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ENVIRONMENTAL EDUCATION AND TRAINING STRATEGY



Environmental Education and Training Strategy



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EXECUTIVE SUMMARY



The City of Cape Town (CCT) has adopted an Integrated Metropolitan Environmental Policy (IMEP) in which environmental education is identified as both a strategy, and a tool in other sectoral environmental strategies. This Environmental Education and Training Strategy is a framework for planning and implementation and aims to:

- *guide* decisions regarding environmental education and training in the CCT
- *ensure* that the achievements and quality of current best practice is maintained
- *address* concerns regarding environmental education and training, and
- *link* the CCT's programmes to broader initiatives.

The motivation for environmental education and training in the CCT includes:

- policy and legal requirements
- IMEP's sectoral environmental strategies, which require education and training
- the complementary role of environmental education and training in core local government functions (e.g. planning, regulation and service provision)
- the need to share environmental management responsibilities between local government and environmentally educated residents

Strategy development started in October 2000. It included consultations with 34 internal and 32 external parties through workshops, interviews and questionnaires. A situational analysis identified assets, strengths, issues and concerns. Goals and objectives were collaboratively formulated to achieve the IMEP vision, maximise assets and strengths, and address current concerns and potential issues. A Draft Strategy was circulated for public and stakeholder comment and revised for adoption in August 2003.

The Strategic Goals for Environmental Education and Training in the CCT are:

The citizens of Cape Town are environmentally aware and conscious; and
CCT staff are competent in environmental matters pertaining to their responsibilities.

To achieve these Goals, the Strategic Objectives are:

1. Establish performance criteria for environmental education and training
2. Provide adequate systems and resources for environmental education & training
3. Include environmental awareness in induction and refresher programmes
4. Help Council & managers understand the CCT's environmental responsibilities
5. Provide customised environmental training for workers and managers
6. Seek National Qualification Framework accreditation and utilise the Skills Levy for staff environmental training
7. Develop and resource the education and training implications of IMEP
8. Develop and resource the CCT nature reserves as key implementation sites for environmental education and, where relevant, training
9. Make available accessible, high quality environmental (management) information
10. Align school initiatives with Department of Education programmes and Curriculum 2005
11. Provide environmental education & training programmes and ensure their quality
12. Improve efficiency and effectiveness of CCT environmental education & training
13. Set up channels for the sharing of resources, lessons learnt and 'best practice'.

A Strategic Approach should be adopted, consisting of:

- Focussed, goal directed programmes
- Influence on and provision of information to other agencies
- Partnerships
- Internal collaboration.



To ensure that the citizens of Cape Town are environmentally aware and conscious.



BACKGROUND, SCOPE AND INTENT



Background

On 31 October 2001 the City of Cape Town adopted its Integrated Metropolitan Environmental Policy (IMEP) containing “the vision, environmental policy principles and implementation tools for sustainable development in the City”.

The IMEP identifies environmental education as a strategy to achieve this vision, and as a tool within all other sectoral environmental strategies in the City. Developing an Environmental Education and Training Strategy, represented by this document, is thus a policy requirement set by the CCT.

2. Scope of the Strategy

In this Strategy, environmental education is understood to relate to, among others,

- the natural and built environment, including the visual dimension
- socio-ecological and economic aspects, including 'green' and 'brown' environmental issues
- natural and cultural heritage resources, including historical sites, landscapes.

Environmental education is therefore understood broadly and includes heritage education.

It does not, however, include environmental communications. While the original intention was to develop an environmental education strategy with potentially a communications component, the situational analysis indicated that, given limited resources and a need to focus activities, it was more appropriate to focus on environmental education and training. There are closer links between the processes and intended outcomes of environmental education and training, than between those of education and corporate communications.

Communication regarding environmental matters does however complement environmental education (See Terminology & Principles) and is an important consideration for the CCT. Environmental initiatives in which the CCT is involved (such as a proposed annual Earth Festival) can have strong communications components far exceeding (and limiting) the CCT's current environmental education capacity. It is therefore suggested that the CCT also develops an Environmental Communications Strategy, or a component on Environmental Communications in a generic Communications Strategy.

3. Aims of the Strategy

Guide decisions regarding environmental education and training in the CCT

When an organisation starts out in an undertaking such as environmental education, it may be appropriate to let the function develop organically and responsively. The CCT has however reached a stage where it conducts a range of environment-related educative activities, often with substantial donor support, and it experiences a growing demand for wider in-house training. It is now necessary to think more strategically, that is, to have a clear idea of what the CCT wants to achieve through environmental education and training initiatives, and how best to do so.

Address current issues and concerns re. environmental education and training

The Strategy brief indicated that there are issues (e.g. understaffing, over-commitment, lack of clarity about overlapping functions) which need to be resolved through a guiding framework. The institutional analysis indicated further concerns, which this Strategy aims to address (see Situational Analysis and Appendix 2).

Ensure that the achievements and quality of good practice is maintained

Even when an organisation is satisfied with its activities, it is wise to put in place a strategic framework to motivate quality assurance. It is also sensible to reflect successful programmes in a strategic document that guides their continuation. This is particularly so in the case of local government, where a change of political terms and office bearers can spell the end or re-direction of programmes, and in a sector such as 'environment' where support is still often dependent on the vision of individuals. Strategies also capture and extend the best ideas and practice in an organisation.



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Link the CCT's programmes to broader national initiatives

To ensure that environmental education and training programmes are sustained, and adequately supported among other pressing local government concerns, it is necessary to note that they are nationally - and internationally- recognised priorities, and to clarify how they contribute to the broader demands of governance.

Note on strategic development

Strategic development is not a once-off event, complete when this document is adopted. It is an ongoing process, a way of work in leading, learning organisations. While line - and corporate functions should use this framework to develop and direct programmes on an on-going basis, the framework itself is open to revision. The Heritage Education component of the current Strategy is, e.g., a recent addition requiring further development with, potentially, implications for the overall framework.

4. Outline of the document

Background

The document starts by clarifying **Terminology** as well as internationally accepted and locally relevant **Principles** for environmental education and training. These clarifications establish a common language on which the rest of the document is based, and the principles guided the recommendations in the Strategy. **Legal requirements** affecting the CCT and its **mandate** to undertake environmental education and training, are listed next.

Analysis

The document then maps out the CCT's existing environmental education and training activities, associated issues and concerns. This **Situational Analysis** is followed by a review of external partners and their views of what the CCT should consider in relation to the Strategy.

Core

At the heart of the Strategy are the **Strategic Goals** for Environmental Education and Training, which are introduced in the following section. The Strategy also proposes a set of **Strategic Objectives** to achieve these goals, and suggests a **Strategic Approach** (way of work). The section on **Implementation** indicates which CCT staff and functional focus areas should use this strategic framework and how they should identify, develop and implement environmental education and training programmes. The final section provides notes on **Monitoring and Evaluation**.

Appendices

Appendix 1 describes the strategy development process; **Appendix 2** summarises the internal situational analysis and lists CCT participants; **Appendix 3** summarises the external consultation and lists participants; and **Appendix 4** lists environmental education resources available through the CCT.

TERMINOLOGY & PRINCIPLES



Some terms used in this document can be confusing. The term **City of Cape Town (CCT)** is the name of the local government body; the term *the City* is often used by employees and refers to the same administrative and political body. The terms **Cape Town** and *the city*, on the other hand, refer to the physical place being governed.

The term *environmental education* conceptually includes the term *environmental training*, but in this document both terms are usually used, for the sake of emphasis, while noting that the distinction can be blurred, as explained below.



1. Terminology

The following internationally endorsed understandings of terms and processes are used in this document:

Environmental education is not confined to the classroom and not aimed only at children; despite the formal ring to the term ‘education’, it has life-long relevance to people from all walks of life. It is also increasingly recognised that environmental education is not merely a ‘nice-to-have’ or a peripheral activity, but rather an integral part of the socio-economic development processes required to ensure equality and a better quality of life for all. This recognition is closely associated with the fact that environmental education cannot deal with bio-physical environments and heritage resources in isolation from their social, cultural, economic and political aspects.

Environmental education processes can differ in different contexts. Facilitators are encouraged to use a range of methods to suit the diverse situations which require environmental education (and training). There is however a strong emphasis on methods that:

- are interactive, encouraging learners (youth and adults) to participate actively in the learning process: asking questions, making contributions, investigating issues and developing solutions with others
- encourage critical thinking and a disposition to not take information at face value
- address values and commitments
- help learners solve problems and make informed decisions
- develop the ability to act with understanding (capacity-building).

Environmental educators emphasise:

- **application** - not only making people *aware* and providing *information*, but building learners’ capacity to find, analyse, synthesise and use information (most communication and awareness campaigns fail to include the latter aspects)
- **values and understanding** - developing a commitment to the environment, based on an understanding of the role of the environment in people’s health, livelihoods, quality of life, socio-economic development and social justice
- **action competence** - developing among learners the will and ability to act on their understanding of environmental issues, and on their associated values.

Environmental education processes are open-ended, in a recognition that environmental issues are complex, and that learners (whether they are youth, or scientists, or impoverished communities) need to develop and implement solutions collectively, as no single authority can simply tell us how to develop and live our lives.

Far-reaching lifestyle changes and sound environmental management are what the CCT wants to achieve, based on IMEP’s Year 2020 Vision for the Environment. The IMEP vision includes an “environmentally educated” public which means, according to the policy, that the public will have a high expectation of the authorities regarding environmental management, and will take *collective responsibility* for the environment, in a positive relationship with local government. This implies the ability to identify environmental problems, analyse their causes, and contribute to environmental management processes – ranging from local recycling or car-pooling, to contributing effectively to public participation decisions about development.

Environmental communications is a more limited endeavour, with a specific task of getting specific information or ideas across to people, seen here not as 'learners' but as 'target audiences'. While a communication campaign can be a valuable component of environmental education, the processes should not be confused. Communications is generally more a one-way process, than interactive. It is not open-ended, as it aims to change a limited set of behaviours in defined ways. Information (e.g. a pamphlet on water shortages) and messages (e.g. a "Don't Litter" poster) can raise awareness and can be used for educational processes, but cannot on their own achieve the required educational outcomes outlined above. *Corporate communications about what an organisation is doing in relation to environmental matters, has even more limited educational value, although it has considerable value for public relations and fundraising* (see Marketing).

Training is a particular form of education, aimed at developing specific skills, in relation to specific tasks which are often job-related. Examples are the skills to operate a front-end loader, or implement an environmental management system in an office. The National Skills Development Act supports the view that skills should also be informed by **an understanding of the reasons behind tasks**. Workers need to understand **why** they are required to recycle paper or protect fynbos. For this reason, training overlaps with other educational processes, and environmental consciousness and commitment are important outcomes of environmental training, along with practical know-how.

Marketing in the form of promoting environmental projects or achievements is a useful strategy to obtain public support and funding. Environmental education initiatives provide excellent promotional opportunities. However, *corporate promotional communications* and education are two different activities and should not be confused. **The intended outcomes differ:** marketing aims to promote an organisation and its environmental work; education aims to develop better capacity to address environmental issues. In terms of methods, promotional strategies (e.g. an unmanned display at an Expo or a brochure with little substantial information) are mostly one-way communications without opportunities for interaction and capacity-building (see Communications). Corporate advertising should not be presented as education, unless accompanied by *bona fide* educational processes.

2. Some Principles for Environmental Education and Training

From international literature on environmental education, and the inputs of external environmental education partners, the following principles have been distilled:

Environmental education should:

- i consider learners of all ages – it has life-long application – and all communities (residential, commercial, industrial, institutional, etc); in the context of CCT this would include City officials, employees and politicians
- ii consider the relevance of the learning for learners' lives
- iii link environment and heritage to health, socio-economic development, social justice and quality of life; environmental education should take place as much at sewage treatment plants and township waste dumps, as in nature reserves, and should assist learners to explore the benefits of a healthy environment and the wise management of natural and cultural resources for themselves personally, for their communities and South Africa's development
- iv produce learning outcomes which include environmental consciousness, but also the commitment and capacity to act on environmental matters
- v provide information, but also develop the ability to find, critically analyse and use information
- vi recognise the complexity of environmental issues and the need to develop solutions collectively, in processes where everyone has something to learn and something to contribute
- vii develop and illustrate good environmental practice, along with analysing problems and issues
- viii empower all people to participate effectively in democratic change towards a better environment for all.

Environmental training should also, in addition to the above:

- i mobilise and build on learners' existing knowledge and competencies
- ii develop practical skills, but also the understanding behind the skills
- iii recognise that skills development has a values component.



Environmental training should develop practical skills, but also the understanding behind the skills



MOTIVATION & LEGAL REQUIREMENTS



Why should the CCT bother with environmental education and training? This Strategy is premised on the understanding that

- a number of national policies and legal frameworks mandate and/or require the City to undertake environmental education and training
- institutional policies require an environmental education strategy and the application of environmental education as tool in various sectoral strategies
- environmental education and training complements and supports various core local government functions.

1. International Guidelines

Agenda 21

The South African government supports Agenda 21, adopted at the 1992 United Nations Conference on Environment and Development. Agenda 21, Chapter 23 (p.2), states that “Education is critical for sustainable development and increasing the capacity of people to address environment and development issues”. The 2002 World Summit on Sustainable Development described education as “a key agent for change” in its Plan of Implementation (paragraph 114) and recommended to the UN General Assembly the adoption of a Decade of Education for Sustainable Development (2004-2015).

2. National Directives and Legal Requirements

Reconstruction and Development Programme (RDP, 1994)

An early indication that the current government would consider environment and environmental education as vital concerns was the RDP, which advocated “programmes to rekindle our people’s love of land, to increase environmental consciousness amongst our youth, to co-ordinate *environmental education policy at all levels*, and to empower communities to act on environmental issues and to promote an environmental ethic”.

South African Constitution (1996)

The Constitution, within its Bill of Rights (p.10), provides all citizens with the rights (a) “To an environment that is not harmful to their health or well being, and (b) To have the environment protected for the benefit of present and future generations, through reasonable *legislative and other measures*”.

National Environmental Management Act (NEMA, No 107 of 1998)

The NEMA provides the country with principles of environmental management, several of which emphasize the role of public participation, and the role of environmental education in making such participation possible. For example:

- “The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured (4f)”.
- “Community well being and empowerment must be promoted through environmental education, the raising

of environmental awareness, the sharing of knowledge and experience and other appropriate means (4h)”.

NEMA notes that the “effectiveness of governance structures is influenced by the capacity of civil society to work together with government” (DEA&T, 1999:115). This point is reflected in IMEP’s vision for a local public able to take collective responsibility for the environment, and indicates the need for capacity-building.

National Heritage Resources Act (1999)

Heritage management is the responsibility of national, provincial and local government. The Act requires (Section 5(2)(a) and (b)) that the skills and capacity of communities be developed to ensure that heritage resources are effectively managed. It further stipulates that the relevant authorities must make provision for ongoing education and training of heritage management workers.

National Integrated Waste Management Bill

The Bill requires each local government to produce a municipal waste management plan which should include a waste education strategy.

King Report on Corporate Governance (Institute of Directors, 2002)

This document sets benchmarks for corporations. These are particularly important in organisations comparing themselves with international best practice. The King Report calls for transparency and accountability in the triple bottom-line of economic, social and environmental responsibilities, and for companies to take responsibility for the management of associated risks. The environmental risk audit currently applied on a limited basis in the CCT, directly and indirectly ascertains whether there are environmentally trained staff in place, and adequate training provisions.

National Skills Development Act (1998)

The Act and associated National Skills Levy comprise a strong message from national government for employers to invest in the training of employees.

