



**Restructuring of
Environmental
Development
Department of
the Ekurhuleni
Metro
Municipality**

**Organisational
Design**

Draft Final

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Abbreviations

CCC	Customer Care Centres
CTN	City of Cape Town
DEAT	Department of Environment and Tourism
DEE	Department of Engineering and Environment
EDD	Environmental Development Department
EMM	Ekurhuleni Metro Municipality
ERM	Environmental Resource Management
FA	Functional Analysis
GDS	Growth and Development Strategy
IDP	Integrated Development Plan
IEM	Integrated Environmental Management
O&M	Organisation and Management Division of EMM
SDBIP	Service Delivery Budget Implementation Plan
SMT	Senior Management Team
UEM	Urban Environment Management
WIS	Waste Information System

1 Background

1.1 General

The agenda on the environment continues to be an intriguing one in South Africa. With the unfolding of the new political dispensation in the country came entry into the global village. South Africa therefore needed an assessment of a number of policies and regard to fundamental issues like the environment. For the country to be a respected global player, adherence to certain environmental protocols is paramount, among other things. To this end, a number of initiatives and interventions have been put in place to facilitate the enactment of an integrated environmental agenda.

The country in general, but government in particular, has come to realise that the process of democratisation and establishing good governance can only be guaranteed if it is based on a sound economic and socio-economic framework that is environmentally sustainable. This is particularly paramount for a developing economy with a fairly young democracy.

Equitable access to, and ownership and control of, renewable and non-renewable natural resources by South Africans, black and white, poor and rich, male and female, is critical to our survival as a country. Conservation and sustainable use of these environmental resources and their protection depends on changed behaviour by all individuals, households, and private and public institutions.

These changes must affect the processes of resource extraction, spatial development, appropriate and clean production, waste minimisation and pollution control strategies in order to guarantee a higher quality of life for all. An integrated approach will go a long way in ensuring a successful and sustainable environment climate. The current emphasis and high profile of global warming, alternative energy and green gas effects puts extended pressure on our response to the environmental sustainability.

There is further recognition that environmental degradation is not only a function of failing markets and poverty but also of institutional failure at both the micro household level and the macro governmental level. Ever increasing urban and industrial development throughout the world, especially in developing countries, is leading to levels of pollution which seriously threaten the natural resources upon which humankind depends for its survival. This phenomenon is evident in the areas surrounding the economic hubs of South Africa.

Throughout human history, many cultures have recognized the need for harmony between the natural environment, society and the economy. These elements have come to be known as the "three pillars of sustainable development." For sustainable development to be successful, these pillars must be effectively integrated so that individuals, governments and organizations can take action to promote a healthy natural and built environment, a vibrant and just society, and a prosperous economy for current and future generations.

The challenge is to identify linkages between these three interconnected pillars of sustainable development, and develop policies and tools that avoid trade-offs between and among them. When put in personal terms, sustainable development prompts us to ask, "What type of world do we want to leave for our children and grandchildren?" Sustainable development requires integrated approaches to decision making that reflect three key factors:

- a long-term approach, seeking to improve the quality of people's lives today while ensuring a continuing legacy for the future;
- a focus that fully incorporates environmental, social/cultural and economic factors while seeking to avoid trade-offs; and
- a recognition of the interdependence between local, regional, national and global activities.

Sustainable development means "a better quality of life for everyone, now and for generations to come", and used the widely used international definition "development which meets the needs of the present without compromising the ability of future generations to meet their own needs." (From *Our Common Future (The Brundtland Report)* – Report of the 1987 World Commission on Environment and Development. Oxford University Press 1987.)

The main constraints in implementing a sustainable environment framework or strategy are:

- fragmented policies and areas of responsibility
- uncoordinated planning
- limited capacity and resources
- Ignorance of new environmental opportunities and practices
- conflicts of interest between environmental protection and exploitation for economic benefit
- poor enforcement of the regulatory framework or inefficient laws
- little public awareness and participation.

Faced with these challenges nationally and internationally, South Africa needed a governmental intervention. In this regard, for the first time in the history of South Africa, the current environmental policy has identified a lead agent/department for integrated environmental management in South Africa, i.e. the DEAT. DEAT will transform an important area of life from an 'afterthought', a mere arena of facilitation and an externality in development to one of active governance with an integral role in development. Municipalities are considered central bodies to implement this.

The challenge exists to reconcile environmental and economic concerns and approaches. The challenge is further made complex by the need for intergovernmental collaboration in the execution of an integrated environmental framework, across all three spheres of government.

The challenge therefore calls for a strategy that will incorporate the concept of 'sustainable development'. **An integrated and sustainable management of the environment, now and in the future, is the essential basis of sustainable development in all areas of human activity.**

It is as a consequence of these challenges that government has sought to create an effective, adequately resourced and harmonised institutional framework and an integrated legislative system, and build institutional capacity, lead by the DEAT.

1.2 The Environment agenda in Ekurhuleni

1.2.1 Industry hub of SA

The EMM has historically been accepted and respected as the Industrial Hub of South Africa. The EMM is densely populated with industry firms of all magnitude. Manufacturing industries from all economic sectors are to be found in the EMM. It is therefore not surprising that the environmental impact of these industries would be magnificent. Historically, there has been a bias toward focus on the economic benefits of the industrialized sector outputs and therefore contribution to the overall country GDP as opposed to a consideration on the environmental impact thereof.

1.2.2 Mining hub of Gauteng

The gold reef in Gauteng stretches from around Randfontein in the West almost to Springs in the East. The dense population of this mining belt is to be found within the boundaries of the EMM. Over the years, mining explorations have left a trail of economic success combined with unfortunate environmental degradation.

1.2.3 Informal settlements

It is a natural phenomenon that social structures will follow where there is a hive of economic activities, this to satisfy man's basic needs. One of those needs is shelter. As a consequence of the industry and mining boom within the EMM, there tends to be ongoing migration to the metro. The resultant is the mushrooming of informal settlements close to the industry hubs. This brings an added socio-economic burden to the EMM. Given the informal nature of these settlements – no proper development planning or land inspections prior to occupancy, the negative effect onto the environment is of significant magnitude.

1.2.4 Natural habitat

The factors mentioned above have had a direct impact on the natural habitat of the EMM. The metro is blessed with vast stretches of significant natural habitat, from wetlands to natural dams to natural servitudes that meander through the metro. The argument above was more than sufficient to influence a rethink of the environment agenda within the EMM. This process resulted in the establishment of a focus political and functional structure that would be accountable for the long-term sustainable development of the environment. This was the agenda on which the EDD was established.

1.2.5 Gateway to South Africa

Ekurhuleni is the first “face” that many foreign visitors meet when, after arrival at the O.R. Tambo International Airport, visit South Africa. Ekurhuleni therefore has a huge responsibility of introducing a clean and visible environmentally sound country to our guests.

1.3 Journey to an Environment Development Department

The EMM sought and engaged the services of the firm KPMG to facilitate the initial process toward restructuring the Metro. The exercise was part of the road map to integrated and effective service delivery machinery within the Metro. Having undergone the initial intervention, the EMM decided on a different route for the latter phases of the project. The latter phases were primarily informed by the Institutional Review process. The process entailed the tabling and approval by Council of the Institutional Review that would entail restructuring the EMM Service Delivery model.

The initial stages of the process targeted the restructuring of the political and Mayoral section, thus formalizing the Political Structure. This was followed by the reorganization of the metro official structures, i.e. the City Manager and subsequent leadership, resulting in the finalization of the Functional Structure. The process entailed reshuffling and making redundant certain structures.

The Environmental Development Department is one of the new establishments from this exercise. Having institutionalized the political Environmental Portfolio, the process then included the formalization of the department formation followed by the appointment of the Executive Director: Environmental Development

Department. The formalization of the department formation included the consolidation of the following structures into the new department:

- Regional Environmental Health Services Structures
- Regional Metro Parks Structures
- Regional Solid Waste Structures.
- Environment Management Structure, formally within Environment & Tourism Department

The Phase III of the Institutional Review process included the incorporation of the four entities into a single department, the newly established Environmental Development Department. This Phase III was underpinned by the introduction of the process of Functional Analysis (FA).

It is against such background information that the EMM decided on the formation of a dedicated and focused department that will be accountable for the development and implementation of an integrated environmental framework for Ekurhuleni. It is also against this background, that the new Environmental Development Department (EDD) secured the support of the Urban Environmental Development programme to acquire independent assistance and technical know-how on how the new department could be structured and organized to provide proactive integrated environmental service delivery.

2 Executive Summary

The Council of the Ekurhuleni Metro Municipality in 2006 decided to establish an Environmental Development Department by merging 4 existing municipal departments with the objective of integrating and strengthening municipal environmental competencies and service delivery.

It meanwhile soon became evident that this “merger”, like any other organizational merger, needed special attention for the desired results to be obtained. Following a range of strategic sessions, the Executive Director in mid 2007 decided to approach the Urban Environmental Management (UEM) Programme at DEAT, to seek professional independent assistance both for the design of the structure and of a supporting implementation plan to operationalise the agreed interventions.

Two consultants – a South African and an International – were brought in and given the “task” to assess the existing situation and work already undertaken by the Department in relation to restructuring. The consultants and the EDD decided to split the work into 2-3 assignments focusing on (1) a Situational Analysis; (2) an Organisational Design and (3) an Implementation Plan for EDD restructuring.

The situational analysis uncovered a diversity of issues which need to be addressed to complete a successful restructuring of process and moreover that the chances of success would be higher if the issues be addressed within the context of the EMM Transformation Programme.

The challenges currently encountered by the department span from organizational short-comings of an “incomplete” transfer of 4 directorates; pending human resource issues and vacancies; in-efficient EMM procedures; deficiencies in logistical support (e.g. availability of transport) etc.

But professionally, the EDD directorates were found mainly to be re-active as apposed to pro-active in their approach towards service delivery with best practices in waste prevention, waste minimization and recycling only being addressed in a fragmented way; with no specific program to meet the environmental challenges of Ekurhuleni being the industrial hub of the entire Africa etc. The EMM policy; strategic and guideline framework for environmental services moreover left scope for improvement and complementary development and that such needs to be addressed in a phased way in order for the EDD to meet with the associated resource requirements.

During 2007, each of the 4 EDD directorates has made its own proposals for restructuring. While a good effort has been made on this, the exercise has predominantly been done “internally” within the directorates with limited mechanisms adopted to provide for an integrated environmental approach. The resulting organizational proposals therefore also reflect more the need to solve operational challenges (e.g. linked to poor support services) than a desire for the EDD to align itself with the emerging best practice among municipalities in South Africa and elsewhere.

Against this background, and by “taking the freedom” of not being bound by an “incomplete and less environmental objective driven functional analysis” and any historic origin, the consultants agreed with the EDD to take a fresh look. While making an assessment of the restructuring initiatives to date, the consultants researched for information to support organizational proposals for how the EDD could meet the environmental challenges of Ekurhuleni and align itself with emerging municipal best practices.

The resulting recommendation is that two options may be considered for an organizational setup of the EDD:

One model consist of the establishment of Director lead competency centers for Waste; Parks & Nature; Monitoring and Enforcement; Air Quality, Policy & Innovation. The competence centers would be complemented and supported by a Directorate for operational service delivery which could at the implementation level be concentrated within 4 areas or even down to the CCC level. The structure would have both Directorate level (where applicable) and a corporate unit for Service Delivery Support (Admin; Finance; HR, Performance Monitoring).

Another model would be for the EDD to be structured in 4 so-called Production Directorates for Waste; Parks and Nature; Monitoring and Enforcement and Air Quality. The production directorates would be supported by two secretariats (which could still be headed by a Director) for Environmental Policy and Innovation and for Service Delivery Support. The core business areas for each of them have been scoped and organizational proposals down to the Executive Manager level have also been outlined. Moreover, in order to place a special focus on and to achieve a minimum momentum the EDD transformation process it is recommended that that a special transformation unit be established under the Executive Director to be managed with the support of the UEM Programme.

The precondition for an effective transformation process is that both EMM and EDD mobilize an active commitment reflected in both the attitudes and competencies of people involved. To this effect, special transformation activities need to be designed and implemented.

Finally, it has been recommended that the EMM (EDD) seeks the support of the UEM Programme to implement the selected transformation activities once they have been finally agreed upon. To this effect a number of proposals have been made. It is proposed that an approach to the UEM be made soonest in order to secure the required funding for this.

3 Introduction

As part of the restructuring process of the Ekurhuleni Metro Municipality (EMM), it has been decided to establish the Environmental Development Department (EDD). An Executive Director has been appointed to lead the Department and to spearhead the internal departmental restructuring process. This was from the outset going to be a challenge not only in view of that the department was made up of 4 independent directorates brought together from different organizational entities of EMM, but also because the new department set an ambitious mandate to seek operational practices that are pro-active in nature and which are implemented through an integrated environmental management approach.

To assist in the process of restructuring the department, the EDD approached the Danish supported Urban Environmental Management Programme (UEM) hosted by the National Department of Environment and Tourism (DEAT) to facilitate the support of short term technical assistance. A two person team consisting of Billy V. Twala of IKAMWA Information Management and Flemming Koch of Copenhagen Competency Consulting was recruited. The team combined international and South African municipal environmental experience coupled with a strong background in organizational processes and development. The two consultants spent an intensive three weeks with the EDD from 16 September to 5 October to seek, peruse and appraise the large amounts of analysis and design work which had already been completed by the EDD; and to consult with key staff within and outside of the department in terms of searching for the route ahead. Obviously, that timetable placed limitations in the extent of in-depth understanding which could be obtained and apologies are therefore given where misinterpretations of information may have been made. Based on the obtained information a Situational Analysis report was presented to the EDD.

Following the approval by EDD to take the work further, this report presents the consultants' proposal on a possible organizational route ahead for EDD. While building on the work already undertaken by the EDD, the consultants have accessed current municipal practices and modes of organization in a number of countries and in South Africa. This has led to some proposals which, if followed by the EDD, are believed to strengthen the EDD to become more environmental proactive and innovative in addressing the environmental challenges in the Metro.

The team of consultants would like to thank the staff of the EDD – officials and portfolio Councilors - and representatives of the O&M /EMM for their kind, open and constructive contributions without which this report could not have been compiled and presented.

The last outstanding work of the consultants relates to the drafting of an implementation plan for the EDD to support the implementation of the agreed organizational transformation. This plan will address not only the initiatives required to put a new structure in place, but also a range of complementary activities required to establish a new consolidated, cooperative and mutually supporting department.

Lastly it should be emphasized that the observations and views presented in this report are those of the team of consultants and that they do not necessarily represent the views of the EDD; the portfolio Councilors or the EMM.

08th November 2007

Billy V. Twala; IKAMWA Information Management
Flemming Koch; Copenhagen Competence Consulting

4 Approach and Methodology

4.1 Appreciation and comments on terms of reference

The terms of reference scope the assignment to provide the technical advice and documents to complete a proposal for the organizational restructuring of the Environmental Development Department (EDD). The review of a “Functional Analysis” was seen as the main data set to complete this work which should eventually lead to the recommendation of a revised EDD organogram supported by an implementation plan. In terms of documentation, the consultancy was required to produce 4 reports.

During the initial discussions with the Executive Director of the EDD it became evident, that several organizational factors needed to be assessed in order produce a good result of the consultancy. In their Inception Report, the team of consultants therefore recommended an adjustment to the proposed approach. A more holistic organizational change inquiry approach was subsequently developed and adopted. This approach provided for the capturing of significant organizational information over and above what it would have been possible to capture from a review of only the functional analysis. It moreover made provision from seeking South African and International best practices in the field of municipal environmental management.

Limited time was available for in-depth consultations resulting in that a focus was made on the Senior Management Team (SMT). This placed limitations on the research undertaken, but the proposed organizational assessment model may still be found of use for complementary internal EDD research.

A key consequence of the above was that the planned deliverables were restructured into two reports – a (1) Situational Analysis and (2) a Restructuring Proposal complemented by an Implementation Plan.

4.2 An Organisational Restructuring/Change Framework

Initially, it was important to define what for the assignment was to be understood as the key components of organizational restructuring and change. In this context, guidance was taken from the following understanding:

- ❖ **Organisational Capacity** has been defined as the ability of the EDD or a Directorate/Section thereof to deliver appropriate/required services (e.g. produce appropriate outputs). This could be done either “alone”, by means of internal cooperation within the EDD (e.g. between directorates/sections) or by means of working in different formal and/or informal networks or in cooperation with a range of institutional and individual players. Such players include “internal EMM partners” outside of the EDD yet within the EMM (e.g. other departments and directorates) and they include external partners to the EDD (e.g. projects, NGOs, churches, other government departments, private sector etc.)
- ❖ **Organisational Performance** has been defined as what you get when you “turn the key” and the organisational capacity of the EDD starts producing the appropriate/required services or outputs.

This definition of the two concepts helped to understand/accept that capacity could exist within the EDD and the Directorates but also that it is worth very little if the performance is not utilising the capacity. It moreover allowed to look into the possibility of that it could be possible to improve EDD/Directorate performance within the existing capacity by focussing on performance improvement in terms of increased effectiveness and efficiency of operations. Both perspectives were soon confirmed by a range of practical examples.

Any organizational restructuring or change process has the largest chance of achieving its objectives when

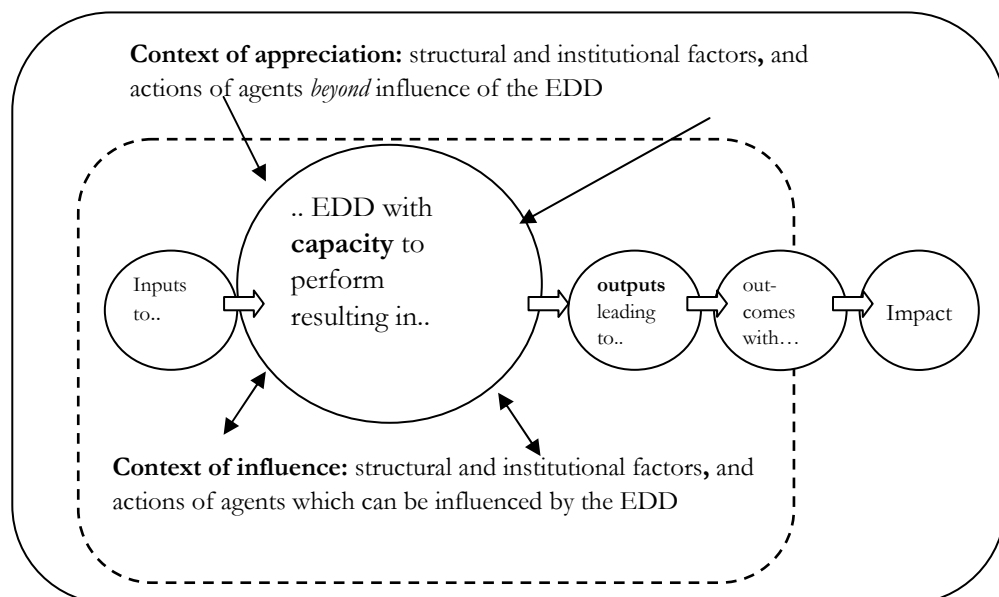
1. Clear *attention is given to performance* and results to be accomplished by EDD
2. A clear *commitment to organizational change exists from leadership* and players both within the EMM at large and within the EDD and its directorates and sub-units.

