City Planning Department
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DRAFT

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City of Ekurhuleni

EKURHULENI METROPOLITAN MUNICIPALITY

BUILT ENVIRONMENT PERFORMANCE PLAN

Table of Contents

Contents

LIST OF MAPS

LIST OF TABLES

LIST OF DIAGRAMS

i List of Abbreviations

ACSA	Airports Company South Africa
BEPP	Built Environment Performance Plan
CBD	Central Business District
CIF	Capital Investment Framework
CMIP	Comprehensive Municipal Infrastructure Plan
CSP	Cities Support Programme
EDC	Ekurhuleni Development Company
EMM	Ekurhuleni Metropolitan Municipality
ERWAT	East Rand Water Care Company
GCRO	Gauteng City Region Observatory
GDARD	Gauteng Department of Agriculture and Rural Development
GIS	Geographic Information System
HSDG	Human Settlements Development Grant
ICDG	Integrated City Development Grant
IDP	Integrated Development Plan
IDZ	Industrial Development Zones
INEP	Integrated National Electrification Grant
IRPTN	Integrated Rapid Public Transport Network
MHDP	Municipal Housing Development Plan
MSDF	Metropolitan Spatial Development Framework
MTREF	Medium Term Revenue and Expenditure Framework
NDPG	Neighbourhood Development Partnership Grant
PDAs	Previously Disadvantaged Areas
PRASA	Passenger Rail Authority South Africa
PTIG	Public Transport Infrastructure Grant
RSDF	Regional Spatial Development Framework
SDBIP	Service Delivery Budget Implementation Plan
SDF	Spatial Development Framework
TOD	Transit Oriented Development
UDZ	Urban Development Zone
USDG	Urban Settlement Development Grant

A: INTRODUCTION

Built Environment Performance Plans (BEPPs) is a requirement in terms of the Division of Revenue Act (DORA) since the financial year 2011/12. It remains an eligible requirement for the Integrated City Development Grant (ICDG) which is an incentive grant. The BEPP is therefore also an instrument for compliance and submission purposes for the following infrastructure grants:

- **ICDG**- Integrated City Development Grant
- **USDG**- Urban Settlement Development Grant
- **HSDG-** Human Settlements Development Grant
- **PTIG-** Public Transport Infrastructure Grant
- **NDPG-** Neighbourhood Development Partnership Grant
- **INEP**- Neighbourhood Development Partnership Grant
- Additional grant documents, if relevant, may be appended.

The Ekurhuleni BEPP is compiled from a range of current Ekurhuleni planning and strategy documents and is thus not a new plan as such, but is rather a 're-packaging' of existing plans and information into a digestible, measurable format as required by National Treasury. Summaries or extracts from a number of documents were analysed and incorporated into this report as detailed in the reference section at the end of this report. The key Ekurhuleni documents integrated into this report that must be noted from the onset are:

- The Metropolitan Spatial Development Framework, 2011 (MSDF);
- The Comprehensive Municipal Infrastructure Plan (CMIP), 2009 – 2025;
- The Comprehensive Integrated Transport Plan (CITP), 2013-2018;
- Long Term Financial Plan, 2010;
- Ekurhuleni Growth and Development Strategy (GDS);
- Ekurhuleni Municipal Housing Development Plan (MHDP), October 2011;
- Ekurhuleni IDP 2011/12-2016/17

The key focus of the BEPP 2015/16 is the refinement and consolidation of the elements that were identified in the BEPP 2014/15. Specific areas of refinement are the Urban Networks and Integration Zones, looking at catalytic urban development projects within these integration zones. Upgrading of informal settlements and specific poverty pockets and land developments including preparation etc. The Built Environment Performance Indicators have to be reported on. However, there is a challenge as there is lack of data.

The built environment performance indicators, though useful for measuring the city is currently extremely difficult to populate and set targets. Much of the data required of these indicators are either not available in the required format or certain boundaries for measuring the data have not been established as yet as in the case with all data related to integration zones.

The Draft BEPP is signed off by City Planning: Head of Department. Then end of May 2015 the Final BEPP shall be approved through Council and signed off by the Ekurhuleni City Manager.

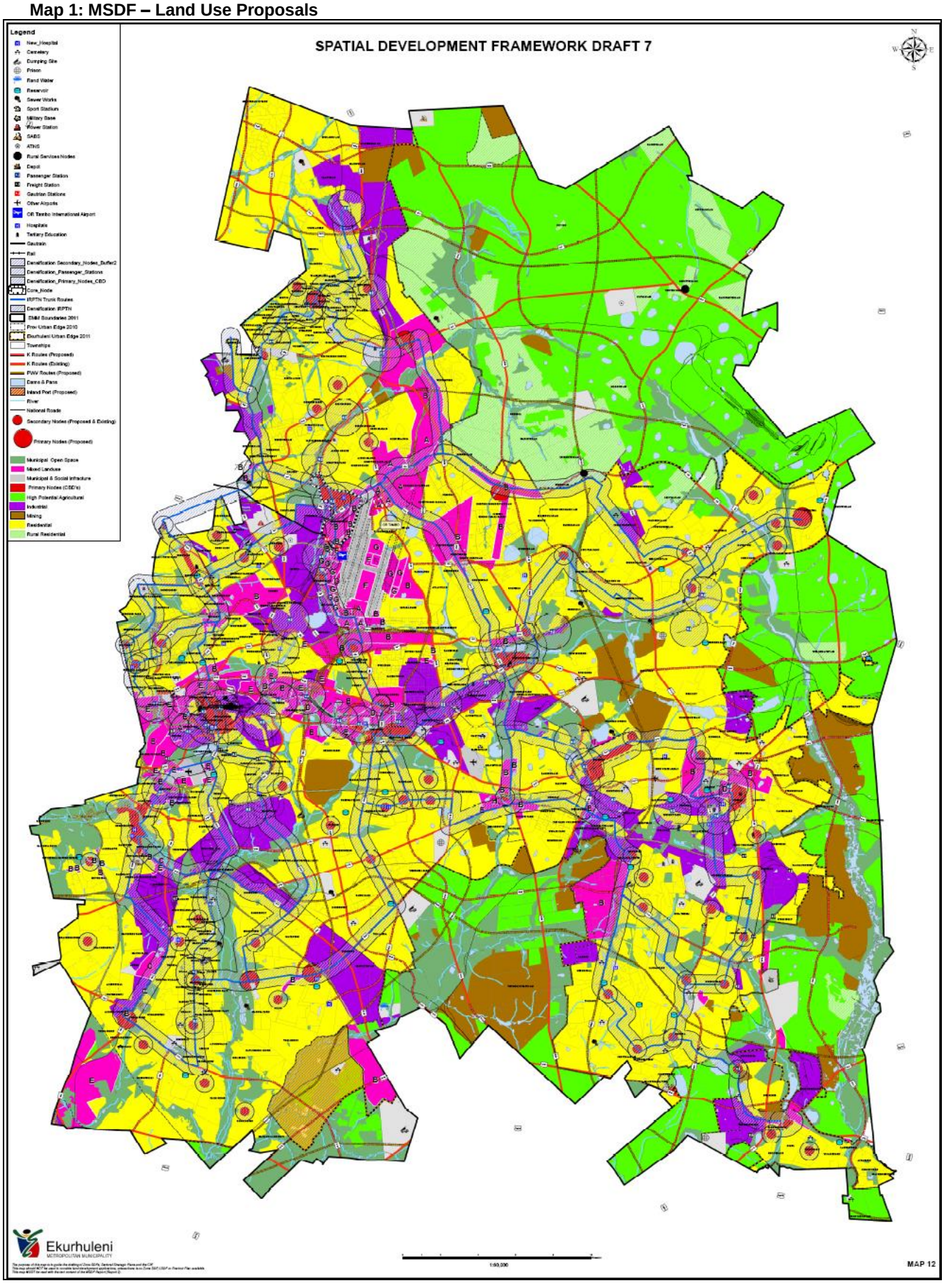
B: STRATEGIC REVIEW OF THE BUILT ENVIRONMENT

B.1 Current Performance of the Built Environment

The EMM is expanding in terms of township establishments within the urban edge. However, services that need to be provided in new areas are running short, specifically water services. Meaning there is pressure for the shortage of water supply.
Another pressure is lack of adequate housing, due to a number of informal settlements cropping up in areas that may be hazardous to the lives of these people. This pressure is due to people finding places close to work opportunities or close to modes of transport, the proposed IRPTN will be there to address these problems.

The EMM has the Municipal Spatial Development Framework (MSDF) that shows what we as a city want to see happen in the EMM. There are different land uses indicated on our MSDF, namely: Residential areas, Industrial areas, Core development triangle, Municipal Open Spaces, Agricultural areas, Secondary nodes, Primary nodes, Transport routes etc. Please note that the MSDF and the six(6) regions are currently being reviewed.

Map 1: MSDF – Land Use Proposals

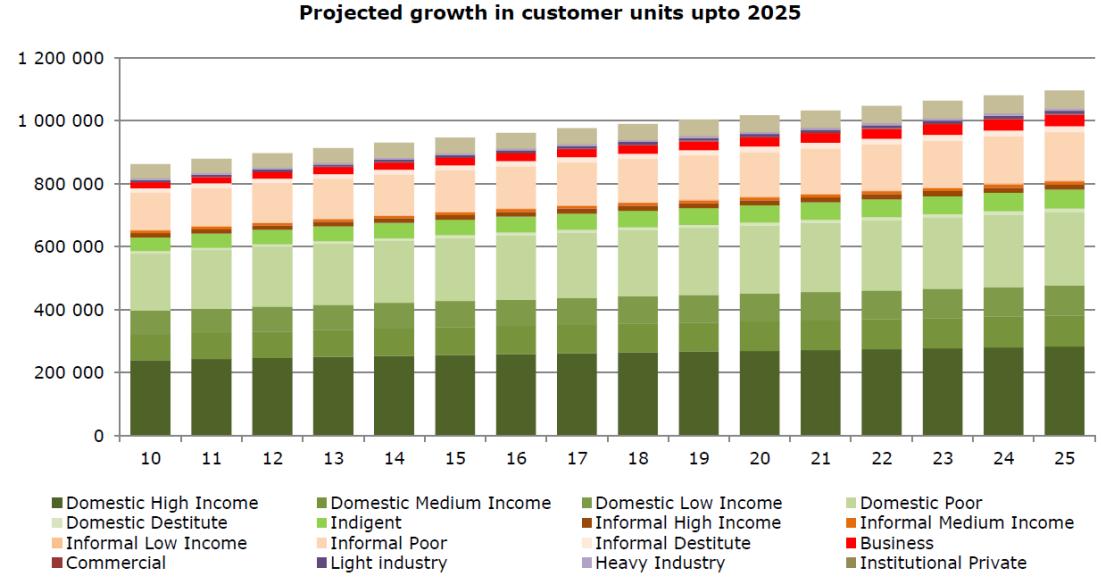


There are five major trends and pressures on the EMM built environment:

- Urbanisation
- CBD degeneration
- Manufacturing decline
- Unemployment
- Public transport

Growth, development patterns and constraints

A 28% growth in customer units up to 2025 is expected. This translates into an additional 237 067 customer units – roughly the size of the Nelson Mandela Metropolitan Municipality.



Land is probably the most significant constraint. Land within the urban edge will be developed by around 2019-2020, and significant investments in additional bulk and distribution infrastructure outside the urban edge will be necessary. The Housing Department, in a bid to purchase affordable land for low cost housing, drives urban sprawl and if this trend continues, the urban edge may yield sooner than anticipated. Furthermore, land outside the urban edge largely carries a development cost premium due to the dolomitic nature thereof, and future infrastructure construction will become more expensive as a result. It is estimated that an amount of R 23.6 billion will be required to meet the demands of growth – this amount does not include any provision for development cost premiums (as contemplated in the next section of this report), as the direction of future growth is not yet known.

Development patterns and trends in the metropolitan area indicate that government low cost housing programmes and not necessarily policies are directly contributing to urban sprawl and to a large extent perpetuating the structure of the so-called apartheid city. When this is linked to access service backlogs it is clear that the vision of sustainable human settlements is not being achieved.

B.2 Trends and Demand for Economic Infrastructure:

The Ekurhuleni Aerotropolis

EMM appointed Pro J Kasandra to prepare an Aerotropolis Road Map to address this issue. The Aerotropolis Roadmap has been approved by Council and is now utilized as the core document in relation to Aerotropolis Planning. The Strategic Roadmap was used as a basis for the drafting of the RSDF Region A as well as the Aerotropolis Planning and Land-use guidelines (PLUG). The PLUG document has been approved while the Aerotropolis Master Plan is currently been formulated by the appointed consultants. The core objective of the

Aerotropolis Master Plan (AMP) is to deliver a World class, sustainable urban space that supports Gauteng's economic, social and cultural, and environmental goals. The Aerotropolis is one of the key **SIP 2** projects.

Inland Ports/ Logistics Hubs
Transnet commissioned the 'Sentrarand Pre-Feasibility Study'. According to the December 2007 Report, "This Sentrarand study has provided an overview of the proposed development of the existing Sentrarand site in east Gauteng to support national intermodal traffic movements for the future. The objective of this development is primarily to enable support of the desired increase in rail-carried intermodal transport into the future and also to enable significant market share of freight transportation to be achieved by Transnet. Sentarand is one of the projects that form part of **SIP2**.

The Gauteng MEC for Economic Development, Qedani Mahlangu, said the province supported the establishing, as early as next year (2012), of an inland port in Ekurhuleni that has the potential to create permanent and sustainable jobs. The Tambo Springs Inland Port, near townships such as Vosloorus, Magagula Heights and Katlehong, would focus on manufacturing, transport and logistics. It will create a competitive working environment attracting foreign direct investment and creating about 50 000 new decent full-time jobs for the surrounding community. Tambo Springs is one of the projects that form part of **SIP2**. The port would link Gauteng with the other ports in KwaZulu-Natal, Western Cape and Eastern Cape and serve existing industrial areas. (Gauteng online, February 2011)

Transit Oriented Development/ Nodes **(ED to provide updated info in next BEPP)**
Land use and transport integration is central to the IRPTN system. The TOD concept is to be followed with emphasis on densification along the identified corridors. EMM supports and promotes high density development along public transport corridors and at nodes. The IRPTN is designed around the main strategic linkages within the EMM area and Transit Orientated Development around the railway networks is promoted. [MSDF 2011, 7.5 & 7.6].

Urban Development Zones **(ED to provide updated info in next BEPP)**
At the end of 2003, a tax incentive in respect of the erection, extension, addition or improvement of buildings demarcated within Urban Development Zones (UDZs) in selected cities of South Africa, including Ekurhuleni, was signed into law. Two UDZs were promulgated in Ekurhuleni, namely in the CBD of Germiston and in the CBD of Kempton Park.

OR Tambo Industrial Development Zone (IDZ)
The OR Tambo Industrial Development Zone (IDZ) is one of the most effective instruments to promote industrial development. The IDZ provides economic infrastructure necessary to attract industrial development and investment. While it provides for more job opportunities it also plays an important role in enhancing the Country's export competitiveness.

The Gauteng IDZ, commonly known as the OR Tambo Industrial Development Zone, is key to industrial development in Ekurhuleni as it promotes manufacturing of high value added products targeting the export markets. While the dti has the newly enacted SEZ Act No.16 of 2014, the current IDZ license also allows for industrial clustering away from the Airport to encourage provision of economic infrastructure and promote industrial agglomeration which is one of the City's Growth and Development Strategy 2055 (GDS 2055) to re-industrialize the City. The City has since adopted the Revitalization of the Manufacturing Sector flagship project which among other instruments the Gauteng IDZ is key to implement.

To date, the Gauteng IDZ is working on the development of the Jewelry Manufacturing Precinct (JMP) as Phase One of the IDZ located at the OR Tambo International Airport. The project requires infrastructure development in the form of bulk and top structure.

The IDZ in collaboration with the City and the Department of Trade and Industry is working on Phase Two where a number of potential industrial clusters have been identified for development. These clusters include sectors such as Plastics, Rubber, Pharmaceuticals and Fuel Cells.

Special Economic Zones (SEZ)
The dti has already shortlisted Special Economic Zones (SEZ) applications from all Nine Provinces to develop up to 10 SEZs. The transition period from the IDZ regime to the SEZ regime provides an opportunity for the current Gauteng IDZ license to have an SEZ status. The proposed Tambo Springs Inland Port project would enjoy the IDZ / SEZ status given the fact that the current Gauteng IDZ licence is not limited to activities at the Airport.
The inland port project is another form of economic infrastructure that enables movement of goods from one mode of transport to the other thus promoting industrial development and related activities in the Region and neighbouring Cities and Provinces. The inland port will attract varied industries ranging from logistics, ICT, light industrial and real estate. The inland port will also link with the main highways leading to the OR Tambo International Airport thus making it for local industries to export their products especially the targeted light manufactured and high value added products supported by the IDZ.

The City is working jointly with the Province, Transnet and the Private land Owners to facilitate the development of this inland port. The project also requires infrastructure development in the form of bulk which is a municipal obligation and other form of infrastructure development such as the rail terminal.

Informal and Street Trading Overview (ED to provide updated info in next BEPP)
Informal Street Trading has become a feature of Ekurhuleni's urban environment and it symbolizes the changing nature of the municipality in both spatial and economic terms. The Municipality has seen rapid and consistent growth of street traders which are found to be major sources of provisioning for poor households. Informal trading continues to form a vital part of Ekurhuleni emerging new spatial and economic form that accounts for a bigger space and income for the local economy. Informal trader plays a significant role in absorbing the unemployed. The Global Insight Survey (2004) states that more than half of the traders are female and that this form of business activity is increasingly women dominated.

Strategy for Broad-Based Black Economic Empowerment (ED to provide updated info in next BEPP)
Broad-Based Black Economic Empowerment (BBBEE) is an integrated and coherent socio-economic process that directly contributes to the economic transformation of South Africa and brings about significant increases in the number of black people that manage, own and control the country's economy as well as significant decreases in economic inequalities. The objective of this BBBEE Strategy is to substantially increase the EMM's impact on BBBEE in the Region. The Strategy provides greater clarity on the implementation of BBBEE as provided for by the Broad-Based BEE Strategy, the Broad-based BEE Act 53 of 2003, the DTI Codes of Good Practice on BBBEE and transformation charters.

Urban Agriculture Strategy (ED to provide updated info in next BEPP)
Urban agriculture is of necessity, intensive, highly focused, making the best use of space, characterised by shorter production cycles and higher-value market crops. It utilises multicropping and integrated farming techniques and makes economic utilisation of both horizontal and vertical space (through techniques such as hydroponics, chicken-coop boxes on shelves, multispecies fishponds and container farming). Because water is expensive and usually in short supply, urban agriculture tends to be more conservative and efficient in its water usage.

Agricultural development in the EMM needs to be guided by the local economic development (LED) policy and the IDP. There is, however, a need to develop specific policy guidelines and strategies that focus on agriculture and related activities within the EMM. These should be of necessity and be derived out of the provincial and national policies. National policies provide a broad framework for the sector whilst provincial and local policies should focus on implementation, support mechanism, monitoring and evaluation. There would be a need for a programme implementation agreement (PIA) between the provincial Department of Agriculture, Conservation and Environment and Land Affairs (DACEL) and the EMM that specifies roles, responsibilities and expected contribution.

B.3 Trends and Demand for Basic Infrastructure:

In the case of current infrastructure, the land footprint of the facility is indicated. In the case of planned infrastructure, a symbol is used to indicate the approximate locality of the planned infrastructure. According to the State of the Nation Address, 19 March 2013;

- As we turn to the City of Ekurhuleni, we find that 85% of our households enjoy the service of a flush toilet connected to sewerage, 88.4% of the households in the City have access to regular refuse removal services, 57% of Ekurhuleni households have piped water inside their dwellings and 82.2% have access to electricity for lighting.
- Prior to the year 2000, 48 444 stands in Ekurhuleni were serviced. Since the formation of the Metro in 2000, an additional 70 644 stands have been serviced.
- A total of 82 000 houses have been built in Ekurhuleni to date, 68 000 of which were built since the formation of the Metro.[1]

Table 4a: State of infrastructure service access in Ekurhuleni[2]

Service class	Service / facility type	Consumer units		
		Adequate access	Access backlog	% Backlog
Infrastructure services	Electricity distribution	758,784	172,752	19%
	Roads	829,573	190,175	19%
	Storm-water	704,824	314,924	31%
	Solid waste	990,841	28,907	3%
	Water	533,203	398,334	43%
	Sanitation	803,574	127,963	14%

Table 4a indicates the state of service access in Ekurhuleni. This data will be used in identifying future capital projects.

Water services[3]

This report (ERWAT Strategy 2032, Facility Development Plan) documents the results of a study of available sewage treatment capacity in the Erwat service areas DD3 (Hartebeesfontein, Olifantsfontein, Esther Park and *Rietvlei*), DD5A (Benoni, Jan Smuts, Rynfield, JP Marais, Daveyton, Welgedacht and Ancor), DD5B (Tsakane, Carl Grundling, Herbert Bickley and *Kaydale*), DD5C (Heidelberg and Ratanda) and DD6 (Rondebult, Dekema, Vlakplaats and Waterval) versus the growing requirement with regard to sewage flow over the next twenty year period on a strategic level. The documented findings and

[1] Source: THE STATE OF THE CITY ADDRESS OF THE EXECUTIVE MAYOR OF THE CITY OF EKURHULENI, CLR MONDLI GUNGUBELE, DELIVERED AT THE GERMISTON CITY COUNCIL CHAMBERS, 19 MARCH 2013, Reporting period: 20 March 2013

[2] Source: Ekurhuleni Metropolitan Municipality Infrastructure and Community Services Backlog Study 2013-2028, pg 52

[3] Source: ERWAT STRATEGY 2032, Facility Development Plan, Reporting period: 27 February 2013

recommendations serve as an early warning system to bring to our attention that procedures need to be initiated to start the process of new capacity extension implementation and defines the first order cost implications associated with the proposed implementation plan in 2012 value. The implementation of each recommendation for capacity extension should be initiated with and preceded by a feasibility study (including land acquisition, eg. New Regional Rietvlei WWTW) to confirm requirements. **It typically takes *four to five years* from initiation of procurement to implement an extension to the time the new capacity is commissioned.**

The capacity of a plant is determined by two parameters: 1) primarily the hydraulic design capacity in terms of annual dry weather flow (ADWF) and 2) the organic load which is the mass of biodegradable organic material contained in the sewage for which the plant is designed to treat. These two parameters are determined at design stage on the assumption that the ratio of hydraulic to organic loads will stay in balance for the life of the plant. Because of the strategic approach of this investigation and the quantum complexity jump implied by including the organic dimension, this investigation/assessment of capacity is based on the hydraulic capacity of existing infrastructure. In the case of clear imbalance (example Rondebult) the operating ADWF capacity is 'capped' and the plant is operated accordingly. Additional flow is then diverted to the further downstream plants, namely Dekema and Waterval WWTPs. The total treatment capacity of Erwat within the boundaries of EMM is currently 653 Ml/d.

The total ADWF flow to Erwat plants is presently 692 Ml/d (2012) which implies that **the total requirement for sewage treatment now exceeds the total hydraulic treatment capacity of Erwat.** Since the year 2011, **requirement exceeded hydraulic capacity and Erwat has fallen behind with the provision of additional treatment capacity.** Storm water ingress in some areas is contributing towards the hydraulic treatment capacity of ERWAT's plants. For instance, should the ingress be curbed in totality in the Hartebeestfontein Drainage District, an approximate of 10Ml/d hydraulic capacity can be restored. Unfortunately it is a time consuming task and activity to pin-point all the points of ingress. As an interim measure flow measurement at strategic points could assist to pinpoint which sub drainage area is problematic in terms of storm water ingress and could then be prioritised accordingly. This need to be monitored at least for 2 years in order to assess the seasonal changes as well (i.e. no useful data will be obtained to measure only in a dry season).