White Paper on Education and Training (1995)

The 1995 White Paper on Education and Training states that “environmental education, involving an interdisciplinary, integrated and active approach to learning, must be a vital element of all levels and programmes of the education and training system, in order to create environmentally literate and active citizens and ensure that all South Africans, present and future, enjoy a decent quality of life through the sustainable use of resources” (p.18). The White Paper advocates environmental education and



Education is critical for sustainable development.





training at all levels. This would include the local government sphere, particularly when it comes to the environmental education and training of officials and workers. The education of the youth is the responsibility of national and provincial government. However, the Constitution does state that where the capacity exists, functions can be delegated to local government, and that the spheres of government, while distinctive, are interdependent and interrelated. Local government should support the other spheres of government (such as the national Department of Education, DoE) in areas of its own focus, such as environmental management and sustainable development.

Curriculum 2005

This is the curriculum framework for the General Education and Training band of schooling. Among its key features is learning that produces meaningful outcomes and is relevant to learners' lives. One implication is that, while the required outcomes are determined nationally, the content of what is taught must relate to the local context. These principles also inform the DoE's National Environmental Education Programme (NEEP) which is implemented locally by the Western Cape Education Department (WCED). C2005 presents the CCT with a valuable opportunity to provide the WCED with information on the local environment and environmental management needs and practices.

3. INSTITUTIONAL POLICIES

Vision for the City of Cape Town

Environmental education and training as outlined in this Strategy can contribute to several aspects of the Cape Town 2005 and Beyond Vision for the City, as follows:

- A sustainable city – a city that offers a future to our children and their children. The future depends on the careful management today of Cape Town's natural and cultural resources and life-support systems – fresh air, water, wetlands, biodiversity, land, fishing stocks and other marine resources, and the cultural heritage and scenic landscapes which attract visitors and investment; education informs and training enables careful environmental management.
- An accessible city – a city that extends the benefits of urban society to all and builds the capacity of its people. Environmental education increases residents' access to the natural resources and cultural heritage of this culturally diverse city; education and training

builds an appreciation of cultural heritage and people's capacity to improve and wisely manage the environments in which they live and work.

- A credible city – a well governed city trusted by its people Environmental training for CCT staff will ensure that the City manages the local environment well and thus gains credibility for its custodian role.
- A competent city – a city with skills, capabilities and a competitive edge Environmental training for CCT staff will ensure that the CCT manages the natural and cultural heritage resources in its care competently.
- A safe and caring city – Environmental education and training can inform CCT staff and the public about how to care for their cultural heritage and natural resources, and keep the environment safe.
- A prosperous city known for its ability to compete in the world of the 21st century and its commitment to the challenges facing SA, SADC and the African continent. Cape Town can take the lead in Africa in responding to challenges such as pollution control, waste management, access to clean, affordable energy and water, meeting internationally recognised environmental standards for trade and industry, and protecting a diversity of cultural heritage resources; this requires multi-level environmental education and training.

Environmental education and training can also contribute to the 10-point strategy set out by the Governing Coalition in its Strategic Direction 2003-2005, namely:

1. poverty reduction
2. economic development, tourism promotion and physical/infrastructural development
3. employment creation
4. land release and improvement of service delivery
5. good governance
6. improving health, safety and security
7. financial sustainability
8. partnerships
9. human resource development and care for people with special needs, and
10. communication.

Environmental education and training can contribute to poverty reduction, economic development and employment creation, in the long run, through its role in ensuring that the natural and cultural resources on which jobs, livelihoods

and economic development depend, are managed sustainably. Environmental education and training for CCT staff will address service delivery, good governance and human resource development among the City's approximately 26 000 employees. A healthy and safe environment for all is the intended result of environmental education.

Integrated Metropolitan Environmental Policy (IMEP)

The CCT's IMEP identifies a number of sectoral implementation strategies for managing Cape Town's environment. These include Air Quality, Biodiversity, Coastal Zone, Energy, Urban Open Space and Waste. Environmental education is identified as both a tool for implementing these sectoral strategies, and as a separate Strategy. In endorsing IMEP and adopting the IMEMS, the City has acknowledged that for its Integrated Metropolitan Environmental Policy to succeed, environmental education (and training) provisions are essential.

In keeping with the City's Vision, IMEP's 2020 Vision includes an environmentally educated public, with high expectations of local government in terms of environmental governance and management, but also willing and able to take collective responsibility for the City's environmental resources. This vision gives guidelines to the intended outcomes of environmental education activities.

4. ENVIRONMENTAL EDUCATION AND TRAINING IN LOCAL GOVERNMENT

The Municipal Systems Act (Act 32 of 2000)

Outlines the role and responsibilities of local governments as to:

- Provide democratic and *accountable* government for local communities;
- Ensure the provision of services to communities in a *sustainable* manner;
- Promote *social* and economic development;
- Promote a safe and healthy *environment*;
- Encourage the *involvement* of communities and community organizations in the matters of local government, and
- Strive, within its financial and administrative capacity, to achieve the objectives above (emphasis added).



An environmentally educated public, with high expectations





These responsibilities indicate a need for an environmentally educated work force (*accountable*) as well as an environmentally educated public (*involvement*).

Environmental education and training support core local government functions in a number of ways, including:

Trading Services Education can facilitate waste reduction and recycling projects and develop an understanding of the true cost of waste management and the need for an integrated waste management strategy for the City. SolidWaste currently runs an educational programme to this effect.

Planning Environmental education can develop, for example, support for specific land-use allocations, including conservation as a viable form of developing communities, and catchment management.

Regulation Law enforcement is cheaper and requires less enforcement when complemented by education. While law enforcement can alienate some voters, education to achieve similar aims, can gain broad political support.

Environmental Management Education and training are tools for implementing the various dimensions of strategies for air quality control, coastal protection, building development control, etc., gaining public support for and compliance with associated measures, and meaningful participation in decision-making.

5. ENVIRONMENT AND DEVELOPMENT IN CAPE TOWN

But why be concerned about environmental management at all, amidst pressing issues such as poverty, basic services, job creation, housing, health and crime? Does environmental protection and resource conservation actually feature in South Africa's version of 'sustainable development'?

The CCT recognises that Cape Town's physical environment and cultural heritage are among its greatest assets and the basis for much of its economic development. Natural

resources support industries that create employment and wealth. The aesthetics of the environment and the quality of life that can be enjoyed here are prime drivers for various economic investments and activities, of which tourism is only one.

As noted, local government needs, in order to adequately manage this valuable cultural heritage and natural resource base, an environmentally educated cadre of managers and workers and an informed public, committed and able to share the responsibility. Many residents are indeed concerned about Cape Town's environment, and expect a high level of excellence in environmental management from the City – in turn again amplifying the need for the CCT's work force to be environmentally educated.

Behind and beyond these motivating factors lies the spectre of Cape Town's rapidly growing urban population and the associated rise in demand for basic services, housing and infrastructure, within an uncertain political context. To allocate and wisely manage natural resources such as land and water, as well as our diverse cultural heritage, will require

- an understanding of ecologically sustainable and socially just development at middle and senior levels of local government, and
- extensive education efforts to support public participation in sound environmental management practices and resource conservation – that is, in ecologically sustainable development.

IN SUMMARY

From a survey of policies and legal frameworks, as well as the local situation, it is clear that environmental education and training are mandated responsibilities that should be part of the formal operations and performance management systems of a local government corporation.

To not recognise the strategic role of environmental education and training in the CCT, and to place them in a marginal 'nice-to-have' position, is short-sighted and a failure to align the organisation with broader policy directions.

SITUATIONAL ANALYSIS



The City of Cape Town has been involved in environmental education activities for a number of years. To develop this Strategy, an internal situational analysis was conducted to examine these activities and associated strengths and weaknesses. This was complemented with an external analysis of the perceptions of environmental education partners external to the organisation, as to what the CCT should be doing with regards to environmental education and training.

(See Appendix 1 for an outline of the strategy development process; Appendix 2 for details of the Internal Situational Analysis and its participants, and Appendix 3 for details on the External Review & Consultation and its participants).



1. Introduction

Note on Reference to Administrations:

This section starts with an outline of the CCT's existing environmental education and training initiatives. They are mapped according to administrations - the structures that were in place at the time of the analysis. It should be noted, however, that at the time of developing this Strategy the CCT was starting to move away from an administration-based structure. It will be evident that there has been relatively little interaction and linkages with regards to the diverse environmental education and training activities in the CCT. This lack of interaction is known in the organisation as "the silo effect" and a recognised issue, which this Strategy aims to address. In addition, a key partner which shares environmental management responsibility in the metropole, South African National Parks, called for greater interaction with regards to environmental education and training; Cape Town is unique in South Africa and special in the world in that it has an entire National Park within its boundaries.

Note on Comprehensiveness:

This is a broad overview aimed at giving a sense of (1) the scope and diversity of environmental education and training initiatives in the CCT and (2) the numbers of staff directly involved. It is not detailed and not comprehensive. Furthermore, given the lengthy duration of the Strategy development process and the dynamic nature of the organisation, the information – most of which was collected in March 2002 - will in some cases be dated. Also note that while efforts were made to consult widely, it is possible that some relevant initiatives have not been captured. The CCT is a big organisation with no written record of its range of education and training activities.

2. Current Initiatives in the CCT, and Associated Issues

Educative activities related to the environment took place in the following functional areas (old administrations in brackets) in the period covered by the analysis:

DEVELOPMENT

Planning and Environment Directorates

Environmental Management Dept (old Tygerberg Administration)

- LA21 awareness-raising and training among diverse communities in this Administration, coordinated by an LA21 officer
- training for this Administration's building control staff on safe & sustainable building in parts of Khayelitsha
- community awareness-raising and training on sustainable energy use, coordinated by a contracted Education Officer
- a range of environmental education and awareness activities including competitions for the local schools; mostly implemented by staff co-opted from Community Services (Sports & Recreation)
- awareness-raising for councillors.

Environmental Management Department (old Cape Metropolitan Council (CMC) Administration)

- a range of city-wide environmental education activities for adults and youth including numerous partnership projects with external education providers for schools and several 'flagship' projects which receive considerable local publicity; co-ordinated by an EE Officer with extensive additional communications functions related

- to IMEP and CCT environmental projects
- in response to IMEP, education and training on integrated environmental management (IEM) and associated tools; including a 'train the trainers' pilot project on environmental awareness and environmental management systems (EMS), for workers and middle management; undertaken by IEM and EMS coordinators
- awareness-raising for councillors.

Environmental Management, Heritage Resources Sections, Cape Town and South Peninsula (SP) Regions

Responsibility for heritage resources management is shared with Heritage Western Cape and the South African Heritage Resources Agency (SAHRA). Two regions of CCT have Heritage Resource sections with six staff members and these initiatives:

- Langa Heritage Study and other projects with community participation
- Heritage advice pamphlets for the public
- Training of building inspectors on heritage-related themes
- Environmental education centre and programmes at Edith Stevens Wetlands Project, incl. environmental education through arts and urban agriculture training
- Heritage Resources Management module for M. Phil. (Geography and Environmental Science) at University of Cape Town
- Robben Island Museum and Heritage Studies - contribution to the design and delivery of post-graduate course
- Lectures and presentations to other students and professional forums.

Transport, Roads and Stormwater Directorate

Catchment Stormwater and River Management Department (old CMC Administration)

- environmental education and training for youth and adults related to catchment management, in partnership with internal and external partners including NGOs, technikons & universities; developed by an Education, Communications and Liaison Officer.

**Economic Development and Tourism Directorate
Tourism Development (old CMC Administration)**

- youth programmes promoting a clean, safe, friendly city
- Green Globe Awards programme for tourism agencies, has educational potential; these are co-ordinated by Tourism Development Staff with an educational budget.

COMMUNITY SERVICES

Health Services Directorate

Environmental Health (old CMC and SP Administrations)

- educational activities are quite underdeveloped as there is a need for training to support a transition from law enforcement only, to the inclusion of education as part of community support; Environmental Health Officers (EHOs) and Assistant EHOs are in place but need training in order to conduct environmental education.

Air Pollution Control (old CMC Administration)

- invited presentations to schools, technikons, universities; and
- interaction with public during community-local government forums; by staff appointed to non-educational functions and with limited teaching resources.

Parks and Nature Conservation Directorate

Nature Conservation (old Tygerberg, Helderberg and SP Administrations)

- environmental education programmes, mainly but not exclusively for either primary or secondary schools, in six of the 16 CCT reserves; several of the other reserves are visited by school or youth groups, with limited aims and limited support from the CCT
- ad hoc training of CCT staff and environmental awareness-raising for councillors
- a new initiative in training eco-tourism guides from local communities, at one reserve;
- all these activities are undertaken by just two designated education officers (at Rondevlei and Tygerberg) in addition to a range of flexible staffing arrangements; the latter includes volunteers and the appointment of mainly part-time staff with funding raised by public groups (e.g. Friends of the Helderberg, Zeekoevlei Environmental Education Programme), and in a new partnership project (Cape Flats Nature Project) involving CCT and several conservation agencies, focussing on four City- or jointly-owned reserves that form part of 27 Core Urban Conservation Sites (Edith Stevens, Wolfgat, Macassar, Harmony Flats).



Communication, integration and partnerships with neighbours





Emergency Services Directorate

Fire Services (Metropolitan-wide), Disaster Management (old CMC Administration) 107 Public Emergency Communication Centre (old CMC Administration)

Education initiatives to schools and broader public, exhibits, displays and interactive methods, dealing with emergencies, disasters (storms, floods, mountain fires) and (urban) fire safety; Disaster Management has a dedicated Education, Communications & Liaison Officer; 107 Call Centre a Co-ordinator that co-ordinates information campaign in schools (three public schools per day in 2001) and for the public (at shopping centres, libraries, community programmes), media (print, radio); Fire and Life Safety have two officers who took on an educational function, mainly in schools, and also embarked on in-house training to extend the role of all fire fighters to include community education.

TRADING SERVICES

Solid Waste Management Directorate

Waste Wise (Metropolitan-wide)

The multi-pronged approach to this waste management project includes education and training for industries, households, schools, and broader community groups, in collaboration with CCT waste management staff. Implemented with dedicated budget, consultants and partnership with an NGO (Fairest Cape Association). Its activities and scope were scaled down in 2002 when restructuring and budget cuts followed a change of office bearers.

