

CITY OF CAPE TOWN ENVIRONMENTAL MANAGEMENT PROGRAMME

SPECIFICATION: ENVIRONMENTAL MANAGEMENT

MANAGEMENT STAFF HANDOUT



CITY OF CAPE TOWN | ISIXEKO SASEKAPA | STAD KAAPSTAD

THIS CITY WORKS FOR YOU

[Add in name of development]

ENVIRONMENTAL MANAGEMENT PROGRAMMES (EMPs)

INTRODUCTION

In the Cape Metropolitan Area (CMA), there is great pressure from development on what remains of our natural resources. From the 1960s onwards there has been a growing awareness of the complex impacts of development and construction projects on the environment. The City of Cape Town subscribes to the philosophy of Integrated Environmental Management (IEM). IEM is designed to ensure that the environmental consequences of proposed projects are understood and adequately considered in the planning, implementation and management of development projects. IEM is intended to guide the development process and resolve or lessen any negative environmental impacts and enhance positive impacts of a development project.

The unique environment of the City of Cape Town is its greatest asset. For the prosperity and well-being of current and future generations, this asset must be managed in a sustainable manner for the benefit of all. On October 31, 2001 this responsibility was officially recognised by the City of Cape Town when the Council approved the Integrated Metropolitan Environmental Policy.

The City of Cape Town IEM guidelines subscribe to a “cradle to grave” approach, requiring environmental input from conceptualisation to decommissioning for all City of Cape Town operations. Accordingly, the IEM guidelines aim to ensure upfront environmental input during planning and construction and subsequent input during operation and maintenance. Environmental Management Programmes (EMPs) are tools that facilitate appropriate environmental input during the construction phase of the City of Cape Town’s civil engineering projects, and thus form a crucial component of the IEM process and the ultimate attainment of sound environmental practice during all phases of all City of Cape Town operations.

WHAT IS THE ENVIRONMENT?

The environment comprises all living and non-living surroundings such as water, buildings, soil, plants, cars, air, humans and their interrelationships. It is important to realise that people form an integral part of the environment.

IN WHAT OTHER CIRCUMSTANCES ARE EMPS USUALLY IMPLEMENTED?

- The Environmental Impact Assessment (EIA) Regulations under Section 24(5) of NEMA were promulgated on 21 April 2006 (Government Notice R 385, No. 386, and No. R 387) and superseded the EIA Regulations in terms of the Environment Conservation Act. These regulations came into affect from 1 July 2006. The mining related activities were to come into affect on 1 April 2007 but to date this has not been enacted. These Regulations attempt to ensure that future developments are undertaken responsibly and with minimal impacts on the environment.

Any project within the City of Cape Town that involves any of the activities specified in the Regulations must pass through an environmental assessment process (either a Basic Assessment or a full Scoping and Environmental Impact Assessment process – depending on the type of activity being proposed) and must be approved by the Provincial Authority¹ i.e. the Department of Environmental Affairs and Development Planning (DEA&DP) before construction can start. DEA&DP decide whether or not the project can go ahead. If the project is approved, they issue an Environmental Authorisation in which there may be certain conditions of approval. Often a condition

¹ In certain types of project, which have national or international implications, the project may need to be authorised by the National Department of Environmental Affairs and Tourism.

of approval of the project is that an Environmental Management Programme (or Plan²) (EMP) is implemented on site.

NOTE: The implementation of the EMP within the project is not an additional or “add on” requirement. The EMP is legally binding, integral to the contract and is as important as the engineering aspects of the contract. Most Authorisations issued by DEA&DP or DEAT require the implementation of an EMP as one of the Authorisation conditions.

THE LOCATION OF THE EMP SPECIFICATIONS IN RELATION TO CONTRACT DOCUMENTS

Upon review of different City Department contract documents, the EMSpec is currently located in various places, e.g.

1. Under the heading C3.4 Construction C3.4.10 Applicable Standardized Specifications, Variation Thereto and Particular Specifications
2. Under the heading Annexes

The CIDB document itself implies that the Environmental Specification should form part of the Management, Section C3.5 Scope of Work.