Over the past eight years the composite growth rate for Erwat is estimated at 6.1 % per annum. Since the previous planning exercise (2008) the average annual increase in flow was 32.7 Ml/d. Over the same period the average annual increase in capacity was 4.0 Ml/d, effectively increasing the capacity deficit at a rate of 27.4 Ml/d each year.

For the purposes of system modelling, the growth over the twenty year planning horizon up to the year 2032, for the total Erwat service area, is estimated at 3.2 % per annum ranging from 1.5% (low growth areas) to 4.0% (high growth areas) for individual plants. This translates into **a forecast annual sewage flow increase of 28.6 Ml/d while new capacity needs to be commissioned at a rate of 31.4 Ml/d in order to match capacity with requirement.**

All the drainage districts require capital investment due to capacity deficits. Drainage district DD5A is in the process of capacity extension and requires other minor projects to make adequate capacity available. DD6 should be singled out due to the magnitude of the deficit

and the immediate threat to the environment. The following capacity extension actions are required to turn the situation around:

PLANT	IMMEDIATE ACTION		SHORT/MEDIUM/LONG TERM	
	CAPACITY Ml/d	FUNDS 2012 R 10^6	CAPACITY Ml/d	FUNDS 2012 R 10^6
Olifantsfontein	-	-	35	266
Rietvlei	-	-	30	280
JP Marais	6	40	-	-
Welgedacht[1)]	50	-	50	338
Diverse DD5A[3)]	-	35	-	9
Ancor	-	-	25	240
Herbert Bickley[2)]	15	157	-	-
Tsakane[2)]	13	156	-	-
Heidelberg	6	73	6	59
Ratanda	-	-	2	22
Waterval	200	1 379	150	876
Waterval (outfall)	-	241	-	-
Erwat	290	2 081	298	2 090

The capacity options tabled above are subject to the respective conditions listed below:

1)JP Marais must be upgraded to and operated at 20Ml/d, Daveyton must be operated at 16 Ml/d. Tabled funds exclude present extension cost for 50Ml/day extension at Welgedacht which is expected to be finished end of 2015.

2)May be replaced by new regional Kaydale plant depending on EMM development plan. Tsakane costs include sewage transfer scheme at R 17 million.

3)Kleinfontein/Natalspruit link (R 25 million), Benoni upgraded/reinstated (R 10 million) and operated at 18 Ml/d and Jan Smuts link (R 9 million).

It should be comprehended that the above upgrade cannot be considered in isolation. It is required to synchronize the elimination of sewer pump stations within the respective drainage areas with the proposed upgrades. Some flow might be added to another drainage area due to the elimination of a pump station. All of the above is required be modelled in the Water and Sanitation Department's master plan.

BACKLOG ON SEWAGE PURIFICATION CAPACITY

During the past number of years ERWAT has increasingly fallen behind with regard to the implementation of additional capacity, i.e. moving from a position of 9% spare capacity in 2008 to a 9% capacity deficit in 2012. This deficit will increase by approximately 5% per annum if nothing is done to turn the situation around. Failure to turn the situation around will have widespread negative impact on health, social, economic, growth and environmental conditions and township development. Green Drop status will become impossible.

The estimate capital expenditure required to upgrade all the ERWAT works is R4 563m, including pipelines

Period (yrs) to upgrade all facilities	Capital required x R Million	Current EMM Grant x R Million	Additional Capital** required x R Million
5	R2997	R 50 p.d	R 2747
10	R1029	R 50 p.d	R 777
15	R 537	R 50 p.d	R 37

** These figures do not make provision for development contributions

We as Ekurhuleni need to start managing our water and storm water/surface run-off better so that we reduce water losses and ingress into the sewer system. *According to the ERWAT STRATEGY 2032, Facility Development Plan, Reporting period: 27 February 2013* "During the past number of years Erwat has increasingly fallen behind with regard to the implementation of additional capacity".

Services backlog (Comprehensive Municipal Infrastructure Plan (CMIP)[4]

Ekurhuleni formulated a strategic vision of the city in 2055, known as the Ekurhuleni Growth and Development Strategy 2055 (GDS 2055), to be reviewed at five-year intervals. This Comprehensive Municipal Infrastructure Plan (CMIP) focuses on engineering networks, community facilities, public amenities and operational buildings, quantifies the funding needs and affordability of providing these services at desired levels and standards, and presents strategic parameters and considerations to support the formulation of political priorities that will be articulated in the next iteration of the GDS.

Ultimately, this CMIP assesses the ability of the municipality to address backlogs and the implications thereof. This CMIP and its subsequent iterations will provide an ever greater focus on sectoral prioritisation and refinement of the infrastructure investment plan towards the strategic vision adopted or confirmed in the GDS.

Immovable production assets

The replacement value (CRC) of these assets was in the order of R73.1billion.

Table 2-2: Asset value (scope aligned to AMP categories) R million

Asset Sub-Category #	Replacement Value (CRC	Current value (DRC)	Remaining asset value
Community Services	R 1,735,075,438	R 869,679,535	50%
Electricity network	R 22,969,641,545	R 11,761,064,785	51%
Information and communications network*	R 846,621,520	R 569,435,220	67%
Operational Buildings	R 1,822,264,810	R 781,731,194	43%
Public Amenities	R 4,467,760,890	R 2,111,181,217	47%
Roads, storm-water network and rail	R 28,904,425,772	R 14,697,695,610	51%
Water supply network	R 6,247,149,587	R 2,823,519,156	45%
Sanitation network	R 4,922,337,740	R 2,646,398,057	54%
Solid waste facilities	R 1,158,592,675	R 569,809,148	49%
Summary	**R 73,073,869,977**	**R 36,830,513,921**	**50%**

The scope of assets included in each sub-category are in line with the AMPs (not the same as in the asset register)

* - ICT has been allocated proportionally to Community Services, Operational buildings and Public Amenities for purposes of this report

Assets with a replacement value of some R10.6 billion are considered to represent high or very high risk, this being about 14% of all assets.

Bulk capacity constraints are severe in the electrical sector as well as with ERWAT (bulk sanitation services), though there are backlogs in water services too. Alleviation of these bulk

[4] Source: EMM: Comprehensive Municipal Infrastructure Plan, 2013-2028, pg 57

constraints is crucial to under-pinning all strategic objectives (including servicing existing customers, facilitating new service access and stimulating economic growth).
Overall, about 6% of the portfolio is in a poor or very poor condition – the figures per sector range from 3% to 14%, with operational buildings being in the worst state.
Risk exposure is unduly high, requiring targeted capital renewal of assets, mostly in the roads and storm-water and electricity sectors. Measures should also be explored to reduce the pressure by identifying cost-effective ways to establish system redundancy (so that if there are failures, the impacts are not as severe). Marrying the corporate risk management framework with the physical asset risks needs to continue, with the refinement of risk management systems, processes and data, and for risk to be entrenched as a core business process in the strategic and operations management of EMM.

State of services provision, service performance and asset management practice
The Municipality by and large offer comprehensive services to its customers, and existing backlogs are largely the result of new township establishment, the formation of informal settlements and the municipality having opted for higher level of services than the national minimum levels of service adopted.

EMM is generally adhering to national standards in the provision of services, despite being susceptible to external disruption, such as power outages. It would appear however, through comparison with broad industry indicators, that this position is not being achieved in the most effective and efficient manner, though specific data is not available. It is known however that most departments are hampered by skills shortages and in most cases by inadequate vehicle support (insufficient numbers, and old and unreliable vehicles that are frequently not available for use, and require expensive repairs). There is a need to more definitively determine opportunities for efficiency gains in operations, particularly given the large portion of the budget it consumes.

The business processes associated with measuring performance against the Customer Services Charter are not adequate, and performance in many instances remains uncertain. Indeed, there is a need to expand the measures, to embrace national standards, response times, as well as other aspects that have been identified in the asset management plans as key elements of service delivery. The CRM system that has been adopted by EMM does not capture all needs and is not linked for all services to an effective maintenance management system to track the nature and timing of responses. Customer satisfaction surveys have been conducted since 2008 on a sample basis, and will provide a basis for monitoring general indicators. There is a need to review the systems, processes and data used by EMM to more effectively measure and report service performance.

There are elements of good asset management practice in immovable asset departments within Ekurhuleni, especially those that need to comply with license requirements (electricity distribution, water supply, and permitted landfill sites). In general though, practice is not appropriate given the value, extent and complexity of the Council's immovable asset production portfolio, and given the risks inherent to these assets. The overall state of practice measured against the international Specification for the Optimised Management of Physical Assets stands at 19%, compared to competence set at 75%. A three year improvement plan has been prepared with sufficient funding to define and document the asset management system, establish enabling processes and to assess the capacity required to implement the above.

Road: The EMM has identified a road classification system which is simplified into a Freeway Network and a Second Order Road Network as well as a proposed Third Order Road Network. Due to the high mobility and limited access of freeway traffic, increased densification would not be suitable on at interchanges on this road network. Second order road network is most conducive to higher residential densities as these roads link residential

areas to nodes and other areas of economic activities and other residential areas. EMM has proposed various density targets on the roads classified as transportation corridors as well as activity development corridors.

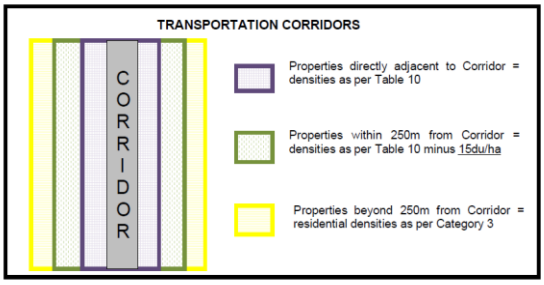
The densities for different types of corridors are indicated in **Table 6**.

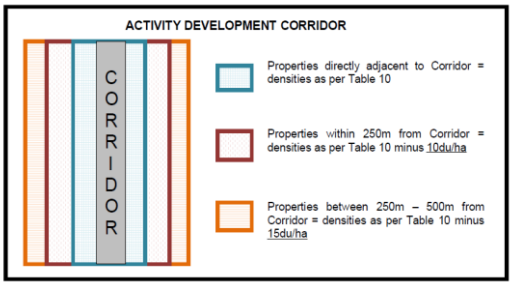
Table 6: Densities for Corridors

Road Classification	List of Corridors	Land Use	Density targets 2025 Units per hectare (Minimum–Maximum)
Transportation corridors	Albertina Sisulu Corridor; Germiston Daveyton Corridor	- Mixed land uses at identified intersection nodal points. - Higher density residential	60 – 80
Activity Corridors	To be listed in RSDFs; mainly K-routes linking Primary Nodes	- Local nodal development - Higher density residential	110 – 130
Activity Spine	To be listed in RSDFs; mainly municipal roads linking Secondary Nodes	- Residential - Business - Retail - All uses to be of a local and fine grain nature	40 – 60

Source: EMM MSDF, 2011

The following illustrations illustrate the densities which are targeted abutting the identified corridors. The above-mentioned density targets are applicable to erven directly adjacent to the identified nodes and corridors.





Roads

The following definitions are derived from the Ekurhuleni Corridor Study (page23) indicates the relationship between the road and corridor hierarchy in terms of various levels of accessibility and mobility.

Class 1 Roads: Freeway Network

The freeway network in Ekurhuleni ensures good regional accessibility for the EMM area, and links it to all major centres in a Southern African context. The current freeway network is, however, mainly radially orientated towards Greater Joburg. The priority expansion of the freeway network in Ekurhuleni revolves around:

- PWV 15 which will unlock the development opportunities to the east of OR Tambo International Airport;

- PWV 13 which will directly link OR Tambo International Airport with the N3 and which will improve accessibility of the Core Development Area; and
- PWV 14 which will link Germiston and the Central Activity Belt to OR Tambo International Airport and the R21 and N12 freeways.

The impact of the tolling of many of the current freeways in Ekurhuleni need to be investigated, especially with regard to potential 'rat running' on mower order provincial and municipal roads.

Class 2 Roads: Second Order Road Network
The main objective of this second order road network is to serve the metropolitan area in north-south and east-west directions of movement and to link residential areas to one another and to the core areas of economic activity. This network also link areas of economic activity to one another and promote mixed use and high density developments adjacent to these routes (subject to road access management requirements). The network promotes public transport along these routes as a priority.

Six main north-south desire lines have been identified and are described below:
- Route K117/K127/K123. This route runs from Tembisa past Spartan and Isando, past Germiston CBD and trough Wadeville, linking Spruitview (Vosloorus). The route then loops back through Kathlehong and Thokoza to Alberton.
- Route K105/K90/K131. This route links Tembisa, Kempton Park CBD, Isando and Spartan, Jet Park, OR Tambo International Airport, Boksburg CBD, Sunward Park and Vosloorus.
- K155 which is the extension of the PWV15, and then passes through Anderbolt, Van Dykpark and Vosloorus. The route then loops back through Kathlehong and Thokoza to Alberton.
- K109 which links the northern suburbs of Benoni to the Benoni CBD and Benoni South Industrial area, from where it stretches southwards pass Tsakane and eventually link up with the N3 freeway.
- K161/K154 which serves Daveyton-Etwatwa from where it passes southwards towards the Springs CBD, New Era industrial area, then past Kwatsaduza and Nigel up to where it links to the N3.
- K175 which links Etwatwa to Springs CBD and then beyond to Nigel.

In an east-west direction there are three priority areas:
- K68 which is to link the Daveyton-Etwatwa complex to the OR Tambo International Airport area.
- K106 which links the Daveyton-Etwatwa complex to the Central Activity Belt including Benoni, Boksburg and Germiston.
- K132/K163/K116 which links Springs to Brakpan CBD (Far East Activity Belt) and then to Boksburg (Central Activity Belt).

The prioritisation of the above listed routes must be reviewed in the RSDFs to support the implementation of the proposed Core Development Triangle ('Inner Ring' and 'Outer Ring')

The following routes are deemed to be very important strategic linkages required to optimise the development potential of the Ekurhuleni Metropolitan Municipality:
- **PWV14** from Germiston to OR Tambo International Airport;
- **PWV13** to extend southwards from R21/N12 Witbank systems interchange to N3 just past N3/K155 services interchange in Vosloorus, to provide as a central mobility spine for this north-south strip of development in Ekurhuleni;
- **K60** to link Tembisa-Kempton Park to Midrand;
- **PWV15** between the N12 Witbank and R21 north, to unlock development potential to the east of OR Tambo International Airport; and

- **K86** to link Daveyton to OR Tambo International Airport and to unlock development potential of area north of the N12.

The upgrading or construction of the above mentioned classes 1 and 2 road are important mobility routes. These routes are however National (SANRAL) & Provincial responsibilities. The developments planned by the EMM will have to be in line with that of the above authorities. EMM has no control as to when these facilities will be constructed or upgraded.

B.4 Trends and Demand for Residential Infrastructure

Housing Backlog

The Draft Ekurhuleni MHDP sets the official housing backlog for Ekurhuleni as at 209 420 (**Table 3**). This includes informal units and the current waiting list.

Table 3: Housing Backlog (2010)[5]

	NUMBER OF UNITS 2010						
Number of Settlements	Region	Informal	%	Waiting List	%	Total	%
23	Region A	36 154	22%	9 007	20%	45 161	22%
12	Region B	33 505	20%	10 786	24%	44 291	21%
19	Region C	30 537	19%	7 469	17%	38 006	18%
16	Region D	15 178	9%		0%	15 178	7%
21	Region E	25 332	15%	7 467	17%	32 799	16%
28	Region F	23 993	15%	9 992	22%	33 985	16%
119	**TOTAL**	**164 699**	**100%**	**44 721**	**100%**	**209 420**	**100%**
	%	**79%**		**21%**		**100%**	
	Density(du/ha)						

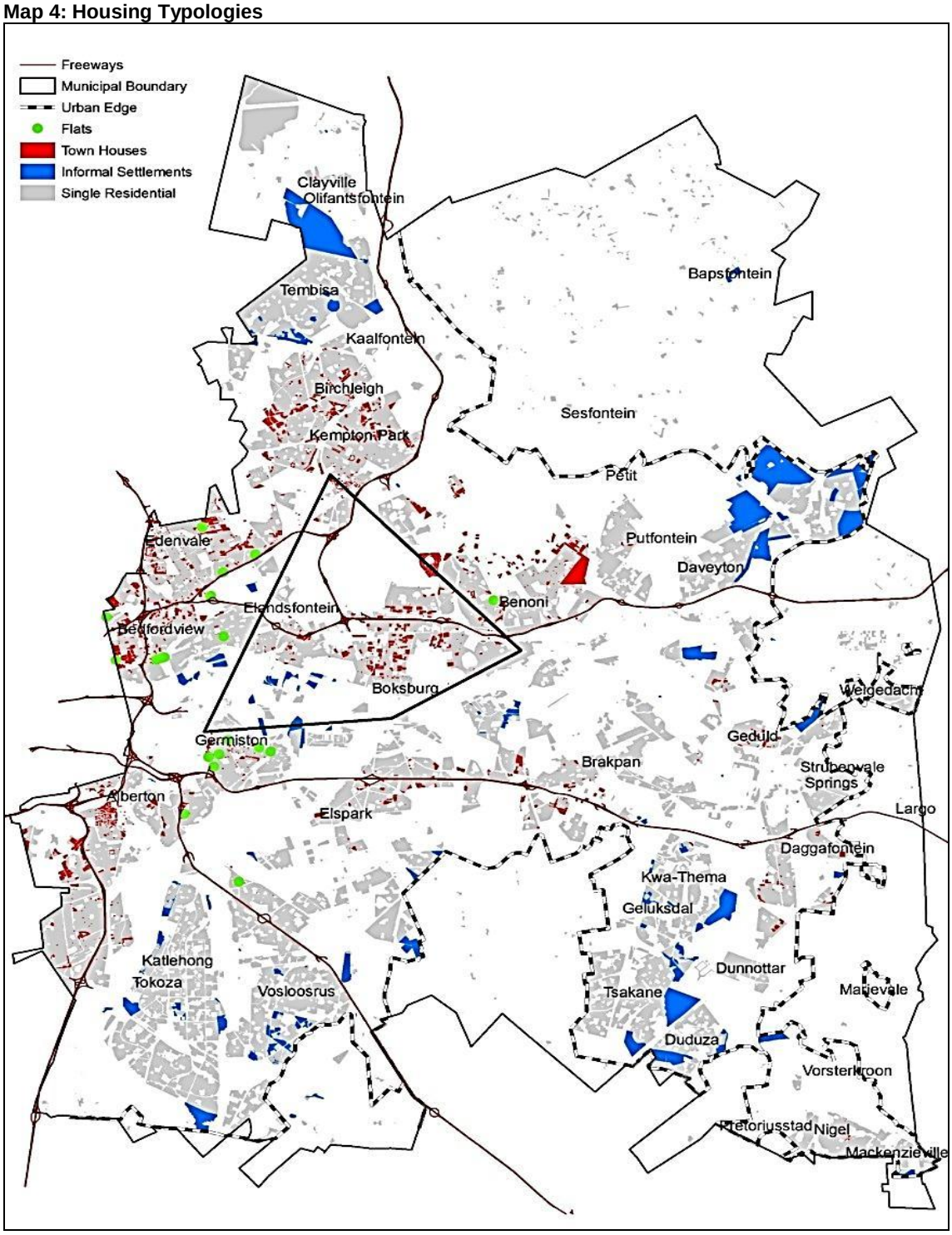
Current Housing Projects

Pressures and challenges experience with current housing projects includes:

- High community expectations in terms of land size and level of service;
- Political expectations, especially from ward councilors;
- Land scarcity relating to reluctance of land owners with strategically located land to sell.
- Informal settlements located in the periphery that still require to be upgraded in-situ, hence a number of new projects in the periphery

[5] Source: HUMAN SETTLEMENTS DEPARTMENT Sustainable Human Settlement Plan, Progress Report April 2013. Reporting period: 2 May 2013

Map 4: Housing Typologies



Social Housing: The City is implementing the Social Housing Programme through the Ekurhuleni Development Company (EDC), the Municipal owned Social Housing Institution responsible for the implementation of the programme. The city has identified the following priority projects as part of the Social Housing Programme in the Metro:

- Fire station, Deville, Pirrowville and N17 in Germiston
- Bedfordview
- Farramere
- Benoni central and
- Kempton Park central

Hostels: The Ekurhuleni Metropolitan Municipality is the owner of 22 hostels. These 22 hostels consist of a 43 112 units.[6] The EMM Housing Department in conjunction with Gauteng Department of Local Government and Housing is currently implementing the Community Residential Units Programme aimed at the redevelopment and conversion of these hostels into family units. The business plans were approved for the redevelopment of the following hostels into family units:

- Buya Futhi blocks G and H;
- Kwamazibuko;
- Sethokga, and
- Wattville (Ekurhuleni Metropolitan Municipality, 2011, p,56)

Upgrading of Informal Settlement Programme (UISP): The Metro is currently implementing the following six UISP projects that were handed over to the Metro through the accreditation process:

- Langaville Ext. 4 (Project 56);
- Alra Park Reiger Park ext 5;
- Magagula Heights;
- Moleleki ext's 1 & 2;
- Villa Liza 3; and
- Tinasonke ext. 4.

Community Builder Programme (CBP): The Metro is implementing the CBP can be regarded as the enhance People's Housing Process Programme. The CBP projects delegated through the accreditation process includes the following:

- Mayfield Ext.1 (Project 56);
- Esselen Park (Witfontein 15 IR - R30);
- Pomona Estates;
- Esther Park;
- Terenure;
- Kwa Thema Ext. 3, 7a & Ekuthuleni;
- Tsakane Ext. 19;
- Vosloorus / KAVOSH; and
- Langaville Ext. 4 (Project 56) Informal Settlement Upgrading.

Integrated Residential Development Programme (IRDP): The programme replaced the Project Linked Subsidy Programme and provides for planning and development of integrated housing projects. The projects in the programme are planned and developed in phases and provides for a holistic development the house construction phase for qualifying housing subsidy beneficiaries and the sale of stands to non-qualifying beneficiaries and to commercial interests etc. Phase 1 includes Land, Services and Township Proclamation. Phase 2 includes Housing Construction and Individual ownership options.

The following IRDP projects have been handed over to the EMM through the Accreditation process:

- Holgatfontein 326 IR
- Rietfontein
- Kwa Thema
- Spaarwater
- Vlakfontein 130 IR Ptn 33
- Ergo Road
- Payneville Ext. 1

[6] Source: opportunities for New Rental housing units in Gauteng, Social Housing Foundation, 2009

- Chief Luthuli Ext 4 (Consolidation & Subdivision)
- Rose Acres Palm Ridge ext. 4 & 5
- Rondebult 136 IR (Portion 10 & 17)
- Driehoek (Germiston ext. 4) Rehabilitated land
- Angelo Simmer and Jack
- Balmoral Pnt 31 & 234 (Dreifontein 85 IR)
- Driefontein 85 IR Ptn 399
- ERPM Village (Pnt 402 & 403 Dreifontien 85 IR)
- Vlakplaats portions 36 & 657
- Angelo Deep Klippoortjie 112 IR
- Vlakfontein ptn 7 (Tsakane Ext 22 Emergency Area)
- Dukathole Goodhope (Germiston Ext 37)
- Eden Park West ext. 1
- Ulana Settlements
- Kutalo
- Villa Liza Ext 5

Mixed housing projects: The City has mixed housing developments planned for Chief Albert Luthuli, Leeuwpoort project. There are also a number of Mega projects, projects with land size that exceed 100hectares that are at feasibility stage. These include;

- Grootfontein in Duduza
- Palmietfontein in Katorus/Alberton
- Wetervreden
- Brakpan old location
- Witfontein

B.5 Trends and Demand for Community and Social Infrastructure:

Social infrastructure

Map 1 indicates current and planned bulk social infrastructure. Detail on current bulk social infrastructure is captured in the Ekurhuleni GIS. Detail on planned bulk social infrastructure will be address in the MSDF Implementation Plan as applicable. The following types of above ground municipal infrastructure are (tertiary level social infrastructure):

- hospitals (level 1, 2 and 3 hospitals)- *to meet with Province and National for any proposals*
- prisons- *to meet with Province and National for any proposals*;
- libraries;
- schools- *to meet with Province and National for any proposals*;
- tertiary education- *to meet with Province and National for any proposals*;
- major sport & recreational facilities; and
- cemeteries.