For a more detailed outline of these initiatives, see Appendix 2. Appendix 2 also notes the strengths (what works) and concerns regarding environmental education and training in each of the above functional areas. The ensuing considerations are:

Associated Strengths, Issues & Concerns for Strategic Consideration

1. Educative activities across the organisation are 'patchy': while some programmes receive exceptional resources and top level support, others have few resources and need to lobby continuously for what little support they do get; the unevenness is evident across (former) administrations and directorates, and between environmental education for external parties on the one hand, and CCT staff on the other hand.
2. Compliance with increasingly stringent environmental legislation is difficult and demands considerable organisational capacity. Yet, with few exceptions, environmental training is for the most part unsupported: risk audits show that the required trained environmental staff are not in place; there is no systematic provision for organisation-wide environmental training; training initiatives rely heavily on lobbying by individual staff; and workers who return from training find little support for the implementation of what they learnt, from line managers. Given their many commitments managers do not prioritise environmental risks or - training and their performance assessment does not include these as recognised responsibilities.
3. While IMEP requires environmental training in the organisation as well as an environmental education component for all sectoral IMEP strategies and management plans, the associated staffing needs have not been addressed.
4. Environmental education is at times undervalued and often under-supported; where there is support in principle for environmental education this can be undermined by, e.g., conflating it with communications (See Terms & Principles).
5. Some of the CCT's environmental education and training initiatives must count among the best in local government contexts worldwide; if the quality and effectiveness of programmes are to be maintained however, and improved where necessary, the following will need attention:
 - inadequate staffing; over-commitment of staff; the quality of information and education/training in flexible staff and 'train the trainer' arrangements
 - lack of organisational staff development/support systems and recognition
 - limited skills and lack of appropriate resources in those departments where environmental education is not a core function
6. There is a concern among staff that there are no criteria against which to assess the effectiveness of educational initiatives, and to reflect their value.
7. The partnership models involving other governmental and non-governmental agencies work well, particularly where CCT funding is available to support partnerships; there are however no criteria to guide partnerships and some partners are concerned that they are at times co-opted to lend educational legitimacy to what are essentially marketing initiatives.
8. There are fewer internal partnerships and a general lack of coordination across departments and directorates; this caused several staff to call for a coordinating body for environmental education in the CCT.
9. With notable exceptions the sharing of resources, systems, lessons learnt and 'best practice' is limited; this can affect the efficiency of considerable effort and resources being expended, and is problematic given point 1.
10. Some CCT reserves are under-utilised as educational sites; others are used beyond capacity (one reserve receives up to 7 000 learners per year and has one designated educator). Some reserves have well-equipped centres, most have no educational resources (buildings and/or trained staff, signage, materials); educational activities are seen as an integral part of urban conservation, but are generally under-resourced, as is the reserves' core competency (conservation management), which is judged by staff as adequate in only five reserves. In some reserves CCT resources are used for land, infrastructure development and partnerships (e.g. Cape Flats Nature Project); running costs and educational activities are to be funded from elsewhere through these partnerships.
11. Training initiatives are not aligned with the NQF (National Qualifications Framework); unless addressed this may contribute to environmental training being widely perceived as of marginal importance.



Compliance with increasingly stringent legislation is difficult



3. The Perspective of External Partners

Some 32 non-governmental and community-based organisations and government agencies involved in environmental education in Cape Town were consulted (see Appendix 3a). Appendix 3b summarises the views put forward by these parties, as to what they believe the CCT should do with regards to environmental education.

The strategic considerations arising from external parties' views include:

1. The need for **the CCT to take a leading and supportive role** in environmental education. In this regard it should be noted that environmental education among Cape Town NGOs, particularly those working with schools, is generally fragmented and at times characterised by a lack of cooperation, limited leadership from the WCED, and fears of, on the one hand, being dominated and, on the other hand, being 'left out'. In this context the CCT has succeeded in providing some coordination and leadership and to foster numerous partnerships – a considerable feat and a strength to build on.
2. Environmental education **partnerships with the CCT are valued**, but in some cases partners feel co-opted to lend educational legitimacy to projects aimed more at marketing of the CCT.
3. The CCT is not necessarily to provide resources, but to **help partners access resources** (including funding and information); therefore to support information dissemination and networking.
4. Recommended **partnership with WCED** and the National Environmental Education Programme, which is under-resourced for implementation; lobby for environmental education in the school curricula and **provide information** to support schools in implementing it.
5. The **continuation of initiatives** such as the Environmental Resource Directory for the City of Cape Town, Youth Environmental School and State of the Environment (SoE) project.
6. Conducting **research**, building a **knowledge base** and providing educators with **information on 'how the city works'** (ecologically, economically, politically, logistically) and how it is managed by the CCT (SoE links here).
7. Provision of **'action tools'** for responding to environmental issues.
8. **Best practice guidelines at household level**, and incentives to consumers who use environmental resources frugally.
9. Bridging environmental issues associated with affluence on the one hand and issues associated with poverty on the other hand, without juxtaposing **environment and development** issues as if they are mutually exclusive.
10. Better **resource and support the CCT's environmental education facilities**, including adequate and secure posts, particularly at the nature reserves and the corporate environmental education function; and generally, the suggestion of "a substantial environmental education budget for the City".
 11. Being **accessible** to the public; give information on 'who is who' & 'where to go'.
 12. Committing the City to 'look towards its own first' – through environmental **education for City staff** and councillors; such education should work towards more committed, informed and better coordinated management of Cape Town's environment, as well as better 'hard planning' decisions and an engagement with concepts such as sustainability, e.g. in relation to resource use, privatisation of local government functions / public resources.
 13. Providing structured programmes to build environmental **capacity among City officials**, and lobbying for an environmental component in the technician and university training of those who may eventually work for the City (e.g. engineers).
 14. Developing **indicators** of success and **benchmarks** for environmental education (e.g. in relation to the associated economic benefit of environmental education).

Appendix 3 list suggestions from external parties more fully. The above is a selection, based on the perceived relevance to strategic planning.

These suggestions, and the internal situational analysis, form the basis on which the strategic goals and objectives, principles and strategic approach outlined in the next sections, have been formulated.

STRATEGIC GOALS & OBJECTIVES



The Strategic Goals for environmental education and training in the CCT are to achieve the following outcomes:

- i. The citizens of Cape Town are environmentally aware and able to take collective responsibility for the environment.**
- ii. CCT staff are competent in environmental matters pertaining to their responsibilities.**

Clarifying these goals are the following recommendations or principles¹:

The CCT should, through environmental education and training, develop public and in-house awareness that would enable

- **action**
- **active participation,**
- **shared responsibility and**
- **ownership**

in environmental matters.

Furthermore, education and training related to environmental legislation would not merely aim to ensure compliance, but also encourage people to work within the spirit of the law.

The strategy thus refers to both education and training, and to both the public of Cape Town (in which CCT staff are included) and CCT staff. Staff refers to CCT employees at all levels – Councillors, workers, line managers, establishment managers, senior managers, planners and decision-makers.

¹ For other guiding principles, see Terminology & Principles.

Strategic Objectives

To achieve the CCT's Strategic Goals for environmental education and training, the following Strategic Objectives should be adopted:¹

1. Develop performance criteria based on a common understanding of environmental education and training as distinct from other communication processes, for staff with environmental education and training responsibilities (KPA's / job descriptions). This should include managerial staff.
2. Provide systems and resources for environmental education and training as specific functions within the CCT, and as components of line functions; this includes staff and budgetary provisions as well as inclusion in the Organisational Performance Management System (OPMS).
3. Include environmental awareness in induction and refresher programmes to ensure that all CCT staff, new and existing, are aware of the City's general and specific environmental responsibilities and management processes
4. Ensure that all Councillors and senior managers are aware of the City's environmental responsibilities, environmental management processes and programmes.
5. Provide customised environmental (including heritage management) training programmes to CCT workers and managers, based on a needs analysis and relevance to their functions, and ensuring that managers understand the relevance and implementation requirements of such training.
6. Seek NQF accreditation and utilise the Skills Levy for staff environmental training, and for staff development in environmental education and training.
7. Develop and resource the environmental education and training implications of IMEP's sectoral strategies.
8. Develop and resource the CCT nature reserves as key implementation sites for environmental education and, where relevant, training.
9. Make available accessible, high quality information on the Cape Town environment and associated issues, and CCT's environmental management practices, to the public and educational agencies.
10. Align environmental programmes for schools with Curriculum 2005 and explore partnerships with the Western Cape and national Education Department.
11. Provide environmental education and training programmes for persons involved in environmental and heritage resource management and ensure their quality by
 - 11.1. providing adequate staff and other resources
 - 11.2. developing or accessing locally relevant teaching and training materials
 - 11.3. drawing on internationally-recognised and locally relevant principles
 - 11.4. learning from internal and external initiatives whose educational value has been proven
 - 11.5. encouraging relevant professional development for responsible staff
 - 11.6. monitoring the quality of environmental education and training, particularly in train-the-trainer programmes and flexible staffing arrangements; in this regard design a generic monitoring and evaluation tool (also see below)
 - 11.7. developing criteria for evaluating environmental education and training programmes and projects and regularly evaluating programmes accordingly, and
 - 11.8. supporting inexperienced staff.
12. Improve efficiency and effectiveness of the CCT's environmental education and training programmes through:
 - 12.1. goal-directed environmental education and training programmes, within this strategic framework
 - 12.2. focussing where the effort will be most effective (rather than the easiest)
 - 12.3. researching the outcomes (effectiveness) of educational programmes
 - 12.4. supporting links between environmental education and training functions and functions such as environmental health, pollution control, fire and life safety.

¹Goals refer to the outputs and effectiveness, what we want to achieve, and objectives refer to how best to achieve those outputs, and efficiency.



13. Set up processes for communication towards coordination, the sharing of resources, lessons learnt and 'best practice' among those conducting environmental education and training in the CCT, and support parties involved in environmental education and training outside the CCT, with the same. A relevant tool here would be a database of CCT environmental education and training initiatives, that would facilitate better coordination and collaboration within CCT departments and regions, and between CCT and external parties; such a database would give an overview of where current emphases and gaps are; could open up opportunities for individuals and other agencies to work

with the CCT; facilitate liaison with project leaders and the sharing of resources; and would encourage project leaders to consider existing initiatives and guidelines for environmental education and training in the organisation. The database should include the following items related to the project or programme:

- name, leader(s) and contact details
- aims and focus groups (who the project/programme is intended for)
- scope (regional and otherwise)
- partners and their roles
- educational or training materials used
- monitoring and/or evaluation mechanisms.

STRATEGIC APPROACH



A further set of considerations in the development and implementation of environmental education and training programmes in the CCT, is the following recommended strategic approach:

1. Focus

While it may be valuable to use every available opportunity, planned and unplanned, for environmental education and training, this approach holds the risk of losing focus, quality and effectiveness. This is especially the case when staff are under-qualified or over-stretched. A 'shot-gun' approach may keep staff very busy and use up resources, but achieve very little other than promotional marketing opportunities, and if programmes are of doubtful quality, these too will lose impact.

This Strategic Framework is an attempt to provide guidelines by which the CCT can choose and develop focussed, output-driven programmes, rather than react to every opportunity that comes along.

Several CCT staff called for research into the effectiveness of existing environmental educational programmes. Such research should help to refine the focus of individual programmes and develop criteria by which the initiatives can be monitored and evaluated (see Monitoring & Evaluation, below).

2. Form Partnerships

The CCT currently has a well-functioning partnership model for its environmental education initiatives. It has done exceptionally well in building several positive and active partnerships with donors, NGOs, other government agencies, etc. This enables the City to support many environmental education initiatives and some training initiatives, with a relatively small staff contingent and budget allocations. The model should be continued, and introduced to less experienced staff members.

Partnerships within the CCT:

A concern among many CCT staff is a lack of cooperation between City departments and directorates, in matters pertaining to the environment. In-house partnerships should be encouraged, and while cooperation and sharing often requires more a frame of mind and way of work rather than a particular function or structure, the situational analysis pointed to the value of putting in place specific systems and even structures or processes to achieve the strategic value of internal collaboration.

WCED and NGOs that work with schools and teachers:

The environmental education of the youth is an investment towards the 2020 IMEP vision of an environmentally educated public. While formal education is a central and provincial government competence, there is limited environmental capacity in the national and provincial education departments. The CCT should attempt to form and maintain partnerships with the WCED and NGOs who work with schools, to ensure that learners are educated about the local environment, environmental management, and government and civil society's mutual responsibilities in this regard. This can take the form of information about the city environment and environmental management processes (as currently provided in the SoE project, the Youth Environmental School, and education initiatives in catchment management), and opportunities to see the City's environmental management processes in action (e.g. waste water treatment works, solid waste facilities such as the Athlone Waste Transfer Depot).

Other Educational Agencies:

An increasing number of university and technikon departments are providing environmental programmes; they also train many of the future employees of the City; and are therefore valuable partners to the CCT in environmental education and training. The Catchment Management and Local Agenda 21 training initiatives have e.g. set up partnerships with tertiary institutions.

Funding Agencies:

A few City administrations (in the administration-based system) have had considerable local and international funding support in the past years, and may continue to benefit from such partnerships in the period following the World Summit on Sustainable Development. The City should maximise the benefit of such partnerships by continuing its active involvement in environmental education and training, but should also consider the following:

- setting criteria for partnerships, e.g. ensure that funding

partners do not dictate agendas and terms which counter those of the CCT

- taking an active role in determining the kinds of initiatives that should be funded, e.g. by asking donors to consider projects to support programmes that fit into the City's Strategy for Environmental education and training
- sharing benefits across functional or regional units in the CCT.

Requirements for successful partnerships:

The factors behind the CCT's successful partnership model includes

- dedicated staff who make an effort to keep abreast of developments in the field (courses, conferences)
- the quality of some existing initiatives, and
- the availability of funding, often one of the City's main inputs into partnerships.

3. Influence and Inform

Rather than to try and be the one environmental education agency in the city, or to form partnerships with every other education and training agency, the CCT should strive to influence and inform those educational agencies which reach large numbers or significant groups of learners, influence them to include environment in their programmes, and provide them where possible with information and support.

Influencing the curricula of those institutions which educate future City employees (technikons, universities) would be a sound strategic decision. Relevant university and technikon departments which still fail to offer environmental programmes (including teacher education, engineering and environmental health departments and faculties) should be encouraged and supported to do so.

4. Internal Collaboration (Share Experience, Resources, Best Practice)

This was introduced in relation to partnerships within the CCT above, but worth repeating. There is also a particular need to strategise across directorates with environmental functions, on the one hand (e.g. Community Services, Planning) and directorates with training functions (Human Resources, Shared Services).



Environmental programmes in educational institutions should be supported and encouraged.



1. Which functional focus areas should consider this strategy?

It is recommended that the above Strategic Goals and Objectives be considered as the basis for environmental education and training programmes in each of the following functional focus areas:

Community Services

- Nature Conservation
- Parks, Open Space and Nature Reserve Management
- Emergency Services:
- Fire Services
- Disaster Management

- Health Services
- Air Pollution Control
- Environmental Health

Development

- Planning and Environment
- Environmental Management
- Integrated Environmental Management (IEM)
- Environmental Management Systems (EMS)
- Heritage Resources Management
- Transport, Roads and Stormwater
- Catchment, Stormwater and River Management
- Energy Provision
- Economic Development and Tourism
- Tourism Development

Trading Services

- Solid Waste Management
- Hazardous Waste Management
- Water Services including Water Demand Management and Waste Water

Internal Audit

- Risk Management and Environment

General

- General Environmental Awareness & Capacity: CCT Councillors & Staff
- Environmental Education: Broader Public including Youth

2. What does the CCT need in order to implement this strategy?

- processes to determine the relevance of the Strategic Objectives to a particular focus area, and a person to lead such processes within the focus area
- coordinating mechanism across functional areas, and across levels within functional areas (e.g. corporate, regional and district levels)
- integration into the Organisational Performance Management System
- budget allocations for environmental education and training programmes
- staff allocations, including (with potential overlaps):
 - designated staff for environmental education implementation
 - designated staff for environmental training implementation
 - designated staff for the coordination of environmental education and training and a designated function to ensure the evaluation of projects and programmes and the sharing of expertise, exemplars and resources across functional areas and levels, at either corporate or service unit levels
 - designated staff to develop and guide the education & training components of IMEP, and their evaluation.

Where environmental education and training functions are outsourced, there should be measures to ensure that capacity is simultaneously built within the organisation.

