist.

Sections of the work were contracted out to Sub-consultants with the necessary knowledge and experience to carry out the work. This was with the approval of DACEL. The allocation of the consultants was as follows:

- A: Kobus Otto of Kobus Otto and Associates
- B: Janet Magner of Magallan Risk Services with sub consultants
- C: Kobus Otto of Kobus Otto and Associates
- D: Linda Godfrey of CSIR

3. Project Outputs

Projects outputs and indicators against each of the project objectives are tabulated below:

Objective	Output	Indicators	Verification
A: Support for small scale generators	<ul style="list-style-type: none"> Draft guideline document for minor generators Strategy for the closure of non-compliance facilities 	<p>Guideline document</p> <p>Written Outline Strategy</p>	<p>Discussion Document in the form of an Outline Strategy produced for Small Scale HCW Generators</p> <p>Workshop conducted with the attendance of local governments</p> <p>Workshop proceedings and attendance registers produced</p>
B: Support the roll-out of tender in HC facilities	<ul style="list-style-type: none"> Understanding in each institution of the system to be implemented Template for the equipment plan Training program for HCWO and Regional Representatives Generic CoP and application Identification of storage 	<p>Presentation material Meetings</p> <p>Template</p> <p>Regional Networking Awareness booklet Code of Practice</p> <p>Storage audits</p>	<p>CEO Presentations and senior management meetings</p> <p>Written template</p> <p>Networking attendance registers Awareness booklet Code of Practice</p> <p>Audit report with photos</p>
C: Support Tender Process	<ul style="list-style-type: none"> Adjudication and assistance of contract negotiations Support in setting up reporting structures and service delivery monitoring Collection tender for public HCRW generators 	<p>Tender Adjudication conducted</p> <p>Bid Evaluation Committee Meetings held</p> <p>DAC approval of BEC recommend</p>	<p>Tenders have been adjudicated</p> <p>5 BEC Meetings held and minuted</p> <p>DAC approved tender award</p> <p>Service commenced on 1 May 2004</p>

		ation	
D: Expand the WIS	<ul style="list-style-type: none"> Functional upgraded GWIS Preliminary input to amendment of regulations to incorporate hazardous waste treatment plant and bulk recyclers. 	Gauteng WIS expanded and tested Manuals produced	The Web-based GWIS has been produced and is available on the web Manuals have been produced

4. Project activities and comments on the execution thereof

4.1 Objective A: Support for Small Generators

Approach:

To prepare a discussion document and outline Small Scale HCRW Generator Strategy for discussion at a workshop for commencing the discussion of this topic and prepare for the implementation of a possible pilot project in a suitable local government area for improved management and disposal of HCRW generated by smaller sources in the community.

4.2 Objective B: Support the roll-out of the tender in the Provincial Health Facilities

Approach:

With the limited time and resources available, the consultant team applied the most effective way to reach the institutions as quickly as possible. This approach was to focus on establishing effective regional fora in the three regions to ensure the dissemination and replication of the information and learning through the established task teams at the 28 hospitals and the clinic clusters. This approach was supported by the Gauteng Department of Health at a Provincial Meeting held on 6th December 2003. At this meeting it was indicated that a Provincial person would not be appointed to drive the process forward and it was therefore agreed that the Regional Forum approach would be the most effective way.

Time was also allocated in this project to visit every hospital and some of the larger clinics to meet with management and review the storage requirements.

The assumptions in this approach were:

- That there was sufficient capacity within the Department of Health Regional Office
- That HCW Officers were appointed at each hospital and for the clinic clusters
- That Task Teams would be established in each hospital for the dissemination of information and training

- That the identified persons would attend the arranged meetings and training sessions
- Communication links and reporting structures are operational within each region

Three main activities were identified:

1. Develop and train a Regional Task Team in each region to ensure understanding and cascaded training at each hospital and through each clinic cluster
2. Develop template for the equipment plan, a generic Code of Practice booklet and an awareness booklet and test this material (within the time periods) in selected hospitals
3. Identify the infrastructure needs of each hospital (storage)

Activity 1: Develop and train Regional Task Teams in each region to ensure understanding and cascaded training at each institution

Activity	Activity description	Verification
1.1	Arrange one-day workshop in each region with regional representatives to: <ul style="list-style-type: none"> • Agree task team • Determine roll out approach for the region • Plan for presentations to institutions • Arrange 3 networking / training sessions for HCW Officers • Agree ToR's for Regional Task Team • Arrange for the determination of Storage Requirements in each institution and identification of units requiring building plans 	<ul style="list-style-type: none"> • Workshops arranged in each region as follows: • Regional Task Teams established. • Approach determined for each Annexure 1 : Regional representatives contact details
1.2	With Regional Task Team: <ul style="list-style-type: none"> • Devise plan to conduct 2-hour presentations at each Hospital in the Region • Arrange central venue and conduct presentations for Clinics in the Region • Conduct 2-hour presentations at each Hospital 	<ul style="list-style-type: none"> • Programme drawn up for CEO presentations at each hospital and larger clinics Annexure 2 : Programme for visits to hospitals and clinic clusters
1.3	Conduct 2 x one-day Regional Workshops to train Regional Task Teams, EHO's (and selected hospital / clinic staff as agreed) in: <ul style="list-style-type: none"> • Generic Code of Practice 	<ul style="list-style-type: none"> • Regional workshops conducted Annexure 3: Dates of Regional workshops

	<ul style="list-style-type: none"> • Use of equipment template • Awareness booklet 	
1.4	With Regional Task Teams: <ul style="list-style-type: none"> • Conduct 3 networking / training sessions for HCW Officers • Conduct final 1-week training for HCW Officers at Tech. 	<ul style="list-style-type: none"> • 3 Networking sessions in each region conducted with HCWO Annexure 4 : Dates of regional networking meetings conducted <ul style="list-style-type: none"> • Final training for HCW Officers completed. Annexure 5 : List of attendees

Activity 2: Develop template for the equipment plan, a generic Code of Practice booklet and an awareness booklet and test this material in selected areas

Activity	Activity Description	Verification
2.1	Develop a template for the tender development equipment plan for hospitals and clinics	<ul style="list-style-type: none"> • Equipment template completed Annexure 4: Equipment Template
2.2	Review the generic CoP for application in selected institutions	Generic Code of Practice completed Awareness booklet completed Copies circulated for comment
2.3	Final review of training manual	Training material for the HCW Officers finalised
2.4	Test both the template equipment plan and the CoP and Awareness Booklet in institutions	Draft copies circulated through the regional forums and discussed at networking sessions

Activity 3: Identify infrastructure need at each hospital

Activity	Activity Description	Verification
3.1	Carry out an audit of all storage facilities at each hospital	<ul style="list-style-type: none"> • Audits conducted at all hospitals and some larger clinics Annexure 5: Storage Audit Report

General Comment on the execution of the activities

As the focus on the business plan was directed at the regional task teams, establishing these teams was important. This proved to be a lengthy process and with the December break, these teams could only be established at the end of January.