In the case of current infrastructure, the land footprint of the facility is indicated. In the case of planned infrastructure, a symbol is used to indicate the approximate locality of the planned infrastructure.

In identifying and planning for these facilities, reference was made to the Executive Summary of the "Master Plan for Sport and Recreation, Arts, Culture & Heritage, Environment & Libraries and Information Services in the Ekurhuleni Metropolitan Municipality" (Maluleke, Luthuli & Associates, 2002, page 12).

Between 2006 and 2014, several community facilities were built, thereby broadening access for our residents. Some of the achievements in this regard include:

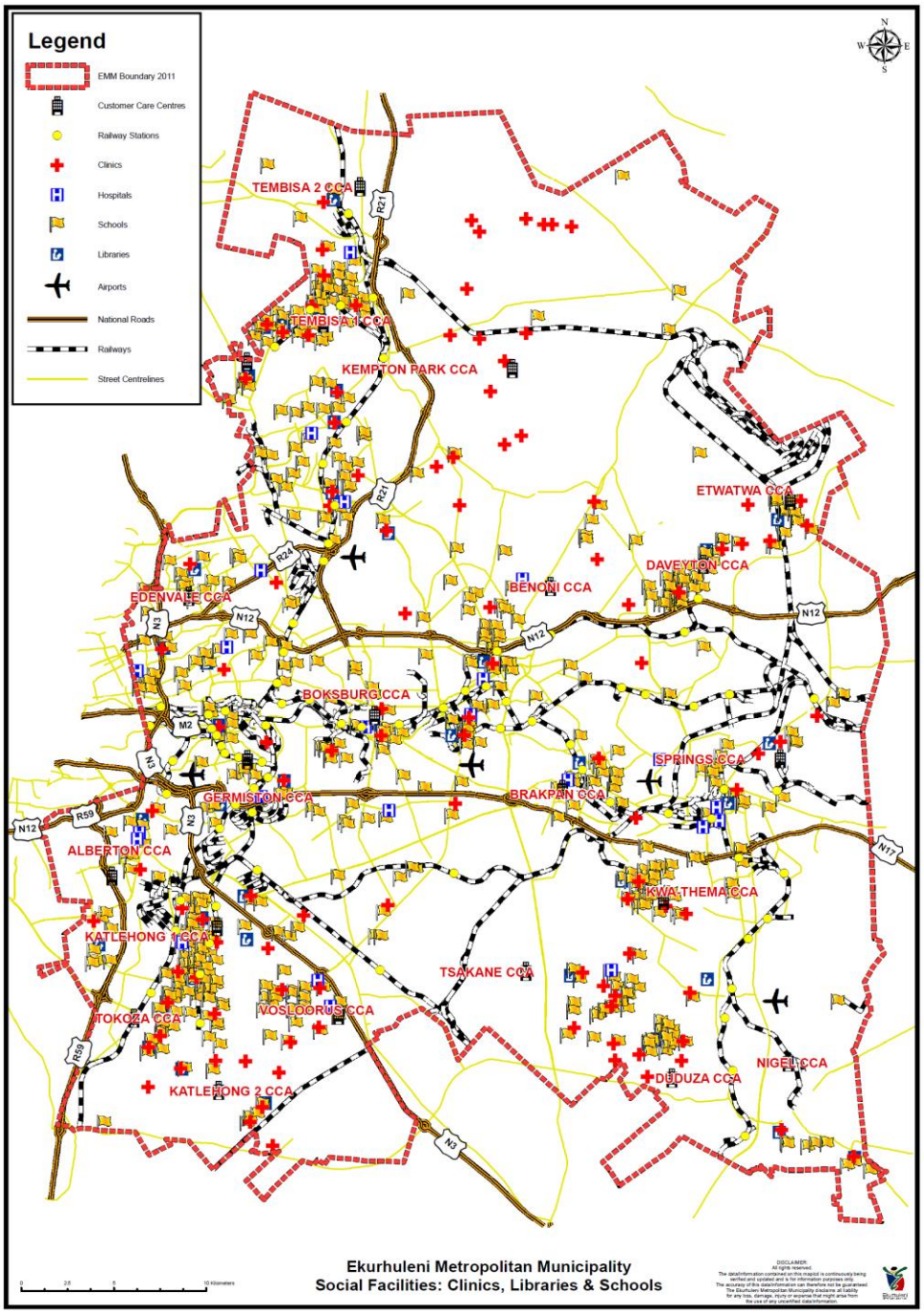
- Construction of 485 km of roads;

- Complete eradication of the bucket system;
- 368 high mast lights have been installed;
- 3445 street poles have been erected;
- Four regional parks have been developed;
- Eight multipurpose parks were upgraded;
- Four nature reserves have been upgraded; and
- A total of 60 000 trees have been planted.[7]
- Five large stadiums re-developed and upgraded
- Three new libraries constructed

In response to comment from the National Human Settlement Department, **Map 2** is included to indicate the locality of existing and proposed 'primary and secondary level' social Infrastructure.

Map 2: Selected Primary and Secondary Level Social Infrastructure

[7]Source: THE STATE OF THE CITY ADDRESS OF THE EXECUTIVE MAYOR OF THE CITY OF EKURHULENI, CLR MONDLI GUNGUBELE, DELIVERED AT THE GERMISTON CITY COUNCIL CHAMBERS, 19 MARCH 2013


Legend
EMM Boundary 2011
Customer Care Centres
Railway Stations
Clinics
Hospitals
Schools
Libraries
Airports
National Roads
Railways
Street Centrelines
TEMBISA 2 CCA
TEMBISA 1 CCA
KEMPTON PARK CCA
ETWATWA CCA
DAVEYTON CCA
BENONI CCA
EDENVALE CCA
BOKSBURG CCA
SPRINGS CCA
BRAKPAN CCA
GERMISTON CCA
ALBERTON CCA
KWA THEMA CCA
KATLEHONG 1 CCA
TSAKANE CCA
TOKOZA CCA
VOSLOORUS CCA
NIGEL CCA
DUDUZA CCA
KATLEHONG 2 CCA
R21
R24
N12
N3
M2
R59
N17
Ekurhuleni Metropolitan Municipality
Social Facilities: Clinics, Libraries & Schools

In response to comment from the National Human Settlement Department, **Map 3** is included to indicate the locality of existing and proposed 'primary and secondary level' sport, recreation, art and culture Infrastructure.

Map 3: Selected Sport, Recreation, Art & Culture Infrastructure

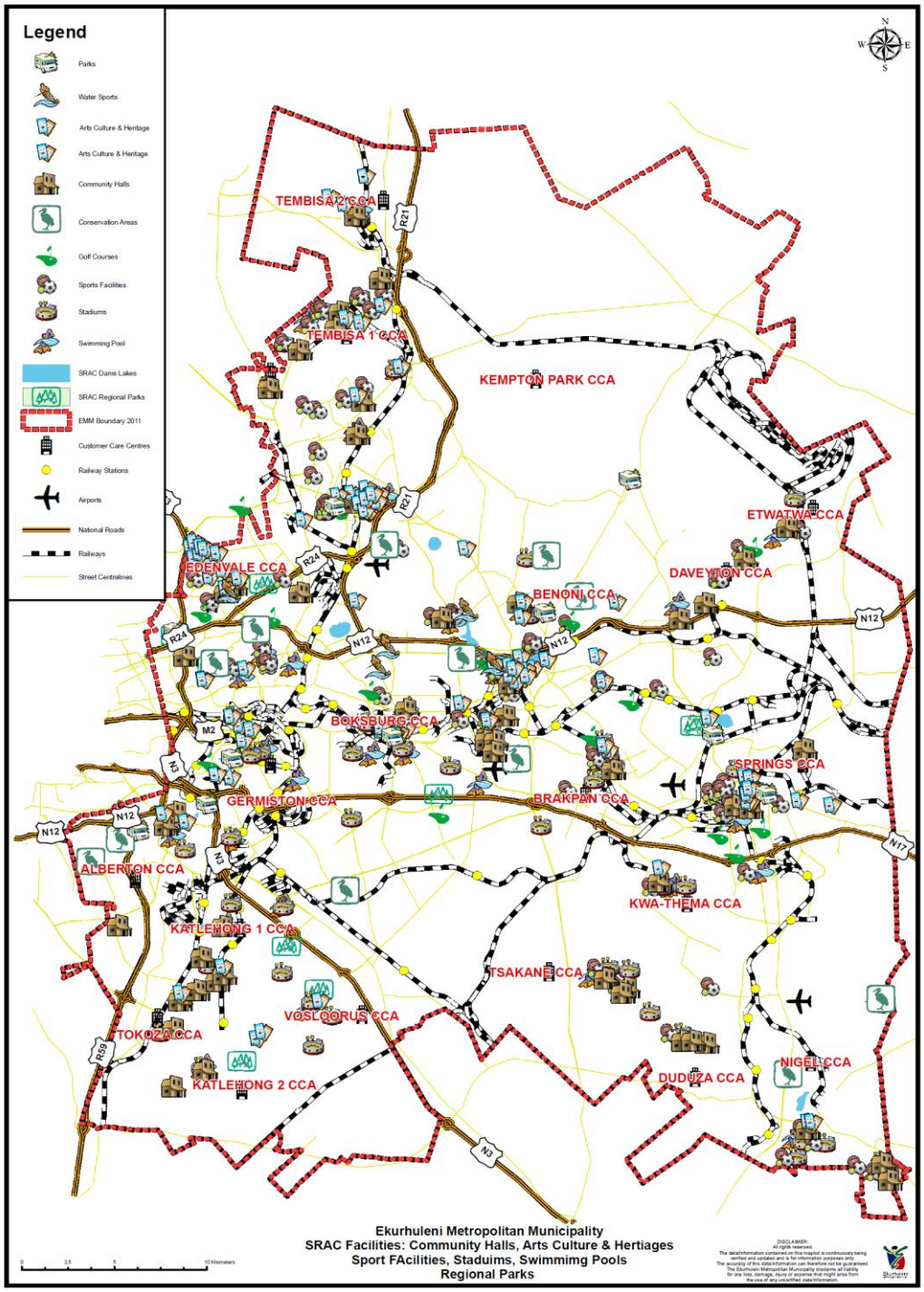


Table 4 indicates the state of service access in Ekurhuleni. This data will be used in identifying future capital projects.

Table 4b: State of service access in Ekurhuleni[8]

Service class	Service / facility type	Consumer units		
		Adequate access	Access backlog	% Backlog
Public amenities	Airports	931,535	0	0%
	Civic centres	921,522	10,013	1%
	Community halls	913,143	18,392	2%
	Indoor sports & recreation facilities	852,644	78,891	8%
	Libraries	927,401	4,134	0%
	Museums/galleries/theatres	736,397	195,138	21%
	Parks	927,790	3,745	0%
	Outdoor sports & recreation facilities	921,943	9,592	1%
Community facilities	Building plan offices	928,548	2,987	0%
	Cemeteries	930,689	846	0%
	Clinics / Care Centres	801,502	130,033	14%
	Fire / Ambulance stations	871,969	59,566	6%
	Pay / Enquiry points	927,932	3,603	0%
	Vehicle testing stations	820,495	111,040	12%

B.6 Trends and Demand for Transportation:

Table 5 indicates the density targets proposed around railway stations listed above. **(Transport to provide updated info in next BEPP)**

Table 5: Density targets proposed around railway stations

Distance	**2025 (u/ha)**
Proposed density up to 500m from the station	110 – 200
Density targets between 500m & 1000m from the station (Dwelling units per hectare (minimum –maximum)	90 – 160

Source: EMM MSDF, 2011

The busiest station in the Ekurhuleni Metropolitan area is Germiston Station and it is recommended in the ITP that densification projects be developed and implemented in the Germiston area, as this is where the major rail infrastructure is centered in the EMM. The municipality is currently busy with the Urban Renewal Programme for Germiston area and densification is part of the objectives in implementing this programme. Germiston is but not the only busy station in Ekurhuleni. Some of the busiest stations include Kempton Park, Leralla, Daveyton, Isando, Dunswart, Oakmoor, Tembisa, Limindlela and this is based on station inflow and outflow volumes with more than 20 000 passengers. Higher density residential developments may also be incorporated into mixed-use developments (refer to Category 2) around stations. In the case of residential units on the ground floor, these units must be designed as live-work units to assist in economic upliftment in these respective areas as well.

Transport networks

The land uses proposed in the SDF description above must be supported by transport infrastructure in order to materialise. This section gives a summary of the main transport infrastructure required.

[8] Source: Ekurhuleni Metropolitan Municipality Infrastructure and Community Services Backlog Study 2013-2028, pg 52

Prasa Rail

Stations are classified by the Prasa in three different groups based on the following main criteria:

A (Flagship): 40 000+ commuters per day; manned fully during hours of operation. In Ekurhuleni, this category consists of Germiston Station and Kempton Park Station.
B (Home Station): 15 000 to 40 000 commuters per day; manned fully during peak times and ad-hoc off-peak depending on operational needs. These Ekurhuleni Stations are indicated in bold in the table below.
C (Work Station/Halts): 0 to 15 000 commuters per day; manned on ad-hoc basis depending on needs. *(Source: Concession Agreement)*

The rail system in Ekurhuleni comprises 69 existing commuter rail stations or halts. These stations / halts are listed in **Table 7** in alphabetical order, together with the number of passengers embarking and disembarking per weekday, its classification, owner, and its operational function (staging of rolling stock, maintenance and fault service).

Table 7: Station Facilities and Functions

Station or Halt	Passenger Volumes Weekday	Prasa Classification	Owner
Daveyton	**27 088**	B	Prasa
Dunswart	**25 947**	B	Prasa
Elandsfontein	**32 051**	B	Prasa
Germiston	**93 670**	A	Prasa
Isando	**26 239**	B	Prasa
Kempton Park	**40 899**	A	Prasa
Leralla	**28 073**	B	Prasa
Limindlela	**20 079**	B	Prasa
Oakmoor	**25 011**	B	Prasa
Tembisa	**22 997**	B	Prasa

(Prasa did not classify all Transnet stations)

Prasa's top priorities for Ekurhuleni are Daveyton to Etwatwa; and Tembisa to Ivory Park rail extensions, but then these are again weighed against the national priorities. The planning for the Daveyton to Etwatwa corridor was done in the '90s and Prasa will do an economic

From Germiston there are commuter railway lines in all four directions. This railway network links the disadvantaged communities of Tembisa, Katorus and Daveyton-Etwatwa to all four the core areas of economic activity identified. In addition to the normal commuter rail, the GSPTN also includes the Gautrain linking Sandton to the OR Tambo International Airport (ORTIA) with a commuter station in Rhodesfield. The Strategic Integrated Transport Plan (ITP) and the Metropolitan spatial development framework (MSDF) of Ekurhuleni confirmed that rail forms the backbone of the public transport system, although it is considered not to be optimized.

Bus services

In 2007 a study conducted by the Ekurhuleni Metropolitan Municipality suggested that the Metro needs to expand the bus services. The expansion can be dealt with in phases, the first being the expansion of services in areas currently being served (Germiston, Brakpan and Boksburg). This will fit this MSDF Concept if services are operated on the corridors as suggested on Map 18, with specific focus on the 'Inner Ring'. Phase two will see services introduced from existing areas to destinations in neighboring Metro areas then, lastly, introducing the bus services within the EMM area with the aim of linking EMM towns with

each other. The last phase of implementation will thus focus on the 'Outer Ring' as proposed in the MSDF Concept.

Taxi services
Taxi mode is used by the highest number of people in Ekurhuleni. There are over 11000 mini bus taxis in the city, moving approximately 335 000 passengers per day. The highest taxi volumes occur in Germiston, Boksburg, Kempton Park, Benoni and Springs. More than 50% of all routes in the EMM area are over supplied.

Routes must be aligned to the routes as indicated on Map 2 of this MSDF, with focus on both the 'Inner Ring' and the 'Outer Ring'.

Integrated Rapid Public Transport Network (IRPTN)
The National Department of Transport's (DoT) Public Transport Strategy maps out a first phase to fast-track implementation programmes that target the initial development of a high quality, Integrated Rapid Public Transport Network (IRPTN) in at least 12 South African cities including Ekurhuleni Metropolitan Municipality (EMM).

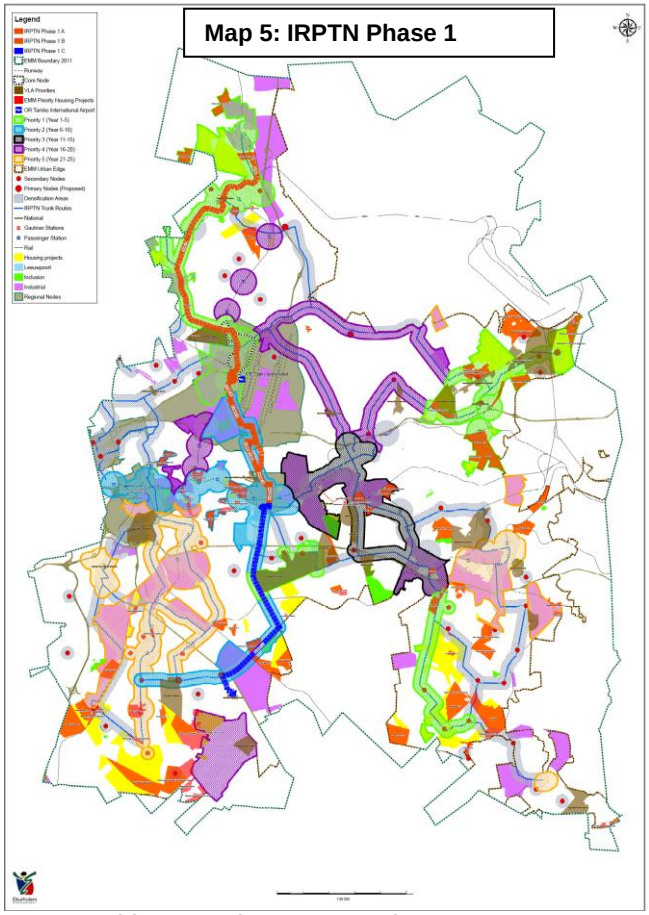
The key focus is on initiating implementation in a speedy and highly visible manner with maximum impact. It is expected that successful implementation over the first two phases will see the improvement in public transport services for more than 50% of the inhabitants of the EMM. In this regard, the aim is to upgrade commuter rail services, bus and minibus taxi services to a Rapid Rail and a Bus Rapid Transit level of quality. Ultimately these services must be fully integrated to form a single system, regardless of mode. The basic aim is to improve the quality of public transport services throughout the EMM and would ideally comprise an integrated package of Rapid Rail, Bus Rapid Transit (BRT), bus, minibus taxi and metered taxi priority networks.

Through the approved EMM Modal Integration Strategy and Action Plan developed in 2008 the Integrated Rapid Public Transport Network (IRPTN) was identified. The IRPTN comprises of grid-based corridors along mobility spines linking main residential and economic nodes in line with the Metropolitan Special Development Framework. From a public transport point of view, the IRPTN is the most significant intervention to improve and promote the use of public transport in Ekurhuleni. The priority or so-called section for implementation is a North-South corridor from Tembisa to Kathorus.

The development of the full integrated network is envisaged to take place over a series of phases, in order to match the available resources for planning, finance, and construction. The following five (5) routes were identified:

- **Route 1:** Tembisa-Germiston-Katlehong (50km)
- **Route 2 (Phase 1):** Tembisa Hospital to Vosloorus via Kempton (56km)
  - **Phase 1A&B:** Starts at Tembisa Hospital to Boksburg Civic Centre via Kempton Park and OR Tambo (38km)
  - **Phase 1C**: Boksburg Civic Centre to the New Natalspruit in Vosloruus (18km)
- **Route 3:** Kempton Park to Duduza via Benoni and Brakpan (53km)
- **Route 4:** Etwatwa to Duduza via Daveyton and Springs (42km)
- **Route 5:** Brakpan to Alberton via Rondebult (24km)

In order to accommodate people living at the periphery (low income people who earn less than R3 500 a month) emphasis will be on the reduction of transfers and creation of affordable settlement or densification along the corridor.



The integration proposals set forward in the MSDF rely heavily on the availability of public transport to support its aims. Planning coordination ensures the matching of the housing migration plan and the proposed public transportation system within the MSDF. The analysis presented in Map 5a and b demonstrates the proposed IRPTN routes.

The city is currently busy with the development of the operations plan and the process has identified new links EMM with City of Johannesburg. Gauteng is also playing a role in ensuring that EMM plans do integrate with adjoining municipalities. New links include Airport to Bruma BRT Node of JHB and link from Kathorus via Alberton to JHB.

The City links its strategy on transport network with other land use development in order to have sustainable development as described in Chapter 7 & 8 of the MSDF 2011. Reference to infill residential development, extend economics activities into PDAs, link disadvantaged communities to the economic core areas, and develop well defined system of nodes, combining activity nodes and public transport nodes are applicable.

Modal Transfer Facilities

During the GSPTN exercise the possible location of strategic modal transfer stations were identified. These included both existing facilities as well as possible locations for future facilities. These locations were then ranked according to a number of criteria. The modal transfer stations located in Ekurhuleni that were identified in the GSPTN.

The Gautrain

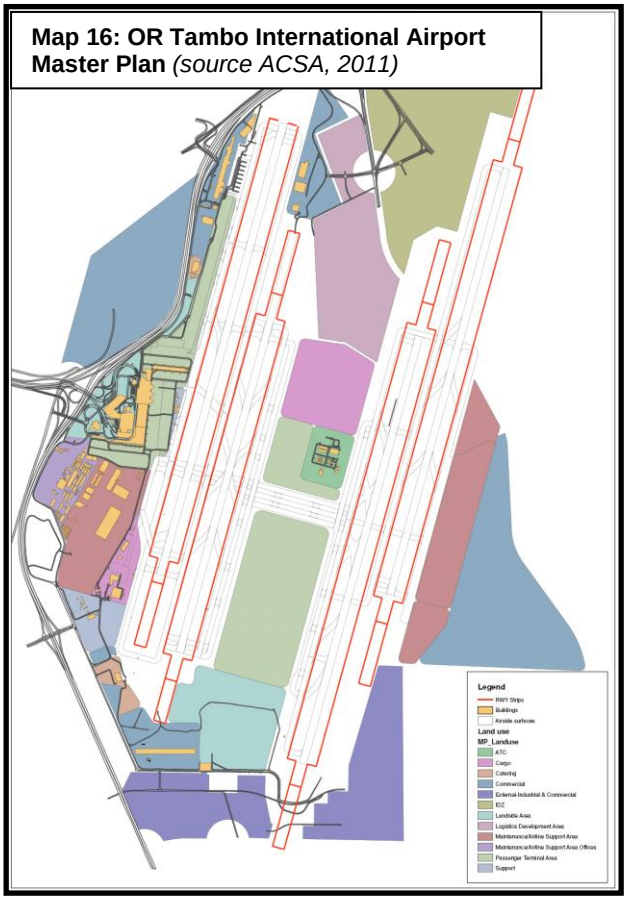
The Gautrain will be important in regard to airport access only in respect of OR Tambo International Airport. Otherwise, the planned Gautrain will be a valuable public transport asset in the EMM area generally. It will provide quick and safe access from Johannesburg CBD via Marlboro and Sandton to OR Tambo International Airport. It will also provide access from Tshwane to OR Tambo International Airport although this is less direct in that the routing would be via Sandton. The present planning for the Gautrain provides for access to OR Tambo International Airport's Western Precinct only. However, it would appear that it would be relatively easy to extend it to the Southern Midfield Terminal area. Further extensions of the Gautrain could include a direct link from Rhodesfield to Boksburg.