The 8 headings from the Standard and Detailed EM Specifications follow the SABS 1200 document and it is recommended that the headings be retained until SANS 2001 has been fully developed. After which, the format of the EM Specifications can be reviewed and updated to suit the SANS 2001 format. The sub-headings of the CCT EMP specification are properly placed according to the SABS 1200 specification and review can take place once SANS 2001 comes into effect.

The current format of the EM Specification is widely used and recognised in the construction industry. At this stage, it would be more beneficial to retain the current structure and format as was formed in the initial development of the document, and matching SABS 1200.

WHO ENFORCES THE EMP?

In environmentally sensitive environments (such as Table Mountain, which is in a National Park and contains several rare plant and animal species) or on large projects (e.g. construction of Sunwest Casino), a full-time Environmental Officer (EO) oversees the implementation of the EMP on site. All instructions to the Contractor are, as normal, issued through the Engineer’s Representative (ER).

On smaller projects or in less sensitive environments, either a part-time EO may oversee the implementation of the EMP or the ER is responsible for ensuring the EMP is implemented, and in effect, acts as the EO. In some cases, the Environmental Authorisation may include a condition that an independently appointed Environmental Control Officer (ECO) be appointed to oversee the implementation of the EMP. The ECO’s responsibilities are essentially the same as that of the EO.

METHOD STATEMENTS

For each construction site, certain activities require method statements that have to be approved by the EO and/ or ER prior to that activity commencing on site. For example, an explanation of the solid waste management system on site would be required, including details of how often waste will be removed from site, where waste will be stored, how it will be stored, etc.

² DEA&DP refer to the required document as an Environmental Management Plan. DEA&DP have developed a guideline for generic EMPs for the pre-construction, construction, operation and decommissioning phases of a project. The contents of this CCT EM Programme meet the requirements of DEA&DPs’ EM Plan. Annexure 1 of this management handout shows the relationships between the content of DEA&DP generic EM Plan and the CCT Environmental Management Programme Specifications.

Method statements are clearly defined in the Contractor's Guideline document. In addition, a *pro forma* method statement form has been included which must be completed for all required method statements by the Contractor and approved by the ER and the EO, where applicable.

The purpose of method statements is to give the ER or EO enough information to determine if the Contractor's actions in undertaking the activity will harm the environment. For example, will the solid waste removal system prevent cement bags and other rubbish from flying around the site?

FINES AND HOW THEY ARE COLLECTED

Failure to adhere to the specifications of the EMP may result in spot fines being issued to workers. These fines may range from R100 to R100 000 and are deducted from the monthly payment certificate. Thereafter, it is the responsibility of the Contractor to collect the fines from the guilty individuals. If the EMP is still not being adhered to, guilty individuals may be sent off site and the Environmental Authority may even stop construction.

YOUR INVOLVEMENT AS PART OF A TEAM

The keywords and actions that will determine the success of the EMP and the project are *Team Effort*. The old saying, "a chain is as strong as the weakest link" holds true to the process. Only through co-operative management and empowerment by awareness education can we maintain and improve our environment. Please make every effort to assist us with this development requirement.

For the EMP to be successful, its contents must be communicated to everyone on site. For management (and foremen) this pamphlet serves as an introduction to EMPs. For the general labour force, this involves a short environmental education course that must be given before or soon after setting up on site.