3. How to Implement the Strategy

3.1 Establish an Environmental Education and Training Coordinating Committee

This Committee would have the following functions:

- ensuring the development of relevant environmental education and training programmes, guided by this strategic framework, in the functional focus areas listed above; this would include -
- conducting an audit of training initiatives in the City, including facilities, resources and methods used, and available evaluations
- developing a database for the CCT's environmental education and training initiatives, listing aims, project leaders, partners, scope, resources, evaluation
- facilitating and informing the development of the

- environmental education and training components of IMEP's sectoral strategies
- implementing systems to coordinate environmental education and training events and initiatives
- facilitating the sharing of environmental education and training expertise, exemplars of best practice and resources across functional areas, and across levels within functional areas (e.g. corporate, regional and district levels)
- developing indicators for successful environmental education and training programmes and projects
- ensuring the integration of environmental education and training into the CCT's Operational Performance Management System (OPMS)
- lobbying for adequate staff and budget allocations for environmental education and training
- supporting and guiding staff responsible for environmental education and training, particularly inexperienced staff
- exploring how structures such as the Shared Services Directorate, other corporate units and development & training units within non-corporate directorates can assist line functions with environmental education and training
- initiating and guiding the evaluation of CCT environmental education and training programmes, e.g. by developing a monitoring and evaluation tool.

In order to fulfil these functions adequately, the Environmental Education and Training Coordinating Committee (EE&T-CC) requires:

- visible and tangible top management support and strong leadership
- expertise or access to expertise in environmental education and training
- representation or at least recognition across administrative, functional and regional units throughout the CCT; for example, the committee should not be exclusively associated with Environmental Management
- recognition of the importance of the coordinating role in committee members' Key Performance Areas and adequate time allocation; the above functions will not be addressed if members are not allocated the necessary time, and receive managerial recognition, for contributing to this committee's work
- agreement on tasks and time lines and regular review of these
- opportunities to advise on budget and staff allocations for environmental education and training
- the power to advise against haphazard, inappropriate and poor quality environmental education and training initiatives
- a budget to support certain functions, e.g. research and

evaluation

- to be consulted in the organisation on matters regarding environmental education and training.

3.2 Directorates Review the Environmental Education and Training Strategy

The Coordinating Committee should work with a designated person in each directorate indicated in the functional focus areas listed above, to develop a mechanism, adequately supported with staff and staff time, for considering the Strategic Goals and Objectives in those functional areas. (Examples would be a short-term task team or once-off workshop.) The findings – which Strategic Goals and Objectives are relevant to which departments – should be communicated to Departmental Heads.

3.3 Departments Develop Corresponding Environmental Education and Training Programmes

In those functional areas where it is then considered relevant, the Coordinating Committee should work with department heads to appoint departmental task teams. These task teams, with support from the EE&T-CC, should develop programmes and monitoring mechanisms for that functional area, based on this strategic framework and the aims and operations of the particular functional area. These task teams should also identify requirements (staff, job descriptions, staff time, budgets, etc.) for implementing and monitoring these programmes, and advise relevant units accordingly.

The EE&T-CC should work with department heads to:

- facilitate and inform the development of programmes and base them on environmental education and training principles outlined in this Strategy
- acquire and allocate the necessary resources for implementation and monitoring
- seek assistance from other directorates and departments.



Acquire and allocate the necessary resources for implementation and monitoring.





Guidelines to Directorate-level Task Teams

1. Study the section on Terminology and Principles and discuss them with the EE&T-CC
2. Examine the Strategic Goals and Objectives and consider if and how they relate to the functional areas represented in your Directorate
3. If you see a need to change or add to the Goals and Objectives for environmental education and training, do so. This is a 'living' and open-ended document and should not be regarded as final. Advise the EE&T-CC of the changes, so that they can be communicated.
4. Advise the departmental heads/senior managers in those functional areas where environmental education and training goals and objectives apply, to set up departmental task teams. Such task teams should have expertise in both line operations, and environmental education and training. (There may need to be separate task teams for education & training respectively.) If the expertise in one or more areas is provided by consultants, in-house staff should be designated to team up with them.
5. Support and periodically monitor the implementation of the programmes once they have been developed.

Guidelines to Department-level Task Teams

1. Review the Strategic Goals and Objectives for Environmental Education and Training in relation to your functional area(s).
2. Considering the aims and available resources of your functional area(s), and against the background of Terminology and Principles and Strategic Approach in this framework, develop education & training programmes to achieve the intended outputs; seek the assistance of the EE&T-CC in the process.
3. Develop indicators and timeframes for the programmes, as well as monitoring and evaluation mechanisms.
4. Indicate who should be responsible for implementing the programmes, and what resources would be required (staff, funds, materials, etc); lobby for the necessary resources.
5. Communicate the programmes to senior management and the EE&T-CC, and initiate their implementation.

MONITORING AND EVALUATION



Indicators of progress should be developed for environmental education and training programmes in each of the functional areas, to determine whether the Strategic Objectives are being met. Task teams appointed in functional areas (see Implementation) should develop indicators for monitoring as part of their task. At the same time, the EE&T-CC should put in place organisation-wide monitoring and evaluation mechanisms to monitor the overall success of the Strategy, and make adjustments where necessary, in what should amount to an ongoing organisational strategic development process.

Monitoring and Evaluation

The following is an example of indicators developed for the first Strategic Objective proposed above:

| STRATEGIC OBJECTIVES | INDICATORS |
|--|--|
| Develop performance criteria (and/or job descriptions) based on a common understanding of environmental education and training as distinct from other communications processes, for staff with EE&T responsibilities | <ol style="list-style-type: none"> 1. EE KPAs are in place for all staff with environmental education responsibilities 2. ET KPAs are in place for all staff with environmental training responsibilities 3. Job descriptions for environmental training staff are in place 4. Job descriptions for environmental education staff are in place 5. Job descriptions for environmental communications staff are in place 6. Affected staff and their managers are informed of the new or revised KPAs and job descriptions |

Monitoring strategies help staff and their managers with the management of environmental education and training tasks, thus ensuring that objectives are addressed and met on time. Monitoring is often associated with a time schedule, and it is wise to include such schedules in the development

of programmes. Monitoring may also have a qualitative dimension, similar to formative evaluations of, for example, training sessions and materials. Here is an example of a monitoring mechanism for a 6-month training programme:

| OBJECTIVE | PROGRAMME | SCHEDULE | MONITORING STRATEGY |
|---|--|--|--|
| Develop customised EE&T programmes for CCT workers and managers, relevant to their functions. | Introduction to community environmental education methods; aimed at 50% of all environmental health, building control and OH safety officers | One 2-hour training session once a month for 6 months: 21 Jan 19 Feb etc etc 17 June. | <ul style="list-style-type: none"> • Record each session and number of attendants from each line function • Once-off HR check on quality of materials • Trainees' feedback after each session • 2-monthly assessment of learning • 3-monthly interview with line managers |

Evaluation usually involves more over-arching processes to determine the value of initiatives. Evaluations can involve detailed paid reviews and general public reviews, but need not be formal, expensive or time-consuming. They can be conducted in-house by the staff involved in programmes, by external evaluators or (ideally) by a combination of staff and external evaluators. In longer-term initiatives (e.g. a nature reserve's overall educational programme) it is wise to conduct formative (periodic or ongoing) evaluations to maintain and improve the value of programmes. Short-term initiatives should be evaluated on completion, to make informed decisions on whether to repeat them. Monitoring data can be used in evaluations, but an evaluation would also look more broadly and deeply.

Various features of environmental education and training programmes may be relevant to evaluate. Examples are the quality of resource materials, the suitability of trainers, the appropriateness of content, efficiency of delivery, and so on.

Effectiveness has been identified as one of the main concerns in relation to the City's environmental education activities. Do we know whether we are actually achieving our goals through educational activities? Are we reaching the right people? Are we making any difference? Are we perhaps overloading and saturating people? These are some of the questions educators are concerned about, and it is notoriously difficult to evaluate especially the longer-term outcomes of educational processes. Trainers may have more immediate and tangible objectives,



and it might be easier to assess whether staff are implementing environmental management tools in the workplace. But such evaluation processes are not as yet widely in operation.

Proposed Strategic Objective No.11 suggests that the CCT: **Ensure a high quality in all the CCT's EE&T programmes, by inter alia**

- researching the outcomes (effectiveness) of educational programmes towards developing criteria for evaluating EE&T programmes
- regularly evaluating programmes accordingly.

It is recommended that the CCT consider research to develop an evaluation design for environmental education and training programmes. Once this design is in place, staff themselves (with external assistance when necessary) can evaluate their work on a sustained basis.

Performance Assessment is an increasingly important form of evaluation in organisations. Staff (particularly managers with comprehensive responsibilities) are evaluated against

agreed-upon criteria which reflect what is required of them, which in turn reflects what the organisation regards as vital outputs.

Managers as well as more junior staff are greatly pressured by performance management systems and as a result, tend to focus only on those outputs which will be assessed. *This means that unless a particular responsibility (e.g. implementing an EMP, environmental training, or coordinating environmental education among colleagues) is actually reflected in the Organisational Performance Management System, it will be neglected.*

Evaluations contribute to an OPMS through the collection and documentation of evidence of the value of programmes. Evaluations make staff more able to reflect their work to managers; managers find it easier to assess and reflect performance in their functional areas; and the City as an organisation can in turn reflect its collective achievements to important audiences such as donors, voters, and other governmental bodies.



Evaluations contribute to an OPMS through the collection of evidence of the value of programmes.



APPENDIX I

Strategy Development Process

SUMMARY

Organisational strategy development is an ongoing process. In the case of the CCT Environmental Education and Training Strategy, the process was initiated in October 2001, and so far consisted of the following broad and overlapping steps (details at the end of this Appendix):

Table 1.1: Summary of Strategy Development Process

| ACTIVITY | PURPOSE | HOW & WHEN |
|---|--|--|
| Internal situational analysis | To map out the organisational structure and existing environmental education and training activities, and to identify related issues, concerns, assets and potentials | Internal workshop, 6 Nov 2001; Questionnaire survey (see below), Nov 2001; Interviews (personal and telephonic), Dec 2001 – June 2002 |
| External situational analysis | To gain an overview of environmental education activities among partners and potential partners; to consult them on directions they believe the CCT should take regarding environmental education and training; and to identify potential partnerships | Two workshops, 19 & 21 Feb 2002 Questionnaire survey, Feb – March 2002 See Detail of External Consultation, below |
| Data analysis and drafting of strategy elements | To map out possible strategic directions and gather inputs from CCT staff | Two internal workshops, 18 March and 9 May 2002; Internal e-mail circulation of minutes, proposed strategy elements and document drafts (March – June 2002) |
| Submission of Draft Strategy to Senior Management | To gain permission to circulate Draft Strategy more widely, for further development | Item submitted to Portfolio Committee and comments incorporated after extension of the situational analysis (November 2002) |
| Public and stakeholder comment and review | Eliciting public and stakeholder comment and incorporating them in the Strategy | Process advertised and document circulated Dec 2002 – Feb 2003; comments attended to in June 2003 |
| Presentation to SADC EE practitioners | Sharing ideas for 'best practice' and inviting comment from practitioners in the field, both locally and internationally | Dec 2002, DEA&T National EE Strategy workshop, Howick; June 2003, EEASA conference, Windhoek |
| Internal review of Revised Draft Strategy | CCT staff to review changes made after public and stakeholder comment. | Internal e-mail circulation, telephonic and face to face discussions, July – August 2003 |
| Submission of Item to: • Section 80 Committees • Mayoral Committee • Council | For adoption by: • Planning and Environment and Health, Amenities and Sport Section 80 Committees • Mayoral Committee (Mayco) • Council | Adopted with Coastal and Biodiversity Strategies: • 2 October 2003 • 14 October 2003 • 29 October 2003 |

QUESTIONNAIRE FOR INTERNAL SITUATIONAL ANALYSIS

Each unit represented at the workshop should come prepared to give a brief overview of their work (5 mins max), using questions 2-7 in the questionnaire below as a guide. We will have time for only one presentation per unit/section/centre.

The details should be captured in the questionnaire which should be completed beforehand and handed in at the workshop. This will help the consultant to capture the information which you do not have time to present at the workshop, and to use your information in the Strategy Development Process. Each individual to please complete a separate questionnaire.

QUESTIONNAIRE FOR THE ORGANISATIONAL MAP

The City of Cape Town has set out to develop an environmental education strategy for the organisation itself. One of the early steps in this process is to map out exactly what environmental education activities the organisation is involved in, and what the associated opportunities & problems are. To help draw this map, please provide the following information in hard copy, at the workshop of 6 Nov:

(Note – Not all questions are equally appropriate to everyone – just ignore those questions which do not apply to you.)

1. Your name

2. Where do you fit in the organisation?

(where you are based, the unit you work in, and a brief description of the job you do)

3. What environmental education activities are you involved in or do you manage/inform/support/contribute to? (Please be comprehensive.)

4. What resources do you have for environmental education? (for example budget, staff, qualifications, a centre, reserve, etc)

5. What are your intentions with environmental education? I.e. what do you aim to achieve through environmental education? Or, what do you think the City of Cape Town SHOULD achieve through environmental education?

6. What problems do you experience in relation to environmental education? (Feel free to list as many as come to mind, but try to be clear enough so that an outsider can follow what you mean. There will also be an opportunity to discuss problems in confidential interviews.)

7. In your opinion, what opportunities are there for environmental education, that the City of Cape Town should try to respond to?

8. Do you work with any partners, inside or outside the organisation? Please list them and name a contact person for each external agency, so that we can invite them to an external consultation workshop.

DETAILS OF EXTERNAL CONSULTATION

To conduct an external review and consultation the CCT invited a comprehensive list of non-governmental organisations (NGOs), community-based organisations (CBOs), provincial government and para-statal bodies involved in environmental education in and near Cape Town, to attend one of two workshops, or to submit questionnaire inputs into the process.

1. Participants were given the following background:

The City of Cape Town (CCT) has set out to develop an Environmental Education Strategy for the organisation itself, that may eventually also be useful to other local government bodies.

The CCT is involved in a number of environmental education activities, but cannot address all needs or fill all niches. Its Strategy must therefore take note of the aims, needs and focus areas of the many other governmental, non-governmental and community-based agencies that conduct environmental education activities in Cape Town. The City also needs to inform fellow environmental educators about its Strategy, so as to foster collaboration.

To achieve these two goals, a representative of your agency is invited to attend one of two workshops, at Durbanville Nature Reserve (on 19 February) or at Zeekoevlei Nature Reserve (on 21 February). Those who are unable to attend, are requested to kindly provide written information on their activities and perspectives.





2. Questionnaire:

All respondents are requested for written information on the following:

- The environmental education aims of the organisation (or department)
- What environmental education activities you conduct in Cape Town
- Whether you are currently working in partnership with the CCT, or have any suggestions for partnerships with the organisation
- Your views on what the CCT should do with regards to environmental education (incl. problems, needs and opportunities).

3. In the workshops:

Participants' questionnaire data was collected and they were asked more specifically for recommendations to the CCT in regard to its Environmental Education Strategy. This was done by probing what they perceived as related issues, needs and opportunities. The findings were summarised and circulated back to all respondents.