Together with the Gautrain, extensive parking facilities are available at the various stations, especially Sandton, which will be designed to encourage airline passengers to park away from the airport. It is presently envisaged that check-in facilities for passengers could also be provided at Sandton Station.

OR Tambo International Airport

Through the Airports Company of South Africa (ACSA), OR Tambo International Airport has a highly organised planning strategy and a team of dedicated personnel to keep the plan updated. Draft proposals for the foreseeable future and development to an ultimate capacity of 55 million annual passengers were provided to the ITP planning team. Such anticipated growth and developments, as well as the positive influence on Rhodesfield and surrounding areas has given rise to the Aerotropolis concept. The main points are summarised below.

Map 16: OR Tambo International Airport Master Plan *(source ACSA, 2011)*



The passenger projections are currently running about two years ahead of previous predictions. The projected 2006 volume was reached in 2004 and the current annual throughput is about 16 million passengers per year. The OR Tambo International Airport team estimates the current capacity of the Western Precinct to be reached in about 2012 when the passenger throughput could reach 24 million per year. The team also estimates that the Cargo Area will reach saturation by the year 2019. This means that development of the midfield area and its attendant access arrangements will have to start relatively soon. This has considerable impact on the road planning in the area.

In addition, it is estimated that the capacity of the present runway system will be exceeded once the annual passenger throughput reaches 30 million. This will require additional runways to be added with their attendant environmental problems. Suffice it to say that ACSA's OR Tambo International Airport team is addressing all of these issues in consultation with the affected National, Provincial and Local Authorities. Nonetheless, it is noted that there will be considerable problems to be overcome in terms of environmental impact, land acquisition and, above all, land access. The proposed double parallel runway configuration and southern midfield terminal arrangements can be achieved as far as the airfield itself is concerned. However, access will be complex and will require considerable expansion of the road system as well as extension of the Gautrain rail line to serve the southern midfield terminal area.

It has been pointed out by the OR Tambo International Airport team that the airport itself adds only of the order of 10 percent to the traffic volumes presently encountered on the existing road system. Nevertheless, provision of access to the airport complicates the road system considerably by requiring additional ramps with sub-standard weaving lengths. In addition, to provide for road capacity and flexibility of routing to the airport, additional roads will need to be provided as a matter of urgency. These roads include the PWV15 (especially between N12 and R21), PWV14, PWV13, K86 and K88. In addition, other measures such as the Gautrain and extensions of it as well as High Occupancy Vehicles on dedicated lanes may be considered to alleviate the pressure on the road system.

It is noted that OR Tambo International Airport is now located in an expanding urban area such that traffic volumes generated by other urban developments are growing rapidly. These could become a limiting factor in OR Tambo International Airport being able to reach

its full projected capacity. This could have the knock-on effect of requiring another site for a second major international airport to be found at an early date. It is clear that the traffic aspects of access to OR Tambo International Airport as well as changes to land use in the area need an in-depth study to determine if the projected traffic can indeed be accommodated even with the additional roads and other measures mentioned above and discussed later. At the same time it is suggested that a study should be launched at an early stage to identify alternative sites and to reserve the land for another future major international airport for Gauteng.

Airport Expansion: Based on January 2011 input received from ACSA, all figures and estimates on the capacity of the airport as mentioned above will need to be reviewed based on new technology and new developments. Inter alia, the successful implementation of Gautrain is alleviating past problems in providing effective passenger access to the Western Precinct, providing to possibility of increased capacities for the Western Precinct. Additionally, new technologies in air traffic management may lead to an increase in the number of aircraft that can be accommodated per runway. Irrespective of such changes, it is still envisaged by ACSA that the proposed Midfield Terminal will, over the long term, outgrow the excising Western Terminal, with respective estimated capacities of 30 million and 40 million passengers per annum. According to ACSA (email January 2011) the first phase of the Midfield terminal should be operational in 2017-19.

Other Airports

Other Airports in Ekurhuleni includes Consultation with the Civil Aviation Authority (CAA) and the study of the OR Tambo International Airport Terminal Management Area (TMA) map published by Jeppersen Sanderson Inc identified all airfields in the EMM area. These are, in approximate degrees of importance Rand Airport, Brakpan Airfield, Springs Airfield Petit Airfield, Bapsfontein Airfield (two fields – one normal and a separate one for microlights), Fly Inn Airpark near Bapsfontein, Fincham Airfield at Nigel, Daveyton Airfield (now closed), Dunnottar Airfield (no longer in use), and Microland Flight Park near Bapsfontein. In addition to the fields situated inside the Municipal Area Grand Central Airport in Midrand, and Heidelberg Airfield are located just outside the Ekurhuleni Area, but may impact the Ekurhuleni area.

Funding requirements up to 2025

The capital cost required to eradicate the service access backlogs (measured against Council's policy of a comprehensive suite of full levels of service) is estimated at R 14.7 billion, of which R 8.8 billion is required in the roads and storm water sector. The current technical backlog is assessed at R 10.3 billion, R 6.4 billion of which is required to address capacity backlogs (upgrading of assets) and R 3.9 billion to renew assets. Additionally some R 23.6 billion is required to service the capital demands of growth. This translates into a total period capital requirement of R 62.3 billion that equates to 76% of the value of the current immovable production asset portfolio. As a result the average annual capital requirement up to 2025 is in the order of R 4.2 billion, double the size of the current capital budget.

Given assumed efficiency gains annual maintenance needs will increase by 34% from R 2 billion in 2010 to R 2.6 billion in 2025. Operational budget needs will substantially increase from R 9.6 billion in 2010 to R 17 billion in 2025 (an increase of 77%), largely as a result of a 115% increase in the cost of bulk purchases.

Infrastructure investment analysis

An infrastructure investment analysis was done through the development of four scenarios calibrated with the Municipality's Annual Financial Statements and the MTREF. These scenarios tested the impact of meeting Council's targets of service provision to all by 2025 at full levels of service, with sensitivity analysis to assess the impacts of aligning levels of

service with the affordability of recipient customer units and extending the programme period by a further 10 years.

Key current issues are the Municipality's exposure to external cost risk (bulk purchases account for 30% of OPEX and are rising sharply), the impact of the conversion to the accrual system of accounting and substantial tariff increases over the MTREF, the inadequate housing subsidy package and current revenue potential that is not fully optimised. Revenue potential based on customers" ability to pay is estimated at R 11.2 billion per annum in 2009, whilst actual revenue of R 7.8 billion was reported in the same period. This implies revenue efficiency of about 76.4%. Council has embarked on a revenue enhancement initiative. But the dominant issue, both now and in the future, is the number of customer units below the poverty line, presently estimated at 78% of the total customer base. Based on Census 2001 data, 48% of all households receive water services they cannot afford – the corresponding figure for sanitation is 54.9%. As a result 72% of customers contribute less than 7% to total revenue. Conversely 28% of customers contribute 93% to revenue. And indications are that the ratio of poor households to the remainder of the customer base will increase over the programme period. The current and projected need for social welfare support is shown in the table below:

Gross cost of the social welfare package

	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025
Revenue FBS incl.	10.77	12.98	13.38	13.70	14.03	14.35	14.68	15.00	15.32	15.64	15.98	16.34	16.71	17.10	17.47
Revenue FBS excl.	12.08	14.56	15.27	15.66	16.05	16.43	16.81	17.19	17.56	17.95	18.35	18.77	19.21	19.67	20.10
Revenue foregone	1.31	1.58	1.89	1.96	2.02	2.08	2.13	2.19	2.25	2.30	2.37	2.43	2.50	2.57	2.63

If the policy of Council targets for full service access by all in 2025 is modelled, 60% of the municipal bill to high income customers in 2013 is used to subsidise the equivalent of 9.5 low income customer units at a basic level of service – a subsidy burden of R 3055 per month per high income household.
A reduction of R 10.1 billion in capital expenditure is possible if levels of service are adjusted to customer affordability and if the programme period is extended by 10 years, resulting in an annual saving of R 657 million. An analysis of customer affordability however indicates that no scenario is affordable.

Additional considerations

With an average level of investment in immovable assets of R 97 840 per customer unit, Ekurhuleni has a wealth of immovable assets that ensures solvability and strong balance sheet gearing capability. It is also evident that Council has made great strides towards servicing the poor, with infrastructure investment levels in some previously disadvantaged townships matching that of previously white areas. The surplus-driven services of electricity, solid waste, water and sanitation deliver an annual return of between R 0.34 – R 0.97 on each Rand invested in infrastructure, whereas the non-income driven services such as roads and storm water, community services and public amenities delivers an annual return of R 0.01 on each Rand invested. Working capital was limited, operating performance was weak and all services posted deficits, though these were limited in the surplus-driven services to R 1.2 billion compared to the R 3.4 billion for the remaining services. Contributing factors included recent substantial increases in bulk purchase costs, rising salary and supplier costs, and weakening debtor performance. But there is also a need to structure investment in immovable assets in a manner that balance is found between assets that generate sufficient municipal revenue, assets that support economic growth and those assets necessary for social health, well-being and cohesion.

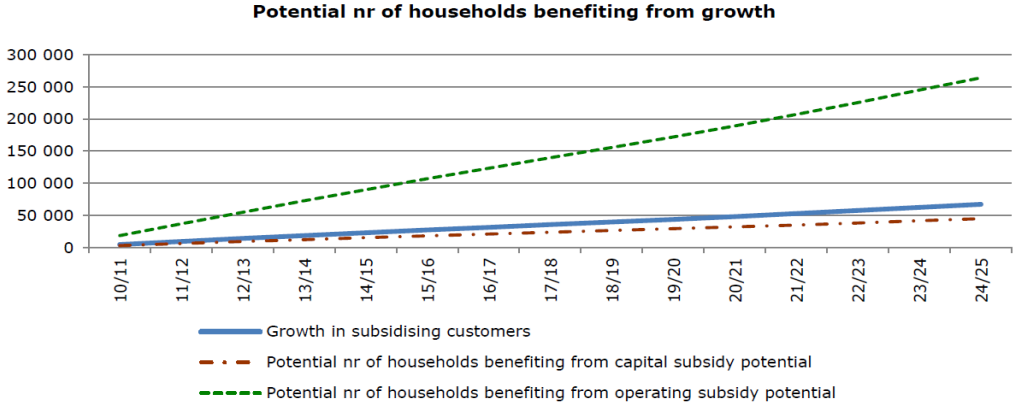
Additionally, given the unproductive nature of some assets, consideration should be given to embarking upon optimised decision making, including asset rationalisation, in the municipality's asset management programme. As a case in point, Council's operational buildings‟ portfolio has a current replacement cost value of about R 1.9 billion. There is an excess of 259 144 m2 floor space, sufficient to accommodate at least a further 9 500 staff members. A substantial portion of the operational buildings portfolio is in poor or very poor condition, some 49% of this portfolio will have reached end of life in the next 15 years, and renewals needs are now expressed in the hundreds of millions of Rand.

There is limited evidence of alignment between the GDS and the SDF on the one hand, and the MTEF on the other. The former set of instruments prioritise development in the core economic triangle and in the transport corridors, and the latter spending in underdeveloped wards and in areas experiencing high levels of development pressures, notably in Germiston and Benoni. This indicates a lack of alignment in key planning instruments. It also raises questions around whether the municipality responds to events or whether it is vision-driven, and the merits of centralised versus decentralised budget planning and control become a consideration.

Growth in the local economy is a prerequisite for continued expansion and deepening of municipal services. Both the municipality's financial statements and the infrastructure investment analysis indicated much effort on the part of Council to provide quality municipal services to all, but that the municipality does not have the financial capacity to intensity its programme for eradicating service access backlogs. This requires an appreciation of the value of top-end customers – in the case of Ekurhuleni the top 200 customers constitute a mere 0.02% of the customer base but contributes 13% of total municipal revenue, often at substantial surplus margins. These entities further provide employment that decreases dependency on municipal social services lightens the subsidy load and increases municipal revenue, and they also attract further investment in the municipal space. There is a need to nurture these clients and protect the revenue that they generate for the municipality.

Implications and considerations for the Growth and Development Strategy

Continuing with the "business as usual" approach will not work. Service access backlogs will remain more or less constant, condition and capacity backlogs will increase, growth potential will not materialise and as the current production asset portfolio deteriorates the revenue performance of the municipality will decline.



It will be necessary to align key planning instruments, develop and implement a funding prioritisation system, to exert more centralised control over budget allocations and to synchronise the roll-out of the capital programme to ensure that inadvertent backlogs are not created and that the vision of sustainable human settlements is achieved. Council should embark on a continuous programme of optimisation of asset portfolios to obtain best value for money.

B.7 Trends and Demands for Sustainable Development:

According to the National Environmental Management Act, 1998, sustainable development is defined as:

"The integration of social, economic and environmental factors into planning, implementation and decision making so as to ensure that development serves present and future generations"

It therefore does not single out the environment but includes the social and economic aspects of development.

Environmental sustainability
Environmental sustainability therefore involves making decisions and taking action that are in the interests of protecting the natural world, with particular emphasis on preserving the capability of the environment to support human life. In order to enable the Ekurhuleni Metropolitan Municipality to support environmental sustainable development through its infrastructure development, the Revised EMM Environmental Policy was approved on 26-11-2013.

The revision of the policy provides a bigger opportunity to align EMM Environmental Policy with sustainability initiatives, future considerations, e.g. the impacts of climate change, the green economy, mining reclamation and pollution, and land reform and agrarian transformation. Importantly, the Revised Environmental Policy is aligned with the Growth and Development Strategy 2055 for EMM.

The EMM Environmental Policy Statement
The Ekurhuleni Metropolitan Municipality in delivering services to the community strives to maintain and promote sustainable environmental management by carefully blending ecological, social, and economic considerations into our future planning and decision making processes. The Ekurhuleni Metropolitan Municipality will balance the interests of the present with those of future generations, and ultimately, will strive to reduce the environmental impacts of current operations, activities, products, and services. Urban growth is constrained by dolomite

The EMM Environmental Policy Ultimate Outcomes
To meet the goals and intended outcome of the Environmental Policy seven areas of impact are defined that require implementation. The long term outcomes are:

1. Key natural resources are protected and conserved.
2. EMM employees are aware of environmental matters and environmental education initiatives are implemented.
3. Environmental principles are embedded in Infrastructure and development activities in EMM.
4. Land, water and air pollution is prevented and reduced.
5. Catchments are managed in an integrated manner.
6. EMM is energy efficient and has adapted to climate change impacts.
7. Sound environmental governance.[9]

[9] Source: Ekurhuleni Metropolitan Municipality Environmental Policy, Reporting date: 08/02/2013

B.8 Impact of Sector Trends and Demand on Spatial Form:

Residential Infrastructure Review:

Pressures and challenges:

The Human Settlement Department, in a bid to purchase affordable land for low cost housing, drives urban sprawl, locating people on the periphery.

Possible solutions:

1) To purchase land or buildings within nodal areas close to public amenities and socio-economic services.
   Identified stakeholders: National Department Human Settlements, Provincial Housing Department, Private developers that own vacant land or underutilised buildings, Housing Development Agency, EMM: Human Settlements, City Planning, Real Estate.
2) Increase in supply of well-located land for human settlements development.
   Identified stakeholders: National Department Human Settlements, Provincial Housing Department, Private developers that own vacant land, Housing Development Agency, EMM: Human Settlements, City Planning, Real Estate.
3) Formalising informal settlements (in-situ upgrading) which are well located to public amenities and socio-economic services.
   Identified stakeholders: National Department Human Settlements, Provincial Housing Department, land owners, Housing Development Agency, EMM: Human Settlements, City Planning, Real Estate.

Basic Infrastructure Review:

Pressures and challenges:

In the past number of years ERWAT and Rand Water has increasingly lagged behind with regards to increasing capacity in relation to bulk water and sanitation infrastructure. This has created numerous environmental problems which could have otherwise been avoided through infrastructure provision. The backlog is also impacting negatively on development applications.

Possible solution:

1) CIF should guide infrastructure spend to areas with the greatest area of influence thus resolving spill over problems which might have otherwise occurred.
   Identified stakeholders: ERWAT, Rand Water and Ekurhuleni Water Services Department and City Planning.

Community Infrastructure Review:

Pressures and challenges:

The state of service access in the EMM in the public amenities rates high in the backlog percentage of Museums/ Galleries/ Theatres. In the community facilities, creches rate high in backlog. The shortage of public schools is another issue within EMM. With the extensive growth of the city during the mid-2007 housing boom, Provincial department of Education failed to keep up with the pace of housing development. The need for a tertiary education facility in Ekurhuleni has been identified. This must be further investigated.

Possible solutions:

1) Build more museums/ galleries/ theatres in Ekurhuleni, identifying the correct piece of land is crucial. A new theatre is currently being built in Germiston. This will see 3

theatres (Springs; Germiston and the City Hall) available in the EMM. Ekurhuleni SRAC does not believe more should be built but that community centres can be upgraded to provide direct access to communities. The high cost of maintaining galleries, museums and theatres must be kept in mind. Current facilities must be upgraded as priority number 1 before new ones are built. Multi-purpose centres can be used for all these community needs e.g. using travelling exhibitions. **Option also to develop more Heritage Sites with onsite small satellite museums. This will also assist with job creation as we can then employee site guides.** We are also investigating the use of our current arts centres by NGO's etc on a full time basis as we do not have enough staff to run programmes at the centres.
Identified stakeholders: EMM: SRAC, Gauteng SRAC, put sector NGO's.

2) Finding ways for legalising crèches that meet City Planning's criteria in the approved Crèches and Nursery Schools Policy.
Identified stakeholders: EMM: City Planning, Health and Social Development, and Provincial Department of Education
3) Land should be made available for educational purposes and provincial departments should start budgeting for the construction of schools on these parcels of land.
Identified stakeholders: EMM: City Planning, Gauteng Department of Education, Health and Social Development.
4) Investigate the establishment of a tertiary education institution (university) in Ekurhuleni. Ekurhuleni Art, Heritage and Culture are currently trying to support Sibikwe Arts Centre in their quest for a conversion to an FET College of Arts Education so this solution is highly supported.
Identified stakeholders: National Department of Education, EMM: City Planning, Economic Development.

Transportation Infrastructure Review:

Pressures and challenges:

Bus services are losing market to the taxi industry. The current bus service does not serve the whole of the EMM community. The rail infrastructure is dilapidated and needs upgrading.

Possible solutions:

1) We need commitment from PRASA to improve levels of service to these affected areas. We also need a bus service that will benefit everybody in the EMM.
Identified stakeholders: PRASA, Provincial Department of Transport, EMM: Transport Planning, Department of Public Enterprises.
2) The implementation of the IRPTN Phase 1 is of extreme importance as it links the major workforce within EMM to work opportunities within the Metro. These areas fall within the proposed integration zones.
Identified stakeholders: National Department of Transport, National Treasury, EMM: Transport Planning.
3) Extension of Gautrain service to the South/ East of the EMM.
Identified stakeholders: National Department of Transport, PRASA, EMM: Transport Planning.
4) Upgrade of the OR Tambo infrastructure.
Identified stakeholders: EMM: Transport Planning, Department of Public Enterprises.

(Environment) Sustainable Development Review:

Pressures and challenges:

EMM need to strive to reduce the environment impacts of current operations, activities, products and services. The green infrastructure techniques need to be used as it can improve services for everyone now and in the future. Developers must be encouraged to build and utilise green infrastructure. The need for the upgrade and maintenance of storm water and sanitation infrastructure has been identified and dedicated funding should be identified and provided for this purpose. Infrastructure neglected and damaged by the community is a huge problem. The issuing of Environmental authorisations such as EIA's and Water use Licences for Infrastructure related projects takes long.

Possible solutions:

1) Work on strategy with City Planning to encourage developers to build green buildings, possible getting discounts/incentives when submitting applications.
   Identified stakeholders: EMM: Environment Resources Management, City Planning, Energy, Finance, Human Settlements, GDARD, GCRO, Eskom
2) Provision of adequate storm water infrastructure.
   Identified stakeholders: EMM: Environment Resources Management, Roads & Storm water.
3) Maintenance of infrastructure must receive urgent attention and funding must be identified, specifically relating to stormwater, water, waste collection and sewer infrastructure
   Identified stakeholders: EMM: Environment Resource Management, Roads & Storm water, Water Services, Energy, National Water Affairs.
4) Public awareness and education on utilizing infrastructure correctly and efficiently
   Identified stakeholders: EMM: Environment Resource Management, Roads and Storm water. Communications and Marketing
5) EIA's and water authorizations for infrastructure related (service delivery) projects to be fast-tracked by the relevant authorities. Try to obtain generic authorisations for maintenance related projects.
   Identified stakeholders: EMM: Environment Resource Management, Roads and Storm water, GDARD, National Water Affairs

C: STRATEGIES AND PROGRAMMES

C.1 Long Term Vision:

EKURHULENI GROWTH AND DEVELOPMENT STRATEGY

The review of the Growth and Development Strategy (GDS) of the Ekurhuleni Metropolitan Municipality (EMM) as adopted in 2005 was deemed necessary in light of the limitations of the strategy, the subsequent lack of alignment with implementation and the momentous changes which have taken place in South Africa and the world since then. It was also decided to extend the target horizon from 2025 to 2055 in keeping with the Gauteng 2055 strategy and to be able to take a more encompassing view of important global transitions that will take place by mid-century. The review process extended over the past year and was both research and participation intensive. Research was conducted into the City's socio economic profile, its infrastructural and fiscal health and its economic development potential. The research findings were then extensively work shopped with Ekurhuleni leaders, officials and staff and external stakeholders and focus groups throughout the City using a scenario planning point of reference.

The review suggests that the City has entered a time of profound strategic choice with powerful long term consequences. As the industrial and logistical core of the Gauteng City Region, Ekurhuleni is pivotal to South Africa's growth trajectory to 2020, 2030 and beyond. Historical structural analysis from 1896 to 2012 indicates that Ekurhuleni has played a crucial role in national manufacturing value chains that have been shaped strongly by national industrialisation policies in the context of powerful evolving global dynamics. This has been complemented and often contradicted by local and national urban strategies. The ultimate effect of these strategies was to produce an unsustainable, obsolescent and most inequitable urban industrial formation that is currently being managed by a weak institution. This system is currently in a downward spiral. In the narrative which emerges of Ekurhuleni's past the exceptional resilience, tenacity and work ethic of Ekurhuleni's communities and industrialists stand head and shoulders above the many attempts which have been made to grow, segment, dismantle or develop Ekurhuleni by a multiplicity of actors. It is this legacy which is also the richest promise for the future.

For EMM to move forward it is critical that the following developmental imperatives/goals to be pursued:

1. Sustainable urban integration
2. Job creating economic growth
3. Social empowerment
4. Environmental well-being
5. Co-operative governance

The following stages indicate how EMM should position itself if we are to realise the above developmental imperatives. Delivering City (2012 -2020) which would lay the foundation for a Capable City (2020 -2030) and ultimately enable a Sustainable City (2030 -2055).

This trajectory lies at the heart of a High Level Strategic Framework for the City to manage its transition through the five strategic themes of; "Re-urbanise", "Re-industrialise", "Re-generate", "Re-mobilise" and "Re-govern". Each of these interlocking themes forms the point of departure for a basket of 16 lead programmes.