ANNEXURE 1

DEADP REFERENCE	CITY OF CAPE TOWN EMP (DETAILED)	CITY OF CAPE TOWN EMP (STANDARD)
A1 Project Contract and Programme	1. SCOPE	1. SCOPE 2.1 – Supporting Specifications 2.2 Application
A2 Appointment and Duties or Project Team	GAP	5.3 - Contractor's Environmental Representative
A3 Method Statements	5.1 Method Statements 5.2 Environmental Awareness Training 5.7 Construction Personnel Information Posters	5.1 Method Statements 5.2 Environmental Awareness Training
A4 Site Demarcation and Development	5.3 Site division 5.4 Site demarcation	5.4 Site division, demarcation and no go areas 5.5 Access routes/ haul roads 5.6 Construction personnel information posters
A5 Emergencies, Non-Compliance and Communication	5.9 Emergency procedures	GAP 6. TOLERANCES
C1 Stockpiles	3.1 Materials handling, use and storage	GAP 3.1 Materials handling, use and storage
C2 Oils and Chemicals	4.1 Fuel and oils	3.2 Hazardous substances 4.1 Fuel and oil 4.8 Workshop, equipment maintenance and storage 4.9 Noise 5.1 Method Statements 5.8 Emergency
C3 Cement	5.22 Cement and concrete batching	3.1 Materials handling, use and storage
C4 Dangerous and Toxic Materials	3.2 Hazardous substances 4.1 Fuel and oils 4.2 Shutter oil operations	3.1 Materials handling, use and storage
C5 Bulk Storage of Fuels and Oils	4.1 Fuel and oils	4.1 Fuel and oil
C6 Use of Dangerous and Toxic Materials	3.2 Hazardous substances 4.1 Fuel and oils 4.2 Shutter oil operations	3.1 Materials handling, use and storage 3.2 Hazardous substances
D1 Eating Areas and Camp Followers	4.3 Eating areas	4.3 Eating areas 4.6 Site structures
D2 Toilets and Ablution Facilities	4.4 Toilet and ablution facilities	4.2 Ablution facilities
D3 Waste Management	4.5 Solid waste management	4.4 Solid waste management
D4 Dust Management	4.7 Dust	3.1 Materials handling, use and storage
D5 Workshop Equipment, Maintenance and Storage	4.9 Workshop, equipment maintenance and storage	4.8 Workshop, equipment maintenance and storage 5.8 Emergency
D6 Noise	4.10 Noise	4.9 Noise
E1 Crew Camps	4.5 Solid waste management 4.6 Contaminated water 4.7 Dust 5.3 Site division 5.4 Site demarcation 5.6 Access Routes / Haul Roads 5.16 Access to site	4 PLANT
E2 Fires	5.8 Fire control	5.7 Fire control

DEADP REFERENCE	CITY OF CAPE TOWN EMP (DETAILED)	CITY OF CAPE TOWN EMP (STANDARD)
E3 Erosion and Sedimentation	5.12 Erosion and sedimentation control	5.13 Erosion and sedimentation control
E4 Fauna	GAP	5.12 Protection of flora and fauna
E5 Flora	GAP	5.12 Protection of flora and fauna
E6 Heritage	5.11 Protection of archaeological and palaeontological remains	5.11 Protection of natural features
E7 No-Go / Sensitive Areas	5.5 "No go" areas	5.4 Site division, demarcation and no go areas
E8 Access Routes / Haul Roads	5.6 Access routes/ haul roads 5.16 Access to site	5.5 Access routes/ haul roads 5.15 Recreation
E9 Crime, Safety and Security	GAP 5.9 Emergency procedures	GAP 5.8 Emergency 5.9 Safety
E10 Visual Impact	5.14 Aesthetics	5.14 Aesthetics
E11 Geotechnical	5.35 Rock breaking 5.38 Trenching	GAP
E12 Hydrology	5.10 Special environments 5.12 Erosion and sedimentation control 5.13 Stormwater controls 5.27 Dredging 5.33 Settlement ponds 5.36 Stream diversion 5.37 Stream crossing 5.39 Water abstraction from stream and groundwater 5.40 Well points	5.13 Erosion and sedimentation control
E13 Soil	5.12 Erosion and sedimentation control 5.29 Earthworks	5.13 Erosion and sedimentation control
GAP		4.5 Contaminated Water Management
GAP	4.8 Lights	4.7 Lights
GAP	5.15 Community Relations	5.10 Community Relations
GAP		5.16 Temporary Site Closure
	<u>Activity Specific Specifications:</u> 5.17 Anchors 5.18 Asphalt, bitumen & paving 5.19 Blasting 5.20 Borrow pits and quarries 5.21 Bridges and culverts 5.23 Pipelines 5.24 Crane operations 5.25 Crushing 5.26 Demolition 5.28 Drilling and jackhammering 5.30 Piling, jacking and thrust boring 5.31 Power tools 5.32 Pumping and sumping 5.33 Settlement ponds 5.34 Retaining walls & gabions 5.41 Temporary site closure	