The subsequent research to a large extent confirmed that both of these issues need to be addressed in a transformation and restructuring plan.

It was moreover important to clarify and establish the extent to which organizational change and development for the EDD was driven by

1. *External EDD factors* e.g. a push for restructuring; general transformation and improved performance by the EDD from the EMM Council or other organisational entities within EMM but also by factors outside the EMM e.g. new environmental legislation or policies; technological innovations and stakeholder and/or by increased delegation of authority.
2. *Internal EDD organisational factors* (e.g. the need for new planning procedures, service delivery strategies, adoption of emerging best municipal practices and issues pertaining to the internal organisation, management, skills, awareness, relations, cultures and values etc.)

Most of the issues described above can be captured in the below chart outlining an **"Open Organisational System"**



The Chart confirms the importance of considering change factors outside of the direct authority and influence of the EDD. But is also indicates the necessity of

looking into EDD capacity and performance gaps by considering the so-called **“Result Chain”**. The scope and timetable of this assignment did meanwhile not make provision for an indepth research on that. The diagram must be interpreted to visualized how input/resources to the EDD are by means of **6 capacitating factors** being converted into outputs/deliverables or more specifically EDD services to the citizens and communities of EMM but also into internal EDD and EMM operations and procedures. The **Result Chain** therefore relates mainly to change factors inside the EDD and hence is to a large extent under the authority of the Executive Director.

The Result Chain focuses on *Functional-Rational dimensions* of EDD capacity. The 6 functional-rational organizational change factors are:

- ❖ Strategy and Organisational Objectives
- ❖ Organisation, Management, Finance and Staff
- ❖ Organisational System Tools
- ❖ Skills and Awareness
- ❖ Inter-relations
- ❖ Incentives and Values

The organisational change elements were addressed by posing key questions for each of them. These questions have been annexed to this report (Annex 8.6). The assignment only addressed the elements in a rudimentary way, but the “toolbox” presented above could also be seen as a checklist of issues to be looked further into by EDD during the implementation of the organisational change and transformation process.

The Result Chain assumes that formal rules, structures and processes inside the EDD determine performance and poor performance can be interpreted as **“a lack of functional rationality”** and viewed as a result of lack of proper planning, lack of job descriptions, poor allocation of functional responsibilities; poor organisation; performance agreements, insufficient workflows, lack of management structures and meetings etc. Here there is typically a focus on the things that **“money can buy”** (equipment, training and consultants).

One aspect of capacity gap assessment that is not covered in the above relates to what could be called **“Relations of Power”**. This includes

- The existence of other interest than the accomplishment of a given task
- Conflicts within and outside of the EDD
- Capturing of EDD resources for personal benefit
- “Empire building” by individuals
- The issue of perceived versus actual EDD capacity and performance gaps
- And the personal contribution of an EDD employee – *“is the heart burning to make a change or contribution to make things better”*
- Working in a politically directed organisation

These issues must be acknowledged and captured as the dialogue on and actual implementation of organisational change progresses.

4.3 Consulting strategy

When working under conditions which do not support extensive interaction with EDD staff below the SMT level, the risk of obtaining fragmented elements of non-representative information becomes relatively high. Some caution therefore needs to be taken on the representativeness of the findings made. The report depends to a large extent of “value based” data. Under the given conditions, the following consulting strategy was adopted:

Phase I: Project Inception

The team of consultants reported for work on Monday 17 October. The first week of the assignment was devoted to scope the assignment in more detail; to prepare a responsive intervention plan and to peruse information and documents already available with EMM. An Inception Report was prepared and submitted.

Phase II: Situational Analysis

The purpose of expanding the functional analysis into a situational analysis was done in acknowledgement of that effective and efficient organizational change processes are influenced by a diverse range of factors. In full acknowledgement thereof, the consultants attempted to access and assess the following:

1. Review of work and documentation completed to date in relation to strategic planning; business plans, existing allocation of functional responsibilities; existing organizational setup and structure; current and planned new standards for service delivery; impact of new technology; organizational assessments etc.
2. Identification of complementary functional responsibilities emerging from an assessment of the relevant and applicable policy frameworks: Environmental Legislation (e.g. the emerging Waste Bill/Act); Health legislation; Local Government legislation; Public Service Legislation; BEE legislation; Labour Legislation etc. The official documentation will be complemented by consultations with selected agencies including DEAT and others where deemed necessary.
3. Assessment of applicable EMM Council Resolutions, by-laws; contractual obligations; HR policies; performance management; outsourcing policies; community related issues etc.
4. Identification and assessment of existing mandate of the Department including the capturing of historical elements.
5. Identification of factors affecting organizational performance
6. Assessment of existing allocation of functional responsibilities at organizational unit level.
7. Establish the rationale; drivers; owners and risks of organizational change
8. Assess the feasibility (challenges and opportunities) for a successful organizational change process
9. Compile and assess tentative ideas, suggestions and proposals linked to organizational design.

A main instrument to obtain this information was interviews with senior representatives of the 4 (5) EDD Directorates and the participation in a three days strategic/planning/budget workshop attended by portfolio councilors.

The information and conclusions emanating from the above has been presented in this Situational Analysis Report.

Phase III: Organisational Design and Implementation Plan

It was beyond the scope of the consultancy to review/describe departmental business processes and to establish related key performance indicators (KPI's) to measure on them. If not already done, this is meanwhile recommended a recommended exercise which would highlight a possible need for some business process reengineering (BPR). Such an analysis would constitute a key input to the design of a responsive EDD Business Intelligence System and moreover provide specific recommendations for an adjustments to the newly agreed structure of the department.

Organizational design and specification of functional responsibilities depends on the chosen modes of service delivery (e.g. extent of outsourcing) by the Department.

To provide inspiration on such, the consultants have sourced inspiration from elsewhere in South Africa and in Europe.

The consultants have, based on the feedback and recommendations made by the Department, proposed two approaches towards the organization of EDD. It is meanwhile beyond the scope of the consultancy to undertake specific work studies to determine the required size of the EDD establishment (which also depends on the approaches chosen towards service delivery). The proposed restructuring will be supported by a draft implementation plan where some of the key activities recommended for implementation will be presented. In the formulation of this, the following elements will be addressed:

1. Establishment of priority interventions
2. Establishment of timelines and "milestones"
3. Methods and approaches towards the assignment of organizational and individual change management roles and responsibilities and supporting agreements
4. Drafting an "Exit Strategy" from old practices and ways of doing things
5. Presentation and discussion session

Phase IV: Feedback and Review

The implementation of the assignment provided for different types of interaction between EMM and the team of consultants:

- Between the EMM Program Manager and the team of consultant related to the implementation of the assignment.
- Feedback session with the Senior Management Team and/or Technical Task Team of the EMM on key deliverables such as the situational analysis; the organizational design and the implementation plan.
- Presentation to a broader group of EMM stakeholders, e.g. the portfolio councilors
- Bilateral interaction with the four key Directorates of the Department of Environment
- Presentation and consultation process with EMM on the proposed organogram and implementation plan for organizational change.

5 Summary of Situational Analysis

The below is a summary of the findings of the “Situational Analysis of the EDD” which has been presented in a separate report. For full details reference is made to that report.

5.1 Performance; Restructuring and Transformation

Following the recommendations of an EMM organizational consulting assignment undertaken by the consulting organization KPMG, one of the key agenda items was the approval by the Council to institutionalize the creation of a new Environmental Development Department to focus on environmental matters in the EMM. The implications of that decision were several and included:

- The creation and filling of the post: Executive Director: Environmental Development
- Incorporation of the following structures in the Environmental Development Department:
 - Regional Environmental Health Services
 - Regional Metro Parks
 - Regional Solid Waste
- Need to scope an integrated EDD service delivery model

The EDD was therefore mandated to consolidate the focus on environmental matters with the practical implication to that environmental services delivery had to be integrated both in policy and practice. One of the primary and critical success factors towards the formation of the new department was and still is to ensure that the various entities come together and forge a seamless and integrated unit.

The first initiative taken was to address this through an organizational analysis; organizational redesign and streamlining of functional responsibilities. This exercise was part of the overall EMM restructuring and the approach was introduced by the O&M/EMM. The current consultancy meanwhile provided ample evidence of a diversity of performance gaps pointing to the necessity of the need for more in-depth transformation at both professional and personal level. The importance of that the common focus is now the environment as opposed to the previous departmental reporting lines added extra dimensions as did the fact that EDD staff brought together from historically different business cultures now had to function together.

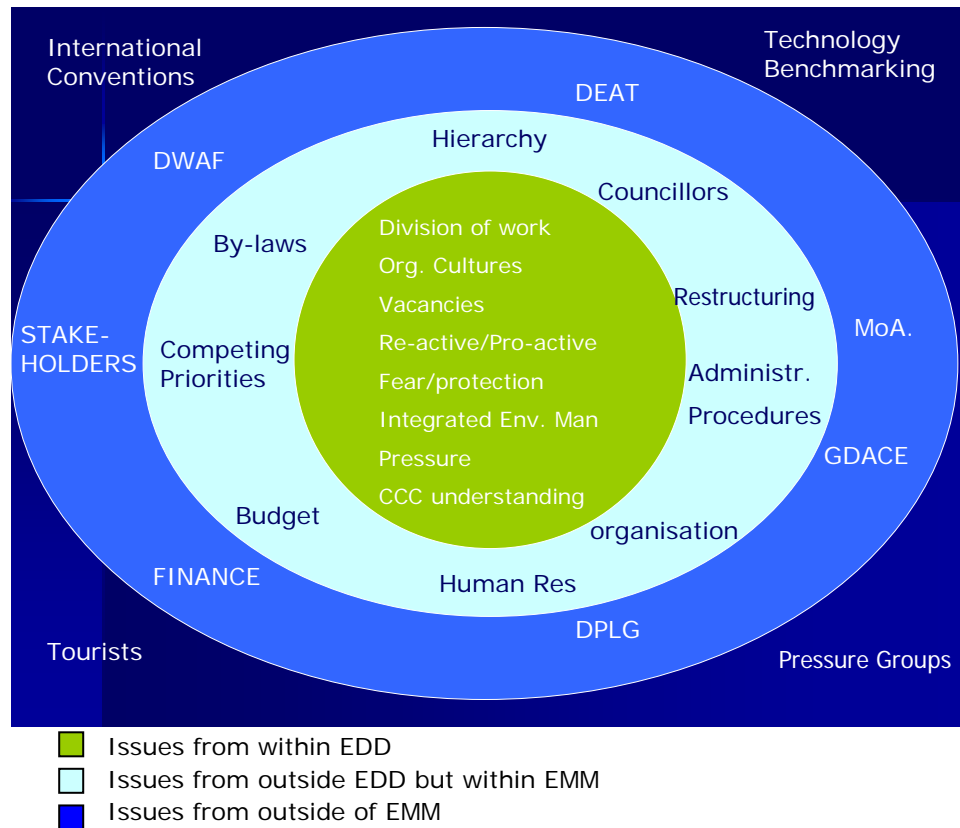
A major conclusion emanating from the Situational Analysis was that a successful restructuring can only provide the desired results if undertaken under the umbrella of a holistic transformation approach.

5.2 “Factors at play”

The quest for service delivery by excellence is central to municipalities all over the world. But whereas the parameters of good service delivery are well understood academically, they are most often found very difficult to match in reality. The “harsh” realities of budget deficiencies, shortage of human resources; political priorities etc. are more often than not found challenging.

The Environmental Development Department at Ekurhuleni Metro Municipality is no exemption from that. The Department is affected not only by its own historic origin of being constituted by organizational entities “imported” from other departments; but it is very much affected by and being expected to respond to a range of factors

controlled and regulated not only by other entities of the EMM but also by a range of external factors from outside of the EMM. Some of these factors/agents have been visualized in the diagram below.



In the Situational Analysis Report, an attempt has been made to identify, describe and assess both internal and external factors affecting the performance of the EDD. A tentative conclusion would be that a responsive implementation plan for organizational restructuring and transformation needs to be responsive to a diverse range of issues and that the EDD is only in control of selected intervention areas. As a result it is tempting to conclude that a conventional organizational design approach is not likely to provide all answers leading to increase organizational performance. More pragmatic, diverse and holistic approaches are required.

Below, the "Factors at Play" which were captured during the interactions between the EDD and the team of consultants have been presented in a organizational change framework under the 7 different headings introduced in par. 2.3.2. The presented information should be taken as indicative or symptoms of an organizational "diagnosis" since information was obtained mainly through informal, value oriented interviews and may not be "statistically" valid or "objective" in any sense.

5.2.1 Strategy and Organisational Objectives

From the Situational Analysis, the following points can be highlighted:

1. The EDD constitutes an integrated part of the wider EMM organization and must support the strategic framework and priorities outlined in the GDS

and the IDP. Environmental development initiatives may not have the highest priority in these plans.

2. The “public subjective opinion” about the EMM is that the organization is not being run in a very effective and efficient manner. Productivity is generally viewed to be low and that staff is not working hard.
3. Planning and budgeting by and for the existing directorates have been undertaken in “silos” with limited coordination and seeking of professional and operational synergy. The desired Integrated Environmental Management Approach is not visible. Few forward looking municipal environmental policies; plans and initiatives have been proposed.
4. The EDD directorate level plans are full of well intended activities, but very few thoughts have been made on how to go about the implementation of the activities. Do we have or can we get the implementation capacity? The plans moreover do not reflect that any assessment has been made on the general requirements and availability of the required resources.
5. The limited visionary approaches are overshadowed by a dominance on how to solve operational deficiencies e.g. in tender processes; financial issues, administration; secure fleet for operations and HR. The proposals have only to a limited extent been driven by a clear review and redefinition of core business areas.
6. Each directorate has made organizational proposals which do not reflect that key environmental issues such as waste prevention, minimization and recycling needs to be addressed and that Ekurhuleni is the major business and industrial hub of the African continent.
7. EDD performance problems linked to the process of outsourcing and to the managing of contracts were broadly expressed. Real project management skills are in demand. It also appears that there could be a need to review certain modes of service delivery.

5.2.2 Organisation, Management, Finance and Staff

Key observations from the Situational Analysis were:

1. The need for organizational restructuring is not fully accepted throughout the EDD and some senior officials even proposed to maintain the existing structure for a year or two. In some instances it would be tempting to interpret this as a fear of the implications of a transformation process.
2. The organograms and staffing proposals made by the directorates reflect a tendency to view each directorate as a self-contained sub-organisation within EDD. In some instances fears of “taking over” each others functional responsibilities were traced. The proposals made for increase of staff would also appear to be unrealistic in many instances. The proposed organograms meanwhile do not contain many proposals for that new environmental (and urgent!!!) issues will be addressed.
3. No serious attempts have been made to assess the organizational implications of that the four directorates have been brought together from other organizational entities in EMM nor have the transfer of the directorates been fully completed and formalized for all staff.

4. There appears to be a need to review some of the old/currently applied demarcations for service delivery (e.g. Areas, Regions and Districts) and moreover to enhance awareness and operational understanding of the role and authority given to the new CCC's.
5. The current support services secretariat/directorate can almost be described as a "lip service" to this important function in order for the EDD to provide service delivery in line with its mandate. Essentially 2 people are working there, servicing an organization of est. 4-5000 staff. This is unacceptable and needs urgently to become addressed.
6. Overall, the functional analysis undertaken by each directorate and their sub-units provide limited forward looking value. It has not been done in relation to an assessment of the environmental challenges encountered by the EMM but mainly been done in relation to current operations. The functional analysis is also of a variable quality.
7. It was noted that the definition of service delivery standards and supporting business processes has not been completed. This challenges the definitions of performance indicators and areas linked to the same. In this context it would be advisable for the EDD to implement a business intelligence system which could be linked to an Integrated Environmental Management System. This would enable management at ED; Director and Executive Manager level to adopt a "live" approach towards the monitoring of service delivery performance.
8. The Office of the Executive Director, at least for a temporary period of 1-2 years, needs to be strengthened in order for it to professionally and administratively lead a departmental transformation including a restructuring process.
9. It was not possible to assess current leadership and management competencies at Directorate level,. But from the consultations held and, based that core business for a restructured EDD will no doubt be changed; it may be advisable to take the opportunity to assess the existing leadership and management competencies to lead the directorates to fulfill their adjusted mandates. It has been noted that the Directors are all employed on so-called time bound performance based contracts. It may be a good opportunity to seek a renegotiation of these contracts as soon as the transformation and restructuring plan has been finalized.
10. Several human resource issues today affect the production and quality of service delivery of the EDD. The following can be listed:
 - Several unfilled and unfunded positions
 - Very limited support staff throughout the EDD
 - No real system to combat staff turnover
 - Staff reductions emanating from previous restructuring exercise
 - No effective means to support staff retention including reward and incentive mechanisms
 - Poor rewarding culture
 - Poor career path system
 - Jobs may not be sufficiently interesting and challenging
 - Insufficient leadership

- Transfer of directorates not complete with issue outstanding related to the formal transfer of place of employment; transfer of support staff etc.
 - Some staff occupying positions they are not competent for
 - No human resource and skills development policy and plan
 - Staff complement too little to secure the full utilization of resources available
 - Some key competencies missing
 - Ageing staff complement in some directorates
11. A note of caution should be made on HR. When it comes to specialist staff – e.g. certain types of engineers and other academic staff, it may not be the best solution to seek the recruitment of permanent staff to the EDD. Firstly, it may be found difficult to recruit such staff and secondly they may not last long in a position before they seek greener pastures.
12. There is a “long and time-consuming route from “idea or need” to that an operation can commence if a funding request needs to pass the official approval procedure. The EMM disbursement process is not well geared to respond to urgent funding requirements. Large amounts of monies are handed back to the metro from the Directorates because of insufficient accountable spending capacity. In essence this means that large amounts of planned work will not be completed.
13. Another observation is the feeling shared among several staff members of the EDD, that services obtained from outside of the department e.g. vehicle maintenance and IT are proportionally more expensive than if they were undertaken in other “regimes”.
14. Some concern was also expressed by representatives of the Waste Directorate, that the EMM finance section was not collecting the money for services provided by the waste section. And the Parks Directorate has noted that they do not have a sufficient budget to make things happen in the same way as the metros of Tswane and Cape Town do.

5.2.3 Organisational System Tools

1. The EMM seriously need to assess its current policies, strategies and service delivery to verify that it is fully compliant with existing and forthcoming environmental legislation. The new Waste Bill just about to be released for public comment is just one example of the legislation which the EDD needs to relate to.
2. International legislation; conventions and emerging best practice are another area where it would be beneficial for EDD to make an assessment. Municipal environmental development is today very high on the agenda worldwide.
3. Internal EMM guidelines, procedures and practices involving the following areas are not always found supportive for timely service delivery in the EDD:
 - HR management (recruitment, transfer, etc.)
 - Procurement and Tendering (of consultants, contractors, equipment and consumables)
 - Vehicle management (done by outside the EDD)

- Contract Management (do either not exist or are not of a sufficient quality)
 - Project Formulation and Design (do either not exist or are not of a sufficient quality)
 - Service Level Agreements
 - Simple management tools (e.g. the use of an electronic calendar)
 - NN
4. While IT is generally applied, it would appear that a number of departmental business processes (e.g. financial; administration and performance monitoring) can still be automated to improve on EDD performance
5. The issue of transport availability appears to be a recurrent problem. The vehicle fleet in Metro Park Directorate is more than 20 years old and the Waste Directorate complain that they do not have enough trucks to run collection schedules as planned.