The urban integration agenda as pronounced through the built environment performance indicators are expressed through the following four high level goals as extracted from the guidelines on performance indicators (National Treasury, 2013):

a) Well-Governed City: This is a precondition for reshaping the urban form and sustainable built environment transformation. It is defined as a municipality with the vision and leadership to initiate and drive spatial change, efficient and sustainable urban infrastructure transformation, and with its policies, procedures and resources aligned accordingly. It covers the ability to target priority areas for transformation, to lever additional resources from external sources, and to involve stakeholders in the planning and implementation processes. It also implies greater expertise in facilitating the (re)development of urban form and built environment to achieve the complex objectives inherent in spatial and built environment transformation.

b) Inclusive City: This is defined as a city in which all residents are able to participate in its economic and social opportunities. It means that there is better physical access to such facilities (through proximity and mobility), and greater social diversity at neighbourhood and city levels. It implies higher population densities across the city, particularly in well-located areas and around transport hubs and corridors. It also implies redevelopment of brownfield sites, infill development and the intensification of existing inner urban areas to accommodate larger populations. A more efficient and integrated transport system is a related objective. Social integration also means more mixed-income, mixed-use, inclusionary forms of development with more diverse housing options. There are higher quality and safer residential environments for all, with public services and recreational amenities within easy reach.

c) Productive City: This is defined as a city where people can earn a decent living and that generates sufficient resources to pay for improved infrastructure, services and amenities. It is a city that functions efficiently and makes effective use of its human and natural resources. Municipal policies and procedures (related to land, infrastructure, regulations and incentives) encourage increased private and public investment throughout the city, including in established economic centres and new transformation areas. Business support programmes are also established according to the needs and potential of different types of enterprise, either by the municipality or in partnership with other agencies or spheres of government.

d) Sustainable City: This is defined as a city with innovative infrastructure networks which enable more efficient use of natural resources and provide affordable services. There is growing investment in resource efficient and sustainable urban infrastructure. The tariffs are set at levels to balance real cost (including provisions for maintenance and future capital investments) with affordability. Less municipal-provided resources are being consumed per capita and less solid waste goes to landfill. Each city monitors the resource efficiency (of energy and water) and solid waste flows to landfills.

These themes speak directly to Ekurhuleni's vision for a delivering, capable and sustainable city.

C.2 The Spatial Development Strategy of the Municipality:

Regional spatial development frameworks

In order to more effectively provide for the various functional areas of Ekurhuleni, the Metropolitan SDF provides for six urban planning and urban management regions. These are sometimes alternatively referred to as zones or areas. The six regions are indicated on Map 7. For the purposes of planning at the strategic level, development planning and urban

management regions are not necessarily administrative regions although it is desirable that they coincide with the regions. There is a need to dismantle apartheid boundaries and integrate the city. The moot question is what are the prevailing circumstances for EMM for integration and development? Infrastructure Planning is a critical function that informs the developmental needs for the municipality and integrated planning.

Through the development priorities as proposed by the built-environment indicators, the core themes that are been carried through into the new RSDFs focuses around integration and mobility with a particular emphasis around transit orientated development which is geared towards a sustainable city form. With EMM's wide range of mobility options (An extensive PRASA rail network, National highways, Major airports), the opportunity to address spatial inequality through these mobility options provides adequate measures which the built environment performance indicators aim to capture and assess.

REGION A

Region A is one of six regions in Ekurhuleni. It is the central western Region and abuts the City of Johannesburg. The Region covers 24 795ha (13% of the total area of Ekurhuleni) and houses approximately 150 000 households (17% of the households in Ekurhuleni). It accommodates a variety of land uses and is seen as the core economic area of Ekurhuleni as it includes OR Tambo International Airport, the CBDs of Kempton Park, Germiston, Boksburg, Benoni, and Bedfordview, as well as the industrial areas of Spartan, Isando, Jet Park and Anderbolt. Some of the most important roads within Ekurhuleni and Gauteng traverse Region A or pass on the boundary of the Region. These include the N3, N12, N17, R21 and the R24. Region A is largely built-up and contains a wide variety of land uses ranging from mining and industrial to residential and commercial. The residential areas range from high-income areas such as Bedfordview to low income areas such as Reiger Park.

Region A is a large and significant local economy in the Ekurhuleni Metropolitan Municipality's economic context. Region A has a resident population of approximately 711 956 people; the area contributes approximately 3.7% to national production and has a share of approximately 2.6% of national employment. Over the period 2001 to 2011, Region A's economy grew by an estimated average of 4.06% per annum, higher than that of either the province or of the country. Region A contributes approximately 43.92% to the total economic output of Ekurhuleni and 10.89% to the total economic output of the Gauteng province.

Region A is unique in the sense that it is an amalgamation of several different towns, with overlapping catchments. In theory one of these nodes should have developed as the dominant node and the others 'demoted' to secondary nodes. This has not happened due to historical, administrative and political reasons. For example, most cities will have one CBD (primary node); several decentralised nodes of a significant size (secondary nodes) spread out throughout the urban area; and a large number of neighbourhood nodes (tertiary nodes). This is not the case in Ekurhuleni or in Region A and the airport and its accompanying Aerotropolis, which can potentially develop as the most important node, further complicate the designation of nodal status.

The spatial concept of Region A comprises of an open space network connecting major open spaces, a number of nodes (special, primary, secondary, tertiary and transit orientated) and development corridors.

Region A and its sectorial plans are in its final stages of approval and should be approved within the first quarter of 2014.

Map 6: Spatial development Concept for Region A

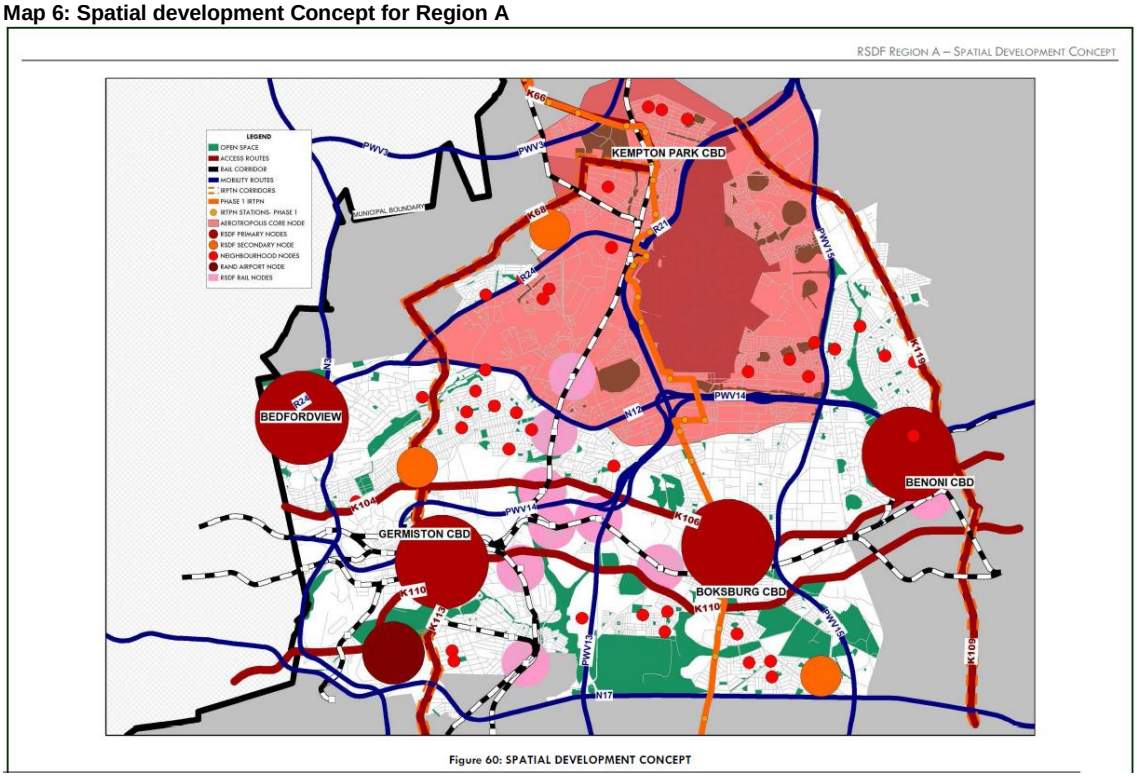


Figure 60: SPATIAL DEVELOPMENT CONCEPT

REGION B

This is the north –west region and it comprises the area which was part of the Khayalami metro. The region is the only area that went through the first and second phases of local government transition and if well supported should develop critical mass on the basis of the economy of the region. The critical mass should assist in the planning and urban management proposed for focus in Tembisa in terms of the Tembisa Masterplan as pronounced by the Premier in the Gauteng State of the Province address of 2011. The residents of this region also benefit from the developments taking place in the adjoining metros of Johannesburg and Tshwane and alignment is very important.

REGION C

This is the north-east zone comprising most of the area north of the N12, and east of the OR Tambo International Airport starting from Atlas road. These areas include Bapsfontein, Boksburg North, Northmead, Rynfield, Morehill, Chief Luthuli, Crystal Park, Mayfield, Etwatwa and Daveyton. The strength of the area lies in the desirability to link the low income areas of Daveyton and Etwatwa to the OR Tambo International Airport through the newly proposed growth area in Benoni North.

Residential growth is planned to the west of Daveyton –Etwatwa linking directly to the OR Tambo International Airport. Economic development shall be directly linked to airport and by implication, infrastructure, in particular roads have to be provided.

REGION D

This is the central eastern region located mainly by between the N17 and N12 in the north, east of the Benoni CBD. The region includes the CBDs of Springs and Brakpan, Lindelani, Kingsway, Modderbee, Apex and mining areas in the east. The strategy would be to consolidate the area as part of the developments at the economic centre.

REGION E

This is the south-eastern region comprising land south of the N17. The region is distanced from the core economic area and it includes Kwatsaduza, Marievale, Nigel, Selection Park, Carnival Casino, Geluksdal, Witfontein and Sonneveld areas. Heavy industrial development should be encouraged in the region to revitalise the economic development of the area in

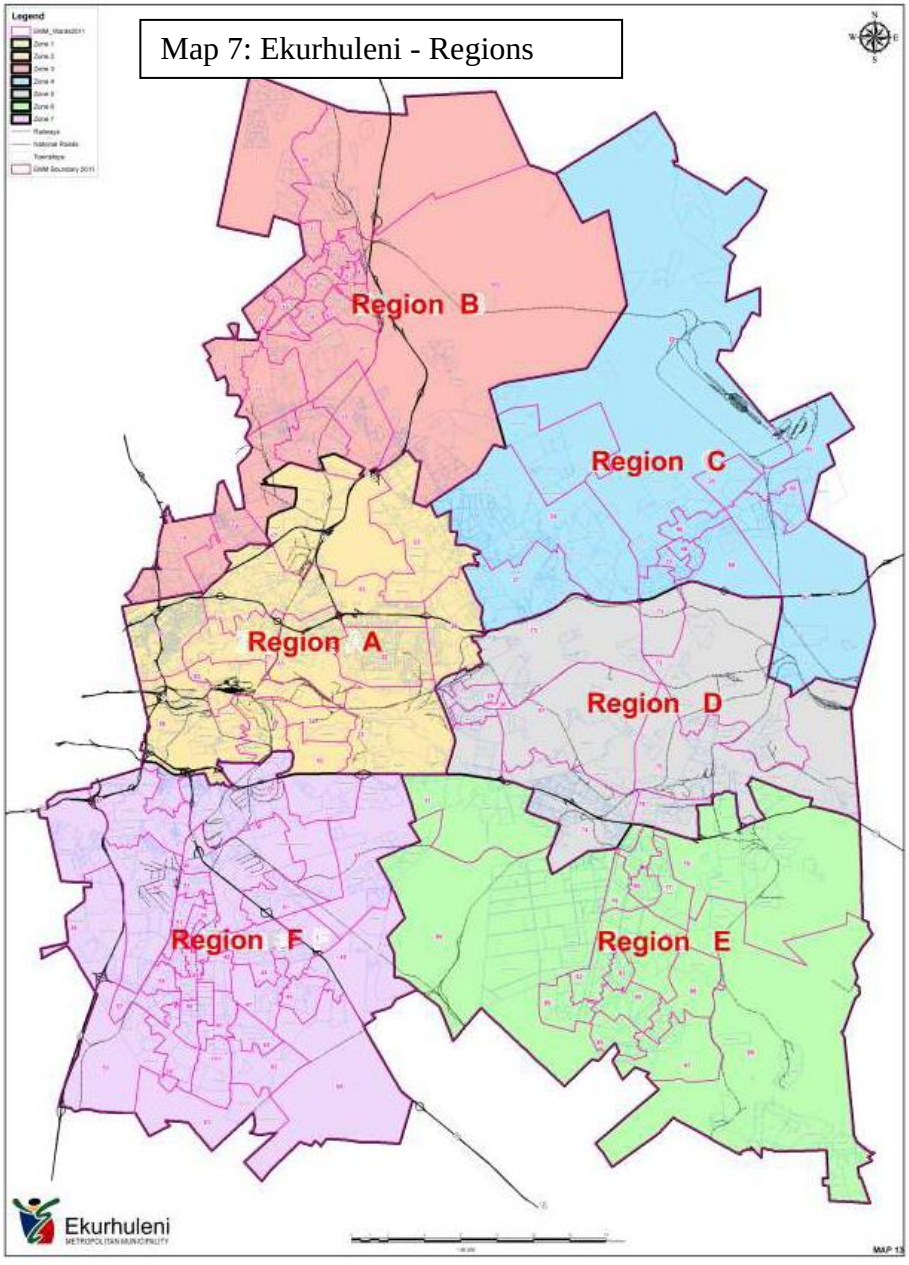
particular Nigel industrial area. The region is removed from the core developments of the city and planning intervention were possible should assist in influencing the invigoration of the economy of the area.

REGION F

The last region is formed south of the N17 and west of the superdump. The area includes the better parts of Leeupoort, Windmilll Park, Sunward Park, Elspark, Wadeville, Alrode, Alberton, Meyersdal, Brackendowns and Brackenhurst, Kathorus, Edenpark, Palm Ridge and Green Village. The strength of the region is the industrial areas of Wadeville and Alrode. Leeuwpoort is a major development area in this zone. The industrial areas of Wadeville and Alrode remain the backbone of the economy of the region and should be sustained. The region has strong economic and social linkages with the city of Joburg. There is also a new pull factor towards Midvaal in the south because of the location of Heineken which has become an instant pull factor along the R59 corridor.

The six regions are depicted on **Map 7.**

Map 7: Ekurhuleni - Regions



Identified Strategic Areas for Housing Development:

The identification of strategically located land development areas is a continuous process as part of the finalization of the Ekurhuleni Capital Investment Framework. As part of this process, a number of strategic areas for housing provision has already been identified and is reflected in **Table 8.** The economic development is reflected on **Table 9.**

Table 8: Preliminary Strategic Areas for Housing Development

Strategic Precinct/ land parcel	Focus	Ownership	Actions
Kwesini Station Area	Sustainable Human Settlements	EMM land	Engage Prasa on station development, bulk services required
Germiston - Kutala Station	Sustainable Human Settlements	Private & EMM	Private developer, Strachen Hostel, unused rail reserves, bulk services required
Wattville	Sustainable Human Settlements	Access to Transnet reserve	Relocate hostel, bulk services required
Daveyton CBD	Sustainable Human Settlements	EMM & Prasa	Hostel relocation, bus & taxi rank facilities required, , bulk services required
Mining belt	Sustainable Human Settlements	Various	K- Route reserves & building lines sterilising land, , bulk services required
Leeuwpoort	Sustainable Human Settlements	EMM	Property development, bulk services required
Tembisa Leralla Station	Sustainable Human Settlements	Prasa, EMM and Private	Redevelopment of node, bulk services required
Germiston CBD	Sustainable Human Settlement	Private & EMM	Bulk infrastructure required.

Table 9: Preliminary Strategic Areas for Economic Development

Strategic Precinct/ land parcel	Focus	Ownership	Actions
IDZ Development - OR Tambo	Economic Development	Intersite, Private, ACSA	Bulk infrastructure required.
Sisulu Development Corridor	Economic Development	Private	Bulk infrastructure required.
Rhodesfield	Economic Development	Private & Gauteng Dept Education	Bulk infrastructure required.
Tambo Springs Inland Port	Economic Development	Private & EMM	Bulk infrastructure required.
Germiston CBD	Economic Dev	Private & EMM	Bulk infrastructure required.

The identification of Strategic land parcels are guided by the MSDF. Additional to the MSDF Map 1, three specific sections of the MSDF is of importance, namely the section on Priority Geographic Areas, the section on Prioritisation of the Capital Investment Framework (CIF), and the section on Regional Spatial Development Frameworks.

These three sections are repeated below and will assist EMM in identifying specific land parcels that the city is earmarking to unlock as a result of USD and in identifying key changes in strategic locations that will assist the city in changing its current landscape. Detail regarding ownership of land will be identified in the applicable RSDFs. The RSDF will also reflect detail on plans to reintegrate poor and medium income groups to areas of economic opportunities additional to the MSDF proposals.

GEOGRAPHIC PRIORITY AREAS

The Capital Investment Framework must focus capital spending in Ekurhuleni into the indicated priority geographic areas as reflected in Map 8. The CIF has extended the spatial planning strategy and prioritisation in accordance with the Growth and Development Strategy (GDS) that has an implementation focus projected for 2055. The identified geographic priority areas in alignment with the GDS has reduced the number of priority areas from 5 to 3, and which speaks to the development of the EMM in terms of promoting the EMM as a 'Delivering City' with a 10 year implementation horizon, a 'Capable City' with a 10 year implementation horizon, and a 'Sustainable City' with a 20 year and beyond implementation horizon The priority geographic areas were identified based on the following form giving spatial elements from the MSDF Spatial Concept and Land Use Proposals:

- Previous MSDF priority areas (service upgrading, infill, expansion);
- Densification areas (Aerotropolis, nodes, corridors);
- Geography of CoE income;
- IRPTN;
- Rail Stations;
- Major Housing Projects;
- Industrial Areas;
- Major investments and Strategic Projects;
- Primary and Secondary Nodes; and
- Poverty Eradication Areas

Service Upgrading Areas

There are four major Service Upgrading Areas in the Metro, being the four complexes of disadvantaged communities namely: Tembisa, Kathorus, Kwatsaduza and Daveyton/ Etwatwa.

As a principle the EMM will focus on development of these townships as model neighbourhoods with activity nodes in their own right in the long term. In the short to medium term retail development should be allowed in terms of the approved retail implementation strategy as well as its capital expenditure and operational programmes towards upgrading the services and facilities in these areas to levels comparable with that of the rest of the Metro. The different function of Tembisa in terms of the 'central place' model, relative to the other PDAs, should be noted.

Service Upgrading Areas are redefined in the concept so as to promote development and provision of services in nodes and corridors within the previous Service Upgrading Areas. Such nodes and corridors are to be prioritised as part of the CIF.

Infill Areas

There are three main areas which are a priority in terms of infill development. All three these pockets of land are strategically located within the core areas of the EMM and some detailed work have already been done on the suitability for the development of these areas. The priority areas for infill are:

- Priority 1: The areas previously occupied by mining activities in the vicinity of Germiston and around the central part of Boksburg. Infill development here will focus on Main Reef Rd and will effectively link the Germiston and Boksburg Primary Activity Nodes.
- Priority 2: Vacant and previous mining land to the south-east of Benoni CBD
- Priority 3: Land to the northwest of the Springs CBD.

Infill development in the mining belt is subject to the policies regarding mining land. It should be noted that infill development should not take place to the detriment of the environment.

Infill Areas are redefined in the concept so as to promote development and provision of services in nodes and corridors within the previous Infill Areas. Such nodes and corridors are to be prioritised as part of the CIF.

Expansion Areas
As far as future development expansion is concerned, three priority expansion areas were identified. The highest priority Expansion Area represents the **Albertina Sisulu Corridor** including the Witfontein and Serengeti areas. The land is strategically located in a triangle between Tembisa to the north, the residential areas of Kempton Park to the west, and the proposed Albertina Sisulu Corridor to the east. It also forms part of the Tembisa – OR Tambo International Airport component of the Ekurhuleni North-South Corridor.

The second highest priority Expansion Area is the **OR Tambo International Airport–Daveyton Link** area. This includes the area to the northeast of the OR Tambo International Airport up to and including the Mayfield area to the north of Daveyton. The development pressures evident in this area stem from both close proximity of the OR Tambo International Airport, as well as the northward residential expansion pressure from Benoni. On a metropolitan level, this area is not an expansion area in the pure sense of the word, but can also be described as an infill development as it represents an inward direction of growth for the Daveyton-Etwatwa complex towards the OR Tambo International Airport area. Several subsidised housing projects and bonded housing projects are already underway in this area.

The **Leeuwpoort** area to the south of Sunward Park is the third highest priority Expansion Area. The Ekurhuleni Leeuwpoort housing development initiative is of importance here.

Expansion Areas are redefined in the concept so as to promote development and provision of services in nodes and corridors within the Expansion Areas. In terms of the CIF the expansion areas identified have been taken cognisance of with regard to the Aerotropolis core, housing projects, and the proposed IRPTN routes.

Densification areas: The main focus of these areas is to support public transport and urban sustainability. The aforementioned Service Upgrading, Infill and Expansion Areas are layered onto the proposed densification areas.

Geography of EMM income: Also mapped on the CIF is the location of all existing and proposed industrial areas. These are considered a priority in the capital budget based on the important economic role of these areas in terms of job creation and in terms of the important role of these areas in terms of ensuring a stable income for EMM.

Major Housing Projects: Major Housing projects that are well into the implementation phase by the Ekurhuleni Human Settlements Department have been demarcated as priority 1. Prioritisation of these projects was based on the development objectives of the Ekurhuleni Human Settlement Department. The CIF has included the proposed housing projects as reflected on the housing funding model and earmarked the proposed housing projects that fall along the mining belt and form part of infill development as part of priority area 2. Therefore, the CIF has placed more emphasis on prioritizing proposed housing projects that supports infill densification and expansion areas as per the MSDF.

IRPTN Corridor: The phase of the IRPTN route that is to be developed should receive more funding during each CIF phase. Implementation of the corridor in the CIF is indicated as per the IRPTN phases as described by the Ekurhuleni Public Transport Department. The IRPTN phase 1 route, phases A and B have been demarcated as priority 1, with Phase C being demarcated as priority 2. The remaining IRPTN trunk routes have been demarcated as priority 3 in so far as implementation of the remaining IRPTN routes is only anticipated for 2020. Status on implementation of the feeder routes as connected to phase 1 needs to be

clarified by the EMM Public Transport Department, in addition to the final funding that will be made available, which will have a direct impact on the extent of the BRT phase 1 route to rolled out.

Rail Stations: The Passenger rail stations to be developed should receive more funding during each CIF phase. Highest priority is given to Rail Stations within Primary and Secondary Activity Nodes and that form part of the IRPTN phase 1 route, phases A and B; which are demarcated as priority 1 in terms of the CIF. The stations on the remaining IRPTN routes have been demarcated as priority 3, based on the 2020 and beyond proposed implementation of the phase 1C roll out. Prioritisation of the IRPTN stations therefore follows the implementation roll out timeframe proposed for the IRPTN trunk routes. It must also be noted that PRASA is presently focused on implementing the modernization plan, which refers to the maintenance and upgrading of existing rail stock. In this regard new PRASA stations are not anticipated for the short term. The stations should also be recognized as destination nodes with the potential of developing into activity nodes.

Primary Nodes: It is proposed that Primary Nodes (CBDs) to be developed should be budgeted for as per the CIF priority areas that have prioritized the Primary Nodes based on spatial strategy, location, and accompanying major investments such as the IRPTN and Urban Renewal initiatives underway. Primary Nodes that fall within priority area 1 are considered as the highest priority, followed by Primary Nodes that fall within Priority area 2 and then priority area 3. The remaining Primary Nodes are considered as a lower priority.