The CEO presentations conducted at all the hospitals, clinic clusters and some individual clinics were well received. A document "Motivation for Awareness Presentations" was sent out to all facilities through the regional forum and this was followed with an official request to conduct the presentations. A copy of this document can be found in Annexure 7. The inclusion of the procurements

departments into these presentations was appreciated by those who attended as they said that previously they were not informed. At the completion of all the presentations, handout were distributed with copies of the presentation, TOR for the HCW Officers, details of the storage requirements, list of training and resource material and a copy of a HCW Organogram.

Communication and the dissemination of information was a challenge throughout the period. Faxes are the primary medium of communication. Where e-mail addresses are available, this medium was used. However, the server was frequently down and the information was not received. The consultants therefore reverted to using private e-mail addresses and cell numbers. Setting up appointments and obtaining access into the hospitals and clinics was difficult, with many cancellations and postponements.

Two circular letters were compiled and circulated. The Regional Circular letter was devised to give the facility management very specific target dates and actions that were required.

The development of a template for the equipment plan using the information obtained in the pilot project was carried out jointly by Janet Magnier and John Clements. The information has been disseminated through the regional fora and given to the Service Providers. Developing the equipment plan has been discussed at the networking sessions and the individual hospitals and clinics are now equipped to devise their equipment plans together with the Service Providers.

The generic Code of Practice and the Awareness Booklet was widely distributed through the regional fora for comment. These were also extensively discussed and workshops conducted on the use of the tools. The input and comments received have been incorporated in the final version of these two documents.

The third HCW Training Course was conducted during the week 15 – 19th March. A total of 32 trainees attended this course. An evaluation of the assessments was conducted and a report issued.¹ The trainees at this course were very attentive and in general did well in the assessments. This could be attributed to the fact that at the time of the course, the tender had already been awarded

The storage audits were completed and a separate report has been written. The results of are summarized as follows:

Hospitals:

- 7 hospitals that urgently require the building of a new central storage area for the health care risk waste
- 10 hospitals that will need some building work to upgrade their central storage area. The main areas for upgrading work revolve around the widening of doors or constructing ramps for the easy use of the wheelie bins
- 9 hospitals have storage facilities that are presently working and only need a hospital works order to provide electricity, locks, washing facilities, spill kit etc.

¹ JM04-05-03 HCWM Training Course Evaluation V01

- 2 hospitals that do not need any further work

Clinics:

- 5 require some building work such as wider doors or ramps
- 5 were found to be functional and only required a little upgrading
- 3 are presently quite satisfactory

NOTE: The assessment of the clinics was not part of the original objective of the audit. Some larger clinics were visited and the results of these visits have been recorded in the storage report. There is a need to audit more of the clinics to address some of the specific needs at the clinics.

Regular contact has been established in all three regions with their service provider and the contact persons in each region. Even if the region does not hold a forum meeting, this contact is now being carried out on a regular basis

Regional Comment

Region A:

Region A is the largest region and has been the most difficult one to work with. Meeting and Networking dates were cancelled or postponed and this region quickly fell behind in their progress. The Louisa Magabane was appointed the contact person for this region and she was promoted to the Provincial Office in April leaving a gap. Deborah Mothopeng was appointed to replace her at a meeting with Dr. Mazizi on 22 April. One regional forum meeting and one networking session has since been held. Attendance was not good and the attendees indicated that no notices were received.

A short presentation was given at Dr. Mazizi's management meeting on 9th March to address all the CEO's. Presentations were also conducted at all the hospitals and clinic clusters in this region. The CEO's and procurement departments were not always present.

The storage requirements in region A were identified as the following:

Region	1 - Critical: Major building work required	2 – Inadequate Upgrading building work required	3 – Functional Upgrading by facility management	4 – Satisfactory No action required.
Region A	Johannesburg Gen Chris Hani Bara	South Rand Siswe Tara Edenvale Sterkfontein	Carletonville Dr. Yusaf Dadoo Coronation Helen Joseph Lenasia Clinic	Leratong

The regional personnel in region A appear to operate in a fragmented and unproductive manner and there is consequently a more autonomous approach adopted by the individual facilities.

Region B:

This region was the first to be established and has continued to run well attended forum and networking sessions. Dates for meetings are set in advance and the notices are distributed by the Regional Office. There were no cancellations or postponements. Contact has been established with the Service Provider and they are also regularly attending the meetings.

During their meetings this region identified the following concerns:

- Changes in the appointment of a HCW Officer
- More HCW Officers requiring training
- Building specifications required for the storage areas
- New contract details ordering procedure not distributed to their procurement officers
- Difficulties with communication. Documents, memos and faxes are not received at the faculties
- Some of the appointed HCW Officers are not given the necessary authority to carry out their duties

Access into Tembisa Hospital has been difficult and at the date of this report, no CEO Presentation has been formally conducted here. Information and appointments are required to be made through the CEO who is frequently not available.

The storage requirements in region B were identified as the following:

Region	1 - Critical: Major building work required	2 – Inadequate Upgrading building work required	3 – Functional Upgrading by facility management	4 – Satisfactory No action required.
Region B	Pholosong Heidelberg\ Kopanong Tembisa	Natalspruit	Far East Rand Germiston Tambo Mamorial Sebokeng	

The regional personnel in region B are dedicated and committed and operate in a cohesive manner with the facilities within their areas.