DETAILS OF STRATEGY DEVELOPMENT PROCESS

- First meeting in July 2001, with Lindie Buirski, Keith Wiseman & Gregg Oelofse of CMC Administration, Environmental Management Dept, who commissioned the development of the strategy as part of IMEP.
- Following this meeting, an EE Strategy Item was drafted, drawing on the Draft National Environmental Education Strategy developed by the Dept of Environmental Affairs & Tourism. It included a schedule for the project. It was submitted to the Directorate of Planning, Environment & Housing's Portfolio Committee where it was accepted without amendment.
- First workshop for internal consultation held on 6 November 2001. Prior to the meeting an agenda was circulated, with a brief for short presentations and a questionnaire to complete. Those unable to attend the workshop were also asked to complete the questionnaire, to gather data for the internal situational analysis (Appendix 2).
- Visit to Rondevlei Nature Reserve Education Centre, interview with Vibeke Kragh, December 2001
- Visit air pollution control sites and interview with David Oliver of Air Pollution Control, Parow, December 2001

- Visit to Kristo Pienaar Education Centre, Tygerberg Nature Reserve, December 2001
- Visit to Health Resource Centre, Parow, December 2001
- Interview with Osman Asmal, Environmental Planning Coordinator, Tygerberg Administration, December 2001
- Interview with Monwabisi Booi, Energy Officer, Tygerberg Administration, December 2001
- Analysis of internal data, December – January 2001
- Workshops for External Review & Consultation, 19 & 21 February 2002, at Durbanville and Zeekoevlei Environmental Education Centres respectively.
- Collecting & analysis of questionnaires for External Review & Consultation, February 2002.
- Interview with Gregg Oelofse, CMC EMD, 4 March 2002.
- Interview with Randall Adriaans, CMC Catchment Management, 4 March 2002
- Interview with Charlotte van Wyk, Waste Wise Campaign, 4 March 2002
- Second internal workshop, to review data and develop Strategic Goals, 18 March 2002
- Brief discussion with Stephen Granger, CMC EMD, 18 March 2002
- Interview with Greg McCulloch, Environmental Management Systems, CMC EMD, 20 March 2002
- Second interview with Osman Asmal, Environmental Coordinator for Tygerberg Administration, April 2002
- Interview with Dean Ferreira, SPM Nature Conservation, 3 April 2002
- Interview with Eddie Schutte, Corporate Development, 5 April 2002
- Interview with Grace Stead, LA21 Tygerberg Administration, 5 April 2002
- Attendance of meeting to discuss the City's input into WSSD via local projects
- Telephonic interview with Crispin Swart, CMC Training, 16 April 2002
- Meeting with Lindie Buirski, CMC EMD, to discuss Strategy options
- Third internal workshop to review Strategic Goals; develop Objectives and agree on the process from here; a decision is taken for the consultant to complete the draft strategy for comment
- Telephonic interview with Eben Kotze, Internal Auditing Services, CMC
- Telephonic Interview with Tania Katschner, Integrated Environmental Management, CMC
- Draft Strategy circulated internally to participants in the process (June 2002)
- Comment on Draft Strategy incorporated; revised Draft printed and submitted to Portfolio Committee (25 November 2002)
- Portfolio Committee's comment followed up by consulting City staff at Harmony Flats Nature Reserve (Tracy Sampson, 26 November 2002) and members of Cape Flats Nature Project, Tanya Goldman (Project Manager employed by National Botanical Institute) and Xola Mfeke (Communications Manager), (27 November 2002)
- Advertisement seeking public and stakeholder comment on the Draft Strategy, and circulation of the document, Dec 2002 – Feb 2003
- Compilation of public and stakeholder comment and attendance to comments (May 2003); Revision of Draft Strategy (17 June 2003)
- Internal circulation of Revised Draft; incorporating revisions and additions, including Heritage Education component, requested by various internal parties (July - August 2003).



APPENDIX 2

Internal Situational Analysis

APPENDIX 2A: PARTICIPANTS IN THE INTERNAL ANALYSIS

To conduct an internal situational analysis the Environmental Management Department (EMD) of the CMC Administration invited a wide range of directorates and departments to participate in the strategy development process. Respondents were supplied with questionnaires (see Appendix 1) and invited to a workshop. Follow-up interviews were conducted; these included participants who had not attended workshops or submitted questionnaires. It is impossible to include all employees of an organisation of this size in a strategy development process, but efforts were made to invite all who could be considered active stakeholders. The process also had to rely on the willingness and availability of staff to participate, as it was voluntary. The following CCT staff participated in the process thus far:

| NAME OF PARTICIPANT | DEPARTMENT & ADMINISTRATION |
|--|---|
| 1. Stephen Granger - Head of Env Management | EMD, Environment & Planning, CMC Admin |
| 2. Keith Wiseman - Manager, Policy and Review | EMD, Environment & Planning, CMC Admin |
| 3. Gregg Oelofse -Policy & Research coordinator | EMD, Environment & Planning, CMC Admin |
| 4. Lindie Buirski – Env Education Officer | EMD, Environment & Planning, CMC Admin |
| 5. Steyn Marais – Manager Tygerberg & Durbanville Nature Reserves | Nature Reserve Management, Tygerberg Admin |
| 6. Hestelle Melville – EE Officer | Kristo Pienaar EE Centre, Tygerberg Nature Reserve |
| 7. The late Mike Woods – past Chairman, The Friends of Helderberg | Helderberg EE Centre, Helderberg (private individual) |
| 8. Andreas Groenewalt – EE Officer | Helderberg EE Centre, Helderberg Nature Reserve |
| 9. Ian Gildenhuys - Area Manager | Environmental Health, SP Admin |
| 10. Charlotte van Wyk – Co-ordinator, Waste Wise Campaign | Waste Management, Trade Services, CMC Admin |
| 11. Dalton Gibbs – Manager, Rondevlei & Zeekoevlei Nature Reserves | Nature Reserve Management, SP Admin |
| 12. Vibeke Kragh – EE Officer | Rondevlei EE Centre, SP Admin |
| 13. Beven Lill - Project Manager | Zeekoevlei EE Centre, SP Admin |
| 14. Dean Ferreira – Manager | Nature Reserve Management, SP Admin |
| 15. David Olivier – EE Officer | Air Pollution Control, CMC Admin |
| 16. Esmare van Tonder, Community projects | Cape Metro Tourism, CMC Admin |
| 17. Shaun D.Smith - Manager | Fire & Rescue Service, SP Admin |
| 18. Frank Forbay – EE Officer | Fire & Rescue Service, SP Admin |
| 19. Randall Adriaans – Education & Liaison officer | Catchment Management, CMC Admin |
| 20. Johan Minnie – Education Officer | Disaster Management, CMC Admin |
| 21. Osman Asmal – Coordinator | Environment & Planning, Tygerberg Admin |
| 22. Monwabisi Booi - Education Officer | Environment & Planning, Tygerberg Admin |

| NAME OF PARTICIPANT | DEPARTMENT & ADMINISTRATION |
|---|---|
| 23. Grace Stead - LA21 Education & Training | Environment & Planning, Tygerberg Admin |
| 24. Clive James – Head of Env Management | Environment & Planning, Cape Town Admin |
| 25. Greg McCulloch - IEM Strategy | EMD, Environment & Planning, CMC Admin |
| 26. Helen Davies - Biodiversity Strategy | EMD, Environment & Planning, CMC Admin |
| 27. Tania Katschner - IEM Strategy | EMD, Environment & Planning, CMC Admin |
| 28. Craig Haskins, Special Projects Researcher | EMD, Environment & Planning, CMC Admin |
| 29. Hlubikazi Matshili, Safety Officer (Waste Management & Waste Water Treatment) | Occupational Health & Safety, CMC Admin |
| 30. Crispin Swart | Training, HR, CMC Admin |
| 31. Eddie Schutte | Organisational Development, Tygerberg |
| 32. Eben Kotze | Corporate Auditing Service, CMC Admin |
| 33. Tracy Sampson, Nature Conservator | Helderberg, Nature Conservation |
| 34. Tanya Goldman, Project Manager (employed by National Botanical Institute) | Cape Flats Nature Project |

APPENDIX 2B: INTERNAL SITUATIONAL ANALYSIS

A considerable number of environmental education-related activities take place in the CCT, at diverse sites, in a range of departments and directorates, and in association with diverse local government functions. These activities are not formally documented or recorded in the organisation. For these and other reasons the following outline of activities is not entirely comprehensive, and those not well represented in this account should rectify the matter.

Environmental Education Activities – CCT Tygerberg Administration, Environmental Planning, Directorate Planning & Economic Development

The CCT's Tygerberg Administration has an Environmental Planning Coordinator in the Directorate of Planning & Economic Development who initiates and coordinates several wide-ranging environmental education and training projects and programmes.

These activities are 'internally' directed – Agenda 21 and general environmental awareness as well as specific environmental training for CCT employees (ranging from senior management to building control officers) – as well as externally directed, and include the following:

- competitions for school children in Khayalitsha and other areas, on sustainable energy (primary and secondary schools) in 2001
- schools programmes on waste management incl. arts, drama, road show, inter-school interactions, in 2000
- energy awareness programmes for Khayalitsha residents (making use of demonstration centre, study tours, video)
- Macassar Dunes project – education component
- Moddergatspruit Catchment Management project – education component
- household awareness & capacity-building programmes around Local Agenda 21
- once-off, cross-sectoral Local Agenda 21 training for 22 CCT staff from Tygerberg and other administrations, in e.g. Health, Roads, Environment
- internal training for building control staff to educate builders in informal settlements
- environmental awareness raising for senior officials, Councillors



The initiatives are made possible by the appointment of dedicated staff (e.g. an Energy Education Officer and LA21 officer); the co-option of CCT staff from other directorates (notably Sport & Recreation); and a range of funding sources and partnerships involving the European Union, governments of Germany, Denmark and the Netherlands, local companies such as Engen, Eskom and Woolworths, NGOs and CBOs including Abalimi Besekhaya; Masifundisane, SEED, the Environmental Monitoring Group and the Noordhoek Energy Development Group; other CCT Administrations (CMC on Waste Management) as well as SHAWCO and the Environmental Evaluation Unit of the University of Cape Town, which conducts the LA21 training. (The list is not exhaustive.)

What Works Well?

- the targeting of a broad range of focus groups (children/households/CCT staff)
- a senior coordinator actively involved in the development of education projects, raising funds and overseeing activities
- the partnership model, which inter alia makes adequate funding available
- the co-option of staff from other directorates
- staff dedicated to specific educational portfolios
- the hands-on, action orientation of household and staffing projects.

Issues and Further Opportunities

- the diversity and scale of projects without measures for quality control is an issue (e.g. accuracy of information not guaranteed, especially with flexible staffing arrangements)
- the sheer number of initiatives (city-wide) without a sense of their effect on target groups (could audiences become saturated?)
- activities are often directed by the availability of funds/donor agendas – a lack of strategic focus could become a problem
- continuity of programmes not guaranteed, particularly if funding base changes
- the need for consolidation – to share lessons learnt and structures, processes developed
- staff training (e.g. of building control officers) is not organisation-wide – networking, sharing is limited
- the difficulty of engaging senior CCT officials in awareness-raising activities
- different perspectives on what is appropriate EE – e.g. 'Live and Build Safe' programme in informal settlements seen by some as 'encouraging squatting'

- limitations of training not integrated into operations, e.g. workers trained in Local Agenda 21 principles returned to operational conditions which were not aligned with these principles
- lack of integration between IMEP and LA21 frameworks
- WSSD can be used as an opportunity to lobby for environmental education and better environmental management by local businesses
- the need for a dedicated person to push for environmental training.

Environmental Education Activities – CCT Cape Metropolitan Council (CMC) Administration, Environmental Management Department, Directorate Planning, Environment and Housing

The CMC Administration's Environmental Management Department (EMD) has an Environmental Education Officer. Posts for a Communications Officer and an Education, Communications and Liaison Manager have not been filled. The Education Officer handles a wide range of education and communication activities, in partnership with numerous internal and external parties. While educational support is given to other CCT staff (e.g. steering committees for MAC, nature reserves), its most prominent educational projects are with external partners.

The EMD is tasked with supporting the implementation of IMEP and several focus areas - Integrated Environmental Management (IEM), Environmental Management Systems (EMS), Biodiversity etc – are responsible for developing associated Strategies, including environmental education and training components. These focus areas are also involved in running or contributing to environmental education and training initiatives, mainly focussed in-house.

The Environmental Education Officer runs, coordinates or otherwise contributes to the following environmental education initiatives:

- Development of an EE Strategy for the City of Cape Town
- Environmental Resource Directory for Cape Town
- Annual Youth Environmental School (YES)
- Special Days: Wetlands Week, National Water Week,

- International Museum Day, World Environment Week, Arbour Week, National Marine Week
- Schools Environmental Policy & Management Packs for the Western Cape
- State of the Environment Schools Competition
- Cape Flats Floral Treasures Poster and Teachers' Guide
- Cheetah Challenge
- Volvo Ocean Adventure EE Programme
- Edutrain (Coordinate sponsorship and 10 day's programmes)
- Blaauwberg Conservation Area (assist in developing EE programme)
- Driftsands Nature Reserve (assist in developing EE programme)
- Local Agenda 21 (assist)
- Mess Action Campaign (Steering Committee)
- Ukuvuka Education/ Communication Task Team (assist)
- City of Cape Town's Environmental Quiz for High Schools (assist)

In addition, she runs or contributes to a number of communications functions, e.g. coordinating the Environmental Leaflet, an in-house newsletter for EMD staff, and assisting with IMEP and other EMD exhibitions and displays.

The environmental education projects often involve other groups in the CCT (e.g. CCT groups involved in environmental education participate in YES; the EMD produces the State of the Environment report; CMC's education officer assists various nature reserves with developing programmes) as well as numerous external partners. Among the latter are government groups (e.g. WCED, Dept of Water Affairs & Forestry, Provincial Administration of the Western Cape – Dept of Educational and Cultural Activities & Sports, Provincial Dept of Environmental Affairs & Tourism, Western Cape Nature Conservation), several NGOs (e.g. WESSA, Fairest Cape Association, Botanical Society of South Africa, WWF- SA) and local businesses (e.g. Old Mutual, MTN, Volvo). (The list is not exhaustive).

Other staff in the CMC EMD have contributed to the above environmental education initiatives, or initiated or run additional (mostly in-house) environmental education and training initiatives including:

- various training initiatives to introduce CMC employees on capital projects, and their contractors, to the requirements of and tools for IEM, including
- an IEM Integrated Management Team Forum, consisting of 16 senior managers from line departments in the CMC; meetings are held six-weekly and involve the

- drawing up of IEM guidelines, guest speakers, feedback and discussions on the difficulties of implementing IEM
- targeted initiatives, notably a once-off three-day Environmental Management Plan training programme for 3 x 15 employees involved at various levels in in-house construction projects; a tool handbook was developed and accompanies the EMP
- 'train the trainers' pilot projects on environmental awareness as a first step towards implementing Environmental Management Systems, for workers and middle management in two sectors (Hazardous Waste Management and Waste Water), with a consultant trainer and an Occupational Health and Safety Officer assisting with translation.

Funding partners include Sida and the US Environmental Protection Agency.

Environmental Education - What Works Well?

- a committed and competent staff member means that the department achieves a great deal with a limited staff budget
- collaborative partnerships – a significant achievement in an enterprise where territoriality and inefficiency often mitigate against effective collaboration
- the availability of funds to facilitate, e.g., partnership projects

Environmental Education - Issues and Further Opportunities

- a risk of burn-out as the education officer is overstretched
- an uneven balance between education and communication, with communication not part of the original job description of the education officer
- the lack of strategic direction/focus and clear boundaries/realistic KPA's
- limited evaluation of projects
- a new need for fund-raising, hitherto not needed
- given the staff:projects imbalance, a risk of drop in quality of programmes, resources, particularly if fund-raising activity has to increase

Environmental Training - What Works Well?

- IEM Forum with regular 'training' meetings which works across line functions such as Waste, Waste Water, Water Management and Transport, and allows for the establishment of relationships, and dealing with problems experienced in implementation.