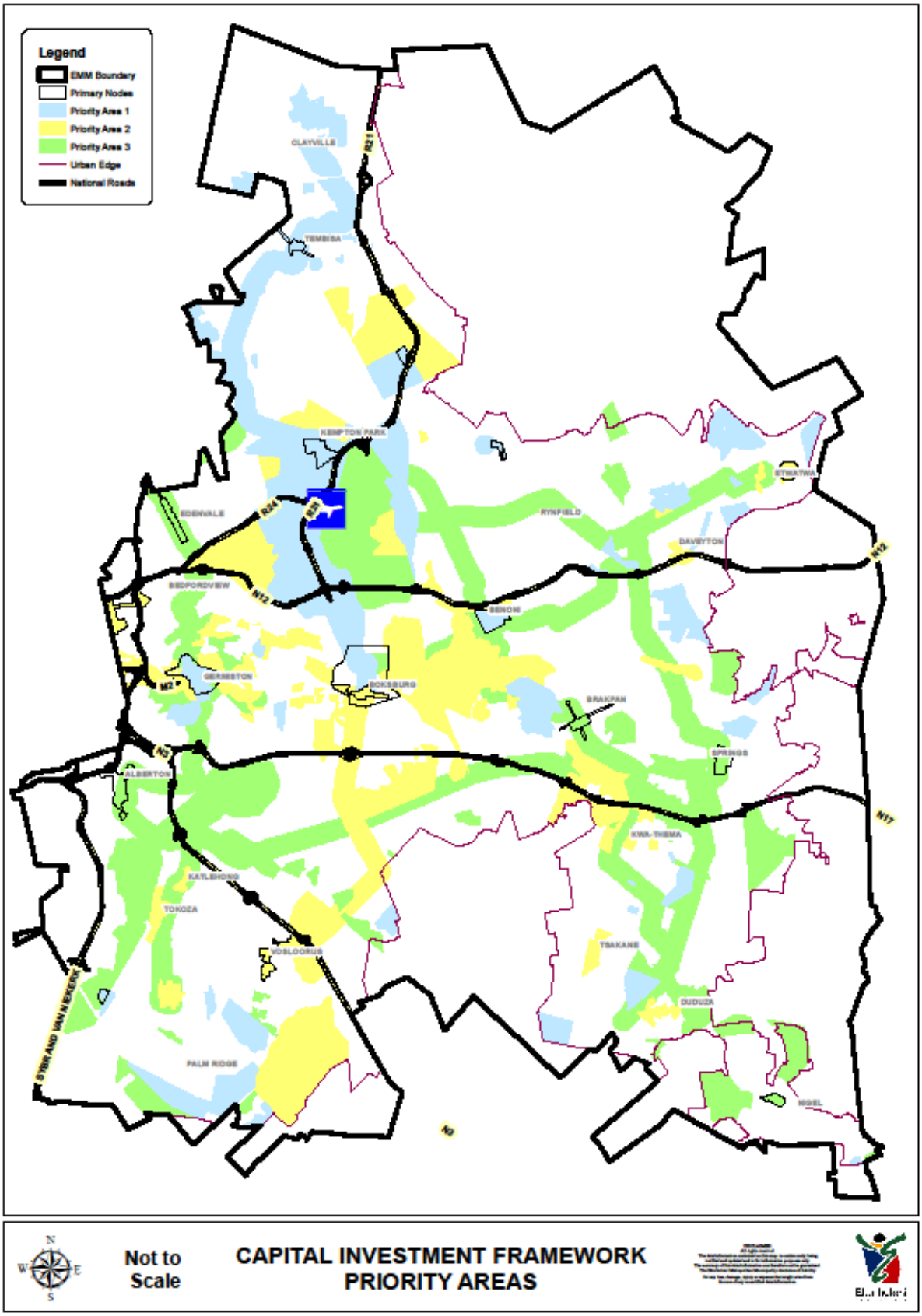
Secondary Nodes: Secondary Nodes to be developed should be budgeted for as per the CIF priority areas. Secondary Nodes that fall within geographic priority area 1 and on Route 1A and B of the IRPTN are considered as the highest priority, followed by Secondary Activity Nodes on Phase 1C of the IRPTN, then Route 2 and so on.

Industrial Areas: New industrial areas need to be developed and existing industrial areas require upgrading during each CIF phase. Phasing of the industrial areas is based upon spatial strategy, income sources (based on modelling geographic income areas), Council initiatives underway, IRPTN, and major investments. It is acknowledged that the EMM industrial areas are a major source of income for the metro and mindful of providing access to job opportunities and the need to create job opportunities in close proximity to Previously Disadvantaged Areas.

Major Investment and Development Projects: Major investment and development projects that have been included to the CIF geographic prioritisation areas include major investments and strategic projects as listed in the 2011 MSDF, and newly identified investments and strategic projects that have been identified as in a phase of initiation and/or implementation. Prioritisation is therefore based on the locality of the project and readiness of the project driver to implement the project. Where possible these projects are to be linked to the implementation of the IRPTN and the priority income generating areas. Continuous re-prioritisation of these projects must however be done based on planning progress made to date, with specific relevance to input from the private sector.

Poverty Eradication Areas: Prioritize the identified poverty eradication areas as listed in paragraph 15.10 of the MSDF. Where possible the prioritisation of the poverty eradication areas should be linked to the implementation of the IRPTN. The poverty eradication areas have also been prioritized as per the role out of the Township Regeneration Plans.

Map 8: CIF Priority Areas



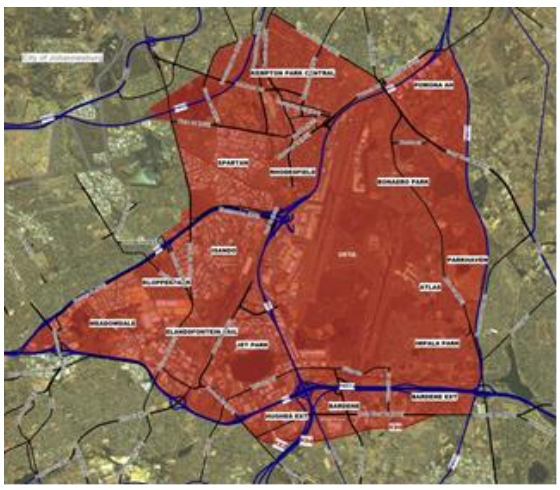
C.3 Identification of Urban Network, Integration Zones and Hubs:

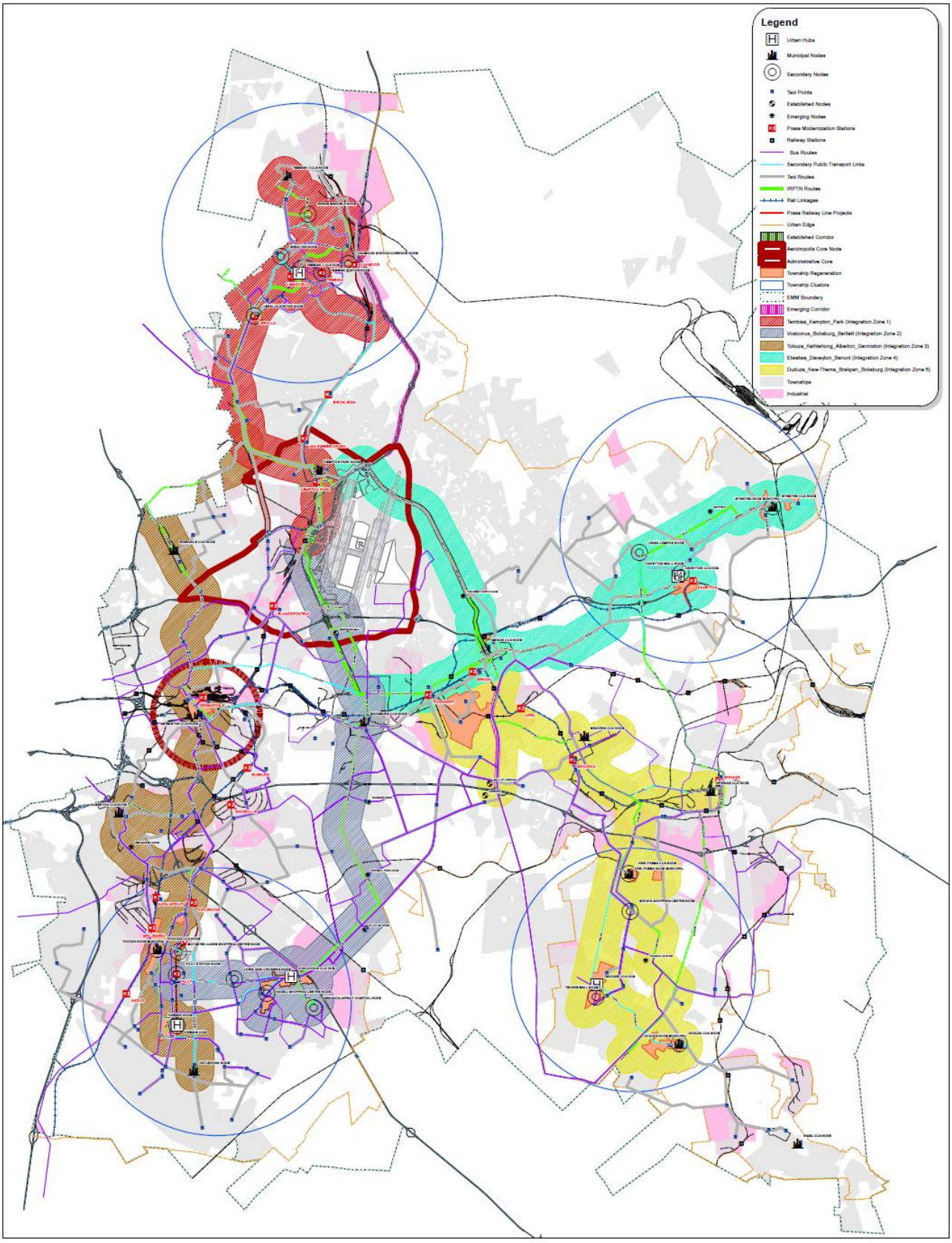
Ekurhuleni Metropolitan Municipality has utilised its Capital Investment Framework (CIF) footprint as the basis for its integration zones. The rationale behind its utilisation lies in the core principles of the CIF which relate directly back to the vision of National Treasury's City Support Program's goals and objectives. Some of these include sustainability, urban restructuring, densification as well as spatial and sectoral integration and prioritization.

Overlaying the CIF, the proposed urban network plan emerges for the EMM which consists of 4 strategic localities namely Tembisa, Daveyton & Etwatwa, Katorus and Kwatsaduza. The key structuring element with regards to the Urban Network is the proposed Integrated Rapid Public Transport Network (IRPTN). Utilising the network as a footprint enables one to identify corridors that should be earmarked for densification as well as the movement of people to and from places of employment within EMM of which O.R.Tambo International Airport was selected as the main economic driver (CBD) within the city. The Urban Network Plan was hence built around O.R.Tambo international airport.

CBD
Ekurhuleni Metropolitan Municipality (EMM) is different from all the other metropolitan areas in South Africa developed around a primary core area which gives identity to these centres. The metro was constituted from nine former local authority areas and therefore comprises, amongst others, nine individual Central Business Districts making it a multi-nodal structure. In light thereof, the Aerotropolis Core was selected as the CBD of Ekurhuleni and all network plans. The Aerotropolis Core is more explicitly defined within the Aerotropolis Planning and Land-use Guidance document. In short the core is made up of an area around the airport that is within 5 to 10 minutes travelling time from the airport via different existing and proposed transport routes.
The aerotropolis core includes the following areas:

- The activity nodes of:
  - Rhodesfield and Kempton Park CBD
- Residential Areas:
  - Cresslawn, Rhodesfield, Kempton Park Central, Caro Nome Ah, Caro Nome, Bonaero Park, Parkhaven, Impala Park, Witkoppie Ridge, Bartlett Ah, Bardene Ext, Bardene, Ravensky, Elandsfontein Rail, Klopperpark and Meadowbrook
- Industrial Areas:
  - Meadowdale, Henville, Rustivia, Tunney, Spartan, Isando, Pomona Ah, Jet Park, Atlas, Bartlett, Bartlett Ext and Hughes Ext
- Land on both sides of the R21 up to the R23 (Benoni Road off-ramp). This land is currently vacant and is fast developing as business and logistics parks. This forms part of the Aerotropolis core corridor.




Legend
Urban Hubs
Municipal Nodes
Secondary Nodes
Taxi Points
Established Nodes
Emerging Nodes
Prasa Modernization Stations
Railway Stations
Bus Routes
Secondary Public Transport Links
Taxi Routes
IRPTN Routes
Rail Linkages
Prasa Railway Line Projects
Urban Edge
Established Corridor
Aerotropolis Core Node
Administrative Core
Township Regeneration
Township Clusters
EMM Boundary
Emerging Corridor
Tembisa_Kempton_Park (Integration Zone 1)
Vosloorus_Boksburg_Bartlett (Integration Zone 2)
Tokoza_Katlehong_Alberton_Germiston (Integration Zone 3)
Etwatwa_Daveyton_Benoni (Integration Zone 4)
Duduza_Kwa-Thema_Brakpan_Boksburg (Integration Zone 5)
Townships
Industrial
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EKURHULENI
URBAN NETWORK
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Ekurhuleni

Tembisa

Tembisa's current role within the Provincial Context is to serve as a transit area for people who often have migrated from other parts of the country to seek job opportunities within Gauteng. Tembisa is well fed with transport infrastructure including the R21 corridor which passes on the eastern border and connects Tshwane with central EMM and O.R. Tambo, the main railway connection between Soweto and Tshwane north (Mabopane) runs through Tembisa, and other dual carriage roads to the south and north to create strong linkages for job opportunities for the people of Tembisa. O.R. Tambo International Airport is used by most of the world's leading airlines and services most of the African continent, the concept of the Aerotropolis driven by EMM. A third of the accommodation in the town can be regarded as rental accommodation located in the backyards of typically RDP type properties for low income people. The town offers very little in terms of job opportunities and many of the residents work in the industrial areas located within the Aerotropolis Core or make use of the public transport system to travel to work opportunities in other areas of Gauteng.

The Tembisa urban network plan comprises of the Economic Core Triangle which incorporates the Aerotropolis Core (O.R. Tambo International Airport, the CBD of Kempton Park, the strategic suburb of Bonaero Park as well as other industrial areas such as Spartan and Jetpark). For further information on the delineation of the Aerotropolis Core please refer to the Aerotropolis Planning and Land-use Guidelines.

The urban hub of Tembisa culminates in what EMM terms the civic square. The vision for the civic square is to form a prominent focal point along Andrew Mapheto Drive and edged by new civic buildings facing the square. This square will be the first phase of a multi-phased approach of Civic Node development and should provide access between the busy Andrew Mapheto Drive and the core area of the precinct and with a network of hard and soft landscaped pedestrian walkways that will form part of the well secured open space system of Tembisa and with a strong sense of pride and identity. It is envisioned that the IRPTN station be provided in front of the square, thus enhancing the prominence of the square activities.

The activity corridor linking all the prospective nodes follows the proposed Integrated Rapid Public Transport Network (IRPTN) route 1a which connects Tembisa to Kempton Park and the R21 corridor from the Oakmoor Node south to O.R. Tambo International Airport. This particular section has great potential for logistical, warehousing and distribution redevelopment which would bridge the economic divide.

The Ehlanzeni or Leralla Node as it formally called is one of the emerging corridor nodes that would benefit from the Urban Network Plan which integrates road and rail corridor infrastructure.

Secondary nodes include Swazi Inn, Oakmoor Station, Leralla Station and Winnie Mandela all of which have been described in detail within the Tembisa Urban Renewal Plan.

Funding and Partnerships

NDPG funding could be used for the initiation of the Tembisa Urban Renewal Plan. Other sources of funding and associations could be made with PRASA's property development subsidiary Intersite with regards to the creation of the secondary nodes in and around the railway stations. The upgrading of the K60 which stretches across Tembisa from east to west would provide an ideal catalyst for development within the area. Engagements with GAUTRANS are needed in this regard for prioritisation of these routes. The IRPTN plays a strategic role in initiating connectivity for Tembisa towards the Aerotropolis Core which holds the majority of employment for the populous of Tembisa. The funding thereof is of crucial importance for the project to take off and to start creating these linkages. The MSDF (2011) proposes densification along railway and road corridors. The implementation of these

densifications would lead to enough demand to make public transport along these routes more financially viable.

Catalytic Project and Programmes

The primary catalytic project for the Tembisa node is the Aerotropolis Project which would see the intensification of the aero industry as well as logistical industry in and around O.R. Tambo International airport. This overarching flagship project is the key long term project which would unlock the potential that O.R. Tambo International Airport has for the Metro in relation to job creation and economic development. Further details will emerge upon finalisation of the Aerotropolis Master Plan. Other Catalytic projects which fall within Integration Zone 1 include:

- Proposed Tembisa X25 (61ha Social Housing Project)
- Winnie Mandela Node
- Tembisa Civic Node
- Oakmoor Station Node
- Swazi Inn Corridor
- Leralla Station Node
- Terenure Townships
- PRASA Kempton Park station precinct
- Rhodesfield Urban Development Framework
- Proposed R21 linkage 9 (Albertina Sisulu Bridge)
- ACSA Western Commercialisation Project
- Dries Niemandt Sports Precinct

Spatial Targeting Instruments:

UDZs

Ekurhuleni has designated and had approved two Urban Development Zones, one in Kempton Park, which sits quite close to the centre of the CBD, and the second one in Germiston. The Kempton Park UDZ falls within the Aerotropolis Core area which directly assists in the implementation of Priority 1 within the Urban Network Plan of EMM.

IDZ

A call for proposals for the development of a master plan for the proposed IDZ located at O.R. Tambo International Airport for a jewellery manufacturing complex is underway as advertised by Gauteng Growth and Development Agency. The proposed complex would stimulate the market for the export of high value goods.

LUMS

A city wide Ekurhuleni land-use management scheme has been drafted by City Planning. The scheme has already undergone public participation phase and the projected implementation of the scheme would be during the first half of 2015.

MSDF

The Metropolitan Spatial Development Framework (2011) is currently under review which would incorporate Aerotropolis related planning and Region A RSDF.

RSDF

The Regional Spatial Development Framework for Region A has been drafted and is currently within the Council approval structures. Region A incorporates the majority of the Aerotropolis Core.

Consultants have been appointed to draft the RSDFs for the other 5 regions. Finality of these RSDFs can be expected within the first quarter of 2015.

Aerotropolis Planning Documents

Dr. Kasarda of Aerotropolis Business Concepts has developed the Strategic Roadmap for the Ekurhuleni Aerotropolis. Through this strategic roadmap, City Planning derived the Aeropolis Planning and land-use guidance (PLUG) document which spatially delineates the Ekurhuleni Aerotropolis.

The next phase for Ekurhuleni's Aerotropolis entails the development of a 5 year Master Plan which is complete and is currently going through Council approval process. The next phase is the development of the 30 year master plan.

Institutional Arrangements

An Aerotropolis Planning Committee has been established which consists of all EMM departments, relevant ACSA departments as well as other spheres of government who sit on the relevant streams of expertise within the committee.

An official MOU and TOR has been signed between EMM and ACSA regarding the Aerotropolis. A pledge of support has also been signed by the then Premier of Gauteng, Nomvula Mokanyane, Executive Mayor of Ekurhuleni Clr Mondli Gungubele and the City Manager Khaya Ngema with regards to the Aerotropolis Project.

Further engagements are taking place with Schipol Area Development Company (SADC) based in the Netherlands for assistance regarding Ekurhuleni's Aerotropolis as well as with SAA (South African Airways) and numerous government institutions.

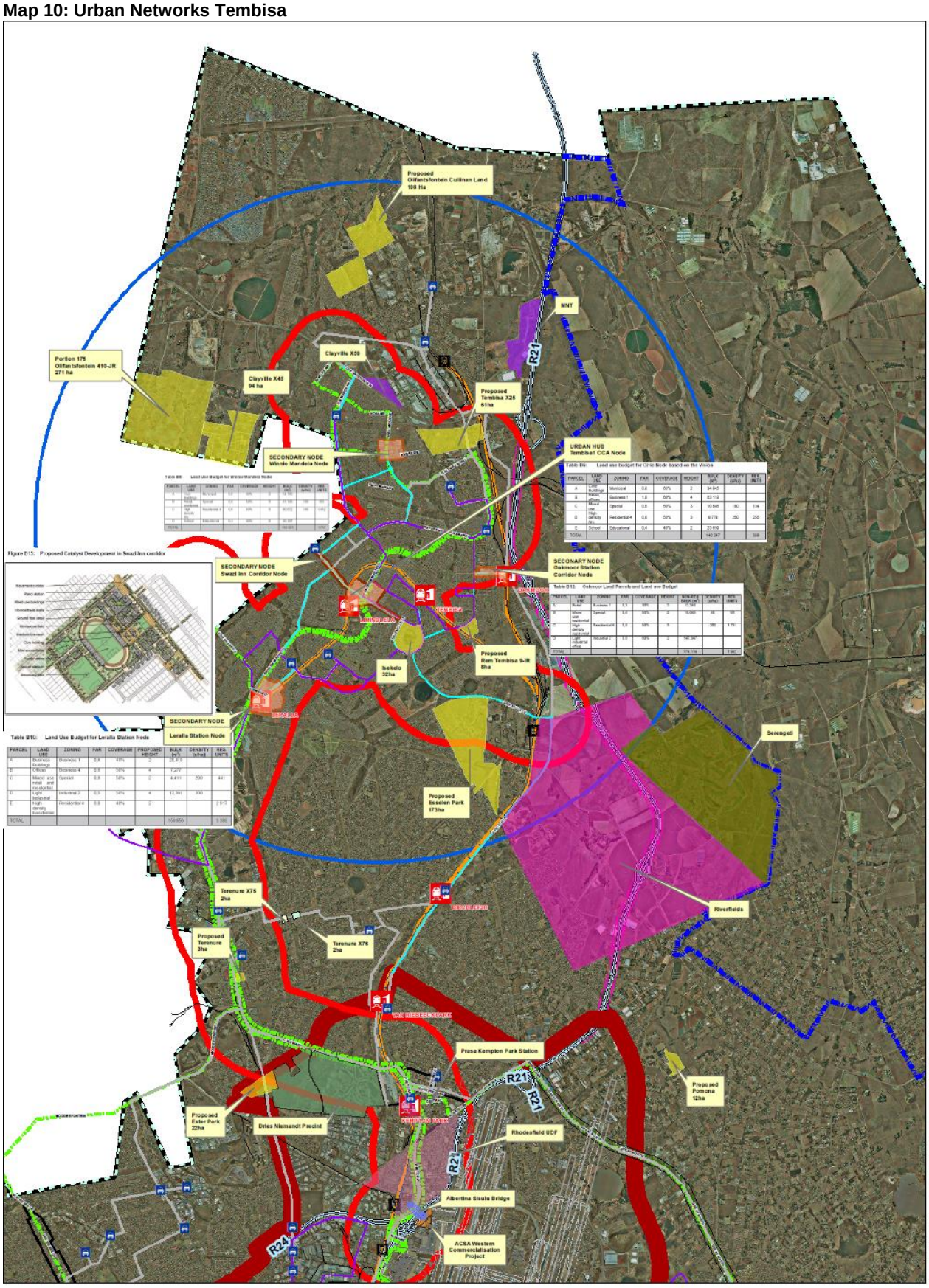
Aa Aerotropolis development company is currently been investigated to drive development inside and around the airport. The master planning process would spell out the ideal option in this regard.