Region C:

The meetings and networking sessions in this region have been well attended. Dates were set at the beginning of the process and there were no changes.

The CEO presentations were conducted at the end of March and into April. By this time the SP had been appointed and they therefore took part in the contact sessions. The holiday period around the beginning of April made some of the appointments difficult and there were some postponements. The CEO's and the procurement department were not always present. Two meetings were held with Dr. Padayatchi who is responsible for Kalafong, Pretoria West, Cullinan Care,

Mamelodi and Weskoppies to keep him informed of the progress in these hospitals.

The storage requirements in region C were identified as the following:

Region	1 - Critical: Major building work required	2 – Inadequate Upgrading building work required	3 – Functional Upgrading by facility management	4 – Satisfactory No action required.
Region C	Mamelodi Soshanguwe CHC	Kalafong George Mukhari Pretoria West New Tshwane	Weskoppies	New Pretoria Academic Laudium Clinic

The regional personnel in region C have been very co-operative and involved throughout the process.

4.3 Objective C: Support for the Tender Process

Approach:

To provide support for the adjudication of the bids received for the Gauteng HCW Management Tender for all provincial hospitals and clinics.

A detailed Bid Adjudication report was produced and formed the basis for the BEC's recommendation to the DAC of the Gauteng Department of Health.

4.4 Objective D: Expand the Gauteng Waste Information System

Approach

The design of the Gauteng Waste Information System is captured in the GWIS Framework Document² This framework document forms part of a Danida and GDACEL funded project to establish a Gauteng Provincial Waste Information System - GWIS. The development of the GWIS is an extension of the existing Gauteng Health Care Waste Information System (HCWIS) developed, piloted and implemented during 2001-2003 as part of the Danida funded Sustainable Health Care Waste Management Project.

³Objective of the GWIS

The major objectives of the GWIS are outlined in the draft Provincial Waste Information Regulations (Notice 3002 of 2003) gazetted in September 2003. The objectives include:

² Ref LG_EIN 2004-05-12 GWIS Framework Document dated 18th December 2003

³ This is information obtained from GWIS Framework Document Section 2 Page 3

- To compile and make available to the public and other organs of state, data and information regarding waste in Gauteng in order to:
 - Further the protection of the environment and the
 - Continuous improvement of integrated waste management throughout the Gauteng Province.
- To make waste information available to organs of state and the public for:
 - Education, research and development
 - Spatial planning and environmental impact assessments
 - Public safety and disaster management
 - The development of waste streaming and assessment of the quantities of various waste streams for the monitoring of government strategies with regard to waste management; and
 - State of Environment Reporting
- To create a uniform reporting method that incorporates secure internet reporting formats, and monitoring intervals.

To further determine the requirements of GDACEL, a meeting was held with representatives of GDACEL on the 16 October and 11 November 2003 to assess their goals and objectives regarding waste management within the Province and to establish the Departments requirements regarding the GWIS. The above objectives of the GWIS were re-confirmed.

Information needs

In order to ensure the optimum benefit of money spent on data collection and handling it is important to:

- Collect only urgently needed data;
- Collect those data from the fewest, most relevant role players in the waste generation, transport, disposal and recycling system, where the necessary level of detail exists;
- Make sure that the collected data are utilised effectively.

The GWIS will focus on hazardous waste (HW) and general waste (GW). It was agreed that a further classification of both hazardous and general waste would be required for reporting, i.e. for general waste, subcategories of paper, glass, plastic, etc. would be required, while for hazardous waste, subcategories on the basis of SABS Class (1-9). Hence, HCRW will be a subcategory of HW. The GWIS would in addition allow for reporting on either general or hazardous waste recycled within the Province.

⁴Target groups

In addition to GDACEL, the GWIS should where possible meet certain information requirements of other government departments. The needs of DEAT, DWAF and DoH, including the anticipated national waste information system (NWIS) were also considered.

5. Identified Gaps and areas for improvement

Provincial Forum

This business plan did not include building capacity at Provincial level. The Provincial Forum has only recently been established and only one meeting has been conducted. This forum is essential for the sustainability of the improved waste management system. Additional input for the regular convening of these meetings will need to be given for this forum to become institutionalized.

Regional Forums/Task Teams

- At the time of writing this report, it has not been possible to establish the Regional HCW Forum in Region to operate well and there is considerable concern that there will not be an effective regional coordination and problem solving unit in place for Region A.
- There is a concern that with the withdrawal of the consultants, the regional forum meetings will not continue. Region B is the only region that has set another meeting for May.
- The attendance of a representative from GSSC at the regional meetings will greatly facilitate procurement problems
- Communication throughout the GDoH is ineffective and creates a great deal of confusion and many delays.

Facility Management

- The appointment of the Health Care Waste Officers has taken place in most of the hospitals and some of the clinics. This appointment is not always supported with sufficient authority for the Health Care Waste Officers to perform their duties effectively. Resignations of HCW Officers have created some gaps and new appointees know little or nothing about the tender and have not attended the 5-day training course at Wits Tech.
- The storage report has identified the critical areas requiring the upgrade of storage facilities. Building specifications are required. The allocation of funds for the improvements has not yet been allocated.

Training and Awareness

⁴ More information available from GWIS Framework document Section 3 page 4)

- The training of HCW Officers must continue as changes are constantly being made with the appointment of the HCW Officer.
- There is also a need for the HCW training course to be adapted to suite the lower educational levels such as cleaners, transporters etc.

Systems and Procedures

- A GDoH systems audit is required to identify the effectiveness and / or existence of systems and procedures are in place. For example, the procedure for expired medication, anatomical waste disposal etc.
- There is a need for generic Operating Practices to be devised for Gauteng based on the wheelie bin system. Examples are loading the wheelie bins, closing the liners, weighing, capping the sharps containers, washing of hands etc.)

Monitoring and Evaluation

- There is an urgent need for a methodology for the monitoring and evaluation of the service provided by the Service Providers to be established. The Provincial Forum should play a significant role in this.
- A process for problem solving and how incident reports and service failures will be reported, authorized and managed is also urgently required. The Provincial Forum should also play a role in this process.

Special needs identified

- Electrical driven a motorized transport is used in some of the larger hospitals. The introduction of the wheelie bins now means that the transporters will have to manually push them. This has been viewed negatively in some areas
- Special requirements for the dental clinics with the disposal of amalgam and the recapping of their syringes.