Environmental Training - Issues and Further Opportunities

- the difficulty of convincing line managers to set aside time for environmental training
- risk audits revealing that a staggering 84% of risks remain uncovered, provide motivation for environmental training
- a growing demand for accreditation of in-house training among workers
- a need for coordinating many disparate training initiatives
- a need for greater organisational commitment to environmental training for staff
- IEM staff over-stretched between large number of projects requiring IEMs, with diverse technical advice needed, in addition to training for both in-house staff and contractors
- IEM programmes and training currently confined to CMC Administration
- in-house corporate Environmental Risk Audits strongly indicate need for training, particularly at management level – low level of compliance with risk management, as well as low levels of motivation at managerial level, to deal with low risk management scores
- “until management recognises the importance, workers will not receive adequate environmental training”
- a general perception that environmental management is in opposition to and separate from development; that it deals with green issues, litter and perhaps pollution; links to poverty and better quality of life are not recognised – an associated need for education in the organisation and outside
- some of the City’s environmental management facilities (e.g. waste water treatment works on Cape Flats, solid waste transfer stations at Athlone) are exemplary; using such sites for educational purposes would not only show ‘best practice’ at some of the City’s facilities, but would serve to conscientise city dwellers of their links to nature, and their own role in environmental problems
- engineers often experience tremendous difficulties to comply with increasingly stringent legislation, given the existing sometimes hazardous infrastructure they inherited; many are trying hard and there is little value in approaching them from an oppositional stance
- environmental training not part of line managers performance assessment
- following training, workers return to operations which do not recognise what they had been trained in (the same issue was identified in LA21 training)
- limited links to the City’s Integrated Development Plan (IDP).

Environmental Education Activities – CCT CMC Administration, Catchment Management, Directorate Development, Division Transport, Roads & Stormwater

The Directorate of Economic Development has a Catchment Management Department with a dedicated Education, Communications and Liaison Officer. A number of educational activities, particularly programme development and delivery, are conducted in partnership with a range of parties in- and outside the CCT. These partners include the Zeekoevlei EE Project, MTN Science Centre, Two Oceans Aquarium, the University of Stellenbosch (Schools Water Action Programme), University of Cape Town, Peninsula Technikon, WCED. Programmes include

- a formal module on Catchment Management taught at the Technikon
- an exhibit and a forthcoming mechanised puppet show on river catchment management, at the Two Oceans Aquarium
- Annual World Wetlands Day and National Water Week Programmes
- Education & Public Awareness programmes associated with river upgrade projects.

What Works Well?

- an effective partnership model
- the availability of funds to facilitate partnerships and educational projects
- the availability of an education, communication and liaison officer with adequate boundaries around tasks (e.g. between education and communication)
- professional development of education officer, relevant to educational focus

Issues and Further Opportunities

- a need for evaluation of projects and programmes and for research on the effectiveness of the environmental education activities.

Environmental Education Activities – Waste Wise, Directorate Trading Services – Solid Waste

The Waste Wise Campaign is a city-wide project situated in Trading Services. It involves a multi-pronged approach to waste management, with specific activities for Law Enforcement, Operations and Education, each with its own coordinator. Of the overall budget of R40 million, R8 million is available for waste education and capacity-building among CCT employees, industry and commerce, households, schools and broader community groups. There are also efforts to include a waste management programme to special events, which can serve play an educational role.

The implementing agency on behalf of CCT is the Fairest Cape Association, and in addition to an overall steering committee, the project is implemented on the ground by multi-stakeholder Project Implementation Teams.

What Works Well?

- appointed coordinators
- the partnership model (e.g. for an implementation agency)
- inter-disciplinary actions and teams
- multi-pronged approach to a focussed problem
- the perceived relevance of the issue to a range of target groups
- an evaluation programme in place
- quality control e.g. steering committee, feedback mechanisms
- publicity and an ample budget
- political support.

Issues and Further Opportunities

- CCT bureaucracy and difficult communication slow down project setting-up and management processes
- The threat of budget cuts and re-structuring.

Environmental Education Activities Associated With Air Pollution Control – CCT CMC Administration, Directorate Health Services

The directorate of Health Services' Air Pollution Control division conducts informal environmental education activities through an individual staff member (the supervisor of diesel vehicle emission testing) who receives support from management for this work, in terms of time, although it is not part of his formal job description or functions of the division. Educational activities take the form of invited talks and presentations to school and tertiary groups, by this individual and on occasion managers. Staff also interact with the broader public during community-local government forums.

The Unit also provides students, e.g. from tertiary institutions, with data for projects. This includes data from monthly reports compiled by the Air Quality Monitoring group under Scientific Services (a central function) which are sent to Air Pollution Control. In a sense, therefore, it has an important role of making up-to-date scientific information accessible and available to the learners and the broader public (interested and affected parties).

What Works Well?

- commitment of an individual staff member with an educational flair
- support in principle from management
- responsive to demand
- working partnership with Kristo Pienaar Education Centre at Tygerberg Nature Reserve, where talks on air pollution are included in more general (often geography-oriented) programmes for school groups.

Issues and Further Opportunities

- continuation and quality of programmes are at risk - no methodological training/review/renewal exists, no evaluation measures and no strategic framework or policy for this work
- locally appropriate materials are not in evidence and materials used to support talks are dated
- staff capacity for environmental education – no professional development, little other support (not core function)
- better links to new school curriculum present an opportunity for renewal; also strong potential links to State of the Environment Report & Competition
- only working reactively – no strategic planning/focus for EE



- the relative isolation of EE activities in the Air Pollution Control unit from other environmental management and educational activities – e.g. links to Agenda 21/ Energy/ Households programmes seem obvious but unexploited
- in this context of limited additional partnerships, funding and materials production collaboration with polluting industry (Caltex) may pose a risk.

Environmental Education - Environmental Health, Directorate of Health Services, South Peninsula Administration

Health Services has Environmental Health divisions in all administrations, some of which are involved in educational activities. This review has not been able to include the coordinator and focussed on the SP Administration.

Education related to environmental health can be labelled 'environmental education', as it deals with environmental factors related to personal and community health. These educational activities are on the most part still under-developed, as Environmental Health Officers (EHOs) and Assistant EHOs are in the early stages of training to expand their law enforcement role to include community support, which would including community education on (environmental) health related matters.

- Programmes are underway to develop staff capacity in EE, in partnership with the Environmental Health Department of the Provincial Administration Western Cape and CMC Environmental Health.
- Educational activities in the SPA Environmental Health Division focus on environmental factors (in both the built and natural environment) that impact on human health and well-being, e.g. blue-green algae and pollution. They are usually linked to specific programmes such as clean-up campaigns or special calendar days. The target audience is usually school learners, in specifically targeted areas. The overall aim is prevention through education.

What Works Well?

- it is valuable that educational processes associated with environmental health are being introduced in the organisation, to extend law enforcement activities

Issues and Further Opportunities

- a commitment among some environmental health staff (e.g. South Peninsula Administration) can be built on
- "making better use of available resources by working inter-sectorally and in a coordinated approach" - environmental health staff work in relative isolation from general health groups in CCT and (environmental) educational initiatives in- and outside CCT
- a need to extend current staff training ('training the trainers') initiatives
- budgetary and other support for the 'training of trainers' initiatives (not enough staff to do the training)
- a need for locally relevant resources and training materials.

Environmental Education In CCT Nature Reserves – Various Administrations, Nature Management, Directorate Community Services

CCT owns land comprising 16 nature reserves. In some reserves environmental education activities take place, either in and around available education centres or in the open (see Table). The table shows that only three centres have dedicated education staff; in most cases education is conducted by staff with additional responsibilities. Some centres and reserves are well-equipped; the majority have few or no facilities. The educational programmes cater mainly for primary and secondary school groups and holiday groups, but also other interested parties on request (e.g. Working for Water teams or Navy trainees).

| RESERVE | RESOURCES | PARTNERS |
|--------------------------------------|---|--|
| Rondevlei (SPA) | Reserve; centre; one EE staff member; well-kept live and static displays; trails; small nursery (outsourced); auditorium with audio-visual equipment; resource room not fully functional for public. No budget other than reserve's operational budget. Volunteers | Cape Bird Club; WWF; private individuals/ volunteers; Zeekoevlei & Zandvlei; Technikon (training of students) |
| Zeekoevlei (SPA) | Centre, overnight accommodation, adventure trail across water. One senior educational officer appointed through a Trust | ZEEP is run by the Zeekoevlei Trust; Zeekoevlei Civic Assoc; Rondevlei |
| Zandvlei (SPA) | Existing 22 ha reserve currently being proclaimed as Greater Zandvlei Estuary Nature Reserve (approx. 240 ha); one staff member (manager) for general reserve management, with a student assistant: veld management, reserve development & public liaison; environmental education also offered | Zandvlei Trust (produces newsletter, promotes reserve and its education programme), Marina Homeowners' Assoc.; Cape Technikon (student training); Cape Bird Club; other reserves and environmental clubs |
| Tygerberg (Tygerberg Admin) | Reserve (278 ha); a well-appointed centre; dedicated budget of R300 000 for education staff and centre; large lecture hall with A-V equipment; one snr education officer, an assistant and 2 cleaners. Additional funding. Resource collection; Herbarium. Active volunteers | Air Pollution, Parow; UWC EERU; Tygerberg Bird Club; Teachers centres; Compton Herbarium, libraries, Die Burger; volunteers |
| Durbanville (Tygerberg Admin) | An education officer; lecture accommodation for 50 people, short trails, nursery | |
| Helderberg (Helderberg Admin) | Reserve, EE Centre, Resource Centre, overnight accommodation, volunteer group Friends of the Helderberg Education Centre fund an education officer who runs the EE Centre and programmes, with assistance from volunteers | Friends of Helderberg; Somerset W Bird Club; Humane Education Trust; Helderberg Conservation Forum |
| Harmony Flats (Helderberg) | Small reserve (10 ha) with no facilities, near a community hall and within walking distance of 12 schools. Funding secured through Cape Flats Nature Project to appoint a Nature Conservation student for 2003-4. No security, signage or site-specific materials | Cape Flats Nature Project (CCT, WWF-TMF, NBI, BotSoc); public participation workshops have been held to involve local communities |
| Macassar Dunes (Tygerberg) | Part owned by City; wastewater treatment works; oldest Muslim holy grave in SA; only viable milkwood thicket on Cape Flats; nearby beach resort with ablution and picnic spots; limited security, no environmental signage or education staff; conservation staff only occasionally on site | Cape Flats Nature Project (see above), UCT Environmental Evaluation Unit, KERIC (Khayelitsha Education Resource & Info Centre), Centre for Integrated Rural Development |
| Wolfgat | Funding will be sought for an education centre to serve both Wolfgat and Macassar Dunes; 18 schools within 2 km radius; no security, education staff, signage or site-specific materials | Cape Flats Nature Project (see above), community groups such as Friends of Wolfgat exist but there are tensions and no co-management agreements have been made |
| Edith Stevens | Part-owned by City, which has renovated a farm house as education/information centre; demonstration projects in urban agriculture, medicinal plants; budget for interpretive signage has been approved; bird hides; no site-specific educational materials yet; schools started using the reserve and requested curriculum-related materials; Primary Science Project based on site; a volunteer but no dedicated education staff for the Reserve | Cape Flats Nature Project partners include NBI, BotSoc and WWF (see below) – initial development involved EMD Cape Town, to be handed over to City Parks & Nature Conservation. Primary Science Project based on site since 2003 |
| Blaauwberg (Blaauwberg Admin) | No education facilities or staff at present. | Liaising with CMC EMD to develop EE Programme |



Data on other reserves (with few or no educational activities) not available.



The general thrust of the education work at reserves with education centres is conservation education (focussing on fauna, flora, the bio-physical environment) and associated issues, such as pollution (water, air).

One manager describes it as “training the kids of the future to vote properly”. At Edith Stevens urban agricultural training is emerging as focus. The ultimate goal is ecologically aware residents and voters in Cape Town, towards the conservation of “our exceptionally valuable natural areas”.

An environmental education officer elaborated on the aims as to:

- Create an awareness and appreciation for our natural heritage
- Ensure sustainable use of resources
- Provide affordable and accessible environmental education.

(There is also a sense that education at the centres will bring about savings in terms of water and cleansing.)

Although awareness raising for Councillors and training for adults does take place on occasion, on the whole the educational focus in the reserves is on primary and secondary school children, and programmes are offered at prices that most children can afford (e.g. R5 per learner at Rondevlei). Rondevlei, Zeekoevlei and Helderberg also offer holiday programmes. Zeekoevlei has overnight accommodation on land and on an island in the reserve, and offers 2-3 day ‘camping’ programmes planned with teachers. These include inputs from CCT Catchment Management.

At Rondevlei teachers can request customised programmes (not too difficult to handle as 90% of groups are from primary schools) or choose from a selection of programmes (including guided walks, interpretation of well maintained displays, lectures with videos). At Tygerberg the programmes cater equally for secondary school learners, and the site is particularly popular for geography programmes, to which the education officer then adds a nature conservation dimension. Programmes (advertised as cutting across all learning areas) often include reserve ecology and pollution, and are often discussed with teachers beforehand, so that they can assist with large groups. In 2001 Tygerberg also ran an Environmental Olympiad, with focus on the Tygerberg Hills area. At Helderberg the focus is strongly on the fynbos biome.

Four reserves (Edith Stevens, Macassar Dunes, Wolfgat and Harmony Flats) which are among Cape Town’s 27 Core

Urban Conservation Sites (part of the Cape Flats biodiversity hotspot), are receiving attention in the Cape Flats Nature Project, a partnership formalised in 2002, between the City (which purchased land and donated in some cases substantial funding to rehabilitate and renovate), WWF-SA’s Table Mountain Fund (a co-funder), the National Botanical Institute (NBI, the implementing agency which made staff and expertise available) and the Botanical Society (BotSoc), which provides expertise. The aim of the Project is to “build good practice in the sustainable management of City conservation sites, working in a people-centred way that benefits surrounding communities, particularly townships where living conditions are poor”.

Rondevlei recently started Tourism Guide training for a small number of local community members to earn an income on the Reserve.

The well-appointed Kristo Pienaar centre at the Tygerberg NR is not optimally utilised for educational purposes. Numbers increased dramatically since the appointment of a dedicated staff member. After a qualified teacher was appointed in early 2000, centre attendance by schools rose from 858 learners and 48 teachers (May –Dec 2000) to 1885 learners and 112 teachers (2001), as well as 48 visitors from tertiary institutions, including 31 teacher trainees from the University of the Western Cape.

What Works Well?

- enthusiasm of staff responsible for educational processes
- well-developed facilities in some reserves
- the track record of some centres, leading to full booking sheets
- the availability of trained education staff in some centres (at the Kristo Pienaar Centre this has led to a near 100% increase in numbers of educational visitors)
- the availability of citizen volunteer groups and individuals, and nature conservation interns
- some reserves’ proximity to schools.