Tembisa Urban Network

Tembisa in terms of the Urban Network Strategy has been defined as follows

Township Cluster	Network Element						
	CBD	Integration Zone	Primary Public Transport Link	Urban Hub	Secondary Node	Secondary Public Transport Link	Municipal Nodes
Tembisa	Aerotropolis Core	1 (Aerotropolis to Tembisa Civic Centre Node)	IRPTN route from Tembisa to OR Tambo Airport (Andrew Mapheto, Zuurfontein, C.R. Swart)	Tembisa CCC	Tembisa Station Node, Oakmoor Station Node, Winnie Mandela Node, Leralla Station Node, Swazi Inn Node	Andrew mapheto, Sam Molele, DM Morakane, Pretoria Road, Brian Mazibuko, Nyarhi, George Nyanga, Maphanga, Koti, Letsiakarana,Rev RTJ Namane, Jabu Mdunge, Peter Nchabeleng, Olifantsfontein	Tembisa 1 CCC, Tembisa 2 CCC, Kempton Park CCC

Map 10: Urban Networks Tembisa



Other strategic localities identified within the urban network plan are Daveyton & Etatwa, Katorus and Kwadsaduza. Further detailed studies and analysis regarding these localities needs to be undertaken in order to assess the best possible growth model towards economic emancipation. In the interim, the following preliminary network elements have been identified as a point of departure.

Daveyton & Etwatwa

Township Cluster	Network Element						
	CBD	Integration Zone	Primary Public Transport Link	Urban Hub	Secondary Node	Secondary Public Transport Link	Municipal Nodes
Daveyton/Etwatwa Cluster	Aerotropolis Core	4 (Aerotropolis Core to Daveyton CCA Urban Hub)	IRTPN route from Etwatwa/Daveyton to OR Tambo via Benoni (Main Reef, Princess, New Modder, Benoni, Great North, Kingsway, Brazil, Eiselen)	Daveyton CCC	Unisa Campus, Etwatwa CCC, Daveyton Mall	Kingsway, Heald, Dungeni, Eiselen, Mveve, Makambula	Etwatwa CCC, Daveyton CCC, Benoni CCC

Katorus

Township Cluster	Network Element						
	CBD	Integration Zone	Primary Public Transport Link	Urban Hub	Secondary Node	Secondary Public Transport Link	Municipal Nodes
Katorus	Aerotropolis Core	2 (Vosloorus Urban Hub to Aerotropolis Core)	IRTPN route from Vosloorus to OR Tambo airport (Barry Marais, Rondebult, Rietfontein, R21)	Vosloorus CCC	Chris Hani Crossing Shopping Centre, Naledi Shopping Centre, New Natalspruit Hospital	Vlakplaats, Bierman, Brickfield, Moagi, MC Botha, Sam Sekoati, Leondale	Vosloorus CCC, Boksburg CCC
	Aerotropolis Core	3 (Katlehong CCC to Aerotropolis Core)	IRTPN route from Katlehong to Germiston via Alberton (Masakhane, Heidelburg, Ring Road, Kritzinger, Grey, Black Reef, Russel, Lake, Joubert, Meyer, Victoria, Johan Rissik, Shamrock, AG De Witt, Edenvale)	Kwesini Node	Motse wa Lejani Shopping Centre Node, Pilot Station Node, Tokoza CCA Node, Admin Triangle,	Hospital, Sontonga, Thutong, Masakhana, Khumalo, Tugela, Pongola,	Katlehong 1 CCC, Katlehong 2 CCC, Tokoza CCC, Alberton CCC, Germiston CCC, Edenvale CCC

Kwatsaduza

Township Cluster	Network Element						
	CBD	Integration Zone	Primary Public Transport Link	Urban Hub	Secondary Node	Secondary Public Transport Link	Municipal Nodes
Kwatsaduza Cluster	Aerotroplis Core	5 (Aerotropolis Core to Tsakane CCC)	IRTPN route from Duduza to OR Tambo airport via Brakpan (Great North, Range View, Heidelburg, New Kleinfontein, Prince George, Thema, Mgebe, Vlakfontein, Spaarwater)	Tsakane CCC	Tsakane Mall, Duduza CCC, Ekhaya Shoppong Centre, Kwa-thema CCC	Twelve, Mgebe, Black, Ndabezitha, Malandela, Zulu, Xhosa, Siphumelela, Nala)	Duduza CCC, Tsakane CCC, Kwa-thema CCC, Springs CCC, Brakpan CCC

D: OUTCOMES AND OUTPUTS

D.1 Anticipated Outcomes and Outputs of Investment in the Built Environment:

Outcome 8 Performance (to be updated in the next BEPP)

Table 10 indicates the Ekurhuleni capital budget expenditure for 2013/14 as on 31 December 2013. The table indicates a total capital budget expenditure of 33.57%. The expenditure for Outcome 8 projects is 37.12%

Table 10: EMM Budget as per National Outcomes[10]

National Outcomes	Source of finance	Sum of Adjusted Budget	Sum of Actual December 2013	Sum of Actual Expenditure Year to Date	Sum of Plus: Expenditure Commitments on Venus (Stores Orders, etc.)	Sum of Actual Expenditure Plus Commitments on Venus	Percentage Spent (Actual vs Adjusted Budget)	Percentage Spent (Actual Expenditure Plus Commitments)
Outcome 10	Municipal Bonds	39,203,961	2,695,941	6,527,639	1,251,574	7,779,213	16.65%	19.84%
	Revenue	6,500,000	-	-	331,811	331,811	0.00%	5.10%
	USDG	18,700,000	3,895,436	6,042,582	-	6,042,582	32.31%	32.31%
Outcome 10 Total		**64,403,961**	**6,591,377**	**12,570,221**	**1,583,385**	**14,153,606**	**19.52%**	**21.98%**
Outcome 2	Municipal Bonds	4,599,774	2,280,226	2,291,822	-	2,291,822	49.82%	49.82%
	Revenue	205,360	18,608	104,102	38,711	142,813	50.69%	69.54%
	USDG	66,860,000	7,953,404	31,932,495	1,904,048	33,836,543	47.76%	50.61%
Outcome 2 Total		**71,665,134**	**10,252,238**	**34,328,419**	**1,942,759**	**36,271,178**	**47.90%**	**50.61%**
Outcome 3	Municipal Bonds	14,140,000	863,768	1,919,754	485,574	2,405,328	13.58%	17.01%
	USDG	18,100,000	2,113,686	3,257,700	-	3,257,700	18.00%	18.00%
Outcome 3 Total		**32,240,000**	**2,977,455**	**5,177,454**	**485,574**	**5,663,028**	**16.06%**	**17.57%**
Outcome 4	Municipal Bonds	37,633,493	6,854,358	12,779,659	505,783	13,285,443	33.96%	35.30%
	Other Provincial Grants	400,000	-	-	20,718	20,718	0.00%	5.18%
	USDG	24,850,000	4,805,917	14,800,173	-	14,800,173	59.56%	59.56%
Outcome 4 Total		**62,883,493**	**11,660,275**	**27,579,832**	**526,501**	**28,106,333**	**43.86%**	**44.70%**
Outcome 6	Developer's contributions	9,000,000	323,054	7,703,024	-	7,703,024	85.59%	85.59%
	Municipal Bonds	148,450,000	8,338,686	36,137,439	313,621	36,451,060	24.34%	24.55%
	USDG	22,000,000	813,946	10,294,696	-	10,294,696	46.79%	46.79%
	Project Finance	150,000,000	20,702,703	77,304,089	22,775,529	100,079,618	51.54%	66.72%
Outcome 6 Total		**329,450,000**	**30,178,390**	**131,439,248**	**23,089,149**	**154,528,398**	**39.90%**	**46.90%**
Outcome 8	Developer's contributions	19,835,640	49,453	6,919,546	-	6,919,546	34.88%	34.88%
	HSDG	23,550,000	837,186	2,859,637	314,166	3,173,803	12.14%	13.48%
	INEP	10,000,000	320,930	6,046,443	3,686,685	9,733,127	60.46%	97.33%
	Municipal Bonds	356,843,347	26,814,988	93,298,365	13,011,901	106,310,267	26.15%	29.79%
	Other National Grants	260,543,000	6,704,439	27,695,517	2,219,396	29,914,913	10.63%	11.48%
	Other Provincial Grants	2,350,376	301,947	301,947	-	301,947	12.85%	12.85%
	Revenue	7,200,000	249,607	2,316,311	230,247	2,546,558	32.17%	35.37%
	USDG	1,158,507,210	104,875,672	543,118,333	24,394,351	567,512,684	46.88%	48.99%
Outcome 8 Total		**1,838,829,573**	**140,154,221**	**682,556,099**	**43,856,746**	**726,412,845**	**37.12%**	**39.50%**
Outcome 9	Municipal Bonds	340,103,269	8,208,624	34,064,595	84,673,490	118,738,085	10.02%	34.91%
	Other Provincial Grants	1,100,000	-	-	-	-	0.00%	0.00%
	Revenue	236,551,954	30,544,131	88,583,206	50,153,783	138,736,989	37.45%	58.65%
	USDG	50,000,000	-	-	-	-	0.00%	0.00%
Outcome 9 Total		**627,755,223**	**38,752,755**	**122,647,801**	**134,827,273**	**257,475,074**	**19.54%**	**41.02%**
Grand Total		**3,027,227,384**	**240,566,710**	**1,016,299,073**	**206,311,388**	**1,222,610,461**	**33.57%**	**40.39%**

The Ekurhuleni performance with regard to National Outcome 8 as taken from the Ekurhuleni SDBIP is reflected below[11]:

–**Output 1: Accelerated Delivery of Housing Opportunities**, further divided of the following Sub-Outputs:

•Sub-Output 1: Upgrade 400 000 units of accommodation within the informal settlement through the UISP and providing them with access to basic services and form of tenure

•Sub-output 2: Establish and implement National Upgrading Support Programme

•Sub-output 3: Accreditation

•Sub-output 4: provision of 80 000 well located affordable rental accommodation by 2014

–**Output 2: Improve access to Basic Services**

–**Output 3: Improved Property Market through the development of the Mortgage Insurance programme**

–**Output 4: More efficient land Utilisation:**

[10] Source: Capital Expenditure Report, Ekurhuleni Finance Department, Reporting Period: 31 DECEMBER 2013

[11] Source: HUMAN SETTLEMENTS DEPARTMENT Sustainable Human Settlement Plan, Progress Report April 2013. Reporting period: 2 May 2013

The Ekurhuleni Human Settlement Department has acquired 10 portions of land for housing purposes consisting of Witpoortjie, Olifantsfontein, Breswol Agricultural Holdings for total amount of R25, 306 833, measuring 131,2748 ha in total.[12]

CURRENT USDG PROJECTS **(Human Settlement to provide updated info in next BEPP)**

Table 11 indicates the USDG grant project summary for the 2012/13 financial year as per the categories specified by National Treasury.

Table 11: USDG Grant Project Summary

Category	**Amount, Rand**
Projects addressing poverty / backlogs	R 832,570,791
Projects aimed at ensuring growth	R 438,719,000
Projects dealing with integration of administration and efficiency of the CM	R 25,700,400
TOTAL	**R1,296,990,191**

[12] Source: Email from Thandizwe Mdletshe, Executive Manager for Human Settlements, Reporting period: 12 April 2013

MAJOR PRIVATE INVESTMENT PROJECTS:

Investment Project Name	Name of Investor / Developer	Estimated value of Investment Project in R' million	Estimate Job Creation Impact
PRASA New Rolling Stock	Gibela Consortium / ALSTOM	2000	1800
Steel Mill investment	Fortune Metaliks	250	300
Municipal Solid Waste to Energy	Enviroserv	1000	150
Conveyor Belt Manufacturing	Oriental Rubber	100	118
PET Bottle Recycling	Mpact	330	
Glass Expansion	Nampak	400	136
Retail Mall	Investec	300	1000
Bus Depot and Head Office	Autopax (PRASA)	350	
Glass Manufacturing	JOEST	200	80
Riverfields Mixed Use Development	Trans Act		
OR Tambo International Airport - extension of the Western and Midfield Terminals	ACSA		
Badenhorst Estate Mixed Use Development	Badenhorst Family	3000	3000
Tambo Springs Inland Port - Inland Freight Port Development	Transnet		
M&T Development Residential Development	M&T Developers		
Rhodesfield Mixed Use Development			
Glen Gory Development			1500
Midstream Residential Development	M&T Developers		
Serengeti Development Residential Development	African Kingdom Holdings		
Reading Junction Development			
Leeuwpoort			

The above mentioned projects are possible projects as listed by the Economic Development Department.[13]

[13] Source: Email from Edward Komane, Divisional Head: Industrial Investment Facilitation – Economic Development Department, Reporting period: 28 January 2014

E: INSTITUTIONAL AND FINANCIAL ARRANGEMENTS

E.1 A Description of the Institutional Arrangements required to give effect to the Investment Programme:

LINKING THE CIF TO THE CAPITAL PRIOROTISATION MODEL

The drafting of the Capital Investment Framework (CIF) is a requirement in terms of Section 4(e) of the Municipal Planning and Performance Management Regulations, 2001 as promulgated in terms of the Municipal Systems Act. The CIF also fulfills the function of a Capital Expenditure Framework (CEF) as required in terms of Section 21(n) of the Draft Spatial Planning and Land Use Management Act, 2013. In addition, the CIF also informs the Capital Expenditure Programme (CEP) as referred to by National Treasury. The purpose of the CIF is to strategically and spatially guide, align and co-ordinate municipal capital expenditure across all sectors that will make provision for balanced spending of the municipal budget so as to promote economic growth and meet the infrastructure and services needs of the Ekurhuleni Metropolitan Municipality (EMM).

The content of a CIF is not specifically defined, but the above mentioned legislation refers to the following as functions of a CIF:

- spatially influence and guide municipal capital prioritisation and allocation;
- strategically influence and guide municipal capital prioritisation and allocation;
- spatially and strategically coordinate and integrate capital expenditure across all sectors;
- show where the municipality must and will be spending its capital budget; and
- map capital projects included in the budget.

Geographic Priority Areas

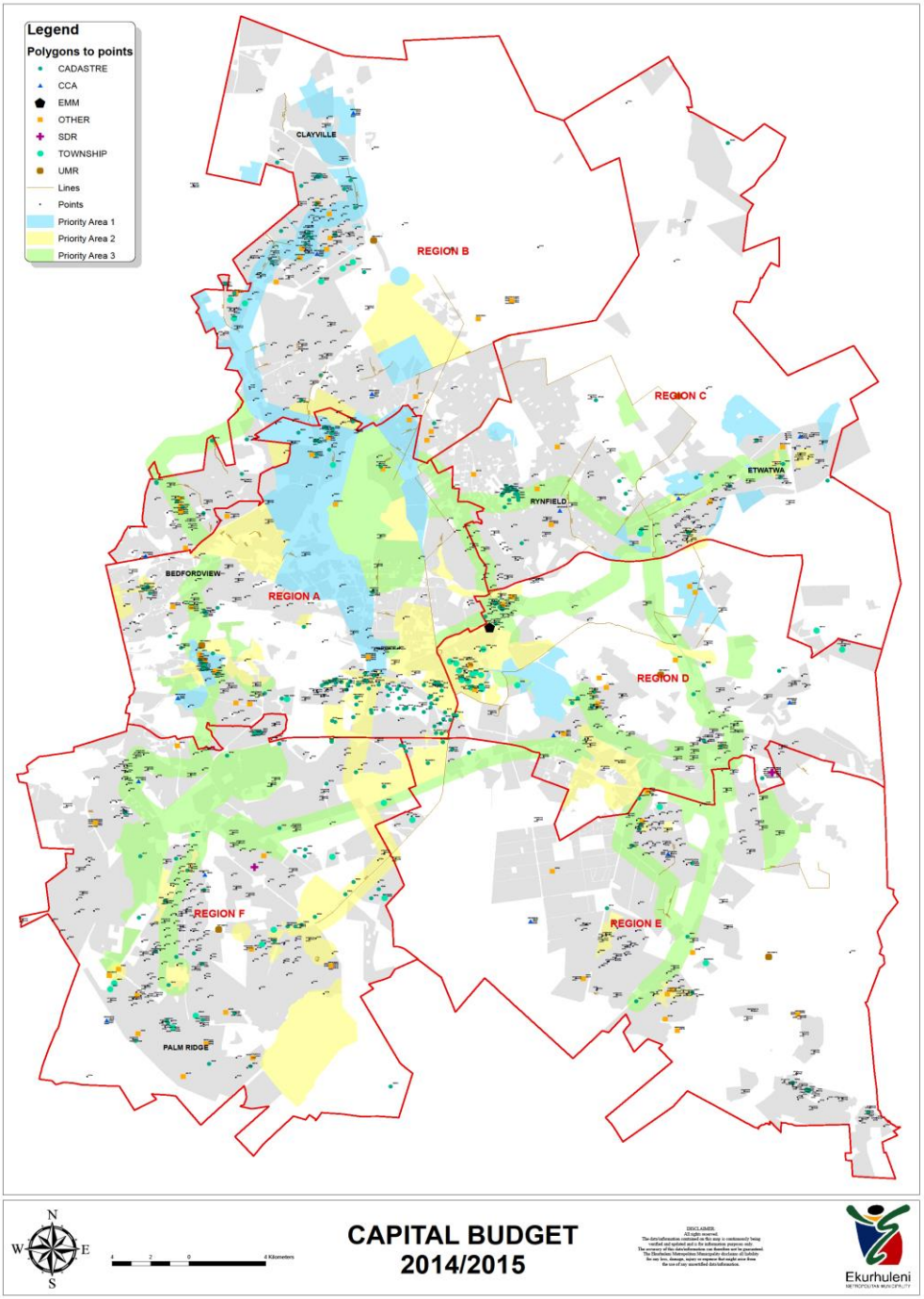
The Capital Investment Framework must focus capital spending in Ekurhuleni into geographic priority areas. The identified geographic priority areas are largely based on the spatial structuring elements (SSE) from the 2011 MSDF, which includes the geography of Ekurhuleni income. The spatial structuring elements include the IRPTN Corridor, rail stations, primary & secondary nodes, housing projects, industrial areas, major investment and development projects, and poverty eradication areas.

The geographic priority areas have been reduced from 5 to 3 and have moved from a 25 year implementation 25 year horizon with a 5 year implementation phase per priority area to follow the GDS. The three priority areas follow the GDS as per the below diagram in that priority area one looks to developing the EMM as a delivering city over a 3 year period, with priority area 2 being implemented and supported over a 10 year period to develop a capable city, and priority area 3 being implemented and supported over a 20 year period in developing a sustainable city.

Diagram 1 – CIF Geographic Priority Areas

The map geographically illustrates the locality of the 2014/15 financial years capital projects as overlaid onto the three CIF priority areas. Geographic priority area 1 is illustrated in blue, priority area 2 is illustrated in yellow, and priority area 3 is illustrated in green, therefore reflecting spatial strategy and prioritisation. The projects mapped are reflected as per lines and points to a specific locality, whilst the varied symbols depict the projects area of influence in terms of the entire EMM, at the CCA level, the old regions, new urban management regions, township, cadastral, and other where a more specified area of influence could be provided. It must be noted that the projects were not mapped in this instance per department in that this would create a cluttered and illegible map. The mapping per department will only be made available via the arc-reader, where data will be viewable per department.

Map 11: Geographic location of the 2014/15 financial year projects in relation to the CIF Priority Areas



Planning and Approval of Capital Projects Policy

Additionally the Planning and Approval of Capital Projects Policy, 27 May 2010 must be adhered to in the Capital Prioritization Model. "The policy will be effective as from 1 July 2010. This policy is an interim policy that will be amended once the Project Monitoring Unit is fully operational. It is the intention that Ekurhuleni Metropolitan Municipality will have a functional Program Monitoring Office by June 2010 to assist in the formal evaluations of all proposed projects. A detailed policy will be developed during the 2010/11 financial year for implementation as from 1 July 2012. The objectives of the policy is to "ensure that capital projects are only budgeted for if feasibility has been proven"; and to "ensure the optimum allocation of resources to projects that can be implemented within the timeframes budgeted for."

"The three year capital budget provides departments the opportunity to plan their capital spending activities in advance, allowing for a more strategic approach. The typical project cycle consist of at least the following phases:

- Feasibility Study
- Basic Planning
- Environmental Impact Assessment
- Detail Planning and Design
- Implementation"

Policy Statement: "That all projects be evaluated in terms of a project plan (time line) as well as a cash flow linked to the project plan, to determine the practicality to implement the project within the proposed budget and time frame (multi-year projects). That all proposed budgets for projects be approved only if the evaluation is positive."

CAPITAL PRIORITISATION MODEL

A major output of the CIF is the Capital Prioritisation Model (CPM) which is now being tested against the 2013/14 capital budget.

Step 1: Define Project Categories: Step 1 of the Capital Prioritisation Model defines Project Categories for the Capital Budget (all funding sources):

- Category 1 – Urban Restructuring;
- Category 2 - Upgrading & Renewal;
- Category 3 - Economic Development; and
- Category 4 – Local Interventions.

Step 2: Allocate budget percentage (%) per Project Category: The following percentage (%) allocations are suggested for the 2014/15 capital budget:

Step 3: Allocate Capital Budget per Geographic Priority Area: Step 3 in the capital prioritisation model is the allocation of Category 1, 2 and 3 of the capital budget into the geographic priority areas as determined in the CIF.

Step 4: Screen Submitted Capital Projects: Step 4 in the capital prioritisation model is the screening of all submitted capital projects as submitted by the responsible.

Step 5: Allocate Individual Capital Projects into project categories and Geographic Priority Areas: Step 5 in the capital prioritisation model is the allocation of individual capital projects into project categories and into geographic priority areas.

Step 6: Scoring of projects for purposes of prioritisation: Step 6 of the Capital Prioritisation Model is in the process of being refined and has therefore only be represented as a sample, with finalisation of step 6 anticipated for approval in 2014.

Costing the CIF

Ekurhuleni is in the process of doing a specific costing of the MSDF proposals, specifically in relation to the Capital Investment Framework. The CIF costing will be included in the 2013/14 BEPP submission.

E.2 A summary of financial allocations in the MTREF to support spatial development strategy.

The information required above will be included once it is available with Finance

CAPITAL BUDGET (Internal vs External Funding)

Table 12 illustrates a breakdown of the EMM funding sources of about less than ***50%*** of the funding comes from the USDG in financing EMM capital projects.