Gauteng Waste Information System

- The project team is currently busy with piloting the system and training current and future users. The GWIS can be accessed on-line through the URL www.dacel.gpg.gov.za

6. Financial Statement

Payment for the DACEL Business plan was carried out in accordance with the contract.

Three invoices were submitted as follows:

Invoice No. 29 dated 26 January 2004	R 147,690.19
Invoice No. 31 dated 29 February 2004	R 221,960.59
Invoice No. 33 dated 2 March 2004	R 95,440.81

Total amount	R 465,091.59
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A breakdown of the financial statements can be found in Annexure 8

Annexure 1

Regional Contact Numbers

REGION A

First Name	Surname	Designation	Cell Number	Telephone Number	Fax Number
Deborah	Mothopeng	Env. Health Practitioner		(011) 481 5330	(011) 481 5329
Gerry	Sharp	Infection Control Nurse, Johannesburg Hosp.		(011) 488 4419	(011) 488 3753/4174
Isaac	Maphosa	Env. Health Practitioner		(011) 953 1091	(011) 953 5400
Louisa	Magabane	Env. Health Practitioner	082 926 0219		
Oupa	Lesie	HCOW		(011) 951 8327	(011) 951 8331

REGION B

First Name	Surname	Designation	Cell Number	Telephone Number	Fax Number
Dumisani	Sibuyi	Env. Health Practitioner Ekurhuleni District		(011) 876 1820	(011) 825 2219
Lizette	van Zyl	Ass.Dir Occ. Health Ekurhuleni District		(011) 876 1820	(011) 825 2219
Ivan	Hoffman	Env. Health Practitioner Sedibeng District	072 429 8367	(016) 950 6119	(016) 950 6043
Refilwe	Tshabalala	Env. Health Practitioner Sedibeng District	082 457 6039	(016) 950 6118	(016) 950 6034

REGION C

First Name	Surname	Designation	Cell Number	Telephone Number	Fax Number
Khethani	Ngobeni	Env. Health Practitioner		(012) 303 9192	(012) 303-9196
Laetitia	Ferreira	Ass. Dir. Occ. Health	082 335 2812	(012) 303 9035	(012) 323 4310
Pamela	Kekana	Env. Health Officer			
Ramsook	Loykisoona	Snr. Env. Health Practitioner		(012) 303 9195	(012) 303 9196
Grace	Modubu	Env. Health Practitioner Metsweding Region		(013) 932 6302	(013) 932 4091

Annexure 2

PROGRAMME FOR CONDUCTING CEO PRESENTATIONS AT HOSPITALS AND CLINICS							
Date	Region	Time	Hospital	Address	Tel No.	Fax No.	Facilitator
04-Feb	C	am	Dr. Padayatchi	Skinner Street			Janet
24-Feb	C	am	Dr. George Mukhari				Janet
26-Feb	B	pm	Far East Rand	Hospital Str. Springs	(011)817-1426		Janet/Portia
	B	am	Pholoseong	Ndaba Str. Tsakane, Brakpan	(011)812-5000 (011)738-5020/36	(011)738-3000/52	Janet/Portia
27-Feb	B	pm	Germiston	Cnr. Angus & Joubert Streets Germiston	H (011)345-1200 D (011)825-5330		Torben/Portia
	B	am	Natalspruit	146 hospital Rd. Skosana Section, Kattlehong	H (011)389-0500 D (011)389-0610		Torben/Portia
01-Mar	B	am	Tembisa (Cancelled)	Industrial Rd. Olifantsfontein	H (011)923-2000 D (011)923-2175		
	B	am	Tambo Memorial	Railway Str. Boksburg	H (011)898-8000 D (011)898-8191		Torben/Portia
02-Mar	B	am	Heidelberg	Cnr. H.F.Verwoerd & Hospital Streets, Heidelberg			Janet/Portia
	B		with Devon Clinic, Heidelberg Clinic				Janet/Portia
	B	pm	Far East Rand				Torben
05-Mar	C	am	Clinics Area Management Meeting				Laetitia
03-Mar	B	am	Kopanong Hospital	Comare Str. Vereeniging	(016)428-7000 (016)428-1133	(016)428-1148	Janet/Portia
			with Johan Heyns CHC, Pontshong Clinic, Boupatong MOU, Sharpville Clinic				
04-Mar	B	am	Sebokeng Hospital	Moshoeshe Str, Sebokeng	(016)930-3000		Torben
	B		with Levai Mbatho CHC, Empiliswini, Dr. Helga Kuhn, Boitumelo, Johan Deo, Zone 12				
		pm	Germiston Clinics				Torben
08-Mar	A	am	Dr. Yusuf Daidoo	Cnr. Memorial & Hospital Streets Krugersdorp	(011)951-6000	(011)953-4726	Janet
	A	pm	Sterkfontein		(011)951-8000	(011)956-6931/ 005/907	Janet
09-Mar	A	am	Hospital Regional Meeting at Helen Joseph				Janet
10-Mar	A	am	Coronation	Cnr. Fuel & Oudtshoorn Streets Coronationville	(011)477-9555 (011)477-7929		Lorna
	A	pm	Helen Joseph	Perth Road, Westdene	(011) 489 1011		Torben
11-Mar	C	am	George Mukhari CoP assessment	Soshanguve			Janet / Nancy
11-Mar	A	am	Sizwe	Club Str. Sandringham	(011)0882- 9810/24	(011)882-0092	Torben/Lorna
	A	pm	Edenvale	Modderfontein Rd. Edenvale	(011)321-6000	(9011)321-6096	Torben
12-Mar	A	am	South Rand				Torben/Janet
	A	pm	Johannesburg Gen	cnr Queens & Princess of Wales, Parktown	(011)488-4911 (011)488-3316	(011)643-1612	Torben/Janet/ Lorna
15-Mar	A	am	Leratong	Cnr. Randfontein & Adcock Roads Kagiso 2 Krugersdorp	(011)411-3500	(011)410-8421	Torben/Lorna
16-Mar	A	am	TARA	50 Saxon Rd. Hurlingham	(011)535-3000/4 (011)783-2010	(011)535-3000 ext3026 (011)783 2020 ext2026	Lorna
18-Mar	C	pm	Clinics				Laetitia
19-Mar	A	am	Sterkfontein				
		pm	Carletonville		(018)787-2111	(018)788-4120	Torben/Lorna
24-Mar	C	pm	Laudium				Janet
25-Mar		pm	Pretoria West	Sytze Wierda Rd. Pta West	(012)380-1200	(012)386-3123	Torben / SP
26-Mar	C	am	Mamelodi	Stand 19472 Mamelodi East	(012)841-8300	(012)841-8412	Janet / SP
	C	pm	Skinner Street Clinic	Skinner Street			Janet / SP
29-Mar	A	am	Chris Hani Baragwanath (10h00 0 12h00)	Old Potchefstroom Rd. Soweto	(011)933-2044 (011)933-8000	(011)933-3135	Torben/Janet
30-Mar	C	am	Masakhane Laundry	Cnr. Piet Pretorius & Hebron Roads Rosslyn			Janet / SP
30-Mar	A	am	Johannesburg General Hospital				Torben
06-Apr		am	Weskoppies	Ketjen Str.Pta.West	(012)319-9500	(012)327-7076	Torben / SP
06-Apr		pm	Pretoria Academic	Dr. Savage Road Pta	(012)354-1000	(012)354-1702	Torben/Janet/SP
06-Apr		am	Meeting with Dr. Padayatchi	Skinner Street			Janet
07-Apr		pm	Soshanguve Clinic				
15-Apr	A	am	Chris Hani Bara Task Team Meeting	Old Potchefstroom Rd. Soweto			Janet / SP
15-Apr	A	pm	Kalafong	Cnr Kalafong Rd. & Church Str. Atteridgeville			Janet / SP
22-Apr		am	Meeting with Dr. Mazizi	Johannesburg Gen			Janet
26-Apr	A	am	Chris Hani Bara HOD Meeting	Old Potchefstroom Rd. Soweto			Torben