Issues and Further Opportunities

- the perceived educational potential of the reserves, e.g. for Councillors and other CCT staff, can be developed
- the reserves are widely viewed as a “fantastic” educational resource and are in several cases under-utilization for educational purposes
- some reserves are relative inaccessible and the cost of travel from some schools is experienced as prohibitive

- reserves which are within relatively easy reach of many disadvantaged schools (e.g. Wolfgat, Macassar Dunes, Harmony Flats) have no facilities or educational resources and security is a problem
- at other reserves which are secure and within walking distance of schools, there is room for expansion of student visitor numbers, with additional staff
- besides environmental education for schools, the reserves lend themselves to training of tourism staff, poverty relief workers such as alien clearers, Councillors, construction contractors and many others
- general budget experienced as inadequate, and environmental education as under-resourced in most reserves (e.g. in Helderberg the education centre and staff is supported by a Friends group only)
- the reserves in general are under-staffed; seven professional staff share the environmental management and education tasks in the 16 reserves
- the Cape Flats Nature Project aims to address some of these issues by facilitating and catalysing joint public-community management of reserves, and leveraging private sector funding for staff and other operational costs; it is however difficult to raise funds for expenses of an ongoing nature, and most parties (funders, staff and project implementers) call for a commitment on the part of the City to provide more adequate co-lateral funding for staff and running costs
- tension between reserve management and educational activities (not core function; diverse interpretation of what environmental education involves)
- historically uneven salary scales between staff in different reserves
- quality of programmes – no evaluation, staff may lack experience in education
- risk of burn-out by staff who continuously offer programmes school groups throughout the year, with little back-up to draw on (in Rondevlei one staff member is responsible for education programmes reaching from 6 000 – 8 000 children per year, as well as some environmental management responsibilities and staff training)
- staff are generally well-qualified in conservation/environmental management, with degrees and diplomas in nature conservation, but their environmental education background and training is more limited
- some centres seem to operate in isolation from wider educational initiatives
- limited link to WCED and other teacher education programmes – opportunities for renewal of programmes and greater teacher involvement by aligning programmes to Curriculum 2005 and drawing on the National EE Programme
- there is room to expand the use of the reserves by tertiary education institutions such as Cape Technikon (for practicals)
- reserves hold educational and leisure opportunities for handicapped children and adults
- the uncertain future of nature reserves and related pressure for financial sustainability in the management of reserves are issues
- there is an opportunity (and need) to show what the benefits of these reserves and their educational activities are to the city and the CCT, both financially and in other important aspects.

Environmental Education Associated With Tourism – CCT CMC Administration, Community Services

CCT's CMC Administration, Directorate Community Services, has a Tourism Promotion section in which educational activities take place. The aim is to promote and support tourism through the following key messages:

- Be proud to be a Capetonian
- Keep Cape Town Safe
- Keep Cape Town Clean
- Be Friendly to Visitors

There are:

- youth programmes promoting the idea that a clean, safe and friendly city will promote tourism, to everyone's benefit; includes industrial theatre and a video, mural paintings, talks, mainly focussed on schools but also tertiary institutions, on request
- a Green Globe Awards programme aims at educating tour operators and travel agents about the benefits of being an environmentally sound ('green') destination.

What Works Well?

- Tourism Promotion has adequate staff & resources for its educational activities
- Its message fits well with the general tourism drive in the country and city.

Issues and Further Opportunities

- tourism education risks appearing irrelevant to people who are subjected to unsafe, unclean living conditions



and unclear on how they benefit from tourism; broader environmental education programmes (e.g. focussed on waste management to the benefit of a particular community) can achieve similar outcomes, with perhaps a greater sense of relevance to the affected residents; there is thus room for greater interaction between environmental education and tourism education initiatives

- the Green Globe Awards programme has potential for (broader) environmental education in the tourism industry.

Environmental Education Associated With Disaster Management, Fire And Life Safety – Various Administrations, Directorate Community Services

In various administrations there are education, communication and liaison initiatives (and staff) dealing with emergencies, disasters (storms, oil spills, mountain fires, etc) and fire - and life safety. In that they aim to educate towards safer environments, and to promote communities' resilience in the face of (often environmental) dangers, these initiatives comprise environmental education processes. Some sections (Disaster Management) have a dedicated education staff member who also liaises with the media; commerce and industry employees are trained in emergency planning and risk reduction in the built environment.

In the case of the South Peninsula Administration two fire - and life safety officers have embarked on a staff training programme to extend the role of fire fighters to include community education. Their educational target groups (besides staff training) are mainly school groups: They were involved in a life skills programme with primary schools and in developing educational materials for all age groups (posters, booklets, lesson plans, workbooks). They participate in YES and display at schools, community events and centres, shopping centres and stadiums. The aim of their work is to change attitudes and behaviour, and teach skills, that will result in the reduction of mortality, injury, social and economic trauma. The approach is to move from presentation-style interaction with learners, and to teach life saving skills in a "qualitative rather than quantitative" manner.

The 107 Emergency Call Centre programme has a coordinator

that coordinates information campaign run by helpers in schools (three public schools per day in 2001) and for the public (at shopping centres, libraries, community programmes), media (print, radio).

Partners include the Paraffin Safety Association of South Africa, Child Accident Prevention Association, CMC Administration, Johannesburg Fire & Emergency Service, Ukuvuka, PAWC Disaster Management, NSRI, SAPS, SANDF.

What Works Well?

- commitment to and enthusiasm for educational work, among several staff members
- recognised links between environmental education and educational activities in disaster management, fire & life safety, as evident in participation in Youth Environmental School, provides opportunities for networking and support

Issues and Further Opportunities

- In relation to 107 Call Centre activities, a reported lack of integration, coordination in the organisation; better networking and linking within the organisation can save resources, money and "prevent confusion of the community"; ensuring "seamless" integration with the efforts of other departments and initiatives is seen as a problem
- need for training of officers and their staff, in new role as educators
- need to evaluate quality of programmes and educational methodology
- availability of locally appropriate materials and support with materials development may be an issue in the Fire-and Life Safety programmes
- links to the revised Curriculum 2005's Life Orientation learning area.

APPENDIX 3

External Review & Consultation

APPENDIX 3A: PARTICIPANTS IN THE EXTERNAL REVIEW & CONSULTATION



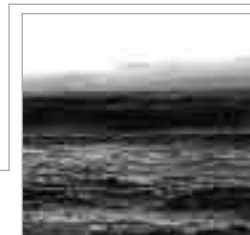
To conduct an external review and consultation, the City of Cape Town invited a comprehensive list of non-governmental organisations (NGOs), community-based organisations (CBOs), provincial government and para-statal bodies involved in environmental education in and near Cape Town, to attend one of two workshops, or to submit questionnaire inputs into the process. (NB: See Notes at end of table.) The two consultative workshops were attended by 30 participants representing 24 organisations (the first 24 rows in the following table). A further eight respondents sent their apologies and completed questionnaires; they are listed in the last rows of the table.

Need to evaluate quality of programmes and educational methodology.

PARTICIPANTS IN THE EXTERNAL REVIEW & CONSULTATION

| NAME | TYPE OF ORGANISATION & SOME OF THEIR ACTIVITIES | PARTNERSHIPS WITH CCT |
|--|---|---|
| 1. NEEP-GET (National EE Programme for General Education & Training) | National DoE Project situated in WCED and other provinces: aims to support EE in C2005 by working with teachers and DoE staff as well as service providers to schools (e.g. NGOs) | New project |
| 2. Centre for Conservation Education | Para-statal (DoE): runs programmes and coordinates EE projects for schools; present special days programmes and teacher workshops | ✓ YES programme, National Marine Week |
| 3. WC Nature Conservation Board (3 representatives) | Para-statal: manages nature reserves, some centres e.g. Driftsands where initial projects include river rehabilitation, plant propagation & gardening; currently introducing youth projects after some stagnation in EE activities | ✓ Driftsands NR can be used as resource centre and workshop centre for youth & community projects |
| 4. National Botanical Gardens/ Botanical Society of South Africa | Para-statal: runs an education centre for school groups; outreach programmes to schools and greening initiatives in Langa (school garden, community garden centre) | Partnership between Botsoc and CMC to produce Cape Flats Floral Treasures Teachers' Guide to Active Learning in local schools |
| 5. EDULIS | Para-Statal (DoE): distributes educational resources to schools | NO DATA |
| 6. SA Museum | Para-statal: general and tailor-made education programmes, supported with materials, for school groups; teacher workshops; museum club for children; special days programmes for schools | Only YES – would like to know about other partnership possibilities with CCT |
| 7. Child Accident Prevention Foundation | NGO/provincial DoH: lobbies local government & others on safety issues, in order to create a safe living environment for children. Incl. water, poison, fire, play park safety. | ✓ e.g. provides various departments with advice re. resource development |
| 8. SPCA (Society for the Prevention of Cruelty to Animals) | NGO: education to prevent cruelty to animals | NO DATA |
| 9. S.E.E.D. | NGO: food gardening in townships; integration of permaculture in primary school curriculum, focussed on Cape Flats; materials development with teachers; teacher training in permaculture & OBE | It was reported “not yet” - yet links between S.E.E.D. and Tygerberg Administration (Demo Centre)? |
| 10. WESSA (Wildlife and Environment Society of South Africa) | NGO: Raising public awareness about and participation in environmental issues, both green and brown, through stakeholder workshops around planning proposals; adult training initiatives to improve public decision-making, lobbying, watchdog role | ✓ Environmental Resource Directory & support to CCT initiatives around catchment management; YES |
| 11. Fairest Cape Association (2 representatives) | NGO: programmes and workshops related to waste management and cleanliness for schools and wider public; Clean City Awards competition | Extensive – implementation agency for CCT's Waste Wise Campaign |
| 12. Enviro-Eds | Independent: teacher professional development; resource materials development for schools; course development; programme evaluation; environmental writing for public | ✓ Developing a WC version of the School Environmental Policy Pack and implementing it in schools |
| 13. Irene Toerien | Independent: marine education for school groups, Edutrain, clubs, tourists; planning training of site guides | ✓ YES, Cheetah Challenge |
| 14. Humane Education Trust | Trust: rekindling care and respect for all life; education on e.g. the humane treatment of animals to schools, especially in areas plagued by violence; produce materials, video. | No – would very much like to work in partnership with the CCT |

| NAME | TYPE OF ORGANISATION & SOME OF THEIR ACTIVITIES | PARTNERSHIPS WITH CCT |
|--|---|---|
| 15. Gateway Discovery Trust | Trust: science & computer education for schools, using demo bus | NO DATA |
| 16. Paarden Island Field Studies Centre | Civic: practical field work in the natural sciences, for school groups | No – wants to collaborate |
| 17. Friends of Helderberg | Civic: Supports an EE Centre for school groups in Helderberg NR | ✓ Employs an EE officer to run the Centre on the CCT reserve |
| 18. Two Oceans Aquarium | Private company: offers EE programmes to school groups, teacher | NO DATA |
| 19. Tygerberg Bird Club (2 representatives) | Civic: Supports the Tygerberg EE Centre with activities & materials for schools; talks & shows at schools; field outings; exhibitions | ✓ |
| 20. Cheetah Outreach | NGO: EE outreach programmes in disadvantaged schools, focussed on the cheetah as example of indigenous fauna; developing a teachers' guide; teacher fellowship with USA | ✓ |
| 21. MTN Science Centre | NO DATA (Science/EE exhibitions) | NO DATA |
| 22. Ukuvuka Operation Firestop | Partnership project on fire prevention and safety, targeting schools and township communities | ✓ |
| 23. SANCCOB | Rescue of distressed marine birds; training of rescue workers | NO DATA |
| 24. University of Stellenbosch (3 reps) | University: EE materials and courses for teachers; EE for school groups around Stellenbosch; focus on sustainability, biodiversity | ✓ SWAP project (with Catchment Management) – want to extend |
| Attending Workshops = 24 organisations (30 representatives) | | |
| 25. Env Education & Resource Unit, UWC | University: runs a nature reserve with centre; EE programmes for local schools and communities; fieldwork on Cape Flats ecology; teacher training & workshops; provide materials on indigenous plants | ✓ YES, LA 21 “21 Households” project – will coordinate a theme workshop & provide resources |
| 26. Environmental Evaluation Unit, UCT | University: national LA 21- related training/capacity-building and resourcing; promoting community-government partnerships and co-management; research and general EM contract work | ✓ LA 21 training with Tygerberg |
| 27. Marine & Coastal Management | Government: Raise awareness of marine & coastal issues, legislation, conservation, utilisation (commercial & recreational) nationally. Resource centre; educators' network; clean-ups; Marine Week | ✓ e.g. around Marine Week |
| 28. Marine Environmental Education Trust | Trust: Outdoor programmes for youth in coastal areas; education on the conservation of the marine environment and related topics | No |
| 29. Wilderness Leadership School | NGO: EE for youth; Pride of Table Mountain Project takes groups of disadvantaged youth on mountain trails; train trail leaders; IMBEWU wilderness camps in SANParks | No |
| 30. Endangered Wildlife Trust/Cape Bat | NGO's: Lectures, slide shows to raise public awareness | ✓ YES, Cheetah's Challenge |
| 31. Food Gardens Foundation | NGO: resource centre, train-the-trainers courses, outreach work among poor communities | ✓ |
| 32. Cape Town Drug Counselling Centre | NGO with state support: runs treatment & training programmes for schools, trainers and health professionals; youth outreach; focussed on substance abuse | Obtains some funding from the CCT |
| Organisations responding with questionnaire data and not attending workshops = 8 | | |



NOTE 1: The summary of respondent data in the Table aims to capture only the main environmental education activities of responding organisations (i.e. it is not comprehensive). It is also incomplete, due to some information not being available (not all workshop attendants completed questionnaires). The data was circulated and respondents were asked to correct any misrepresentations.

NOTE 2: Due to the limitations of the process, this table is not the full picture of agencies involved in environmental education in Cape Town (or even of all environmental education partners of the CCT). It is however worth noting, for the purposes of this Strategy, that most of the agencies listed here, with notable exceptions,

- target school children and their teachers (an exception is WESSA)
- focus most of their work on 'green' issues and/or previously disadvantaged community areas, as opposed to industry or developers, for example (an exception is WESSA)
- are partly or wholly non-governmental in nature.

NOTE 3: The nature of the partnerships with the CCT vary considerably; from informal arrangements with individual staff to provide bio-material for food gardens, to contractual arrangements as implementation agencies, as in the case of Fairest Cape Association which is an implementing agency for the Waste Wise project.

NOTE 4: Stakeholders in heritage education had not been consulted at the time of writing this draft, because the heritage education component of the Strategy was included only in August 2003. The perspectives of external parties such as SAHRA, Heritage Western Cape, IZIKO Museums, Robben Island Museum and local tertiary institutions, on issues and expectations related to heritage education in the CCT, should be taken into account when developing the heritage education components of implementation plans.

APPENDIX 3B: ISSUES IDENTIFIED BY EXTERNAL PARTICIPANTS

Environmental Issues

Although participants were not asked to identify Cape Town's environmental issues *per se*, many of them did identify such issues as a departure point for discussing what environmental education and training processes should address. This highlighted the importance of adequate attention to environmental education and training, given the perceived serious nature of many of the issues.

Environmental issues raised were broad (but related to Cape Town):

- water wastage
- pollution of land & sea, litter & waste produced by various sectors, incl. medical waste
- the loss of biodiversity, especially fynbos 'hotspots'

and more specific:

- canalisation of rivers
- the amount of paper used when a 'paperless' society is supposedly possible
- the inhumane treatment of domesticated animals, both neglected pets and livestock slaughtered in townships
- the impact of change on bird life.

Participants pointed out the importance of linking local issues to a global environmental picture, so as to provide perspective, and the importance of addressing both 'green' and 'brown' issues (e.g. biodiversity and pollution, respectively).

Many responses called for environmental issues to be related to socio-economic conditions, of both poverty and excessive consumption. The 'gap between the rich and poor' in Cape Town was highlighted repeatedly, referring to both the disparity in income, and the separation of life worlds. Addressing issues associated with poverty was an overriding priority for some, who advocated the adoption of a "disadvantaged mindset".