5.2.4 Skills and Awareness

The following competency including skills and awareness issues were noted:

1. A competency development plan needs to be developed to complement the agreed restructuring and transformation plan. The plan must address issues such as de-skilling; re-skilling and up-skilling of staff. The EDD would also benefit from having an upgraded staff induction programme.
2. The following remarks on potential competency gaps were noted:
 - Procurement Management and Costing
 - Project Cycle Management
 - Managing and monitoring contracts and consultants
 - Marketing
 - Preparation of report and tender documentation
 - Preparation of documentation and progress reports to the Portfolio Committee
 - General knowledge on sustainable development
 - General knowledge on Integrated Environmental Management
 - Local government administration
 - Public participation
 - Equity
 - Transformation management
 - Specialist technical know-how – e.g. on engineering

5.2.5 Inter-relations

Good inter-relations is a key element of organizational performance, whereas poor inter-relations may be detrimental to organizational performance. Inter-relationships exist at both individual; intra- departmental; inter departmental and external level. To support the implementation of a performance enhancing transformation and restructuring process, an effective intervention could be to map healthy and less healthy relations as follows:

- At the individual level
- Within sub-units
- Between sub-units

- Within EDD Directorates'
- Between EDD Directorates
- Between leaders in the organization
- Inter-actions other sections and departments of EMM
- Between EDD and CCCs
- Between EDD and Portfolio Councilors
- Between EDD and communities (citizens, business, industry etc.)

The fact that the EDD has been established based on four "imported" divisions should also not be underestimated in this context. They each have their own in-house culture, which is good to a certain extent, but which can also be detrimental to a strategy for the department to work in a more integrated way.

While being sensitive to mention, it would be to reject what has been observed if a note is also not dropped on possible "racial issues" being a left over from the past. Such things are difficult to say without doing injustice; but strong indications were found that sub-cultures also exist along racial lines.

5.2.6 Incentives and Values – "human side"

In any organizational restructuring or change management process it is of ultimate importance to involve the affected employees and managers. An ownership and logic behind the intervention needs to be established and this is best done by full inclusiveness.

But while it is important to create "followers" and "supporters", this is more often than not experienced as a large challenge. The situation in EDD is no different. During the few interviews conducted several indications of "protectiveness"; "fear"; "resistance" and perhaps "suspicion on agendas "to change was noted. The main reason for this is no different for the EDD from other "organizations". Job security and status are key elements and there is a human element of pride making it difficult to step aside and/or to give or share authority to others. But there are strong indications that it will not be possible to accommodate everyone and to keep everyone happy if the objective is to refocus and strengthen the delivery capacity/performance of the EDD.

It is tempting to come to the conclusion that no change process can effectively be implemented before the existing organization become "de-frosted". There is a need to say "good-bye to the past" in order for managers and employees to enter the future in a constructive way. Moreover, there is a human tendency to "blame others" (e.g. other units in the EMM) for the situation in the Department. While there are good cases for that, it may be found useful to establish a working notion/principle, that we do not blame others before we have ourselves tried our very best. These are all issue which gives pointers to what needs to be addressed in an effective restructuring/transformation implementation plan.

5.2.7 Relations of Power

"Relations of Power" is an element of organizational changes which should not be underestimated. The staff of the EDD is working in a political directed environment with the EMM Council being the deciding authority. This means technical and political priorities will inevitably clash now and again. It is the mandate of the EDD to both inform and provide advice to the Council at the same time being pro-active and deliver services as required. The EED must also find ways whereby it can pro-

actively support other Council priorities than those related to environment development.

Councillors are voted in by communities and they need to show that they can provide immediate services back to their constituencies if they are having a problem that lies within the portfolio of the EDD. This makes it challenging to plan and manage if you are a line manager in the EDD.

5.3 Rationale for restructuring and transformation

Indications were noted that the rationale for restructuring and reorganizing was not thoroughly understood. Directly asked, many EDD officials and councilors could not articulate why an intervention was necessary, although fragmented arguments were presented. As a starting point for a change process, it is essential that some consensus and understanding exist on why something needs to be changed and what that is. This consensus will assist a lot to prevent (but will not exclude) resistance to the change process.

The following presents a summary of the fragmented arguments presented in favour of organizational change:

- EDD must support the EMM overall transformation process which is also national policy
- EDD acknowledges that there is scope for improvements in service delivery
- Overseen/new EDD responsibilities reflecting towards EMM priorities (employment, equity etc.) and national legislation (existing and upcoming)
- A need to move from a re-active to pro-active service delivery culture
- A need to re-focus and develop practical responses to service delivery using an integrated environmental management approach
- A need to be more innovative at the implementation level
- A need to minimize the impact of red tape on service delivery
- A need to reduce the time from project conceptualization to project implementation
- A need to develop common operational practices and procedures for the different directorates
- A need to enhance practical cooperation between and across directorates
- A need to be positively visible to constituencies
- A need to de-skill, re-skill and up-skill employees and managers
- A need to place more emphasis on selected priority areas (e.g. waste minimization, rodent control and air pollution)
- A need to establish a more common set of values and norms
- A need to establish a rewarding culture
- A need to adopt and implement modern business management principles and technology (e.g. a business intelligence system)
- A need to revisit business processes by identifying and describing primary business processes within and across directorates

6 Municipal Environmental Development

6.1 Consensus on Municipal roles and responsibilities

The roles of Municipalities in Environmental Development have changed significantly over the past decade and they continue to change. To therefore seek a so-called “best practice” may be a difficult exercise when contextual issues are also added to the equation. While observing that, a good way for EDD to reflect their current structure, focus and content of service delivery is to monitor what is happening with other municipalities. To support that, information has been sought from within and outside of South Africa. This information has been presented below, and more detailed information included in the annexes.

6.2 South African Inspiration

Municipal Environment development within the South African context is still in an evolving state. Given the challenges observed at the EDD during the Situation Analysis Phase, and in pursuit of recommending an optimum and effective departmental structure, a broader view of a South African context was necessary. To this end, a desktop study of the City of Cape Town (CTN) and the City of Joburg (CoJ) were considered for reference.

6.2.1 City of Cape Town

Cape Town's unique environment is arguably also its greatest asset, making it one of the most sought after urban areas in the world – to live and work in and as a tourist destination. Located within the Cape Floristic Kingdom, the smallest and most diverse of the world's six floral kingdoms, Cape Town is not only an economic hub but also a biodiversity hot spot of international importance. Having this conviction, the CTN is putting a concerted effort to ensuring environmental awareness, conservation and sustainability.

The CTN has a dedicated and demarcated environment directorate that focuses on issues related to the environment and conservation. Waste management is located in a separate directorate, dealing only on waste related challenges and projects. The Environmental Health service is part of the Municipal Health section, although there are serious organizational adjustments that will affect where eventually the Environmental Health section is located. Due to the dispersed approach, the integration of these service delivery entities is not obviously visible. However, there seems to be an effective service delivery model all the same.

The responsibility of looking after the environment is housed in the Environmental Resource Management (ERM) Department which falls under the Strategy and Planning Directorate. The ERM Department has a director and eight branch managers.

- Biodiversity Management Branch
- Environment & Heritage Management Branch
- Environment Management Systems Branch
- Environmental Strategy & Partnerships Branch
- Integrated Environmental Education and Communications Branch

- Major Programmes and Projects Branch
- Resource Conservation Branch
- Support Services Branch

The Waste Management and Waste Minimisation entities and also the entity for Environmental Health are all organisationally located outside of the ERM.

A detailed description of the organizational allocation of environmental responsibilities has been included in Annex 8.5.

6.2.2 City of Johannesburg (CoJ) and the Environment

The CoJ has adopted a “hybrid” model in addressing the environmental challenges encountered by the City. The model of the City was to establish a strategic unit focusing on environmental policy and strategy within the CoJ and to corporatize the service delivery units, including waste collection and disposal, parks maintenance, and cemeteries services. The CoJ has set up an Environmental Portfolio, the head of which is a member of the Mayoral Committee, as part of its Council structure. The administration support for the Environment Portfolio is delivered by the Environmental Planning and Management Department. The business focus of the Environment Portfolio divides responsibilities among:

- the Environmental Planning and Management (EP&M) Department, which is responsible for **policy and strategy**;
- City Parks, which is responsible for parks, nature reserves and cemeteries; and
- the Johannesburg Zoo, which is responsible for the care of animals in the zoo and educational programmes.

The primary functions of the EP&M department are:

- Policy and strategy development
- Air quality management and planning
- Waste management policy development and planning
- Conservation and biodiversity planning
- Environmental impact planning and compliance monitoring
- Water resource management
- Climate change and cleaner production strategies

For a peek of some of the environment project in the CoJ, click on:
http://www.joburg.org.za/city_vision/index_environment.stm

6.2.3 EThekweni Metro and the Environment

Critical to note on the environment activities at the eThekweni Metro is the success they've had with setting up successful cooperatives, especially in the waste division of the metro. Their success deserves a deeper investigation from a “lessons learnt” perspective and benchmarking.

6.3 International Inspiration

There is today considerable relevant inspiration to be sourced from environmental development approaches and practices adopted by municipalities all over the world. The examples listed below represent mainly examples on what environmental issues that are today dealt with by municipalities and some

examples on how they are dealt with. This information should not be considered as any “best practice” guide, but just as examples. In the annexes additional and more detailed information has been presented along with references to where complementary information can be obtained.

6.3.1 Municipality of Copenhagen, Denmark

Copenhagen is the capital of Denmark and the Municipality of Copenhagen is responsible for the provision and management of municipal services.

The Municipal Administration is divided into a number of Departments and environmental issues are managed with the Department of Engineering and Environment (DEE). The DEE is again divided into 10 Professional Centers.

Environmental Issues are organized into 2 professional centres:

1. Centre for Environment
2. Centre for Parks and Nature

The *Centre for Environment* is responsible for environmental matters within the municipal borders and deals primarily with soil, waste; recycling; rodents, noise; industrial environment; climate and ecology.

The *Centre for Parks and Nature* is responsible for the maintenance; general upkeep and cleaning of parks and natural habitats; street trees; public play grounds for children; monuments & sculptures; free drinking water posts; park toilets as well as municipally owned physical assets which have been outsourced to private companies operating cafés restaurants and kiosks. The centre is also responsible for the planning and development of parks, nature and water areas. The Centre has approx. 50 employees.

The Centre for Environment and the Centre for Parks and Nature each have their *own web-sites* under an overall web-site for the DEE. The web-sites are both sources of information for the public and for businesses related to environmental issues; practices and policies. Different applications forms are also available on the web-sites.

An independent professional *Centre for Cemeteries* handles all matters pertaining to cemeteries and it also manages two crematoriums. This centre has approximately 200 employees.

A professional *Centre for Public Works and Tendering* is responsible for all public works and provides support on the same to the other professional centres within DEE. An outsourced *professional centre called KTK* provides transport; maintenance and cleaning services.

The DEE relies on a number of companies (both *private and also inter-municipal companies*) for service delivery. The role of the DEE is to establish the legal and enabling framework (e.g. an Integrated Waste Management Plan; a Waste Water Plan etc.) for these companies whereas actual service provision is done by the companies. The companies include RH98 (a foundation, which holds a concession on the collection and disposal of household waste; Incineration plants; a joint municipal wastewater treatment plant (Lynetten).

All 10 professional centres draws upon the support from 6 secretariats: a Municipal Secretariat (15 employees); a Finance Secretariat (40 employees); a HR secretariat (20 employees); a Communications secretariat (20 employees); a customer service secretariat (35 employees) and an Organisational and Development secretariat (25 employees). For detailed information please see annex 9.1.

6.3.2 EcoBusinessPlan Vienna

By being the industrial hub of Southern Africa, the Ekurhuleni Metro Municipality needs to formulate effective and cooperative approaches which will enable its business and industrial citizens to operate in an improved environmentally sustainable way. To this effect there is a wealth of international experience to be drawn upon. The example presented here is the EcoBusinessPlan approach adopted by the City of Vienna in Austria.

The EcoBusinessPlan Vienna was launched in 1998 by the Vienna City Administration, Municipal Department for Environmental Protection. To date, 500 enterprises have participated in the EcoBusinessPlan, implementing more than 9.000 environmental projects and actions. Through appropriate environmental management practices, these enterprises have been able to generate substantial cost savings totalling about EUR 30 million. The success of the EcoBusinessPlan illustrates that the voluntary move to apply quality standards that exceed legal requirements creates significant financial benefits.

The purpose of the EcoBusinessPlan is to help enterprises generate "green and clean" profits through ecological management practices that benefit both the environment and the enterprises, ensuring high quality and financial benefits in each company. The EcoBusinessPlan Vienna aims to:

- Reduce adverse environmental impacts of economic activity through integrated environmental protection strategies
- Improve the competitive position of Viennese businesses through more efficient use of resources (making full use of innovative potentials and cost saving opportunities), sustaining employment over the medium term
- Strengthen the advisory component in the relationship between the city administration and private sector enterprises
- Contribute to the sustainable development of the City of Vienna
- Support the exchange of information, nationally and internationally, with city administrations and enterprises running similar programmes
- Extend and support environmental protection efforts both nationally and internationally
- Contribute to de-coupling economic growth from resource consumption and environmental damage

An important advantage of the EcoBusinessPlan Vienna is that it is transferable in part or as a whole and can thus be implemented in other regions or countries. In 2004, five federal Austrian provinces started to cooperate with the EcoBusinessPlan. The new cooperation partners began using the database and will develop it further together with the EcoBusinessPlan Vienna. The European Union has supported the EcoBusinessPlan Vienna with EUR 674.000. These funds were granted within the framework of the INTERREG IIIA project "Wien-Györ". The capital of Greece, Athens, and India's fourth-largest city, Chennai (Madras), want to develop EcoBusinessPlans of their own modelled on Vienna's programme.

UN Habitat has included the EcoBusinessPlan Vienna in its Best Practices Database which lists the best sustainability projects worldwide. The EU Commission also regards the Environmental Service Package of the City of Vienna as an example of best practice.

6.3.3 City of London – Examples of a Municipal Environmental Strategy Framework

The Mayor of the City of London has produced five environmental strategies, which set out his priorities and proposals for making London a cleaner, greener, more sustainable city. The framework provides a good example of what kind of strategic framework that is required by a modern municipality to guide environmental

management and municipal services delivery. Further information can be obtained from www.london.gov.uk/mayor/environment

- **Air Quality Strategy** - presents a comprehensive set of policies and proposals aimed at improving London's air quality to meet the objectives set out by the government's National Air Quality Strategy.
- **Ambient Noise Strategy** - is part of a Europe-wide move towards more active management of what legislation calls 'ambient' or 'environmental noise' - long term noise, mainly from transport sources.
- **Biodiversity Strategy** - seeks to ensure that there is no overall loss of wildlife habitats in London, and that more open spaces are created and made accessible to all Londoners.
- **Climate change** - Climate change is the Mayor's top priority. The Mayor is committed to preparing London for the climate change that is now inevitable (adaptation) and limiting further climate change by reducing London's carbon dioxide emissions (mitigation). His **Climate Change Action Plan** recommends key actions to help London and Londoners tackle climate change.
- **Energy Strategy** - aims to reduce London's contribution to global climate change, tackle the problem of fuel poverty and promote London's economic development through renewable and energy efficient technologies.
- **Municipal Waste Strategy** - identifies policies and proposals for reducing waste and recycling, aimed at dealing with London's growing output of municipal waste.
- **Business Waste Management Strategy** - Over 4 million tonnes of municipal waste is produced in London each year, and yet it accounts for just a quarter of all the waste produced in London. Therefore, the Mayor has produced a draft strategy for the remaining three quarters (13.8 million tonnes) of London's waste produced by London's businesses.
- **Water Strategy** - examines how we could use our present water resources more effectively.

The Mayor has also produced a number of environmental frameworks.

- **Animal Welfare Framework**
- **Trees and Woodlands Framework**.

The City of London has moreover embarked upon a number of additional environmental initiatives/measures which have been listed below:

- **Insulation** - The Mayor of London and British Gas have launched a new scheme to offer Londoners **cut price home insulation**, with £100 cash back. Free insulation is available to those who receive certain benefits.
- **East London Green Grid** - working to provide East London residents and workers with a multi-functional network of strategic open space and in turn improved quality of life.
- **Low Emission Zone** - The proposed a Low Emission Zone for London will improve London's air quality by encouraging vehicle operators to clean up their fleets.
- **Wildweb** is a website that allows visitors to access details of over 140 of London's most important wildlife sites.
- **London Single Waste Authority** - the Mayor is proposing that one organisation should be responsible for managing London's municipal waste, replacing the existing 16 waste disposal authorities.
- The **London Climate Change Agency** - supported by the LDA, the Agency will work in partnership with private sector firms to tackle London's carbon dioxide emissions.
- **London Schools Environment Awards** - These annual awards for primary schools aim to develop children's sense of responsibility for their environment. The areas which the schools focus on are litter, waste and recycling, energy, transport, biodiversity, and water.
- The Mayor has set up the **London Waterways Commission** to keep him informed about issues relating to London's waterways

- London Tree and Woodland Framework - 'Connecting Londoners with trees and woodlands' explains why trees and woodlands are good for London, and tells us what we should do to maximise their contribution to London's quality of life.
- Green Metro - Sent to nearly 40,000 students in October 2006, the Green Metro gives students advice on how to live in a green and sustainable way.
- Water conservation - the Mayor's water conservation campaign encourages Londoners to use water wisely, to avoid shortages and mandatory restrictions in the future.
- The Mayor's Taxi Emissions Strategy will help improve London's air quality by reducing the emissions from taxis by up to 37 per cent by July 2008.
- Living Roofs - The Mayor and Richard Rogers are working to promote roof terraces, roof gardens and green roofs across London. Their Living Roofs statement outlines the issues and next steps. A selection of case studies provides inspiration.
- London Renewables - A partnership set up to facilitate an increase in renewable energy generation.
- London Waste Disposal Authority - the Mayor is proposing that one organisation should be responsible for managing London's municipal waste, replacing the existing 16 waste disposal authorities.
- Green Procurement Code - This Code encourages businesses in London to purchase goods made from recycled materials.
- WasteDataFlow is the online web based system for municipal waste data reporting by UK local authorities to government. For more information, please visit CapitalWasteFacts.com
- Recycle for London - Launched in 2003, this campaign aims to help Londoners recycle more of their waste.
- The London Recycling Fund was established through a partnership between the Mayor, the Association of London Government and London Waste Action. The Fund is aimed at enabling a reduction in the amount of household waste generated in London and ensuring that a higher proportion of what remains is recycled or other wise diverted from landfill.
- London Waste Action a working partnership between the public, private and independent sectors, supports and operates the London Recycling Fund.

The objective of the listing of the above has been to provide examples of the diversity of environmental initiatives that can come from a modern municipality. Not all of what has been mentioned is of relevance to Ekurhuleni, but it is hoped that the listing will inspire and encourage the new EDD to present relevant and feasible proposals for Ekurhuleni.

6.3.4 ISO 14.001 and EMAS

The Eco-Management and Audit Scheme (EMAS) is the EU voluntary instrument which acknowledges organisations that go *beyond minimum legal compliance and continuously improve their environmental performance* EMAS registered organizations (public, local government, private) are legally compliant, run an environment management system and report on their environmental performance through the publication of an independently verified environmental statement.