Annexure 3

Dates of Regional Workshops, Networking Sessions Conducted

Date	Region	Activity	Venue
20 January	B	Formation of Regional Forum	Germiston Regional Office
30 January	B	Meeting / Training with Regional Representatives	Germiston Regional Office
16 February	A	Formation of Regional Forum	Central Regional Office
17 February	B	Regional Forum Meeting - Representatives Appointed	Germiston Regional Office
18 February	C	Formation of Regional Forum	Skinner Street Regional Office
25 February	C	HCW Officers Networking – Awareness Booklet	Skinner Street Regional Office
9 March	A	Regional Forum Meeting and HCW Officers Networking – Awareness	Central Regional Office
10 March	C	Regional Forum Meeting	Skinner Street Regional Office
17 March	B	HCW Officers Networking – Awareness Booklet	Kapanong Hospital
15-19 March	All	HCW Management Course	Wits Technikon
30 March	B	HCW Officers Networking – CoP Application	Germiston Hospital
31 March	C	HCW Officers Networking – CoP Application	Pretoria Academic Hospital
1 April	A	HCW Officers Networking - Cancelled	
7 April	A	Meeting with West Rand Regional Representatives	West Rand Office
8 April	A	HCW Officers Networking – Jhb. General - poorly attended. SP gave a short presentation	Johannesburg Hospital
20 April	B	HCW Officers Networking – Equipment Specs and Planning	Heidelberg Hospital
29 th April	B	Regional meeting with SP Trainers	Johan Haynes
30 April	C	HCW Officers Networking – Equipment specs and planning	Evertrade City Deep Offices
13 May	A	HCW Officers Networking – CoP and Equipment specs. This event was poorly attended (4 hospitals)	Johannesburg General
18 May	B	Regional Forum Meeting	Kapanong Hospital

Annexure 4

Health Care Waste Management in Health Care Facilities

Short Course Delegates (15-19 March 2004)

<i>Name and Surname</i>	<i>Institution</i>	<i>Contact Number</i>
1. E. Lewis	Pretoria Academic	
2. Evelyn Lucas	Pretoria Academic	
3. J.E van der Merwe	Heidelberg Clinic	016 3417394
4. D.M Malatji	Germiston	
5. A.M Lethoko	Sebokeng Hospital	016 9303265
6. Refilwe Bodibe	Central Office	011 355 3498
7.R P Ngake-Mabena	Pholosong Hospital	
8. Philipine Letsoalo	Medowlands	011 481 5329/5263
9. A. Kesenogile Moremi	Diepkloof Clinic	011 481 5329/5263
10. Sindiswa Tyawa	Chris Hani Baragwanath	011 933 9447
11. Onica Papiso	Central Wits	011 4815327 (Debra)
12. Samantha Sithole	Lenasia Clinic	011 481 5329
13. L Mofokeng	J Dumane CHC	011 481 5329
14. Sandiswa Jako	Nthabiseng CHC	011 481 5329
15. Zanele Rozani	Khutsong MOU	011 953 1090
16. Patrick Phiri	Pimville Clinic	011 481 5329
17. T H Nkosi	George Mokhari Hosp	
18. Jenny Sproule	Pontshong Clinic	016 5901428
19. Dolly Moreetsi	Boitumelo Clinic	016 989 7098
20. Mavis Mthimkhulu	Dr Helga Kuhn Clinic	016 581 0812
21. Elizabeth Molale	Boipatong MOU	016 988 3381
22. Oupa Lesie	Sterkfontein Hospital	011 953 1090
23. Ramsook Loykisoona	Tshwane Region	
24. Pamela Kekana	Metsweding	
25. Caroline Morena	Sharpeville MOU	016 451 2777
26. E. van Zyl	Ekhurhuleni Office	011 876 1820
27. Lerato Mopeloa	Mohlakeng MOU	011 953 1090
28. E M Velaphi		
29. E Tshipuke	Laudium CHC	
30. M M Madisha	Skinner Street CHC	
31. J van der Wersthuizen	Johan Hynes CHC	
32. SV Ngobeni	Soshanguve CHC	

Annexure 5 (a)