Given these views on the issues, participants indicated that environmental education should be "broad" and "holistic", making links between the bio-physical environment, and social, economic and political factors. The nature of environmental issues also meant that in addition to raising awareness about them, learners (of all ages) needed to develop deeper understandings and skills (such as "political literacy").

Issues Related to Environmental Management

Concerns were raised about inadequate management and mis-management of land/resources/ environment in Cape Town. This involved the following related issues:

- a poor understanding of environmental matters among City workers (e.g. clearance of indigenous vegetation)
- ignorance of key focus areas among senior officials, deemed unacceptable in the light of their positions and remuneration packages
- a lack of enforcement of environmental regulations, which in some cases involved:
- corruption (in relation to acceptance of proposed developments), and more generally,
- doubts about senior officials' commitment and delivery in relation to environment.

There was also a concern about what was considered "ridiculously low public participation in decision-making". In relation to government functions the issue of privatisation was raised. Privatisation has positive potential but also encourages consumption and erodes the concept of 'commons' or common resources to be managed for the benefit of all, with input from all.

In the light of these issues, there were strong views that environmental education activities should focus much more broadly than on school children; that they should enable the public to participate effectively in environmental decision-making processes, and to lobby and act as watchdogs for environmental management.

The Role of City of Cape Town in Environmental Education

How did respondents see the role of the City in relation to environmental education? The following roles were noted (although not necessarily agreed upon):

- identify stakeholders and roleplayers
- lead the way forward
- provide tools for action
- provide funding or support fundraising
- provide resources, support resource distribution or share information about available resources
- networking.

Coordination was mentioned as a need, with reference to both coordination among environmental educators from various

organisations, and to the CCT's city-wide environmental education activities. Some indicated that there was a need for a consolidation of the latter. Related recommendations were however ambiguous – while some wanted the CCT to "lead the way forward", others were nervous about any one party taking a leadership role. While some indicated that it would be "nice to have a single person who can help with the networking", others felt that networking was up to individual organisations themselves.

In many cases 'coordination' seemed to link to respondents' need to know about what is going on, who is doing what, and what resources etc are available. This reflects a need for effective information sharing and networking.

Workshop participants saw the CCT as an important partner and player but cited "City bureaucracy" as an issue, particularly in relation to lack of information on who is responsible for dealing with what in the administrations – "who's who and how the organisation functions". There was also a concern that "little networking with the general public" led to "low awareness" and limited knowledge of available resources and facilities. Who does a group such as "Friends of ..." form partnerships with in the City, for example?

Others felt that there was inadequate publicity for examples of "good delivery". Opportunities to provide coverage for environmental projects (of the City and among community-based groups, which generally received little publicity) were noted (e.g. Argus, Jelly Bean Journal).

Respondents also identified a need for research, and a knowledge base about good environmental education practices. Some reflected a need to know if accepted 'guidelines' for environmental education were being followed in their own programmes.

It was noted that CCT should "spend money well" and prioritise in order to "do the right thing", at the same time as it should strive to "do things right". In this regard "community needs and issues" were regarded as important, and needs analyses were mentioned as a tool for establishing priorities and "listen to the community". A need for ensuring broad community representation, was noted.



The role of the City of Cape Town in Environmental Education is vital.



Funding and Resources

Funding and resources were repeatedly mentioned as needs, and many respondents believed that the City should play a role in this regard.

Firstly, in relation to CCT working with resources, it was recommended that it should “spend money wisely” and prioritise. The following needs were identified:

- a substantial (in relation to other expenditures) EE budget for the City
- clarity on who to negotiate with for environmental education funds
- support to fund-raising efforts through endorsements of projects/organisations (which would also improve their credibility)
- better distribution of environmental education resource materials
- an environmental resource centre
- rates relief for environmental education bodies
- nominal funding as well as “venues and audiences” for lectures and slide shows on aspects of the environment
- space/land and bio-degradable waste, for food gardening projects.

While some believed that there was a “lack of resources” (such as resource materials for teaching environmental education), others believed that materials were available, but users such as teachers were seldom aware of their availability. A travelling environmental education resource library was suggested, and a central environmental resource centre, as well as funds for resources to be distributed through existing channels such as libraries (e.g. Edulis).

There were also diverse opinions on whether funding was always an issue. It was stated that the City’s 16 nature reserves were under-utilised as educational resources, and a key reason proposed was the cost of bussing groups to the reserves. Some believed that schools would raise funds or sponsorships for transport to nature areas if they really wanted to visit. Others believed that affordability was a key issue in the “limited access to quality educational experiences” among many communities in Cape Town, and a reason why a “wealth of education(al opportunities) are not getting down to the people”. It was thus recommended that the City supports the provision of funds for or subsidisation of transport, to both nature areas owned by CCT, and others throughout the metropole.

There was consensus on the view that the City should make

adequate posts and resources available for its environmental education initiatives, and that this involved more than the current provisions. Participants felt that a commitment to environmental education was needed among the City’s top management, in terms of funding and staff, the issue discussed next.

Human Resources

In relation to environmental education staff in the CCT, respondents identified a need for “more educators”, as there was thought to be “not enough manpower”; one respondent described the CCT as “far too understaffed” in relation to environmental education. The following specific needs were indicated:

- “funding for educators at City nature reserves and environmental education centres”
- “adequate posts to ensure EE functions in City and administrations”
- “secure tenure for EE officer at City of Cape Town”.

There were furthermore strong calls for environmental education to develop general **environmental capacity in the organisation**. It was believed that environmental education should “inform management and planning” within the organisation, that the CCT should consider ‘educating its own first’ and “lead by example”. This required (besides a suggestion for action against unproductive officials) the following in-house educational needs:

- in-house training and awareness components in the City’s EE Strategy
- life-long environmental learning/structured environmental training for officials
- professional development for City staff.

Environmental education for **professionals** such as planners and engineers was also identified as a need, within universities and technikons.

In relation to building the capacity of environmental educators outside the CCT, the group most frequently mentioned was teachers. They were seen as important partners in environmental education in schools, because “30 teachers = 1000 kids”. There was also a strong perception that teachers lacked the capacity (and in some cases the resources) for environmental education. The need for information and materials was noted, particularly in relation to Curriculum 2005, which requires teachers to do investigations of local environments and environmental issues with learners.

Opportunities

Workshop participants believed that several existing environmental education projects in which City of Cape Town was involved, were worthwhile opportunities that should be supported and enhanced. The Environmental Resource Directory was seen as “excellent for enhancing communication” and it was recommended that it be promoted. The YES programme (in which many respondents participated) was frequently mentioned, as well as the State of the Environment initiatives and the environmental education centres in the reserves.

Some indicated that the nature reserves were under-utilised and that they constituted a valuable educational opportunity that should therefore receive adequate support, both in terms of funding and staff (see above).

Among the developments in the City of Cape Town the integration of departments for service delivery was seen as an important opportunity for better environmental management, as it would enhance communication of environmental management principles throughout various sectors. It was recommended that environmental education informs real integration of management and services and that benchmarks for delivery be established.

Other opportunities that could be seized for environmental education purposes included

- the National Skills Levy
- tourism (linking “biodiversity to the tourist rand”)
- the reinstatement of the oil pollution Act
- the fact that SANCCOB certification is recognised worldwide.

Partnerships

Participants saw a need for **recognition and acknowledgement**, by the CCT, of its external partners in environmental education.

In relation to recognition, it was recommended that the CCT formalises and pays for “useful services provided by

civil society”.

Comments about partnerships included general recommendations, e.g. for partnerships with:

- NGO’s – “utilise the capacity of NGO’s and welfare organisations”
- local community based organisations
- volunteer groups and work camps (such as the Quaker Peace Centre)
- “Friends Of ...” groups which, it was believed, needed promotion
- the private sector, particularly “green companies”
- religious groups
- teachers and tertiary institutions
- other cities in the world
- “other roleplayers” in environmental education.

More specific recommendations for partnerships were:

- the Western Cape Education Department (regarded by many as a significant partner, but there was a question about the NEEP not yet being fully operational)
- WCED’s Centre for Conservation Education
- WCED’s Educational Library Service (Edulis)
- WCED’s EduMedia
- Driftsands Nature Reserve (Western Cape Nature Conservation) – the centre and its projects
- Marine & Coastal Management – focus on litter at storm water inlets, as well as booklets to give more “structure” to popular coastal hikes (e.g. Camps Bay to harbour).
- South African National Parks (SANParks). It was noted that much of Cape Town’s land area is in the Cape Peninsula National Park and also that SANParks had “lots of EE material available” (this is not necessarily the case). There is as yet no collaboration on environmental education between the CCT and CPNP, although there is an intent to collaborate and communications to this effect has taken place.

Outside of the official analysis, a report was received of external environmental education partners seemingly being ‘used’ by CCT partners, to merely lend educational legitimacy to projects with in actual effect limited educational aspects, and an overriding focus on marketing the CCT.



Life-long environmental learning for officials.



APPENDIX 4

Resources for Environmental Education

The following are CCT resources (educational materials, facilities, programmes) that can be used for environmental education. The list has been compiled as a service to schools, but some resources listed can also be used by adults. It is not comprehensive, and is included here as a further indication of the range of environmental educational activities in which CCT staff are involved. The administrations (under the previous system) where the materials are housed/ developed/ used, are included.

| | |
|---|--|
| <p>Air pollution booklets Source Book on Air Pollution Topics for SA Scholars, Parts 1, 2 and 3 'n Paar Feite oor Lugbesoedeling Pollution Primer</p> | <p>Tel: (021) 930 4821 Air Pollution Parow, CMC Health Dept, with Caltex</p> |
| <p>Cape Town's Environmental Management Policy Integrated Metropolitan Environmental Policy Field Guide with general information on Cape Town environment, and an example of an environmental management plan. Environmental Leaflet (newsletter with progress reports)</p> | <p>Tel: (021) 487 2284 CMC Admin, Environmental Management Dept.</p> |
| <p>Catchment and River Management Talks and accessible scientific information</p> | <p>Tel: (021) 4872453 CMC Administration, Catchment Management Dept</p> |
| <p>Conservation education – general and on the city's wetlands, flora and fauna Education programmes consisting of guided walks, interpretation of displays, worksheets related to requested programmes (bird identification, animal signs, plants, pollution). Mainly but not exclusively for primary schools.</p> | <p>See below for Contact Details of Various Reserves, e.g. Rondevlei Nature Reserve Education Centre Zeekoevlei Environmental Education Programme & Centre Zandvlei Nature Reserve</p> |
| <p>Conservation education – general, ecology, renosterveld Education programmes consisting of guided walks, interpretation of displays, worksheets related to requested programmes, mainly but not exclusively for secondary schools.</p> | <p>See below for Contact Details of Various Reserves, e.g. Tygerberg Nature Reserve Education Centre Durbanville Nature Reserve, Kristo Pienaar Education Centre Helderberg Nature Reserve Education Centre</p> |
| <p>Contact Details for Information on a Wide Range of Topics Environmental Resource Directory for the City of Cape Town</p> | <p>Tel: (021) 487 2284 CMC Administration, Environmental Management Dept Wildlife and Environment Society of South Africa</p> |

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| Disaster Prevention & Management Talks Emergency Planning & Risk Reduction in the Built Environment | Tel: (021) 487 2266 CMC Administration, Disaster Management Dept |
| Edutrain Environmental Education Programmes (Various topics) | Tel: (021) 487 2284 Cape Metro and CMC Administration |
| Fire Safety Education Programmes | Tel: (021) 703 3185 South Peninsula Administration, Fire & Life Safety Dept |
| Fire Safety & The Threat of Alien Vegetation Includes brochures like Living with Fire | Tel: (021) 703 3185 Ukuvuka Firestop Campaign, with CMC Administration, Environmental Management Dept |
| Flora of the Western Cape Cape Flats Floral Treasures: A Teachers Guide to Active Learning in Cape Town with Poster | Tel: (021) 797 2376 CMC Admin, Environmental Management Dept. with Botanical Society of South Africa |
| Health & Environmental Health Environmental health talks | Tel: (021) 782 1112 Environmental Health Division, Health Services, South Peninsula Administration |
| General health promotion education including HIV/AIDS; books, journals, video's, magazines, models, database, internet, linking & networking (health promotion organisations) | Health Resource Centre, Parow CMC Administration |
| Heritage Resources Series of pamphlets on heritage resources including those in Cape Town's oldest township; guidelines for building, landscaping, etc in heritage areas. | Tel: (021) 400 3620 Cape Town Administration, Environmental Management, Heritage Resources Section |
| State of the Environment (Cape Town) 'Your environment at a glance' annual reports, teaching and learning support materials based on the SoE reports, including Foundation Phase lesson plans | CMC Admin, Environmental Management Dept. |
| School Environmental Policies Developing our School Environmental Policy: Stories of Schools in the Cape Metropolitan Area | CMC Admin, Environmental Management Dept. |
| Sustainable Living Live and Build Safe video (safety regulations & considerations) Renewable Energy & Energy efficiency programmes Energy Demonstration Centre, Khayalitsha (includes teachers' study tours) Local Agenda 21 information | Tel: (021) 918 7313 Tygerberg Administration, Environmental Planning Dept |
| Tourism Talks and awareness-raising video, on how to create an environment that supports tourism Green Globe environmental awareness & management programme for travel and tourism companies | Tel: (021) 487 2718 CMC Tourism |





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| <p>Visual aspects of the landscape Pamphlets on guidelines and regulations for outdoor advertising, billboards and other signage</p> | <p style="text-align: right;">Tel: (021) 400 4270 Cape Town Administration, Environmental Management, Heritage Resources Section</p> |
| <p>Water Conservation 2020 Vision for Water Project: A Resource Pack for Active Learning in Water and Environmental Conservation in SA Schools and Communities For Educators, Community Facilitators and Environmental Health Officers</p> | <p style="text-align: right;">Dept of Water Affairs & Forestry in partnership with CMC Administration</p> |
| <p>Waste New outcomes-based education materials Wise Up on Waste magazine Informational leaflets on recycling, illegal dumping, litter & clean-up campaigns Resource Centre, Athlone Transfer Centre</p> | <p style="text-align: right;">Fairest Cape Association Waste Wise Campaign, CMC Trade Services</p> |

ENVIRONMENTAL EDUCATION AND RESOURCE CENTRES

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| Blaauwberg Conservation Area Environmental Education Centre: | Tel: (021) 550 1096 |
| Driftsands EE Centre, Driftsands Nature Reserve | Tel: (021) 955 5940 |
| Durbanville EE Centre, Durbanville Nature Reserve | Tel: (021) 970 3097 |
| Environmental Health Resource Centre | Tel: (021) 782 1112 |
| Helderberg EE Centre, Helderberg Nature Reserve | Tel: (021) 851 6982 |
| Kristo Pienaar EE Centre, Tygerberg Nature Reserve | Tel: (021) 913 5695 |
| Rietvlei Environmental Education Centre: | Tel: (021) 550 1086 |
| Rondevlei EE Centre, Rondevlei Nature Reserve | Tel: (021) 706 2404 |
| Waste Resource Centre, Athlone Refuse Transfer Station | Tel: (021) 694 1714 |
| Zandvlei EE Centre, Zandvlei Nature Reserve | Tel: (021) 701 7542 |
| Zeekoevlei EE Centre, Zeekoevlei Nature Reserve | Tel: (021) 706 8523 |



Cape Town's natural environment is known for its beauty and biodiversity, providing essential resources and offering natural assets on which much of our economy depends.



Our rich history of people and their culture, religious, political and economic practices has given us a particular and precious heritage in Cape Town.



Cape Town has an impressive and constantly evolving urban environment. We need to create a more equitable and harmonious living environment.



For further information contact:

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