Environmental management has become a core business issue for many organisations. Minimising the amount of waste that is produced, reducing energy consumption and making more efficient use of resources can all lead to financial cost savings, in addition to helping to protect and enhance the environment. EMAS is strongly backed by Government and the environmental regulators - organisations who participate are recognised as making strong commitments to the environment and to improving their economic competitiveness.

EMAS was strengthened by the integration of EN/ISO 14001 as the environmental management system required by EMAS; by adopting an attractive EMAS logo to

signal EMAS registration to the outside world; and by considering more strongly indirect effects such as those related to financial services or administrative and planning decisions.

The core of the EMAS scheme is the so-called "continuous improvement circle" or "PDCA-circle" (plan-do check-act). The elements of this circle are presented in Annex 9.3.

While the EMAS was initially targeted towards the commercial and industrial sectors, EMAS initiatives; principles and certification have increasingly been adopted by local authorities in Europe. A number of examples on that have been included into Annex 9.4.

6.3.5 Local Agenda 21

Local Agenda 21 is the action plan for a sustainable development of a municipality, set up by local government together with the local stakeholders and citizens. The mandate for setting up a Local Agenda 21 was given to local governments world-wide at the UN conference on the Environment and Development (UNCED) in Rio de Janeiro in 1992.

Each Local Authority should enter into a dialogue with its citizens, local organisations and private enterprises and adopt "a local Agenda 21". Through consultation and consensus-building, local authorities would learn from citizens and from local, civic, community, business and industrial organisations and acquire the information needed for formulating the best strategies. The process of consultation would increase household awareness of sustainable development issues. Local authority programmes, policies, laws and regulations to achieve Agenda 21 objectives would be assessed and modified, based on local programmes adopted. Strategies could also be used in supporting proposals for local, regional and international funding.

Sustainable development requires involving all citizens in their area of responsibility in the community: in business, administrations, political offices, societies or private households. Together they should undergo a change in outlook, which will consequently lead to a change in patterns of behaviour: How can the desired quality of life be reached for all people with a concurrent reduction in the consumption of natural resources? Agenda 21 argues that a direct dialogue concerning these matters can most effectively be initiated by local authorities: *As the level of governance closest to the people, they play a vital role in educating, mobilising and responding to the public to promote sustainable development.*

Since 1992 more and more European municipalities have started Local Agenda processes that usually are carried out through five steps:

1. Setting up a *Local Agenda forum* and/or *working groups*, ideally consisting of the administrative, political and business representatives, plus societies and private households;
2. Discussion and analysis of the *main local issues*;
3. Identification of *goals* and *ideas for action* for the sustainable development of the municipality;
4. Integration into a Local Agenda 21 *action plan* which is adopted by the city council;
5. *Implementation* of the action plan, again including all representatives.

To achieve a useful result in this process, a competent facilitation of the working groups, a professional process management through the municipal administration as well as the continued involvement of the municipal leaders are of outstanding importance. It is understood that an Agenda 21 process is in the pipeline for the EMM. This process could lead to certain organizational adjustments within the EDD.

6.4 Recommendations to EDD

From information collected and perused it may be suggested that the EDD considers the following:

1. To scope; agree and prioritise on what policies and strategic framework that needs to be developed for the EMM to become more environmentally pro-active.
2. To specifically consider an initiative targeted towards businesses and industry.
3. To immediately embark upon a strategic and concrete visible initiatives in the field of waste prevention, waste minimization and recycling
4. To review the performance of contracts linked to the outsourcing of services and to expand this exercise to explore different options available to the municipality to provide services (e.g. joint municipal; PPP; corporatisation; through cooperatives and small businesses etc.)
5. To develop and implement an Agenda 21 plan
6. To implement an Environmental Management System
7. To design and implement pilot activities within municipal building on green buildings and green procurement.
8. To revisit the water strategy framework including issues pertaining to water conservation
9. More could be added.

7 EDD Organisational Design – a proposal

7.1 “Drivers” & “Rationales” of organizational change

There are many “drivers” or “options” to take direction from when proposing a structure and organogram for the EDD. The more prominent ones are:

1. Driven by routine operational service delivery
2. Driven by wish to encounter and solve day-to-day challenges and to control them
3. Driven by the resource conditions (finance; staff...
4. Driven by key policies and priorities of the EMM Council (environmental and other)
5. Driven by Geographical considerations
6. Driven by empire builders and individual/personality considerations
7. Driven by a delegation agenda (e.g. CCC, Division etc.)
8. Driven by outsiders to the EDD with limited consultation (e.g. the O&M) and based on less transparent rationales
9. Driven by an Environmental Development Agenda
10. Driven by a “compromise”
11. Other???

The consultants have adopted the prioritized list of issues as their strategic direction for the proposed organizational design:

1. Enhance the Municipal Environmental Agenda and Services
2. Incorporate current trends in municipal environmental management
3. Enhance Integrated Environmental Management in policy and practice
4. Promote environmental innovation; pro-activeness and research
5. Establish an effective support structure for service delivery
6. “Mend” immediate environmental service delivery deficiencies in relation to the environmental challenges in Ekurhuleni
7. Strengthen performance culture
8. Core business driven
9. Create “space” for good leadership and governance
10. Acknowledge the challenges encountered in terms of retaining and attracting staff to the EDD.

7.2 Proposed Organisation of EDD

Based on the rationales presented above, two organizational options could be considered:

Option 1: Driven by need to re-position EMM on the Municipal Environmental Agenda

Option 2: Driven by the need to strengthen and decentralize service delivery

The consultants would like to remark that no main conflict should be seen between the two options and that the different objectives could be merged if the new structure is adequately managed.

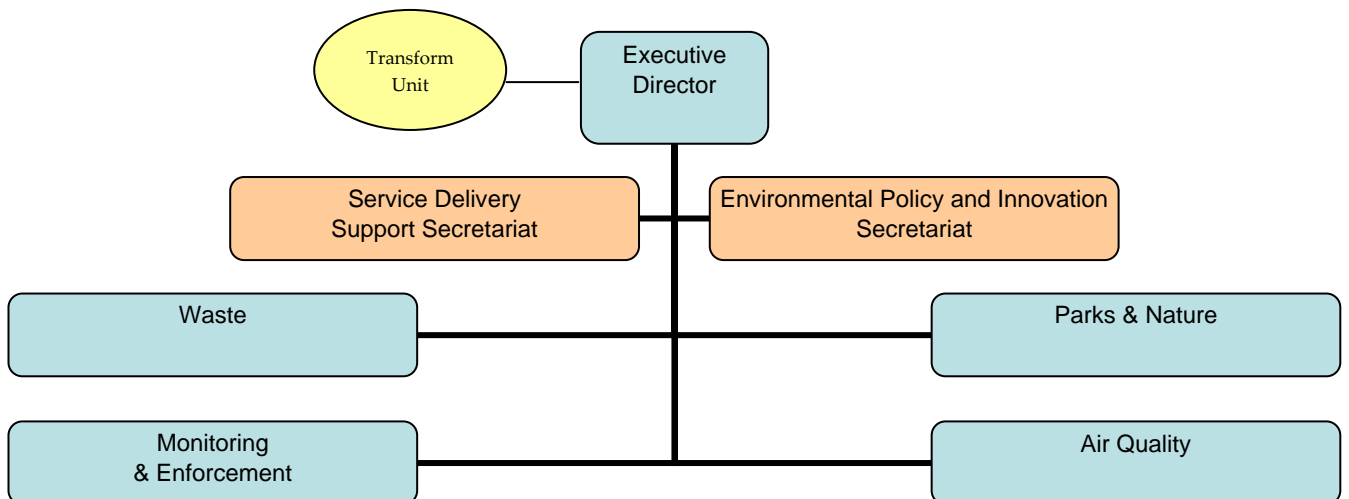
In view of this approach, it would hardly be possible to “ironcast” an organogram for the EDD. There are areas where some experimentation would be useful in order to finally scope the nature and volume of work for an EDD organizational entity.

7.2.1 Option 1

With a few amendments, Option 1 follows the tentative proposals made in the Situational Analysis report which have been developed further. The actual scoping of the organization also depends on the organization of service delivery in particular the amount of services to be outsourced.

It is overall proposed that the EDD be considered to consist of two types of entities (1) Production Directorates and (2) Secretariats.

The **Production Directorates** are the entities directly responsible for services delivery to different EMM constituencies whereas the **Secretariats** are to be considered as innovation, policy and service delivery support entities. In view of a foreseen need to manage and champion the EDD transformation process it is moreover proposed to establish a time bound (initially for an estimated 2 years) **Transformation Unit** which it is hoped will be supported by the UEM by assigning the UEM resident coordination to the unit. The resulting organogram would look as follows:



4 Production Directorates are proposed for the EDD:

1. **Waste Management**
2. **Parks and Nature**
3. **Monitoring and Enforcement**
4. **Air Quality**

2 Secretariats are proposed for the EDD:

1. **Service Delivery Support**
2. **Environmental Policy and Innovation**

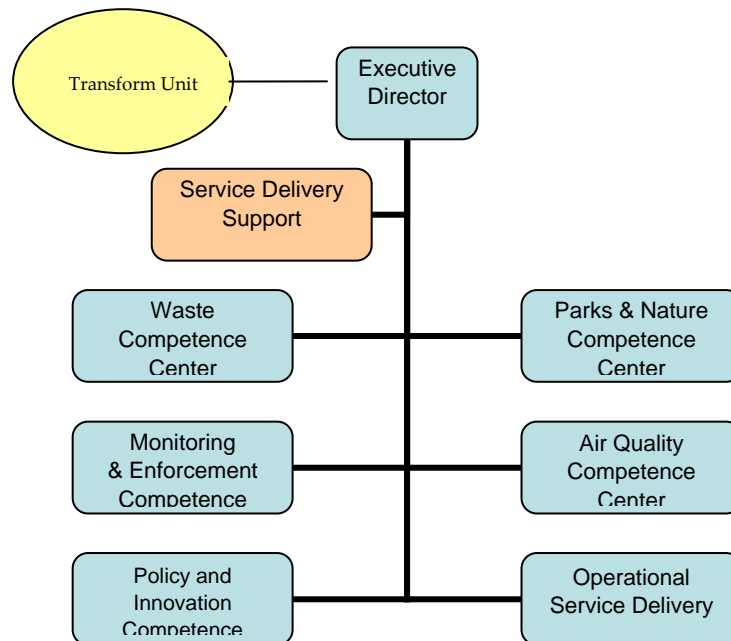
1 Transformation Unit to be staffed by the UEM resident coordinator at EDD for a period of two years.

The 4 production Directorates should each be headed by a Director. The two secretariats may not necessarily be headed by a director. By could be lead by the Executive Director of the EDD.

7.2.2 Option 2

Option 2 was developed during a feedback session with EDD. The main rationale behind this proposal was to bring “*Service Delivery Operations*” more into the picture while allocating some of the innovation and policy responsibilities for some core business areas to “*Competence Centres*”. The *Transformation Unit* has been maintained in this proposal.

The resulting organogram would look as follows



Service Delivery Operations will be represented at corporate level in terms of a Director; whereas actual service delivery will be delegated to either 4 Areas (under the leadership of an Executive Manager) or to the level of the CCC. The *Competence Centres* will be responsible for policy, strategic, pilot projects and innovation within the specific areas but be based at centrally at the corporate office with the purpose of enhancing integration. The other functional units will be as presented in Option 1 with the exemption that the mandate of the Policy and Innovation Secretariat will be reduced corresponding to the matters dealt with in the proposed competence centres.

7.3 Functional Responsibilities at Directorate level (Option 1)

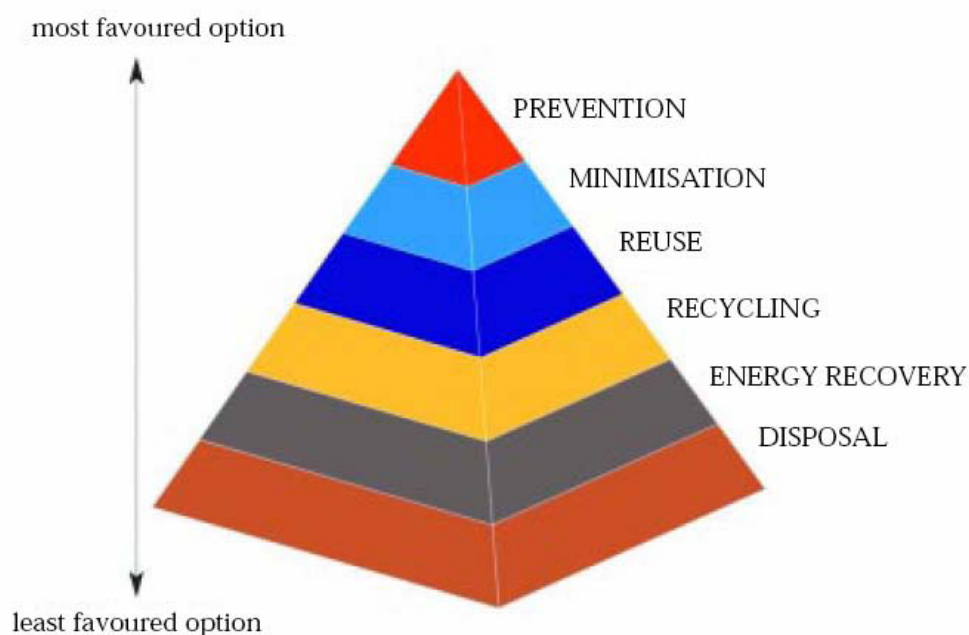
7.3.1 Waste Management Directorate

Purpose of entity

The waste management directorate needs to implement a paradigm shift to be in line with best practice municipal waste management. Very limited amounts of the waste (household, business and industrial) produced in Ekurhuleni is today re-used or recycled and only fragmented, if any, efforts have to date been done to prevent

or minimise the production of waste. Landfills are filling up and waste amounts are increasing. The EMM has a responsibility to change this scenario and the EDD must be responsive to that in its organisational setup. The purpose of the directorate should reflect the paradigm shift and the following may be considered:

“To manage and provide municipal waste management services in an environmentally sustainable way with the objective to; while managing municipal collection and disposal responsibilities, continuously implement measures to shift the focus from the bottom to the top of the Waste Hierarchy (see below figure)”.



Key Operational Features

- Close collaboration with Environmental Policy and Innovation Secretariat for the development of the Integrated Waste Management Plan and for the development of a number of sub-policies and strategies e.g. on waste prevention; waste minimisation and recycling.
- Close collaboration with other Production Directorates to support the implementation of integrated environmental management practices
- Implementation of innovative practical solutions to move towards the higher levels of the waste hierarchy

Internal Organisation and Core Functional Responsibilities

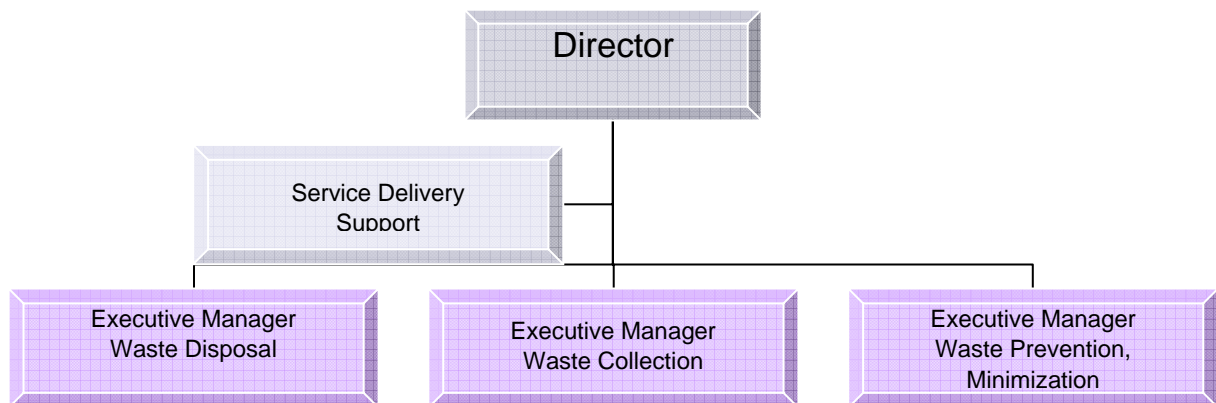
Waste Collection has previously been subdivided along the 3 “old “regions today called areas. They are today each headed by an Executive Manager. The division into three units may still be found useful, but it should e considered to manage waste collection services under only one Executive Manager with area managers being designated as Managers.

Under normal circumstances, the Waste Department would possess relevant academic competencies to undertake functional responsibilities related to;

- Integrated Waste Management Planning
- Business Waste Management Strategy
- Waste Minimisation Strategy
- Waste Prevention Strategy
- Recycling Strategy
- By-laws and regulations
- Environmental Awareness and Education

But the current thin and fluctuating veneer of academic staff of the EDD and EMM makes it more sustainable to allocate the associated functional responsibilities to a central unit (i.e. the Environmental Policy and Innovation Secretariat) who will then cooperate with the Waste Directorate in the undertaking of the related work. Moreover it should be considered to re-locate some or all of the law enforcement responsibilities to the Monitoring and Enforcement Directorate.

Based on these suggestions, it is proposed to organise the waste management directorate into 3 technical and one administrative teams supported by a secretariat and all headed by a director. This structure has been presented below:



Landfill Management

- Contract Management Services (monitoring and action)
- Landfill Advisory Services
- Planning and Design of new landfills (role of consultants?)
- Construction Services (role of consultants and contractors?)
- Facility Management Services
- Implementation of initiatives to prevent waste and to support recovery of waste for recycling and composting
- Professional inputs to tender documentation
- Professional inputs to relevant EDD and other municipal plans

Waste Collection Services

- Contract Management (monitoring and action)
- Transfer Stations
- Area collection services
- Monitoring of Waste services
- Household waste
- Industrial waste
- Building waste
- Street Cleansing and Litter
- Special and Hazardous Wastes (?)
- Professional inputs to tender documentation
- Professional inputs to relevant EDD and other municipal plans
- Implementation of new initiatives in relation to waste collection (e.g waste minimisation initiatives related to transfer station and at household level)

Waste Prevention and Minimisation

- Municipal Waste Prevention Initiatives
- Municipal Waste Minimisation and Reuse Initiatives
- Municipal Recycling Initiatives (including Market Development)

- Municipal Composting Initiatives
- Professional inputs to relevant EDD and other municipal plans

Service Delivery Support Secretariat

Administrative

- Liaison with EDD Service Delivery Support Secretariat for support.
- Logistical Support Services
- Financial Support Services
- Fleet Management Support
- Proposals for Contractor Incentives
- Billing Services
- HR services (HIV AIDS; Equity and Skills)

Technical

- Professional inputs to relevant EDD and other municipal plans
- Performance Monitoring for Directorate
- Tender documents
- Waste Related Contracts with Service Providers
- Project Management Support
- Waste Information System
- Implementation of Community related initiatives

7.3.2 Parks and Nature (including conservation)

Purpose of entity

The Parks & Nature section of the EDD is the "GREEN" element of the department. It is in this section that the department ensures that all environmental "green" elements are implemented, rehabilitated, conserved and sustained. The section ensures that all public green spaces are maintained and sustained. They ensure that natural habitats, like the wetlands, natural ridges, dams and rivers are well developed, maintained and conserved into the future. All this is done to the full benefit of all the citizens of the Metro first and all the visitors that pass by the Metro. Outdoor facilities of leisure and recreation are their focus. The directorate is also tasked with ensuring that the citizens of the Metro are afforded respectable memorial parks.