HCRW Consumable Usage Estimator for Hospitals

	Liner system				
	Sharps Containers (8 lit.)	Specicans (10 lit.)	Small Liners (w x h = 46 x 54 cm)	Medium Liners (w x h = 56 x 66 cm)	Large Liners (w x h = 75 x 95 cm)
Estimated consumption per 100 occupied beds, per week	15	3	72	123	82
"Rule-of-thumb" check: Divide total weekly HCRW mass (in kgs) by:	29.0	150	5.7	3.3	5.0

Example:

- 1 Hospital with 700 beds, and 70% occupancy
Therefore occupied beds = $700 \times 70\% = 490$ beds
Occupied beds / 100 = $490/100 = 4.9$

Therefore, number of consumables required per week =

- 2 Check using "rule-of-thumb":
Hospital produces approximately 2100 kg HCRW per week

- 3 "Best estimate" (take higher of the two figures, rounded up where appropriate)

Sharps Containers (8 lit.)	Specicans (10 lit.)	Small Liners (w x h = 46 x 54 cm)	Medium Liners (w x h = 56 x 66 cm)	Large Liners (w x h = 75 x 95 cm)
4.9 $\times 15 =$	4.9 $\times 3 =$	4.9 $\times 72 =$	4.9 $\times 123 =$	4.9 $\times 82 =$
69	15	353	603	402
2100 $/ 29 =$	2100 $/ 150 =$	2100 $/ 5.7 =$	2100 $/ 3.3 =$	2100 $/ 5.0 =$
72	14	368	636	420
75	15	370	640	420
per week	per week	per week	per week	per week

This Hospital: _____

- 1 Hospital with _____ beds, and _____% occupancy
Therefore occupied beds = _____ x _____% = _____ beds
Occupied beds / 100 = _____/100 = _____

- 2 Check using "rule-of-thumb":
Hospital produces approximately _____ kg HCRW per week

- 3 "Best estimate" (take higher of the two figures, rounded up where appropriate)

Sharps Containers (8 lit.)	Specicans (10 lit.)	Small Liners (w x h = 46 x 54 cm)	Medium Liners (w x h = 56 x 66 cm)	Large Liners (w x h = 75 x 95 cm)
_____ $\times 15 =$	_____ $\times 3 =$	_____ $\times 72 =$	_____ $\times 123 =$	_____ $\times 82 =$
_____ $/ 29 =$	_____ $/ 150 =$	_____ $/ 5.7 =$	_____ $/ 3.3 =$	_____ $/ 5.0 =$
per week	per week	per week	per week	per week

Annexure 5(b)

HCRW Consumable Usage Estimator for Clinics

	Liner system				
	Sharps Containers (8 lit.)	Specicans (10 lit.)	Small Liners (w x h = 46 x 54 cm)	Medium Liners (w x h = 56 x 66 cm)	Large Liners (w x h = 75 x 95 cm)
Estimated consumption per 1,000 patients, per month <i>Add: Maternity ward -</i>	4	-	8	12	10
Estimated consumption per 100 deliveries, per month	-	10	-	-	-
"Rule-of-thumb" checks: Divide total monthly "dry" HCRW mass (in kgs) by: Divide total monthly "wet" HCRW mass (in kgs) by:	9.0 -	- 3.0	5.7 -	3.3 -	5.0 -

Example:

- 1 Clinic handling 7,500 patients per month and 150 births
Therefore, thousands of patients/month = $7,500 / 1,000 = 7.5$
and hundreds of births/month = $150 / 100 = 1.5$

Therefore, number of consumables required per month =

- 2 Check using "rule-of-thumb":
Clinic produces approximately 300 kg "dry" HCRW per month
Clinic produces approximately 40 kg "wet" HCRW per month

- 3 "Best estimate" (take higher of the two figures, rounded up where appropriate)

Sharps Containers (8 lit.)	Specicans (10 lit.)	Small Liners (w x h = 46 x 54 cm)	Medium Liners (w x h = 56 x 66 cm)	Large Liners (w x h = 75 x 95 cm)
7.5 - x 4 =	- 1.5 x 10 =	7.5 - x 8 =	7.5 - x 12 =	7.5 - x 10 =
30	15	60	90	75
300 - / 9 =	- 40 / 3 =	300 - / 5.7 =	300 - / 3.3 =	300 - / 5.0 =
33	13	53	91	60
35	15	60	100	80
per month	per month	per month	per month	per month

This Clinic: _____

- 1 Clinic handling _____ patients per month and _____ births
Therefore, thousands of patients/month = _____ / 1,000 = _____
and hundreds of births/month = _____ / 100 = _____

- 2 Check using "rule-of-thumb":
Clinic produces approximately _____ kg "dry" HCRW per month
Clinic produces approximately _____ kg "wet" HCRW per month

- 3 "Best estimate" (take higher of the two figures, rounded up where appropriate)

Sharps Containers (8 lit.)	Specicans (10 lit.)	Small Liners (w x h = 46 x 54 cm)	Medium Liners (w x h = 56 x 66 cm)	Large Liners (w x h = 75 x 95 cm)
_____ - x 4 =	- _____ x 10 =	_____ - x 8 =	_____ - x 12 =	_____ - x 10 =
_____ - / 9 =	- _____ / 3 =	_____ - / 5.7 =	_____ - / 3.3 =	_____ - / 5.0 =
per month	per month	per month	per month	per month

Sustainable Health Care Waste Management in Gauteng

Facility Central Storage Audit Report

May- 2004

Index

1. Background
2. Introduction
 - 2.1 The scope of the report storage audit
 - 2.2 The objective of the audit
3. The Process followed
4. The requirements of a good central storage area
5. The results of the storage audits
 - 5.1 The number of hospitals and clinics assessed
 - 5.2 The summary of results of the hospital storage audits
 - 5.3 The summary of the results of the clinics storage audits
6. Estimated Budget for Building Work
7. Conclusion

***Appendices* (Not included in this Annexure)**

- Appendix 1 Assessment Check List*
Appendix 2 Summary of Storage Assessment – Region A
Appendix 3 Summary of Storage Assessment – Region B
Appendix 4 Summary of Storage Assessment – Region C

1. Background

New Tender for Health Care Risk Waste

As a result of an extensive and lengthy consultation process undertaken with regional representatives, facility representatives, service providers, relevant staff groups and as supported by the successful outcome of the pilot project for an improved health care waste management system at Leratong Hospital and Itireleng Clinic, new specifications for the health care risk waste tender was developed.