Key Operational Features

Parks and Nature is one of the Production Directorates. Service delivery is therefore one of the prime purposes for their existence. The following are the key operational features of the directorate.

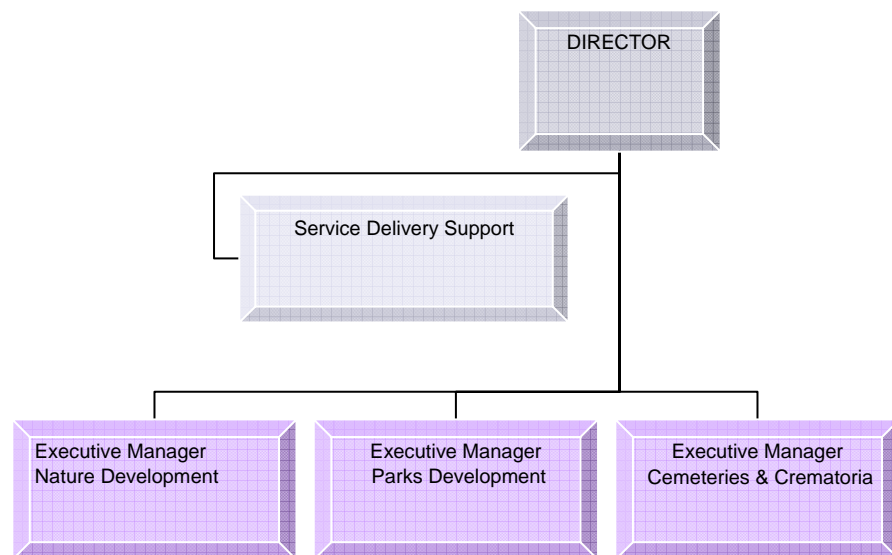
- Close collaboration with the CCCs is paramount in the service delivery model. Initially service may however be organised into 4 areas.
- Each of the areas will ensure that all the components of service delivery are attended to, i.e. Parks, Nature and Cemeteries and integrated with service delivery of other Production Directorates where possible.
- Close collaboration with Environmental Policy and Innovation Secretariat for the development of the Integrated Waste Management Plan and for the development of a number of sub-policies and strategies e.g. arboriculture and tree pruning, and, conservation and management of natural areas.
- Close collaboration with other Production Directorates to support the implementation of integrated environmental management practices
- Concerted effort to increase focus on conservation issues.

Internal Organisation and Core Functional Responsibilities

The primary aim of the suggested organizational structure is to facilitate the ED's agenda of a 'lean and well-oiled machinery'. A lean corporate and executive office will enable appropriate population of management and supervisory roles. This in turn will assist in dealing with the notion of 'lack of supervisory control' predominant in the previous Metro Parks. The top leadership will be afforded the opportunity to focus and drive strategic agendas while service delivery will be pushed in the 4 areas.

It should be considered to separate "**Cemeteries**" from Parks and Nature and for the meantime establish a special unit dealing with this with a view to negotiate that the related functional responsibilities should in future be catered for elsewhere in the EMM structure. The main reason for this proposal is to mainstream and focus the services of the EDD in accordance with the environmental challenges of the Metro.

The resulting structure of the directorate could look as follows:



Nature Development

- Contract Management Services (monitoring and action)
- Development of plans for natural habitat sustainability
- Surveillance and rehabilitation of natural habitat
- Biodiversity management
- Conservation

Parks Development

- Contract Management Services (monitoring and action)
- Urban landscape management
- Arboricultural management
- Turf grass management
- Project implementation and management

Service Delivery Support

Technical Support

- Project Implementation & Monitoring

- Fleet, plant and equipment management
- Workshop support & management
- Directorate Supply Chain Management
- Policy and standards implementation and monitoring
-

Administration Support

- Directorate HR, Finance, and general administration support
- Directorate information management and coordination
- Marketing and Communication support

Cemeteries & Crematoria

- Contract Management Services (monitoring and action)
- Planning and management of all activities relating to Cemeteries & Crematoria

7.3.3 Monitoring and Enforcement

Purpose of entity

It is uncertain to what extent the services provided by the already existing Directorate of Environmental Health have been legally prescribed as per the South African Constitution and the National Health Act. However, one possibility could be that Municipalities are free to organise how to implement the prescribed functional responsibilities as long as they are undertaken as legally prescribed. The last mentioned approach has been taken in the proposals made below. Moreover, the Environmental Health Practitioners (EHPs) are a commonly and well understood cadre of professionals whom have completed a prescribed compulsory training programme. The focus of the work of the EHP is administration, inspection, monitoring, education and regulation as prescribed in environmental health legislation. They act as a public arbiter of environmental health standards, maintaining close contact with the community. The EHPs are expected to undertake both preventive and curative functions. But is it a general feeling that there is a need to focus and in some instances re-focus the core business of the existing environmental health directorate.

Therefore, while accepting the above as key background information, the core business of the new proposed Monitoring and Enforcement Department could be consolidated as follows:

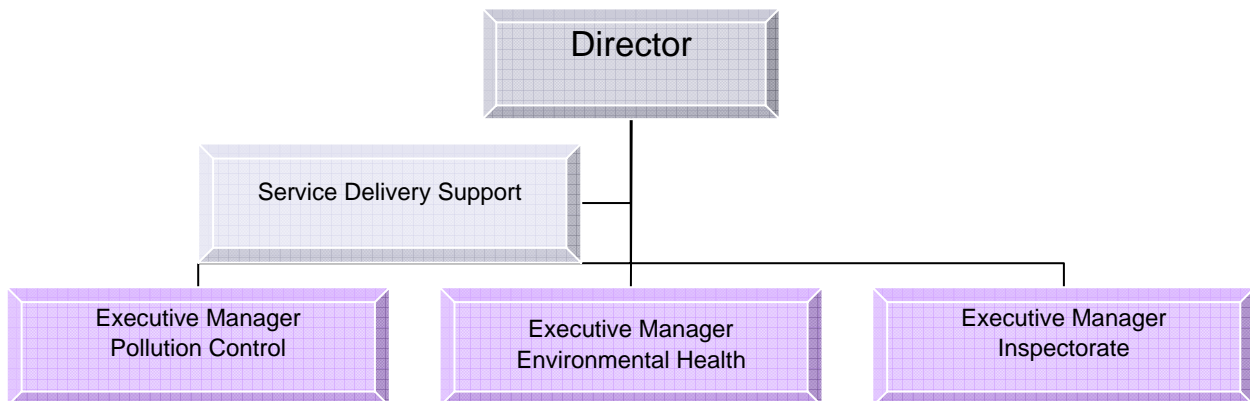
To ensure environmental compliance, monitoring and enforcement of Municipal Environment as prescribe

Key Operational Features

- Close collaboration with Environmental Policy and Innovation Secretariat for the development of the Integrated Environmental Management Plan and for the development of a number of sub-policies as applicable on environmental education and awareness.
- Close collaboration with other Production Directorates to support the implementation of integrated environmental management practices and on matters related to environmental health
- Implementation of innovative preventive initiatives and solutions in relation to environmental health
- Inter-departmental coordination within and outside of the EDD and EMM
- The promotion of an integrated approach to environmental management and thus more dialogue between the directorates.

Internal Organisation and Core Functional Responsibilities

A key decision to be made by EDD is whether to maintain Air Pollution as a functional area within the M&E Directorate or to establish it as an independent directorate. Professionally it can be argued to allocate all pollution related monitoring within one directorate, but it may equally well, based on that nature and challenges encountered by Ekurhuleni Metro, be argued to establish Air Pollution as an independent Production Directorate.



Pollution Control

Contract Management Services (monitoring and action) as applicable
Pollution; Monitoring and Compliance issues related to

- Water Pollution
- Water quality and quantity monitoring (streams and drinking water)
- Land & Soil Pollution
- Waste management: refuse; illegal dumping monitoring; hazardous waste, chemical safety
- Monitoring and compliance issues

Environmental Health

Contract Management Services (monitoring and action) as applicable

- Vector Control
- Rodent control
- Food Control & Safety
- Sanitation
- Health surveillance of premises: health hazards surveillance; monitoring of premises; issuing of health certificates; education & awareness.
- Surveillance & prevention of communicable diseases, excluding immunization: management of environmentally induced diseases, i.e. investigate & manage, where possible help in the prevention.
- Disposal of the dead: compliance and enforcement of policies and by-laws to service providers

Inspection Services

- By.laws monitoring; compliance and enforcement
- Contract Management Services (monitoring and action)
- Mining environmental & Rehabilitation issues (monitoring and enforcement)

Service Delivery Support Secretariat

Administrative

- Liaison with EDD Service Delivery Support Secretariat for support.
- Logistical Support Services
- Financial Support Services
- Fleet Management Support
- Proposals for Contractor Incentives
- Billing Services
- HR services (HIV AIDS; Equity and Skills)

Technical

- Professional inputs to relevant EDD and other municipal plans
- Performance Monitoring for Directorate
- Tender documents
- Directorate contracts with Service Providers
- Project Management Support
- Input to Environmental Management System
- Implementation of Community related initiatives

Proposed clarification of some key grey areas of functional responsibilities

- All matters on Air, Noise, Climate and Air Pollution will be undertaken by the new Air Quality Directorate
- Water quality monitoring is the responsibility of the M&E Directorate
- Water quality conservation issues is the responsibility of Parks and Nature
- Waste management monitoring (incl. illegal dumping) is the responsibility of the M&E Directorate (precise definition to be made)
- Education and Awareness (the Environmental Policy and Innovation unit takes the lead but execution will be in collaboration with the production directorates
- The Environmental Policy and Innovation unit will also take the lead on all policy; by-law and planning issues; but also in close cooperation with the Production Directorates

7.3.4 Air Quality

Purpose of entity

The EMM is the industrial hub of the Republic of South Africa, and certainly the continent of Africa. The EMM is also part of the original mining belt of the Reef, stretching from Western part of Gauteng – Randfontein – to the Far East areas of Springs. The EMM is also the home for Africa's largest international Airport, the OR Tambo International Airport. The industrial and commercial activities also attract urban influx as far as settlements. Due to the sporadic nature of the influx, the EMM is subjected to informal settlements as people seek to fight and address basic human requirements of shelter.

As a result of the above, the EMM is subjected to serious air pollution and related challenges. The enactment of the Air Quality Act of 2004 is an institutional and legislative instrument to ensure that the Air Quality agenda is upheld. The Act in essence is promulgated:

"To reform the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable economic and social development; to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto."

Today cities host around 50% of the world's population on less than 1% of earth's surface yet they consume 75% of the world's energy and account for 80% of greenhouse gas emissions. Cities are therefore also central to the solution to halt global warming. Ekurhuleni Metro Municipality must relate to that in practice. But what can cities and urban local authorities do? The following list may serve as inspiration on how cities can take steps to reduce energy consumption and to use cleaner energy

- Creating building codes and standards that include practical, affordable changes that make buildings cleaner and more energy efficient.
- Conducting energy audits and implementing retrofit programs to improve energy efficiency in municipal and private buildings.
- Installing more energy efficient traffic and street lighting.
- Implementing localised, cleaner electricity generation systems.
- Developing bus rapid transit and non-motorised transport systems.
- Using clean fuels and hybrid technologies for city buses, rubbish trucks, and other vehicles.
- Implementing schemes to reduce traffic, such as congestion charges.
- Creating waste-to-energy systems at landfills.
- Improving water distribution systems and leak management.

To address these matters in an effective, efficient and responsive way it is proposed to consider the establishment of a new Air Quality Directorate. This directorate will be tasked with ensuring that the elements of the Act are in place and adhered to across the EMM. The directorate is therefore tasked with the minimization of pollution through vigorous control, cleaner technologies and cleaner production practices, thus ensuring that air quality in the Metro is improved. One of the initial challenges the Metro faces is to ensure that the department is well capacitated with additional legislation in the form of appropriate by-laws to strengthen the Government's strategies for the protection of the environment and, more specifically, the enhancement of the quality of ambient air, in order to secure an environment that is not harmful to the health or well-being of people.

Key Operational Features

The Air Quality Directorate will be one of the Production Directorates. Service delivery is therefore one of the prime purposes for its existence. The interaction, particularly with industry and the sector generally, and the community generally, is going to be paramount to the success of this Directorate. The following are the key operational features of the Directorate:

- Close collaboration with the community and citizens to identify and address areas of concern relating to Air Quality.
- Close collaboration with the industry and business sector, the primary propagators of air and related pollution elements. This will be done in conjunction with a possible new business related initiative by EDD.
- Close collaboration with other Metro departments where pollution and in particular, Air Pollution, is one of the resultant outputs.
- Development of relevant policies and plans to enable the application of the Air Quality Act. This should be done in close collaboration with Environmental Policy and Innovation Secretariat for the development of the plans and policies.
- Municipal responsibilities in relation to climate and climatic change
- Close collaboration with other Production Directorates to support the implementation of integrated environmental management practices

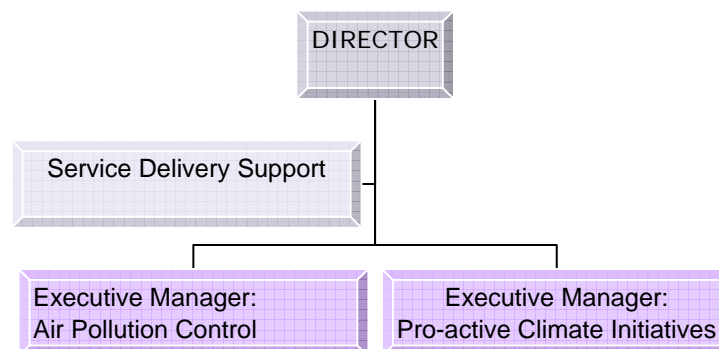
Internal Organisation and Core Functional Responsibilities

The new Directorate will be established to address issues linked to pollution, of the air space in particular and climatic change, in the Metro. The primary objectives of the Directorate are:

Specific objectives include:

- To promote cleaner production and continuous improvement in best practice as it relates to air pollution prevention and minimization.
- To promote energy efficiency within all sectors including industrial, commercial, institutional, mining, transportation and domestic energy use.
- To achieve acceptable air quality levels throughout the Metro.
- To promote a clean and healthy environment for all citizens within the Metro.
- To minimize the negative impacts of air pollution on health and the environment.
- To promote the reduction of greenhouse gases so as to support the council's climate change protection programme.

The Directorate may initially be organized as two professional entities supported by a small service delivery support secretariat:



Air Pollution Control

- Provide input to the compilation and implementation of **AQM policies, strategies & plans** in cooperation with the Environmental Policy and Innovation Secretariat.
- development and implementation of **local air quality initiatives** and technical inputs to the drafting of **by-laws**

Pro-active Climate Initiatives

- ambient **air quality monitoring**
- maintenance of an **emissions and air quality data base** and forwarding of data to
- **licensing and control of a certain category/categories of sources** (exact types of sources to fall under direct control of local authorities still to be confirmed)
- **enforce compliance** on all applicable legislation

Both entities will be involved in the implementation of **public awareness campaigns** on air quality issues in cooperation with the Environmental Policy and Innovation Secretariat.

7.3.5 Service Delivery Support Secretariat

Purpose of entity

Some of the service delivery performance challenges today encountered by the EDD Directorates can be ascribed to “performance deficiencies” in organisational entities and systems located outside of the EDD e.g. corporate services and logistical support. The common feature is that a poorly defined organisational infrastructure and related processes inhibit service delivery and hence the performance of the EDD. Moreover, there is a need at the EDD Department level to enhance competencies related to a range of cross cutting departmental performance areas including performance monitoring; project management; contracting and HR. To this effect it is logical to establish a Service Delivery Support Secretariat to deal with such issues specifically with a view to enhance performance at production directorate level. The purpose of the entity can be summarised as follows:

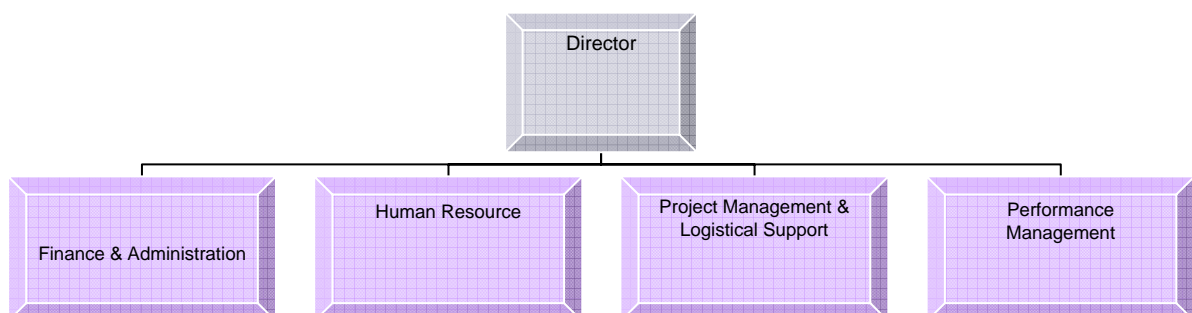
To provide service delivery support services to production directorates in order to enhance the timeliness and quality of service delivery and to provide business intelligence information to the Executive Secretary and to Directors on the performance of the EDD and of individual Directorates in order to ensure monitoring and options for corrective action.

Key Operational Features

- Close collaboration with; responsiveness and support to Production Directorates
- Provision of business intelligence information to ED and Directors on performance
- Then notion of “support” is the guiding principle for the secretariat

Internal Organisation and Core Functional Responsibilities

The proposals made below are based on the decision taken by the EDD that decentralised Service Delivery Support Units be established within the Production Directorates. The actual size and staffing of the decentralised unit will to some extent determine the corresponding for the corporate unit



Finance and Administration

- Budget Preparation
- Accounting
- Expenditure Monitoring
- Risk Management
- Support to EDD Tariff development and costing of services
- Document Management
- Asset Management

- ICT User Support linked to EDD systems and procedures
- Environmental Legislative issues

Human Resource Management Support

- Recruitment
- Organisational adjustments
- Labour Relations
- HIV/AIDS issue and workplace policies and plans
- Personnel Administration
- Performance Contracts
- Induction Programme (together with Environmental Policy and Innovation)
- EDD Competency Development Planning and Implementation

Project Management & Logistical Support

- Project Cycle Management Support to Production Directorates
- Tendering (tender docs, tender processes, compliance with EMM policies)
- Contracting (formats, negotiations; drafting of contracts)
- Service Provider/Contractor Monitoring Systems
- Logistical Support (Fleet, Machinery etc.)

Performance Management

- Service Delivery Synergy Optimisation (inside and outside of EDD)
- Business Intelligence Support
- Performance Monitoring
- Performance improvement measures
- Incentive Schemes
- Reporting
- Statistics

7.3.6 Environmental Policy & Innovation Secretariat

Purpose of entity

To monitor national and international environmental policies; systems and practices as they are formulated and implemented by Municipalities with a view to seek and pilot inspiration which will continuously enrich and improve the environmental policies; plans and practices proposed to; approved by and implemented by the EMM and be communicated to different constituencies.