On the 8th March 2004 a new tender for a comprehensive health care risk waste management service to all the Gauteng Provincial hospitals and clinics was awarded to three Service Providers, one for each region as follows:

Collection and Disposal

Region A	-	Phambili Wasteman
Region B	-	Buhle Waste
Region C	-	Evertrade Medical Waste

Supply of Equipment

Evertrade Medical Waste for all three Regions

In addition to the above services, the contract also included the provision on consultancy support and training. The contract is for a period of 5 years

The collection and disposal will commence on the 1st May 2004 with a phased in roll out running until September by which time the new system will be fully implemented into 28 provincial hospitals and 123??? provincial clinics.

The new comprehensive system has taken all the steps in the cradle to grave cycle into account from the generation, segregation, containerization, internal transport, central storage, external transport, treatment and final disposal

The move away from cardboard boxes to reusable leak resistant and puncture resistant wheelie bins has also resulted in the necessity for better storage facilities and a different costing structure. There is a payment for actual costs of containers plus a payment per volume / mass of waste collected. All waste will therefore need to be weighed when collected. The Service Providers are required to install scales at all hospitals and provide mobile scales for the clinics.

New Regulations

The Department of Agriculture, Conservation, Environment and Land affairs has recently drafted the new Gauteng Health Care Waste Management Regulations. These regulations apply to all persons who generate, collect, receive, store, transport, treat, dispose of or handle health care risk waste in any form in the Province of Gauteng. Regulation 4

requires the storage of health care risk waste to be carried out in accordance with the Minimum Requirements that are set out in Schedule 9.

2. Introduction

A key area in the cradle to grave cycle is the Central Storage area at all the hospitals and the larger clinics. It is here that the waste is stored and weighed and then handed over to the Service Provider for treatment and disposal. A clean secure storage area is also required for storing the clean containers and wheelie bins.

2.1 The scope of this report

The focus of the storage audits that were conducted was essentially on all 28 hospitals within the province. A number of the larger CHC's and MOU's were also visited and where upgrading is required these have been indicated.

2.2 The Objective of the Audit

The main objective of the audits was to assess the need at the facilities and to identify those facilities that will be eligible for additional allocation of funds for either a new storage area or to upgrade the existing areas

A second objective was to ensure that the central storage areas are improved to facilitate the movement of the wheelie bins and improve the general infection control standards and working conditions of those who work within the area.

3. The Process followed

Each facility was inspected using an assessment check list. Where existing areas were found to be unsuitable an alternative area / room / building was discussed with the facility staff. The aspects looked for were divided into the following categories:

Priority A - Critical issues that will require building work.

Priority B - Problematic and could be improved by a facility works order.

A copy of the checklist used is enclosed as Appendix A

In summarizing the results a criticality ranking was allocated as follows:

1. Critical	- Requires urgent major building work by Facility Planning
2. Unsatisfactory	- Requires immediate upgrading building work by Facility Planning
3. Functional	- Requires only upgrading by Hospital / Clinic Management
4. Satisfactory	- No action required

4. The requirements for a good central storage area

In order to ensure that the standards of the central storage area meet the Gauteng regulations and that the infection control / safety standards are upheld, the following aspects are required in all the central storage areas.

- Sufficient space to contain the required accumulation of waste between collections.
- Accommodation for the accumulation of waste over weekends and public holidays. (Regulations require to store up to 8 days of waste generated by the facility)
- Easy access such as ramps for wheelie bins
- Easy access for the transportation vehicle with ramps, platforms or inclines <1:10
- Sufficient distance from public areas, casualty, kitchens etc.
- Division of clean and dirty areas
- Secured area so as to deny access by unauthorized persons
- Clearly sign posted to show that bio-hazardous waste is stored there
- Good ventilation, lighting and electricity
- Impervious ground surface and floor for easy cleaning
- Running water and a washing facility for good hygiene of the staff
- Maintained to prevent entry of animals, vectors or rodents
- Protection from the environment (leak proof corrugated iron or concrete roof
- Control the odours
- Provision of freezers to store anatomical waste below 12 degrees C for longer than 24 hours.
- Provision of a scale to weigh the waste
- Provision of protective equipment for staff and a spill kit for emergencies

5. The results of the storage audits

5.1 The number of Hospitals and Clinics assessed

All the provincial hospitals in all three regions have been assessed. Where possible, some clinics were also assessed and the results have been tabulated. The number of facilities that were audited is indicated per region in the table below:

Region	Hospitals	Clinics
Region A	12	2
Region B	7	2
Region C	9	9
Total	28	13

5.2 The summary of results of the hospital storage audits

The results of the assessment of the storage requirements in the Gauteng Province have shown that there are:

- 7 hospitals that urgently require the building of a new central storage area for the health care risk waste
- 10 hospitals that will need some building work to upgrade their central storage area. The main areas for upgrading work revolve around the widening of doors or constructing ramps for the easy use of the wheelie bins
- 9 hospitals have storage facilities that are presently working and only need a hospital works order to provide electricity, locks, washing facilities, spill kit etc.
- 2 hospitals that do not need any further work

The table below gives the breakdown of the hospitals per region

Region	1 - Critical	2 - Inadequate	3 - Functional	4 - Satisfactory
Region A	Johannesburg Gen Chris Hani Bara	South Rand Siswe Tara Edenvale Sterkdontein	Carletonville Dr. Yusaf Dadoo Coronation Helen Joseph Lenasia Clinic	Leratong
Region B	Pholosong Heidelberg\ Kopanong Tembisa	Natalspruit	Far East Rand Germiston Tambo Mamorial Sebokeng	
Region C	Mamolodi Soshenguwe CHC	Kalafong George Mukhari Pretoria West New Tshwane	Weskoppies	New Pretoria Academic Laudium Clinic

5.3 The summary of the results of the Clinics storage audits

Although the assessment of the storage requirements of the clinics was not part of the storage audit objective, some large clinics were visited when they were within the vicinity of a hospital. The results of these visits have shown that there is also a need to upgrade the storage at the CHC's and MOU in the Gauteng Province.