Key Operational Features

- Close collaboration with Production Directorates
- Guide and Support to Production Directorates on new environmental systems and practices
- Transfer new functional responsibilities to Production Directorates once a Municipal policy has been decided on them

Internal Organisation and Core Functional Responsibilities

It should be considered to split the secretariat into three units or teams as outlined below:

Integrated Environmental Policy and Planning

- Legislative
- Monitor South African and international environmental legislation of relevance to municipalities
- Draft EMM Municipal Environmental Policy (ies)

- Drafting of municipal by-laws and regulations as applicable

Environmental Planning and Information Management

- Inputs to GDS and
- Development of Environmental Management Plans
- Integrated Environmental Management Planning
- Integrated Waste Management Plan
- Open Space Management Plan
- Environmental Information Systems and Management (GIS)
- Advise on and processing of development applications (EIAs)
- Municipal Environmental Economics
- Implementation of Agenda 21 plan

Environment Management Systems

- Agenda 21
- ISO 14001
- EMAS or similar as applicable
- Sustainable Development

Outreach and Awareness

- Awareness Raising
- Environmental Education and Training
- Community Development
- Design and implementation of campaigns
- Public Events
- Management of minor funds for own and public environmental initiatives (e.g. also such undertaken by private sector and NGO's)
- Spearheading internal EMM environmental initiatives
- Fund Raising (Private/Public; National/International)
- Responding to Public Complaints (what type)

Environmental Innovation

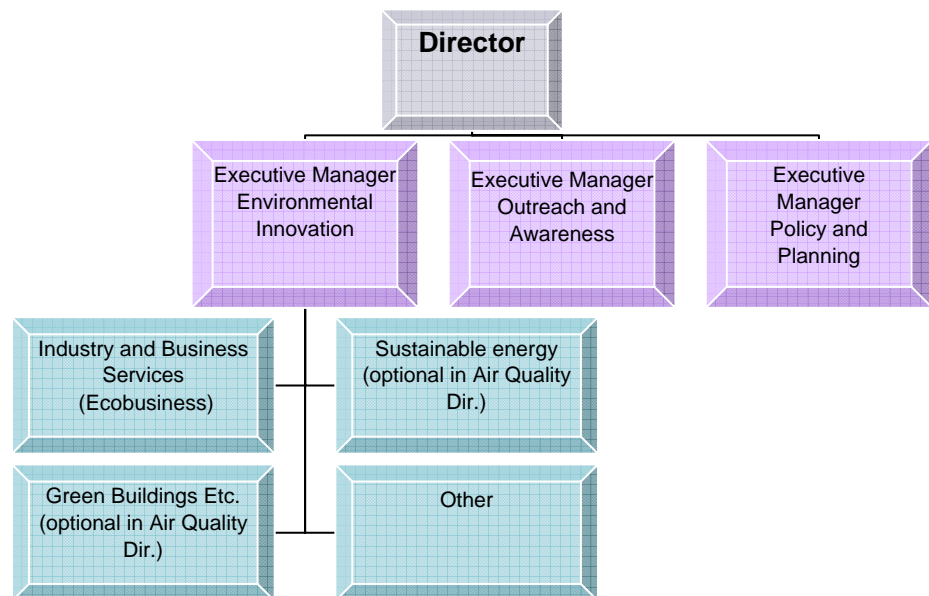
Environmental Innovation

- Monitoring environmental innovation and new best practices adopted by both South African and international municipalities
- Scoping; piloting and evaluating new or improved municipal environmental efforts (brown; green, waste, pollution)
- Representing the EMM in national and provincial and local government for a in relation to municipal environmental development issues
- Development of holistic urban environment
- Green Procurement Initiatives

Industry and Business Services (may need an independent status)

- Cleaner Production initiatives
- Eco-business initiatives
- Sustainable Energy Initiatives
- Advise on and processing of development applications (EIAs) – check
- Green Accounts

The supporting organogram would look as follows:



7.3.7 EDD Transformation Unit

The implementation of the proposed restructuring and the associated wide range of organisational interventions requires the location of the associated responsibilities to a focussed unit. To that effect it is proposed that the coordinator position of the UEM programme be redefined to staff an EDD Transformation Unit reporting directly to the Executive Director. The functional responsibilities of the unit could be:

Organisational Change and Transformation

- Restructuring/Transformation Planning and Implementation Support
- Scoping of pilot transformation interventions
- Drafting of terms of reference
- Assistance with national and international support
- Capacity Development Planning and Implementation (broad scope)
- Monitoring and liaison support to consultants
- Source funding and support for the implementation of the EDD transformation programme
- Source technical information and research on best practice Municipal Environmental Development Practices
- Liaison with UEM
- Progress Reporting

It is proposed that the UEM be approached with an application for funding to support key EDD transformation activities. A tentative list of potential intervention assignments have been presented in annex 8.7. While an Implementation Plan will be prepared to complement this report, it is suggested that a detailed transformation implementation plan be made and presented in a logical framework format.

7.4 Modes of EDD operation

In the end it may be found useful to provide a comment on that irrespective of how work is structured and organized in the EDD; the modes and modalities of operation will to a large extent determine the effectiveness and efficiency of the department. It is therefore essential to dedicate a vision and strategy on how members of the EDD are expected to “make things work” and also to agree on the required supporting communication; decision making; coordination and development mechanisms and structures (e.g. project based). This should be seen as an integral part of the organizational design.

8 Annexes

8.1 Municipality of Copenhagen

8.1.1 Centre for Environment (CfE)

The CfE came into its current being in 2007 but it can historically be traced as far back as to 1974. In the interim, environmental issues were handled initially in a “health context” under the label “Environmental Hygiene”; thereafter jointly under a setup (Miljøteknisk Kontor) dealing with environment and foodstuff control. From 1979 it was restructured into a department of Environmental Control before in 2007 coming to its current shape as the Centre of Environment. During the same time period, the number of employees has increased from 20 (1974) to 180 (2004). The Centre today has approx 165 employees.

The CfE has been ISO 14.001 certified since 2002 and EMAS (see below) registered since 2004.

The CfE; headed by a “Director” is organized into sub-units, each headed by a manager, which have been assigned responsibilities as summarized below:

Secretariat	legal issues; budget; business planning; environmental management; HR and communication
Public Affairs	Ecology; environmental management; green accounts; Agenda 21 plan; Assessment of EIAs; Environment Award; Foundation for Urban Environment; management of minor funds; green procurement; Solar city; Awareness raising; public events and campaigns
Environment Center	Municipal facility for building waste; composting; biological soil treatment/cleansing; special depots; new landfills
Business & Industry	Regulation and envir. permitting of businesses and industry; monitoring of businesses and industry; permitting in relation to waste water; attending to complaints on businesses and industry; maintaining an environmental action force.
Rodent Control	Responsible for rodent control; keeping of animals within municipal borders
Urban Environment	Wetlands; ground water; water supply; water projects; heating; climate; traffic; noise; air; urban development; municipal planning; local area development plans, building permits; cross municipal cooperation on the above issues
Waste	Integrated Waste Management Plans; preparation of regulations; monitoring; special assignments and projects on household waste; industrial waste; building waste; representing the interest of the municipality in the waste company (IR 98) and two large incineration plants where the municipality is a co-owner.
Soil	Regulation of soil and land pollution; management of soil streams; management of legislation on underground facilities/equipment for storing of e.g. chemicals; oil and gas;

soil plans; coordination of large civil works; managing information on polluted soil; drafting regulations etc.

The *vision* for the CfE is as follows:

- To enhance the vision on a environmentally sustainable Copenhagen
- To translate the vision into concrete and, wherever possible, measurable targets
- To continuously expand on the environmental knowledge and know-how of the CfE
- To undertake work based on a profound and solid professional knowledge
- To prepare proposals to politicians on new progressive environmental initiatives and practices
- To contribute to a constructive debate on environmental issues
- To contribute to a high public awareness on environmental protection among citizens; the general public, business, industry and employees of the municipality
- To work in the spirit of having a dialogue with different cooperation partners based on mutual respect
- Use the resources and know-how of the CfE to attain the largest possible environmentally impact.
- To continuously improve on the quality of services provided by the CfE

8.1.2 Centre for Parks and Nature (CPN)

The Centre for Parks and Nature (CPN) is responsible for that the public green spaces, parks and natural habitats develop to the benefit of the citizens and the visitors of Copenhagen. The CPN prepares plans and strategies to support a positive development of urban life; outdoor life; nature as well as the cultural and landscape assets within the urban borders. The CPN is responsible for parks; street trees and nature areas.

The CPN; is organized into a secretariat (under the Directors Office) and into teams under the Director and 2 Area Managers. The structure and allocation of responsibilities has been summarised below:

Director, CPN

Team Nature	Public events; information and awareness raising, public inquiries on fishing; animals and plants; surveillance of flora and fauna habitats; management of legislation on environmental protections; development plans for parks and nature areas; strategy and action plans for biodiversity; sustainable urban development
Water Team	Management of lakes and water courses (streams, rivers); implementation of rehabilitation projects; regulation of waste and urban surface water into natural water habitats; design and implementation of development and management plans for wetlands. Make contributions to waste water plans; waste water treatment, local area development plans and agenda plans. Management; technical support and administration of existing national and other legislation in relation to the above.

Area Manager 1 (Development)

Team Park Quality The primary responsibility of the team is to ensure a high professional quality in “green projects” and in that context to provide professional monitoring, quality assurance and advise during the full project cycle of any public and civil works. Aesthetic and holistic evaluation of green projects. Team also responsible for the application and upkeep of GIS tools related to parks.

Team Plan & Strategy Recreation and urban life; sustainable development; play; learning and exercise opportunities for children and adults; cooperation and integration of service delivery across the municipal administration and with other parties (e.g. schools); working with private and public partners to plan and implement different “events” in the municipal parks; developing a green face of the city; biological diversity development in the urban area; monuments (maintenance, cleaning); development projects and membership of municipal physical planning structures (for overall municipal and local area planning). Current working on a joint Nordic project on M&E indicators for park and green areas.

Team Green Management Management plans for municipal parks and street planting; setting horticultural quality standards and processes; Management of operational and maintenance budgets for parks and street planting; Professional advise on horticultural management; development of tender materials linked to external horticultural service providers; management of tenders; control of alien and damaging plants; development and upkeep of a parks register

Area Manager 2 (Operations and Services)

Team Park Management Monitoring of public parks; playgrounds; street trees; green areas; planning and ordering of minor works in parks and streets; monitoring of municipal and private contractors performance on contracts; assist with the preparation of management plans; management of green budgets; updating of GIS; monitoring of protected areas; participation in municipal meetings; attending to issues raised by citizens

Team Parks Surveillance of public parks and enforcement of regulations of public behavior in parks; playgrounds; cleanliness of parks; municipal property in parks

8.2 EcobusinessPlan, Vienna

8.2.1 Modules for sustainable business management

Taking into account the diversity of enterprises in the city, the EcoBusinessPlan Vienna offers a number of different programme modules for large and small enterprises in a variety of industries. The common denominator is to promote sustainability by applying efficient and economical management practices. Consultancy services are provided to businesses in five different modules, which have been developed to foster environmental best practices and projects:

Module 1 EcoBonus: This module targets businesses with up to 50 employees; its objective is to reduce operating expenses and support the environment through waste prevention and waste management, energy saving and climate protection.

Module 2 Ecoprofit: This module is tailored to manufacturing companies which aim at a rapid reduction of resource inputs; the way to achieve this is the efficient use of resources and input materials, optimisation of production processes and waste prevention.

Module 3 EcoQuality Label for Tourism: This module specifically addresses the hospitality industry; it focuses on the economical and efficient use of cleaning agents, waste prevention and waste separation, as well as reduction of heating costs.

Module 4 ISO14001: An international environmental management system which integrates environmental protection measures systematically into operational processes. Enterprises are supported in introducing the system, which offers them an instrument for the systematic measurement and subsequent reduction of emissions and pollutants that are damaging to the environment.

Module 5 EMAS (Environmental Management and Audit Scheme): A complete environmental services package, including introduction of an environmental management system according to the ISO14001 standard, which also prepares the enterprise for active communication in this field. The perfect basis for the development of environmental statements and reports on sustainability.

A number of relevant projects are also carried out within the auspices of the EcoBusinessPlan initiative.

The Sustainable Development Project supports medium-sized enterprises in developing sustainable management methods which are economically, environmentally and socially balanced. The process is documented in a sustainability report.

In **the Pilot Project on Sustainable Products and Services** the products and services of enterprises are analysed for potential improvements. New approaches benefit the enterprises, the customers and the environment.

The Pilot Project on Environmental Management Systems for small Manufacturers enables small and micro companies to develop internationally recognised environmental management systems in compliance with EMAS or ISO14001 standards.

8.2.2 A partnership

It is a central feature of the EcoBusinessPlan Vienna that public authorities, interest groups and enterprises all work together to implement precautionary and integrative environmental protection policies and actions that also support businesses' profitability. Public subsidies are granted for consultancy and training and capital investments are made by the private-sector companies, in some cases with support from additional public sources. The major partners of the EcoBusinessPlan are:

- Vienna Economic Chamber
- WIFI Vienna (Institute for the Promotion of the Economy)
- Ministry for Agriculture, Forestry, Environment and Water Management
- AK Wien (Vienna Labour Chamber)
- ÖGB (Austrian Trade Unions Federation)
- WWFF (Vienna Business Promotion Fund)
- Municipal Department 36 - Senior experts for the industrial code
- Municipal District Offices (local authority for business procedures)

Networking and cooperation among all partners helps to create a win-win situation for the environment and for businesses in Vienna. The EcoBusinessPlan supports the environment while at the same time contributing to economic stability and job creation.

Consultancy services

Consultancy services are provided by EcoBusinessPlan consultants in three stages to develop solutions tailored to the needs of each business:

- Stage 1. Consultants working within the EcoBusinessPlan network conduct an environmental check-up together with the company to find savings potentials and detect environmental weak points in the operation.
- Stage 2. On this basis, the company management can decide to participate in the programme and select a suitable consultancy module.
- Stage 3. Supported by tailored consultancy services and expert input, the company develops its environmental project(s) and starts implementation already during the first year of participation. An independent commission assesses the progress made and takes a decision about the award. All measures taken are documented in the EcoBusinessPlan database.

8.2.3 The Newsletter

The quarterly newsletter, EcoBusinessNews, informs participating firms and potential participants about the latest developments and offerings within the framework of the Environmental Service Package of the City of Vienna.

The EcoBusiness Club

The EcoBusiness Club serves as an information platform and a vehicle for follow-up support for environmentally-aware Viennese businesses. Through the Club, member operations receive updates on new insights and developments.

8.2.4 Benefits to the environment

A look at the results clearly shows that the environment is the real winner of the EcoBusinessPlan. The following aggregate figures illustrate the effects achieved by businesses in Vienna since the launch of the EcoBusinessPlan in 1998:

- Reduction of solid waste output by 111,175 tonnes - an amount that would fill Vienna's Ernst Happel football stadium 1.3 times
- Reduction of toxic wastes by 1,685.8 tonnes
- Energy savings of 145.8 million kWh - an amount equal to the annual energy consumption of 48,500 Viennese households

- 43,256 tonnes of carbon dioxide emissions saved - enough gas to fill 11,530 hot-air balloons
- Reduction of total transport mileage by 72.5 million kilometres - 1,885 round-the-world trips
- Drinking water consumption reduced by 1,685,300 cubic metres

8.2.5 Benefits for each participating company

The voluntary environmental measures worked out in the context of the EcoBusinessPlan also support the companies' profitability. By implementing their environmental protection projects, the EcoBusinessPlan participants have been able to cut their operating expenses by a total of EUR 34 million. Most investments in environmental protection have a payback period of less than two years.

Businesses responded very positively to some of the programme's strong points, including consultancy services, the stimulus for change it provides, the raising of environmental awareness, opportunity for a systematic analysis of a business's current situation, and the enhanced company image as a result of winning an award. The innovative impact of the measures proposed was also greatly appreciated by the participating businesses. The high-quality consultancy services provided by the EcoBusinessPlan have spawned the initiation and implementation of a wide variety of new policies and measures.

8.3 EMAS Continuous Improvement Cycle

The core of the EMAS scheme is the so-called "continuous improvement circle" or "PDCA-circle" (plan-do check-act). The elements of this circle are presented in the following diagramme :



Develop an environmental policy

The environmental policy is a document which describes the company's overall aims and principles of action with respect to the environment. All organisations have an environmental policy, though not always formally stated. Sometimes the importance of making the policy explicit is overlooked, but it is a crucial element in building a consistent framework for action. Without such a basic document, all further steps become unclear. The environmental policy, adopted at the highest managerial level and revised periodically, should contain at least two central elements: compliance with relevant environmental regulations and a commitment to continuous improvement.

Make an initial environmental review

The environmental review is an initial comprehensive analysis of the environmental problems caused by an organisation's activities. The outcome is a report that includes hard data about consumption of raw materials and energy, production of wastes and emissions, but also information on the indirect environmental impacts of the activities of an organisation and the management structures in place to deal with these impacts. The purpose of the initial review is to identify the most significant environmental impacts - and therefore possible priorities to be set in the environmental programme - and to lay down a benchmark to measure future success in reducing these impacts.

Develop an environmental programme

The environmental programme translates the general objectives established in the environmental policy into specific targets, determining concrete measures, time-frames, responsibilities, and the resources necessary in order to meet them. The measures laid out in an environmental programme can be of a technical and/or organisational nature. All of the company's activities - from top management to the lower levels - should be involved in these measures.

Establish an environmental management system

To ensure the successful implementation of the environmental programme, you need to establish operating procedures and controls. For instance, you may have to revise the organisational chart which lays down the responsibilities in the various departments in order to address environmental issues. Or you may have to change performance criteria to reflect new environmental responsibilities. Apart from the environmental impact of production activities and housekeeping activities (property management, procurement, energy consumption, waste production and management), an EMAS-registered environmental management system has to include the indirect environmental impacts of an organisation's activities, products or services,

e.g. for a financial institution the environmental impacts of a company's credit management. Part of your environmental management system can also be provisions to benefit from an EMAS participation of your customers or suppliers.

Carry out an internal environmental audit

Internal audits are a normal feature of management systems. The environmental audit evaluates the environmental performance of a company based on the objectives spelled out in the environmental programme. Through the audit you can evaluate to which extent your staff members follow the operating procedures and rules of the environmental management system and whether or not the environmental management system is capable of achieving the objectives set out in the environmental programme. The audit must be repeated regularly. The outcome of the environmental audit is a report in which possible corrective actions are suggested to guarantee continuous improvement of the company's environmental performance.

Review once more

The improvement of environmental performance can be achieved also by making the system more and more efficient. That's why the organisation's top management is required to check periodically the consistency of the organisational approach and its capability to meet the goals stated in the policy and the programme. The idea of continuous improvement is that, through a formalised system, mistakes are recorded, analysed and that their immediate and remote causes are removed.

Develop an environmental statement

The environmental statement is a clear and concise document addressed to the organisation's stakeholders. In this document, the organisation describes its environmental efforts and achievements as well as the requirements for continuous environmental performance. Present your activities and your environmental performance.

Get validation and register

When all of the above has taken place, an independent verifier certifies that the organisation's environmental policy, its EMS, the environmental audit and the environmental statement comply with the rules of the EMAS regulation. After the validated statement is sent to the Competent Body it has to be made publicly available. Then the organisation is listed in the register of EMAS organisations and has the right to use the EMAS logo.

8.4 EMAS Projects with Local Authorities

LEAP: Local Authority EMAS and Procurement (2003-2006)

Local authorities are responsible for buying large quantities of goods, ranging from foodstuffs to computer equipment to cleaning products. This expenditure has local and regional impacts, both environmental and economic. The Local Authority EMAS and Procurement (LEAP) Project is a European Union funded project which aims to develop systems for better management in Green Purchasing. A number of European public authorities are involved in the LEAP Project, working together to examine and improve green purchasing management systems, and the opportunities joint procurement may offer.

Visit <http://www.iclei-europe.org/index.php?leap> for more details.

NEST - Networking with EMAS for sustainable development (2004-2007)

The project, which runs until October 2007, aims at EMAS verification for services of three Polish, four Hungarian and three Greek municipalities, all in Member States with low EMAS participation. The project will develop common procedures, activate the commitment of politicians and civil servants and target shared verification. The activities include drafting simple documentation and establishing a network to share experiences in which each municipality focuses on one environmental aspect. This approach will lead to international benchmarking and simplified knowledge sharing, thus facilitating shared verification. The outcomes comprise a guidebook on case studies and verification, a report on how EMAS uptake is facilitated and a dissemination strategy. Kirklees Council is the lead partner of the project collaborating with Global to Local (G2L Ltd).

For more information visit <http://www.emasnetwork.org>

EU COMPASS PROJECT (2004-2006)

The European Commission's Directorate-General for the Environment recently launched the Compass Project which aims to guide approximately 100 municipalities towards an EMAS application.

The project is designed to set up three clusters in each of the Member States with registrations in the public sector - Austria, Belgium, Denmark, France, Germany, Italy, Spain, Sweden and the UK. Each cluster will be lead by an EMAS -registered municipality (a mentor) who will be invited to share their EMAS know-how and experience with four neighbouring municipalities (peers) keen to follow their steps in environmental management.

In Spring 2006 an award ceremony will acknowledge the commitment of both mentors and peers alike to sustainable development and recognise environmental management as their guiding star.

The organisations Global to Local Limited (G2L) and the International Council of Local Environmental Initiative (ICLEI) implement this project.

For more information contact [Bruce Cockrean](#) from Global to Local.

EMAS LAB project (EMAS for Local Authorities Environmental Benchmarking) (2003-2006)

The Municipality of Almada, Portugal carries out this LIFE project that intends to test the applicability of the EMAS system in Portuguese Local Authorities in cooperation with the Leicester City Council. Through working with the municipality's administration, facilities and services, advantage can be taken from previous experience and knowledge gained in other European projects in this field. The EMAS LAB project has two main goals; firstly, the environmental certification of Almada City Council by the Eco-Management Audit Scheme (EMAS). The adoption of new procedures in the field of certification will allow for the cost-effective use of resources and the reduction of consumption and costs. This will lead to a reduction in the environmental pressure exerted by the Municipality. Secondly, the Municipality of Almada itself proposes to select indicators for a group of environmental descriptors and to establish benchmarks for each of them. These benchmarks could then be

adopted by Portuguese and European Local Authorities in the process of improving their environmental performance and/or eco-management.

For more information visit <http://www.m-almada.pt/emas-lab/>

TANDEM project in Italy (2001 – 2004)

The TANDEM project, a “Pilot action for promoting EMAS among Local Bodies operating on a large territory in TANDEM with Local Agenda 21” in Italy was co-financed by LIFE programme of the European Commission. Beneficiaries were the Province of Bologna in partnership with 9 Public Administrations, a scientific institution (DCCI, University of Genoa) and two external advisers, Sogesca S.r.l. and ERVET, Emilia-Romagna Valorizzazione Economia Territorio. The project attained overwhelming organisational and operative support and found broad acceptance within the region.

The main project objectives were the diffusion of an applicable methodology for every local body to:

- Help the body with the implementation of EMAS;
- Develop synergies among the local bodies in the same territory;
- Create a common vision among all the voluntary tools such as Local Agenda 21 and environmental accountability

This was achieved through different activities:

- Organisation of a wide working group (“Open Group”) of local bodies (Regions, Provinces and Municipalities) which validated the results of the project through the examination and sharing of adoption modalities of some EMAS Regulation key points;
- Establishment of a methodology to delineate and characterize the action field where the Environmental Management System has to be planned in public organisations operating on a large territory;
- Establishment of methodologies for the environmental review and for the planning of an Environmental Management System;
- Dissemination of results during and after the project.

TANDEM has given insights on how the EMAS Regulation can be adopted by a local body operating on a large territory on the basis of its own administrative relations with the territory and in synergy with other territorial management tools (Local Agenda 21, Environmental Strategic Assessment, planning, etc.).

Since the start of the project two Provinces, Bologna and Parma have been EMAS registered. For the period of autumn 2004 to spring 2005 the TANDEM project has been recognised as one of 24 Best LIFE Environment Projects.

For more information visit: www.provincia.bologna.it/ambiente/tandem and europa.europa.eu/environment/life/project/bestlifeenv.htm

EMAS - Peer Review for Cities project (2003-2004)

The EMAS - Peer Review for Cities project aimed to encourage and extend the use of EMAS in European local authorities and to develop a step-by-step tool in the form of guidebooks for cities. In particular it emphasised the introduction of EMAS in local authorities in the accession countries. The peer review was used as an innovative method to encourage cities to work together and to critically review each other's developments in setting up an environmental management system. This has promoted close co-operation between the cities. Training sessions have been conducted to introduce the EMAS and the Peer Review to city participants. All partner cities were assisted by team members and by fellow city experts, with local consultants providing additional guidance in accession countries.

The project, co-ordinated by the Union of the Baltic Cities (UBC) Commission on Environment Secretariat, was a joint initiative of the UBC, Eurocities, University of West England and the City of Newcastle. The project was co-funded by the European Commission DG Environment. The project partner cities were the following: Athens, Barcelona, Bristol, Düsseldorf, Gdansk, Göteborg, Jelgava, Leeds, Liepaja, Newcastle, Palermo, Panevezys, Porto, Siauliai, Sopot, Tallinn and Viljandi.

The EMAS Peer Review for Cities project has produced two Guidebooks in ten languages, the EMAS Implementation Guidebook and the EMAS Peer Review Guidebook.

The final report is available to download [here](#). Explore the experience of the project, read newsletters or download the guidebooks at www.emascities.org.

ECOLUP: How EMAS assists Lake Constance Municipalities in Land Use Planning (2001-2004)

The Lake Constance Foundation has presented the results of the ECOLUP LIFE project on EMAS application for sustainable land use. Environmental teams from four municipalities (Constance, Überlingen in Germany and Wolfurt and Dornbirn in Austria) have been founded to assess and establish sustainable land-use planning. This covered land-use, sealing, traffic, involvement of municipalities, integration in Agenda 21, and more.

The results showed that land-use was not a key aspect in previous EMAS implementation in municipalities, suggesting that energy and transport will have to be assessed in a more integrated way in the future. Key data were gathered for the first time, which allowed comparison and statistical evaluation, the results of which made it easier to set up and evaluate environmental programmes. It was shown that municipalities are open to management know-how, and that stakeholders' involvement could lead to more demanding goals. Monitoring schemes may be introduced as a result. The conclusion of ECOLUP showed the need to improve skills in municipalities, among verifiers and Competent Bodies in order to assess indirect aspects.

For more information read [the ECOLUP report](#) or visit www.ecolup.info

The Euro-EMAS project (1999-2001)

The first EMAS Regulation (1836/93), open only to the industrial sector, allowed the inclusion of other sectors on a pilot basis in its Art 14. Taking advantage of this opportunity, the UK adopted an adapted version of the EMAS Regulation 1836/93 and developed a publication which provided practical guidance on the implementation of EMAS in local authorities (LA-EMAS).

Building on the success of the LA-EMAS initiative in the UK, a partnership of organisations lead by the City of Newcastle Upon Tyne initiated the project Euro-EMAS, co-financed by the LIFE Environment programme, to pilot the application of LA-EMAS throughout Europe. The project aimed to develop the pan-European applicability of EMAS for local authorities.

The project outcomes include case studies to illustrate the barriers that municipalities can encounter in the implementation of EMAS, a step-by-step implementation tool to overcome these barriers, a system of "peer review" among municipalities which assessed more effectively their progress in the implementation of EMAS, and various training material.

Each participating city in the project has implemented the scheme in a different context. This allows an insight into a full range of challenges and good practice identified, which can be extrapolated to other municipalities in different situations. According to the results of the project, EMAS delivers a wide range of benefits to municipalities, which extend beyond improving the environmental performance of the municipality. These include:

- Improvements in the quality of service as a result of enhanced dialogue with stakeholders.
- Financial savings such as:
 - Reduced costs of waste disposal.
 - Income generated from sale of waste as a raw material.
 - Reduced litigation and penal costs arising from reduction in environmental accidents.
 - Introduction of a management system that ensures that there is a planned programme of capital investment that takes account of forthcoming changes to the legal standards of environmental performance, rather than reacting to 'unexpected' changes.
 - Reduced costs arising from reduction in the consumption of natural resources, water, fuel, energy, paper, and furniture.
 - Recycling and re-using what was formerly considered waste.

- Better management control. There is evidence that EMAS can be integrated successfully into existing management systems. The simpler the municipal management system, the earlier the benefit is felt.
- Securing funding: EMAS requires an assessment of the likely environmental effects of proposed policy changes and programmes of activities. This is a pre-requisite in making applications for grants for EU Structural and other funds.
- Consistency arising from the discipline of setting targets and monitoring performance.
- Demonstration of commitment: An enhanced environmental profile can be marketed to investors, businesses and tourists.
- Compliance with legislation. Partner cities realised that although most of them had staff who were aware of the relevant legislation they had no systematic method of ensuring appropriate action was taken. Now they make sure that staff are competent to undertake appropriate action and have procedures in place for compliance.
- Staff motivation also develops when appropriate training is given. This ensures greater involvement of personnel.

For more information on the Euro-EMAS project, please visit
<http://euronet.uwe.ac.uk/emas/main.htm>.

Leeds City Council goes greener

In 1991, Leeds City Council adopted its Green Strategy with the aim of integrating environmental concerns into its daily work. Two years later Leeds was designated as an "Environment City". In 2002 Leeds City Council registered for EMAS becoming the largest EMAS registered public sector organisation in Europe.

To become EMAS compliant Leeds City Council has had to analyse the way it deals with all significant environmental aspects including waste, energy efficiency and the protection of the countryside.

Waste reduction and recycling

Leeds has introduced an innovative scheme which has seen some 40,000 tonnes of waste material from highway construction projects reclaimed and reused towards activities such as repairing damaged city footpaths. Paper recycling schemes are widespread at Council offices and in their endeavour to recycle and refurbish computers and other IT equipment, the Council's IT Department is using the services of a charity which provides training and employment to disabled people.

Greening public procurement

The Council has created a "Passport to the Environment", a guide to environmental issues for businesses and organisations that perform public services. In order to encourage contractors to take responsibility for the indirect environmental impact of their services, the Department of Legal Services is considering amending certain contracts to include environmental considerations.

Information and communication

Leeds City Council seeks to promote environmental awareness among the residents of Leeds as well as among its own employees. To this end, staff pay-slips are used to advertise the Council's public transport travel card scheme and courses on energy efficiency have been held in several departments. A guide to "green" shopping for the general public has been produced by the Department of Planning and Environment and a local awareness-raising campaign on environmental and sustainability issues, known as Wise Up, has been launched.

Promoting LA-EMAS

Leeds City Council cooperates with a number of nearby local authorities such as Kirklees which is already EMAS registered. Such cooperation could result in greater economies of scale through the sharing of auditing resources, the training of civil servants and the management of contractors in a coordinated approach.

In order to show the City's commitment to protect the environment a [special flag](#) was designed which bears both the EMAS logo and the City Council's coat of arms. For any additional information please visit www.leeds.gov.uk which contains the Leeds City Council EMAS Environmental Statement or visit the website of Leeds' local awareness raising campaign: www.wiseupleeds.net.

Leicester City Council, UK

(Population 280,000; 7,300 hectares)

In 1999, the city was designated Britain's first Environment City and the City Council gained EMAS registration. Their environmental policy includes the wise use of energy, water, other natural resources and manufactured materials, minimising and safely disposing of waste, environmental training for all councillors and employees of the City Council and awareness-raising of their contractors and suppliers.

Leicester City Council is working to promote and extend the scheme in the city and local pupils and teachers are helping to lead the way with EMAS in UK's education sector. Two primary schools have already gained EMAS accreditation and 16 more have just embarked on the scheme. EMAS is seen as an excellent educational tool which ties environmental issues into a variety of National Curriculum subjects.

The scheme has already resulted in good progress against targets including:

- 12% of the council's electricity now comes from renewable sources (compared with 0% previously)
- 10% decrease in the council's water consumption on the previous year
- 50% more cyclists claiming mileage than in the previous year
- Reduction of 98% sulphur dioxide emissions from the council's vehicle fleet
- 30% reduction in paper consumption from the previous year.

For more information download the [environmental statement](#) or visit the [Environ website](#) and the [EMAS in schools](#) website.

Multi-level EMAS in the Province of Viterbo

The Province of Viterbo covers an area of 3,612 km², situated between Rome and the south of Tuscany. In the Provincial area there are 60 municipalities and the overall population amounts to 294,044 (September 2001). The Province is characterised by very distinctive natural and landscape resources and represents an important destination for environmental and cultural tourism.

In recent years, the Provincial Authority has developed important efforts in the field of environmental management and policy, with a specific focus on EMAS. In 2002 the Environmental Department (Assessorato all'Ambiente) gained EMAS registration. Some of the main environmental aspects considered in the EMAS process concern air emission (with particular regard to the Latera power plant), water management, waste disposal and the protection of naturalist and landscape resources. Moreover, the Provincial Authority has committed itself to diffusing environmental awareness among the residents and promoting EMAS in the provincial territory, with particular regard to municipalities, industrial districts and SMEs.

In the wake of the authority's efforts, a multiplicity of integrated pathways towards EMAS developed inside the provincial borders. Among these are:

- the "New Tuscia" LIFE programme, which is co-ordinated by the Provincial Authority and aims at preparing the registration of seven municipalities belonging to the Province of Viterbo and seven municipalities belonging to the Province of Rome;
- the EMAS National School for verifiers and consultants, organised (in co-operation with the Italian EMAS Competent Body) by the Provincial Authority;

All these initiatives have been supported by a complex institutional networking, which has involved local authorities and socio-economic actors. As a result, in the Viterbo area, a number of multi-level initiatives are carried out in the framework of a coherent strategy. EMAS (in close relationship with Agenda 21) is acting as a reference for sustainability strategies at various territorial levels and an innovative "territorial approach" to the scheme is emerging, based on the integrated efforts of a large number of local organisations.

The inter-institutional dynamics have favoured the sharing of cognitive, technical and financial resources. This has allowed some important problematic issues to be explored, such as those related to the relationships between provincial and municipal authorities (which have different responsibilities in the field of environmental management). The Viterbo case shows the peculiar capacity of the European scheme to promote inter-institutional co-operation, which is per se essential in the European discourse on territorial policy and governance.

It should also be mentioned that an interesting policy action is being tested in the provincial area. This concerns the relationship between EMAS and the "Tuscia

Viterbese” trademark, a local trademark recently promoted by the local Chamber of Commerce (in co-operation with the Provincial Authority and other socio-economic actors) to guarantee the origin and the environmental quality of typical products. For further information view <http://www.provincia.vt.it/ambiente/emas/default.htm> or send an e-mail to a.pozzi@provincia.vt.it

Stroud District Council, UK

(Population 108,000; 45,300 hectares)

Stroud District Council registered with EMAS in March 1999. Their environmental programme has focused on pollution, built sites, health, nature conservation and leisure, energy, water, waste, environmental education and awareness, and use of resources. The results achieved so far include:

- Start of a programme to replace council vehicles with LPG vehicles
- Development of an eco-housing project
- Procurement of 35% of council’s electricity from renewable sources
- Reduction in CO2 emissions by 36.5% since 1995/6
- Amount of household waste recycled is now 20.8% compared with 9.1% in 1998
- Collection of recyclables accessible within 1 km for 100% of the population

More information is available from the [council's website](#).

City of Malmö, Sweden

(Population 257,000, 15,600 hectares)

The City of Malmö developed a four-year Environmental Programme as part of their participation in EMAS. By 1999, 19 out of 21 departments had begun to implement the plan. The planning process has involved experts from municipal departments, local urban district committees and private companies. Citizens groups have been given opportunities to propose actions. The Environmental Strategy includes 16 different problem areas and goals, dealing with such issues as green house gases, ozone, land and water resources, indoor climate and public health work. Eight separate action plans are described which deal with challenges such as water and energy usage, traffic, production and consumption, waste, and education. The results achieved by the city to date include the building of cycle tracks, cleaning up of industrial land and a programme to increase access to buses.

The city has been used as a model for ‘green’ marketing by the International Council for Local Environmental Initiatives.

For more information visit www.malmo.se

Unna District administration, Germany

(Population 430,000, 54,260 hectares)

The district administration of Unna is situated in the East of the Ruhr Basin, one of the economically most potent regions in Europe. Starting with four departments of the district management, such as the service centre of the fire brigade, the Local Authority decided to register with EMAS in 2001. Not only did the district administration achieve a substantial reduction of costs but it proves to the public its historic concern for the environment.

The first results concern for instance

- From 2001-2004 the consumption of the central vehicle fleet was reduced by 25% for petrol consumption and by 18% for diesel fuel consumption.
- the reduction of waste,
- the reduction of paper use by 13%
- the reduction of use of energy in the district building by 50% and water
- an increased use of products selected according to ecological criteria
- the decrease of the use of detergents
- the reduction of individual transport for business trips by 10%
- the motivation of the employees to contribute to environment protection.

To further promote the EMAS scheme as well as Environment Managements Schemes for small enterprises, the District of Unna participates in the network “Initiative 100 Öko-Audits”. Apart from the district administration, the Chamber of Commerce and Industry, the Environmental Agency of Lippstadt and EMAS

registered companies contribute to this initiative promoting environmental management throughout the region.

Further information and the environmental statement are available (in German) [here](#).

Kirklees Metropolitan Council, UK

(Population 391,000; 40,860 hectares)

Kirklees Metropolitan Council consists of 33 separate departments, based in 800 buildings and employs over 17,000 people delivering a range of services (including housing, highways, refuse collection, provision of leisure facilities, planning, building control, and estates management). The whole of Kirklees Metropolitan Council was registered for EMAS in 2003 and has made significant achievements, making the scheme part of their core business. The following cost cuts have been achieved:

- £180,000 energy conservation savings in buildings
- 5.2% reduction in energy costs
- 6.4% reduction in carbon emissions
- £10,000 savings in waste disposal costs
- £70,000 savings in fleet transport costs

EMAS has helped with the Comprehensive Performance Assessment of the Council, scoring 4 out of 4 on environment as part of its excellent rating. In 2003 Kirklees Council was chosen by the European Commission as an example for best practice in EMAS. EMAS has also helped Kirklees become the only local authority in its region to appear in the 'Premier league' in the 2003 Business in the Community 5th Index of Environmental Engagement Awards.