Because of the smaller quantities, none of the clinics visited will require the building of a new storage area. The only clinic that requires special assistance is the Soshanguve CHC (3) which is a downgraded hospital and there is an old incinerator that is taking up most of the present area used for storage. If this small incinerator could be removed the storage area would be sufficient for the clinic. A summary of the results of the 13 clinics visited indicated that:

- 5 require some building work such as wider doors or ramps
- 5 were found to be functional and only required a little upgrading
- 3 are presently quite satisfactory

All the clinics that have a maternity section require a freezer to store the placenta.

The table below gives the breakdown per region per clinic assessed

Region	1-Critical	2-Inadequate	3-Functional	4-Satisfactory
Region A		Lilian Ngongwe	Lenasia Clinic	
Region B		Johan Heyns CHC Levai Mbatho CHC Sharpville CHC	Heidelberg Clinic Boipatong MOU Empiliswini Clinic Boitomelo Clinic	Pontshong Clinic Mokuthela Ngwenya
Region C		Soshanguve CHC		Laudium Clinic

6. Estimated Budget for Building Work

The detail of the recommended work to be carried out at the hospitals is described in the Appendices 2-4, together with photographs in most cases. Only a very roughly cost estimated has been given as no detail of the size of the area to be built or upgraded has been indicated. These estimates can therefore only be used as a rough guide.

The total cost estimated for the Hospitals has been calculated at R1,760,000 and the work recommended on 5 clinics totals to R370,000

A summary of the proposed building work and the rough estimates to carry out the work is indicated in the tables below:

Estimated cost of building work for hospitals

Facility	Proposed building work	Estimated Costs
Johannesburg General	New Store. Estimated size	250.000
Chris Hani Baragwanath	Road way to main store Door into back of store Widen doorway into clean storage area	150.000
South Rand Hospital	Widen doorway Provide ramp	35.000
Sizwe Tropical Disease	Ramp	15.000
Tara Hospital	Enclose present area with wire gauze	35.000
Edenvale Hospital	Ramp	35.000
Sterkfontein Hospital	Widen doorway Ramp	15.000
Pholosong Hospital	Move incinerators or build new store	150.000
Heidelberg Hospital	Build new store Estimated size:	150.000
Kopanong Hospital	Build new store	150.000

	Estimated size:	
Tembisa	Remove old incinerator Brick up front area and provide doors Repair roof. (Alternatively – build new store)	150,000
Natalspruit Hospital	Extend area Build ramp	100.000
Mamelodi Hospital	Build new store Estimated size:	150.000
Kalafong	Ramp Convert toilet area Enclose area next to store	150.000
George Mukhari	Enclose area next to store	100.000
Pretoria West	Widen doorway	50.000
New Tshwane	Widen doorway Widen loading platform and remove railing	75.000
Total		1,760.0000

Estimated cost of building work for the assessed clinics:

Soshanguve CHC	Remove incinerator or build new store	100.000
Johan Meyns CHC	Area altered and enlarged	100.000
Levai Mbatho CHC	Door widened, Change access to ‘love life” area, ramp	70.000
Sharpville MOU	Small storage area constructed	50.000
Lilian Ngoye	Small storage area constructed	50.000
Total		370.000

7. Conclusion

The results of the storage audit has shown that over 29% of the hospitals do not have any storage capacity and 36% will require substantial upgrading for the areas to meet the legal requirements for safe storage of health care risk waste.

The small sample of clinics that were audited (roughly 8% of the total (160) number of clinics) has shown that some upgrading will be required for the areas to successfully use the wheelie bin system in the larger CHC and MOU units. The smaller clinics only provide a primary health service and in most cases only have a small quantity of infectious waste and sharps.

The total estimated cost for providing suitable central storage areas at the hospitals in the Gauteng Province for the successful application of the new tender requirements is estimated at R1,760.000. and R370,000 for the small % of clinics assessed.

Annexure 7

Motivation to conduct Awareness Presentations for Senior Health Care Management at Provincial Institutions.

The project on Sustainable Health Care Waste Management in Gauteng is progressing well and is being implemented in accordance with the DACE Business Plan and DANIDA Project Document.

The Tender for contractors to provide a complete health care waste management service to 28 Provincial hospitals and approximately 140 clinics has been floated and the closing date for tender bids was 1st February 2004. Adjudication of the successful tenders will be made by end of February and the successful bids awarded the first week in March.

A number of critical issues have been identified in relation to the sustainability of the new system and, in particular, the institutional capacity of the Gauteng Department of Health to take on the short-term actions required for implementing the new Provincial HCRW management tender effectively. The lack of capacity is critical both at the level of the individual facilities as well as at the central and regional level of the provincial Department of Health and there is a need to ensure that necessary support is provided at all levels of the Department of Health.

The active involvement of senior management within all institutions is critical both to the success of the implementation of the new system and for the sustainability of the new waste management system.

In order to improve the anchoring of the system and ensure that the necessary capacity is developed within the GDoH, the project team will be conducting awareness presentations to senior management at all hospitals and the larger Community Health Centres within the three regions.

The awareness presentations require the following senior personnel of each institution to be present.

- √ Hospital CEO
- √ Assistant CEO's
- √ Administration Manager(s)
- √ Procurement / Buying Personnel
- √ Nursing Manager(s) / Senior Nursing Supervisors
- √ Cleaning Department Manager(s) / Supervisors
- √ Infection Control Sr(s)
- √ Health Care Waste Officer (s) and assistants

Duration of the presentation is approximately 2 Hours and the proposed programme is as follows:

- 10 minutes: Opening and introductions
- 60 minutes: Presentation
- 50 minutes: Questions and discussions

In order to maximise on travel time, it is proposed that presentations be conducted at two institutions daily. It is also proposed, and time permitting, that the project team assess the storage needs of the institutions after the presentations. The following times are proposed:

Hospital / CHC One: 9h30 - 11h30: Presentation
11h30 – 12h00 Assess storage needs
Hospital / CHC Two: 13h30 – 15h30: Presentation
15h30 – 16h00 Assess storage needs

(Where travel time between presentations is longer than 1 hour, alternative arrangements will be made for the storage needs)

Breakdown of financial statements