Bibione, Italy

(Population 11,750, capacity for 6 million tourists per year; 2,840 hectares)

The town of Bibione was the first holiday resort to receive registration in Europe in July 2002. San Michele al Tagliamento (Bibione) aims to reduce the environmental impacts of all activities, such as waste production and water treatment. In an encompassing endeavour, the police, citizens, operators and tourists work together to improve the environment. The sensibility of the public has been drawn to the pursuit of sustainable development, maintaining the principles of Agenda 21, and enforcing environmental law.

Bibione has covered the following environmental improvements:

- Reduction of water consumption through water-saving devices in all public buildings and places. In the whole locality, the water consumption per capita was reduced by 7% in 2002 compared to 2000. In addition, the use of thermal water has been reduced from 157,184 m³/yr in 2000 to 111,748 m³/yr in 2002. Moreover water consumption of showers and other services on the beaches have been reduced by 15%.
- Through new systems of collecting waste, i.e. waste separation even on the beaches, the locality managed to reduce solid urban waste by almost 19% from 2000 to 2002. It is interesting to note that 78% of the waste is produced by tourists during the summer months. As to the summer guests, a high level of reduction of waste was achieved, while the waste generated by the locals is almost constant.
- Water and electricity supply systems in hotels were optimised to avoid over consumption.
- Public awareness was raised through information campaigns about actions like waste separation in schools and persons in charge of the environment were nominated by associations. Moreover, 3,000 documents were printed and information boards set up.

More information is available from the [environmental statement](#).

Überlingen, Germany

(Population 21,000; 5,867 hectares)

An innovative approach has been taken by the land use planning department of Überlingen, which registered with EMAS in 2004. The city of Überlingen is situated on the northern side of Lake Constance. Set in a scenic environment the city still has to balance the growing demand for building sites. Therefore a tool for assessing land

use planning has been introduced looking specifically at the indirect environmental aspects of the land use planning department.

All commercial sites will be moved from the lake shore to the inland side of highway 31 and new sites for housing will only be offered after careful and thorough assessment of ecological impacts.

Both measures will seek to reduce traffic and the commercial pressure to sell sites on the lake side. Additional storeys are expected to provide a suitable amount of space within the city.

Other environmental aims are:

- Binding urban land-use planning, establishing land-use plans
- Planning for construction and open sites, as well as for the city design as a whole
- Co-ordination of local planning with planning strategy from outside the city
- Framework for urban planning, drafting the urban development plan, informal planning
- Preparatory communal urban land-use planning (zoning plan)
- Urban development goals and policy, such as reduction in the land use and traffic, optimisation of energy use and CO2 emissions

First achievements will be available after the evaluation in the next environmental statement.

For more information on EMAS in the City Planning Department of Überlingen visit [their website](#)

Copenhagen, Denmark

(Population 623,000; 52,600 hectares)

The Road and Park Department has registered with EMAS in July 2003 and employs about 250 staff members. It covers all activities of traffic planning, road maintenance and green area management. In addition, all procurement activities are managed by this department. The main strategic tasks comprise the development of environmental planning, traffic planning, cycling concepts and building of cycling routes.

The main environmental improvements include:

- Procurement mostly from suppliers with an environmental management system in place
- Introduction of separate meters (Energyguards) for each department to enable separate assessment of water, electricity and heat consumption. On average the consumption measured by the Energyguards is reduced by up to 15%. So far, the following was achieved:
 - Decrease in water consumption by 75%
 - Decrease in paper consumption by 5%
- Replacement of high energy consuming computer screens and light bulbs with energy saving models.

For further information please visit <http://www.vejpark.kk.dk>, you can download the environmental statement (in Danish) [here](#).

8.5 City of Cape Town

The **Environmental Resource Management (ERM) Department of the City of Cape Town** is constituted as 8 branches as follows:

The **Biodiversity Management Branch** is responsible for the conservation of biodiversity within the City of Cape Town's boundaries. A fundamental aspect to the branch's work is to ensure that biodiversity and nature is mainstreamed into everyday life, which includes delivering tangible benefits to all communities.

More specifically, this branch is responsible for conservation planning, biodiversity management and alien species eradication. In the field of conservation planning, the City's approved Biodiversity Strategy has resulted in the identification of a biodiversity network of sites

<http://www.capetown.gov.za/wcmstemplat/ERM.aspx?clusid=465&catparent=7134&IDpathString=6239-6315-7134> that need to be secured to conserve a representative sample of the City of Cape Town's unique biodiversity and, thus, promote sustainable development.

The key functions of the branch include:

- Nature Reserve Management
- Biodiversity Strategy Coordination
- Monitoring & Evaluation
- Protected Area Status
- Alien Invasive Species Coordination

The **Environmental and Heritage Management Branch** implements on-the-ground environmental and heritage monitoring, procedures and projects. The branch enforces compliance with environmental, heritage and outdoor advertising legislation and policies (e.g. outdoor advertising control). Tariffs are implemented and fees are collected for development applications, heritage resources and environmental monitoring. The branch also works on local environmental, heritage and outdoor advertising projects.

The key functions of the branch include:

- Environmental evaluation of developments and impact assessments (EIAs)
- Heritage resource management, Heritage Impact Assessments (HIAs) and urban conservation area approvals
- Local heritage improvement projects
- Local environmental upgrading projects
- Outdoor advertising and signage control
- Community-benefit outdoor advertising projects
- On-site environmental monitoring and enforcement of EIA and HIA conditions, environmental conditions of planning approvals, and outdoor advertising approval conditions

The **Environmental Management Systems (EMS) Branch** undertakes the procedures of Integrated Environmental Management, or IEM. IEM is both a philosophy and a procedure regulated by law for ensuring that the environmental consequences of an action are considered at each of the planning, decision-making, implementation and monitoring stages of a policy, plan, programme or project. The key functions of the branch include:

Environmental Review
Environmental Management Systems (EMS) & Audit Protocol
Environmental Information System

The task of the **Environmental Strategy and Partnerships Branch** is to ensure that the City of Cape Town's decision-making and developmental undertakings incorporate environmental issues, as well as to initiate the implementation of environment-related poverty alleviation projects and programmes in the City. The key functions of the branch include:

- Environmental Policy and Planning
- Environmental Performance & Information
- Project & Partnership Development
- Strategic Coordination (Poverty Alleviation & Extended Public Works Programme)
- Coastal Coordination & Coastal Zone Management

The **Integrated Environmental Education and Communications Branch** aims to promote environmentally sustainable behavior and lifestyle changes and thereby improve the state of the environment in the City. Working with a range of City line functions and external partners, and ensuring integration, the Branch undertakes environmental education, capacity building, training, environmental communications, environment-based sustainable livelihoods, cleaner production, event greening, eco-procurement and community outreach programmes.

The City's Environmental Education and Training Strategy provide a framework to guide the City's various environmental education and training initiatives. The goals of the strategy are that the Cape Town public is environmentally aware and that City of Cape Town staff members are competent in environmental matters pertaining to their responsibilities.

Environmental education initiatives include:

- The successful Youth Environmental School (YES) Program, a comprehensive year-long programme which incorporates major commemorative days and weeks on the annual calendar.
- Coordination of an Environmental Careers Centre at the SABC Education Careers Faire aimed at secondary school learners.
- Support for the WESSA/WWF Eco-Schools Programme.

Sustainable livelihoods and Local Agenda 21 initiatives/projects include:

- The Cape Town-Aachen LA21 Partnership which aims to promote projects and sustainable development in a practical way, with a particular focus on poverty eradication.
- The Women Orchid Legacy Project provides skills and employment for women from disadvantaged areas to farm orchid plants and also create beadwork, embroidery and needlework with an orchid theme.

Communication and marketing functions include:

- Production of various publications and resource materials
- Publication of a biannual newsletter, enviroWORKS
- Liaison with the media
- Organisation of events and launches
- Exhibitions and displays
- Website development and maintenance.

The **Major Programmes and Projects Branch** has as its primary function the development, coordination and implementation of key City of Cape Town projects.

Typically these projects involve high-level partnerships between the City and third party agencies or organisations and integrate a number of line functions within the City. Several of these projects have a reach beyond that of the Environmental Resource Management (ERM) Department at regional, national or international level, but the specific input from this branch relates to the core business of the Department. Key programmes and projects include:

Green Goal 2010

Aim: To ensure that the planning and implementation of the 2010 World Cup is based on an environmentally sustainable footing.

Table Mountain National Park

Aim: To coordinate, plan and develop the partnership between the City of Cape Town and Table Mountain National Park.

ICLEI – Local Governments for Sustainability

Aim: To coordinate, plan and develop the partnership between the City of Cape Town and ICLEI – Local Governments for Sustainability.

Local Action for Biodiversity (LAB)

Aim: To coordinate, plan and implement the ICLEI-Africa project, Local Action for Biodiversity (LAB).

The purpose of the **Resource Conservation Branch** is to facilitate integrated action with regard to the conservation and utilization of natural resources such as water, waste and energy. It aims to establish an awareness of the physical limits of resource use on future development. As a result, minimizing the impacts of resource use on the environment and enhancing people's quality of life. The City of Cape Town strives to be at the forefront of sustainable development in South African local government. In fact, Cape Town is the first local authority in South Africa to establish a dedicated Resource Conservation Branch.

Sustainable natural resource use will mainly be achieved through the implementation of the Energy and Climate Change Strategy in liaison with all relevant line function departments, stakeholders and partners. The key functions of the branch include:

- Energy & Climate Change
- Clean Development Mechanism (CDM)
- Renewable Energy Projects
- Cleaner Production & Sustainable Procurement

The **Support Services Branch** provides support to the other five branches in the department by means of administrative, financial and human resources services.

The key functions of the branch include:

- Administrative Support
- Financial Support
- Human Resources Support
- Executive / Performance Management Support

Solid Waste Management services is an organisational entity separate from the ERM.

Solid Waste Management primarily focuses on preventing pollution and waste at source, instead of focusing on treating and disposing of waste once it has been generated (known as 'end-of-pipe' waste management). The department's main functions are:

- Waste Collection

- Area Cleaning
- Waste Disposal

Waste Minimization is similarly handled organizationally located outside of the ERM Department with the aim of reducing waste at source. The entity is dealing with issues including:

- Re-using (or promoting the re-use of) materials in their original form as far as possible.
- Separating waste into different streams at source, before it is collected for recovery and recycling purposes.
- Diverting waste from landfills through appropriate mechanisms and facilities.
- Facilitating the processing or treatment of any recyclable waste, in an economical and environmentally sustainable manner.
- Empowering organisations that are involved in recycling.
- Disposing of any remaining waste responsibly, in order to lengthen the life of landfill sites.

Environmental Health Services (EHS) Unit is also organisationally located outside of the ERM. The functions of the EHP within the primary health system are diverse, and include:

- Health Education
- Food (Formal and Informal)
- Water
- Infectious Disease Control
- Shelter and Housing
- Sanitation
- Pollution Control
- Community Participation
- Planning and Building Development
- Institutional Health and Safety
- Inter-sectoral Collaboration and Communication
- Law Enforcement and Legislation

Cape Town has initiated a number of **projects** that encapsulates its commitment to environmental awareness, conservation and sustainability. The projects stretch across the spectrum of environment disciplines within the ERM. The following is examples of initiatives and projects in this regard:

Green Light for Energy saving project



Next time you're stuck at an intersection in the CTN, waiting for the lights to change, take a closer look at the traffic signal light. If it is made up of many little dots instead of one big bulb, it's one of thousands of low voltage, energy efficient lights that are

being rolled out across the city. These light emitting diodes (LEDs) are just one of the ways in which the City of Cape Town is trying to address two problems at once – curbing traffic light electricity usage and reducing traffic congestion by ensuring that fewer power failures cause the lights to fail. The LEDs, which use seven times less electricity than conventional bulbs, last for at least five years. These LEDs have proved “extremely encouraging”, she said, and the city plans to install LEDs in all of its 1300 traffic lights by 2015.

Waste Wise Project

The CTN has also adopted an Integrated Waste Management (IWM) Policy in May 2006. The Solid Waste Management department focuses on **preventing pollution and waste at source**, instead of focusing on treating and disposing of waste once it has been generated (known as ‘end-of-pipe’ waste management). **Waste Wise** is one of Solid Waste’s integrated waste minimization and awareness programmes designed to combat waste, illegal dumping and littering.

The programme has six focus areas:

- Public awareness and education
- Schools’ education and waste minimisation projects
- Cleaner Production in commerce and industry
- Awareness and education at institutions and the City’s administration
- Special events management
- Development of partnerships and sponsorships

The CTN has an ***integrated approach toward the delivery of projects*** targeted at service delivery. As part of the Urban Renewal Program, for instance, the CTN incorporated the ERM to facilitate the incorporation of an Environment Management Framework process at two of the CTN’s URP targeted areas.

To ensure that environmental, socio-economic and cultural factors were considered when developing the URP projects, the City appointed the Environmental Evaluation Unit of the University of Cape Town to assist in preparing an Environmental Management Framework (EMF) for the Khayelitsha / Mitchell’s Plain urban renewal programme. The main objectives of the EMF are to:

- identify strategic areas to be protected;
- streamline the mandatory environmental impact assessment process to enable development in appropriate areas;
- facilitate the integration of sustainability objectives into plans, policies and programmes from the outset; and
- promote integrated decision-making between all government and non-government agencies with responsibilities for land use, environmental and heritage management.

8.6 Questions for elements of organizational change

Strategy and Organisational Objectives

- Have services and associated service standards been defined for EDD which comply with both internal and external requirements (e.g. legislation)
- Have standards been set for all EDD services (external and internal to EDD and EMM) to determine when a job/function has been well done and completed?
- Does the EDD and its Directorates today have clearly formulated approaches, operational strategies and implementation plans (not only time tables but a plan about how to go about the exercise) to achieve the stipulated outputs (services) to the agreed standard.
- Does the EDD or its Directorates feel that the allocated duties and functional responsibilities to produce the outputs (services) have been adequately/most effectively defined and described?
- Does the EDD or its Directorates have any overlap or conflicts with other external and internal organisations or network in producing the output/service?

Organisation, Management, Finance and Staff

- Comments on the leadership (none; too much; no flexibility or room to manoeuvre etc.), management structure, systems and organisational arrangements surrounding the production of the outputs (services). Are we sufficiently in charge to deliver as expected?
- Have we got enough delegated responsibility to produce the outputs (services)
- Do we depend on sustainable and timely financing to undertake the duties and responsibilities related to the production of the outputs (services)
- Do you have adequate numbers of staff, with well defined duties and responsibilities in order to satisfactorily undertake the responsibilities for the output? (please specify)
- Is it possible to secure and retain a sufficient number of qualified staff
- Is staff often diverted or interrupted to undertake responsibilities related to other outputs or duties hence compromising the production of the outputs/services (please indicate nature of interruptions)

Organisational System Tools

- Is there any specific legislation or conventions (international, national, provincial, municipal) including regulations and circulars related to the production of the outputs/services (in support of; setting standards for; etc) and do we comply with them.
- Are there any internal EMM, Provincial and National guidelines, procedures and circulars (e.g. such relating to the civil service (e.g. moratoriums) and delegation of authority) inhibiting the production of the outputs/services
- Is there a management information or business intelligence system in place which makes provision for regular performance monitoring and feedback on to which extent the objectives and targets set for the outputs/services are being met.
- Is the physical infrastructure, tools and equipment (software and hardware) in place to produce the outputs/services to the required standard (quality and quantity)
- Are the enabling mechanism including guidelines; handbooks; standard forms; training and coaching programmes available, meaningful, appropriate and user friendly to support the production of the outputs/services.
- Are the existing system tools fully utilised or are they over utilised

Skills and Awareness Issues

- Does staff or members of the EDD, Directorates and their sub-units (and/or perhaps also network organisations/partners) have sufficient and the right

competencies (managerial, technical, financial and administrative) to perform their allocated responsibilities, functions or duties required to deliver the outputs/services as agreed.

- Has the EDD; its Directorates and sub-units have access to complementary and specialised expertise (e.g. through internal EMM and external networks) if required to undertake its allocated responsibilities to deliver the agreed outputs/services
- Are there any relevant awareness issues within the EDD and outside of the EDD related to the successful production of the outputs/services.
- Is competency/skills development and training for the EDD sufficiently focussed to support the production of outputs/services

Inter-relations (coordination and cooperation in networks etc)

- Assess the performance challenges of the EDD as it relates to the production of outputs (services) within an internal EMM network and/or with external agencies
- What (if any) prevents the EDD to enter into strategic alliances and agreements within and outside of the EMM that will support the production of the output/services.
- Assess the credibility of the EDD within the EMM and towards communities – residents, business etc. related to the production of the outputs/services.
- Assess the political and practical support from outside of the EDD linked to the production of the output/services
- Describe the organisational culture of the EDD, its Directorates and their sub-units
- Please also indicate if you think that individual personal relations at any level (within and outside of the EDD) influences on the production of the output/service delivery.

Incentives and Values

- How would you generally assess staff motivation in terms of producing the outputs/services (highly motivated, discouraged, apathy, no motivation or?)
- Is the output/services considered of professional interest to the staff
- Could the production of the output/service be associated with high personal costs for staff (lots of travelling, overnight stays away from home; personal risks etc.
- What incentives and rewards (salary, in-service training; promotional structure and perks) are in place to produce the output/services.

- What sanctions are in place (internal EDD, broader EMM and other) if the output/service is not being produced?
- Any cultural issues affecting the production of the output/service hereunder also issues related to aptitudes, apathy, rumours, perceptions, drinking, chatting on cellphones and HIV/Aids
- Any impact of civil service and other reform and retrenchment programmes and policies; budget cuts, “firming ups”

8.7 Possible support from the UEM

The EMM and the EDD has an on-going cooperation programme with the Urban Environmental Management (UEM) Program at DEAT. This program has a core capacity building objective towards Metropolitan Municipalities in South Africa. The overall objective of the programme is *“Sustainable and poverty-oriented environmental management of urban areas in South Africa”*

The proposals contained in this report both highlight and introduces a number of performance challenges to implement the restructuring and transformation of the EDD. Some of this could usefully be further defined and supported with the assistance of the UEM. The following proposals should be considered in that context (not in a prioritized order):

- Detailed Planning and Implementation Process Support to the EDD restructuring and transformation process.
- Scoping; defining and selected support to the design and partial implementation of prioritized forward looking environmental sub-strategies for EMM.
- Scoping and developing a toolbox on how to implement the outsourcing of EMM environmental services e.g. Through support to the establishment of cooperatives etc.
- Scoping and preliminary design of a Business Intelligence System to support EDD performance monitoring and management.
- Scoping and setting up of a Waste Prevention, Minimisation and Recycling unit in the Waste Directorate incl. the establishment of a visible poverty oriented pilot project on recycling in line with the responsibilities assigned to Municipalities in the Waste Bill
- Scoping; defining and piloting of a Business and Industry related initiative and partnership along the thinking of the EcoBusiness approach adopted in Vienna, Austria
- Scoping and defining a new Air Pollution Directorate and related services.
- Scoping, defining and implementation of a Green Buildings; Green Office and Green Procurement initiative for the EMM including the implementation of a pilot initiative
- Scoping and defining an energy conservation sub-strategy for EMM and implementation of selected pilot initiatives
- Scoping and crafting of an Agenda 21 plan
- Review and defining an Environmental Management System
- Support to the development and part implementation of a skills and wider competency plan to support the implementation of the EDD restructuring process.