Table 12: EMM Sources of Finance 2014/15

2014/15 - 2016/17 DRAFT MULTI YEAR CAPITAL BUDGET - PER SOURCES OF FINANCE			
Source of Finance	Recommended Budget 2014/15	Recommended Budget 2015/16	Recommended Budget 2016/17
Developer's contributions	34,500,000	38,500,000	41,500,000
HSDG	75,000,000	83,000,000	45,000,000
INEP	50,000,000	70,000,000	70,000,000
Other Loan Funding	1,010,750,000	1,265,689,500	1,224,363,325
Other National Grants	80,000,000	85,000,000	10,000,000
Other Provincial Grants	8,911,000	8,911,000	-
Project Finance	150,000,000	150,000,000	-
Revenue	317,394,720	407,203,500	424,981,500
USDG	1,551,207,699	1,625,247,621	1,691,800,000
Grand Total	3,277,763,419	3,733,551,621	3,507,644,825

Table 13 indicates the Ekurhuleni capital budget for 2014/15 per national outcome. A total of 60% of the Ekurhuleni capital budget for 2014/15 is dedicated to National Outcome 8. National Government Outcome 8 (2010) monitors the outcome on Sustainable Human Settlements and the quality of Household Life

Table 13: EMM National Outcomes 2014/15 [14]

2014/15 - 2016/17 DRAFT MULTI YEAR CAPITAL BUDGET - PER NATIONAL OUTCOMES			
National Outcomes	Recommended Budget 2014/15	Recommended Budget 2015/16	Recommended Budget 2016/17
Outcome 2	68,100,000	135,450,000	148,500,000
Outcome 3	112,440,000	137,290,000	160,100,000
Outcome 4	54,200,000	94,000,000	60,000,000
Outcome 5	2,000,000	2,000,000	3,000,000
Outcome 6	443,541,244	342,447,621	363,600,000
Outcome 8	1,975,167,455	2,288,161,000	2,051,400,000
Outcome 9	600,414,720	716,703,000	699,144,825
Outcome 10	10,500,000	8,500,000	11,300,000
Outcome 12	11,400,000	9,000,000	10,600,000
Grand Total	3,277,763,419	3,733,551,621	3,507,644,825

[14] Source: Annexure W- Detailed Capital Budget per Ward, Ekurhuleni Finance Department, Reporting Period: 08 March 2013

Table 14: Financial performance per department– 2012/13 (Q1)

Department	Budget	Total Q2 Planned - Cumulative	Total Q2 Actual - Cumulative	Total % spent vs Budget
Transport	24 500 000	-	194 299	0.79%
Waste Management	2 700 000	800 000	-	0.00%
Water & Sanitation	185 040 000	75 132 733	48 079 541	25.98%
Erwat - Wastewater treatment	50 000 000	19 400 000	24 645 017	49.29%
Interim ablution facilities	93 545 000*	69 200 000	67 850 111	48.5%
Total	**1 212 558 791**	**446 232 672**	**426 598 847**	**35.18%**

Table 15: financial performance per department 2012/13 (Q2)

Department	Budget	Total Q2 Planned - Cumulative	Total Q2 Actual - Cumulative	Total % spent vs Budget
Disaster & Emergency Management Services	18 200 000	8 335 144	2 621 642	14.40%
EMPD	8 000 000	305 000	365 383	4.57%
Energy	231 773 791	60 856 557	67 820 596	29.26%
Environmental Resources Management	19 400 000	4 602 404	4 429 922	22.83%
Human Settlements	8 000 000	6 016 259	4 739 179	59.24%
Roads and Stormwater	502 650 000	142 483 560	181 493 526	36.11%
SRAC	68 750 000	6 007 900	1 024 998	1.49%

Table 16: financial performance per department– 2012/13 (Q3)

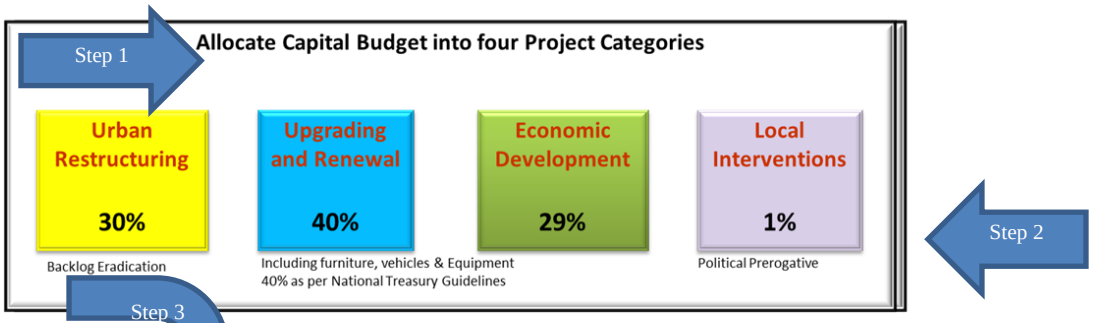
Department	Budget	Total Q1 + Q2 + Q3 Planned	Actual Expenditure Year to Date	Total Actual Expenditure + Commitments on Venus (Stores Orders, etc.)	Total % spent (inc commitment) vs Budget
Disaster & Emergency Management Services	13 000 000	40 260 164	3 629 803	3 629 802	**27.92%**
EMPD	1 800 000	555 000	737 178	737 177	**40.95%**
Energy	238 773 791	138 651 359	106 815 340	125 355 012	**52.50%**
Environmental Resources Management	19 400 000	11 202 404	7 505 301	9 336 159	**48.12%**
Human Settlements	53 708 400	6 263 664	27 879 586	31 676 352	**58.98%**
Roads and Stormwater	403 050 000	321 205 059	259 918 268	267 602 394	**66.39%**

Department	Budget	Total Q1 + Q2 + Q3 Planned	Actual Expenditure Year to Date	Total Actual Expenditure + Commitments on Venus (Stores Orders, etc.)	Total % spent (inc commitment) vs Budget
SRAC	34 850 000	27 068 475	2 774 930	3 045 098	**8.74%**
Transport	20 000 000	7 400 000	11 830 706	11 830 705	**59.15%**
Waste Management	2 700 000	1 700 000	-	-	**0.00%**
Water & Sanitation	206 623 451	140 261 125	68 858 072	70 063 931	**33.91%**
Erwat - Wastewater treatment	50 000 000	24 466 667	29 923 360	29 923 359	**59.85%**
Interim sanitation services	168 657 038	69 200 000	87 427 694	87 427 694	**51.84%**
Total	1 212 562 689	**841 327 032**	**607 300 237.51**	**640 627 688**	**52.83%**

Table 17: Capital Prioritisation Model.

CAPITAL PRIORITISATION MODEL FOR THE DELIVERING CITY

Capital Prioritisation Model integrating the GDS, IDP, MSDF (and CIF), Budget Guidelines and Sectoral Prioritisation



PRIORITY AREA	2014/15	Rand Value	2015/16	Rand Value	2016/17	Rand Value
1 = Priority Area 1	13%	429815787.9	14%	523221136.4	12%	456069803
2 = Priority Area 2	14%	458707162.4	14%	560852272.7	16%	625419939.4
3 = Priority Area 3	10%	328857969.7	9%	365344818.2	9%	353104790.9
4 = Intersects Priority Area 1 and 2	4%	125000000	5%	183000000	3%	93700000
5 = Intersects Priority Area 1 and 3	1%	20491666.67	0%	13533333.33	0%	9366666.667
6 = Intersects Priority Area 2 and 3	7%	217490939.8	6%	221277666.7	6%	233871212.1
7 = Intersects all Priority Areas	18%	587867890.9	16%	634019090.9	17%	637463727.3
8 = Falls outside a Priority Area	13%	423986969.7	11%	434441212.1	13%	477499090.9
Total % of budget	**80%**	**2592218387**	**75%**	**2935689530**	**76%**	**2886495230**

Step 4: Screen all submitted projects for IDP, SDBIP and PMO compliance

Step 5: Allocate individual capital projects as submitted by all departments into Project Categories & CIF Phases

The Metro is now busy compiling a Long Term Funding Strategy to ensure the balance between internal and external funding is optimal, whilst also aiming at increasing the capital budget to ensure both the stimulation of the local economy as well as the eradication of backlogs and as such creating sustainable human settlements.

The long term planning is set in a very volatile environment. The economy continues to recover from the recession, inflation and interest rates are currently the lowest in years, yet the cost drivers impacting on the municipal budget reflects a different picture. The service delivery bids offered to the municipality increases by double digits whilst both CPI and PPI are currently single digit numbers. The rationale for the higher prices offered to the municipality can be attributed to a number of factors, of which actual cost inflation is only one. Other factors may be coalition between suppliers, increased profit margins used when responding to government bids, skills shortages in the market resulting in a mismatch between supply and demand which leads to increased prices as a few examples. In the long term financial planning, cost increases are thus one of the many uncertain factors which necessitate the use of assumptions.

The components that will impact on the final long funding strategy include:

1. EMM's revised Growth and Development Strategy (25 year horizon) – the level of services to be rendered to be reviewed;
2. EMM's Spatial Development Framework and Capital Investment Framework - Funding allocation model - % of budget to backlogs vs. % towards economic development projects to be finalized;
3. EMM's Consolidated Municipal Infrastructure Plans (10 – 15 year horizon) - Enhanced set of data on revenue and expenditure available resulting from CMIP's that can supplement economic and financial forecasts as well as more refined maintenance requirements available;
4. EMM's Integrated Development Plan (5 year horizon); and
5. EMM's Medium Term Expenditure Framework (3 year horizon –considering increasing to a five year horizon).

The current draft of the long term funding strategy of the EMM contains the following components:

- Background;
- Legislative and accounting framework (current legislation, Accounting Framework)
- Assessment of funding requirements;
- Financial Resources;
- Appropriation of annual surplus;
- Raising of external debt for future financing of capital expenditure;
- Compliance with financial service provider requirements (Financial ratios, Credit rating); and
- Raising of external debt with financing institutions and repayment of the debt.

The Long Term Funding Strategy should be read in conjunction with the following policies:
Cash Management Policy;
Investment Policy;
Funding and Reserves Policy;
Borrowing Policy;
Tariff Policy;
Property Rates Policy;
Customer Care and Revenue Management By-Laws; and
Assistance to the Poor Policy.

Funding Options

The funding options being explored at present include:

1. USDG / Large Cities Support - >R1b p.a.
2. Depreciation for all renewal projects - >R1b – R2b p.a
3. Movable assets MUST come from revenue generated
4. Additional borrowings for new non income generating projects (mainly bonds)
5. Structured Finance for Revenue Generating Projects – based on ROI motivation
6. PPP's – be careful of profit sharing in long run
7. New revenue sources specific to new services
8. International donor funding
9. Greater private sector involvement – other than normal PPP's, such as increased bulk contributions for private sector developments

Strategy to build up cash balances to reach appropriate cash levels with reserves

Funding of Capital Budget using Deprecation as Cash Generator: Funding for capital budgets of future years will be generated through a combination of methods, being depreciation (as main source), grants and donations (with a dedicated effort to lobby for additional grant allocations and private sector injections) as well as limited loan funding as and when the current debt book is redeemed to ensure maximum use is made of funding options, including gearing at the optimal levels.

The increased asset value as a result of the GRAP 17 asset depreciation will be phased in for tariff setting purposes and more cash will be generated in a progressive manner over the coming years. At present, the cash generated from depreciation are used for the redemption payments due. As a result of lower than budgeted collection levels, the balance of the cash is absorbed by the increased contribution to bad debt provision, but with more conservative bad debt provision budgeting linked to more aggressive collection activities, this will not be the case going forward. It is anticipated that the cash amounts as indicated in **Table 20** will be generated through depreciation over the next few years.

Table 18: Anticipated Cash Amounts

				Utilisation of Cash Generated through depreciation			Balance
Financial Year	Depreciation	Offset Depreciation	Net Cash	Redemption	Capital Projects	Max Investments	Available
2008/09	1,907,231,388.00	3,082,840,747.60		139,910,458.61	1,767,320,929	-	-
2009/10	1,951,840,280.00	1,598,132,500.00	353,707,780.00	131,351,739.66	127,704,358	-	94,651,682.34
2010/11	1,951,840,280.00	1,239,284,910.00	712,555,370.00	167,317,285.73	358,185,664	-	187,052,420.27
2011/12	2,107,987,503.00	1,084,374,291.00	1,023,613,212.00	175,352,137.47	295,897,540	400,000,000	152,363,534.53
2012/13	2,276,626,504.00	929,463,674.00	1,347,162,830.00	182,358,386.43	302,383,684	400,000,000	462,420,759.57
2013/14	2,390,457,829.20	774,553,065.90	1,615,904,763.30	576,110,952.30	250,000,000.00	400,000,000	389,793,811.00
2014/15	2,509,980,720.66	619,642,452.72	1,890,338,267.94	146,030,204.91	300,000,000.00	400,000,000	1,044,308,063.03
2015/16	2,635,479,756.69	464,731,839.54	2,170,747,917.15	161,999,769.04	300,000,000.00	400,000,000	1,308,748,148.11
2016/17	2,767,253,744.53	309,821,226.36	2,457,432,518.17	180,408,102.23	300,000,000.00	400,000,000	1,577,024,415.94
2017/18	2,905,616,431.75	154,910,613.18	2,750,705,818.57	200,840,752.02	300,000,000.00	400,000,000	1,849,865,066.55

In other words, depreciation will generate cash (the difference between the annual depreciation charged to the statement of financial performance and the offset depreciation used to phase the additional depreciation in) as indicated above for 2010/11 to 2017/18 (based on current depreciation levels – as the asset base increases with capital investments, the amount of cash generated through depreciation will also increase). The current debt book must be repaid in terms of the repayment conditions from this cash and the balance is then available for utilisation. A portion must be used to set up zero coupon bonds (or other alternative investments that will be utilised for the redemption of the bonds when they become due). The balance is then available for capital funding.

Continued use of Debt Finance for Capital Infrastructure: The current long term debt of the EMM is well within industry norms, in fact, it is much lower than its peers. Even though a long term process, it must be understood that the increased use of debt funding to maximise on gearing does not mean that debt levels will ultimately spiral out of control. When used in combination with other funding sources in a sustainable long term funding plan, increased debt levels is a responsible way of funding infrastructure needs.

In evaluating the Metro's ability to take up additional loan funding after 2014 when the current registered Domestic Medium Term Note Programme has been exhausted, the following factors will be considered (in other words, borrowings will be taken up only if the conditions are satisfied):

- Proven pay back period on project
- Collection rate > 93% maintained
- Cash reserves re-instated to 70 days
- Economic Growth stimulant

Revenue Collection: Increased debtors collection is the most important factor – full credit control must be applied in all areas. This must be done with a communication strategy to

ensure the community is aware + renewed efforts to register indigents. The impact of increased collection rates are indicated in **Table 19**.

Table 19: Impact of Increase Collection Rates

Collection Rate	Non Payment	2010/11	2011/12	2012/13	2013/14
100%	0%	0	0	0	0
99%	1%	131,616,991	156,826,576	182,889,983	213,842,029
98%	2%	263,233,981	313,653,153	365,779,967	427,684,057
97%	3%	394,850,972	470,479,729	548,669,950	641,526,086
96%	4%	526,467,962	627,306,306	731,559,933	855,368,115
95%	5%	658,084,953	784,132,882	914,449,916	1,069,210,143
94%	6%	789,701,944	940,959,458	1,097,339,900	1,283,052,172
93%	7%	921,318,934	1,097,786,035	1,280,229,883	1,496,894,201
92%	8%	1,052,935,925	1,254,612,611	1,463,119,866	1,710,736,229
91%	9%	1,184,552,915	1,411,439,188	1,646,009,850	1,924,578,258
90%	10%	1,316,169,906	1,568,265,764	1,828,899,833	2,138,420,287

An increase in collection rates from 93% to 95% will automatically increase available cash by R240 million per year.

Revenue Enhancement/ New Sources of Revenue: Additional sources of revenue to be investigated and implemented where feasible:

- Selling of right to collect the outstanding debtors book;
- Business tax; and
- Leasing out of optic fiber network.

The funds received from the selling of the rights to collect the outstanding debtor's book should be placed in the general reserve as first contribution to the reserve account.

Funding Requirements and Budget Priority Areas

The Long Term Funding Strategy includes the following funding requirements and budget priority areas to be finalized based on the GDS Review and the updated CIF:

The Long Term Funding Strategy includes the operating requirements per annum (R20.5b per annum, in nominal terms):

- HR Strategy (R4b per annum, in nominal terms);
- Bulk Purchases (R10b per annum, in nominal terms);
- Repairs and Maintenance (R2b per annum, exclusive of internal maintenance teams, in nominal terms);
- Indigent Support (R1b per annum, inclusive of excess consumption cost, chemical toilets, leak repairs, etc, in nominal terms);
- Provision for Bad Debt (R1b per annum, exclusive of indigent excess consumption previously included in this line item, in nominal terms);
- Depreciation (R2b per annum, in nominal terms);
- Interest Expense (R0.5b per annum, for current debt book);
- Other overhead costs (R1b per annum, in nominal terms);

Priority areas include the Rodent Strategy, Chemical Toilets Alternative – the cost effectiveness of chemical toilets to be reviewed (one possible alternative could be the provision of ablution blocks), Anti Retroviral Medication, and Special Events linked to Economic Development.

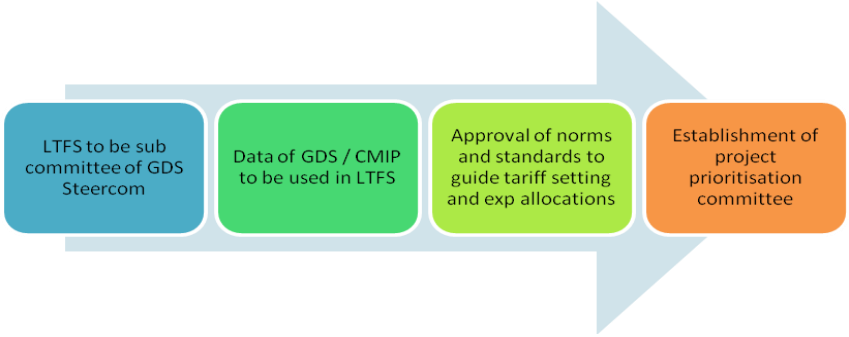
Capital requirements are to be funded from:

- Government Grants (R1.3b per annum, in nominal terms – potential to grown, particularly in the USDG and Large Cities Support Programme);
- Municipal Bonds (R800m per year, based on the current approved R4b Domestic Medium Term Note Programme);
- Public Private Partnerships (R2b for new HQ building + potentially R1b for Digital City);
- Surplus Cash (from operating budget) (R1b per year in nominal terms) – This will require a dedicated strategy of budgeting for a surplus to ensure the availability of cash; and
- Potential grant from the DBSA Jobs fund.

Way Forward on Long Term Funding Strategy:

1. Agreement of projects to be funded from the USDG grant for the MTEF currently being compiled – this also impacts on the Built Environment Performance Plan (BEPP) to be submitted to National Treasury during November 2011.
2. Council approval of Germiston precinct / HQ building – once approved, the process of PPP to commence with. National Treasury advised that a PPP project takes approximately 3 years to finalise.
3. Issue of EMM bond 03 to fund current year infrastructure.
4. Public Participation / Consultation process for the Local Business Tax submission.
5. Final submission of Local Business Tax submission to National Treasury.
6. Jobs Fund response expected by end November 2011.
7. Further submissions to the Jobs Fund when the next set of applications is invited.
8. Submission of business plan to DBSA re water meters projects as an income generating project with a payback period of less than 5 years. Initial discussions were held with DBSA, business plan is now the next step.

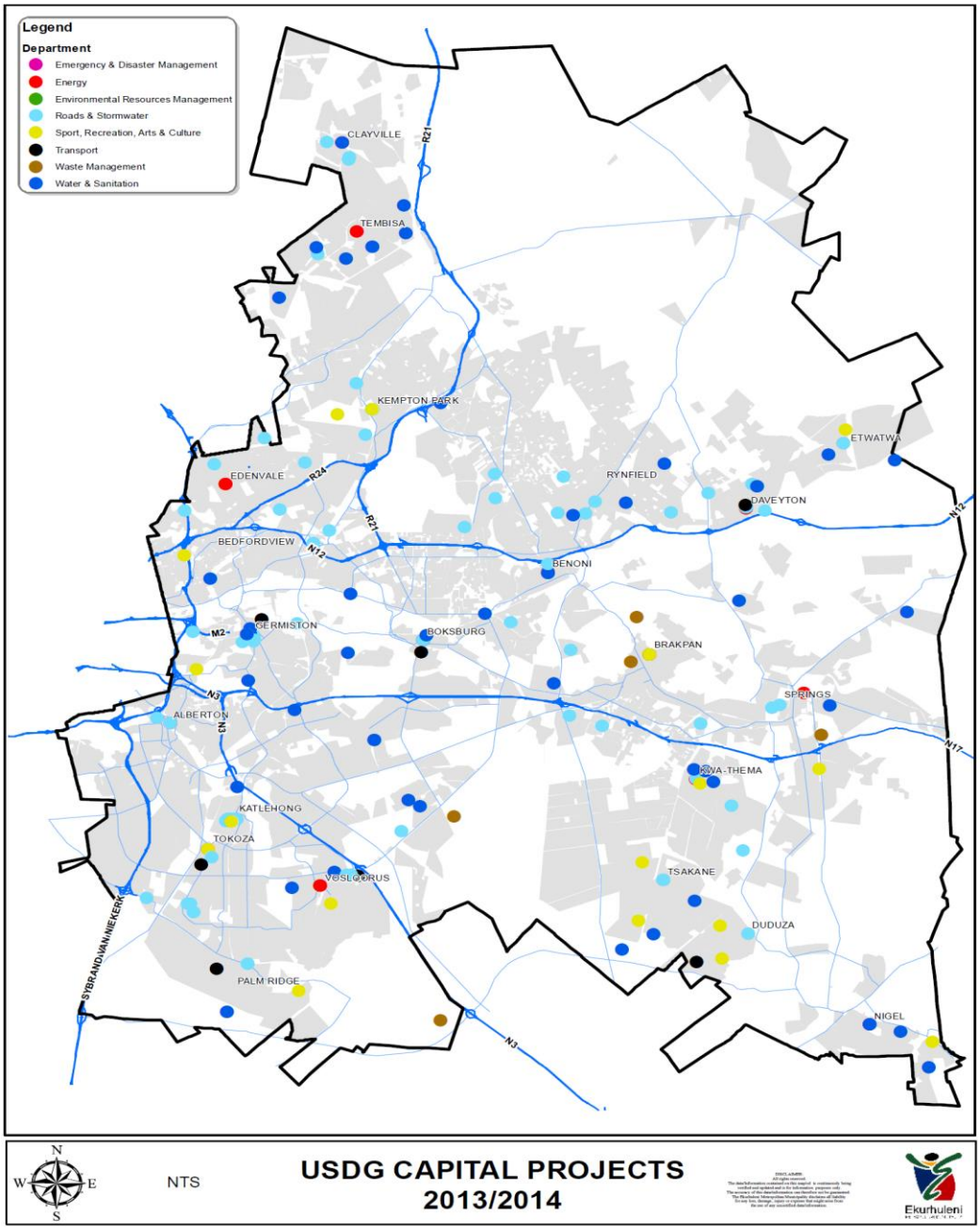
Diagram 2: Way Forward on Long Term Funding Strategy



Outcome 8: Capital Budget

Projects that support National Outcome 8 are mostly funded from the USDG as indicated in **Map 12, *The USDG Outcomes 8 capital projects are attached as an Annexure to the BEPP***.

Map 12: USDG Funded Projects for National Outcomes 8 as Reflected Throughout EMM



Map 12 gives a spatial indication of the USDG capital projects throughout the EMM, whilst The USDG projects reflected are as per EMM department, which is inclusive of Emergency and Disaster Management, Electricity and Energy, Environmental Management, Roads and Storm-water, SRAC, Transport, Waste Management, and Water and Sanitation. The maps indicate that the majority of the USDG funded projects are located in the EMM's formally disadvantaged areas as in the example of Kathorus (map 23), Clayville, Thembisa, Daveyton, Etwatwa and Kwatsaduza. The concentration of the USDG capital projects within these formally disadvantaged areas is indicative of initiatives to promote an increase in the level of and provide access to services and opportunities that is aimed at improving the urban form and benefitting the disadvantaged.

E.3 Application of Grant Allocations, including:

APPLICATION OF GRANT RESOURCES BY GRANT PROGRAMME AND PROJECT	Sum of Adjusted Budget	Sum of Actual December 2013	Sum of Actual Expenditure Year to Date	Sum of Plus: Expenditure Commitments on Venus (Stores Orders, etc.)	Sum of Actual Expenditure Plus Commitments on Venus	Percentage Spent (Actual vs Adjusted Budget)	Percentage spent (incl.Commitments on Venus vs Adjusted Budget)
HSDG	**23,550,000**	**837,186**	**2,859,637**	**314,166**	**3,173,803**	**12.14%**	**13.48%**
Human Settlements, Pre Planning Fees	23,550,000	837,186	2,859,637	314,166	3,173,803	12.14%	13.48%
INEP	**10,000,000**	**320,930**	**6,046,443**	**3,686,685**	**9,733,127**	**60.46%**	**97.33%**
Corporate Electrification INEP	10,000,000	320,930	6,046,443	3,686,685	9,733,127	60.46%	97.33%
Other National Grants	**260,543,000**	**6,704,439**	**27,695,517**	**2,219,396**	**29,914,913**	**10.63%**	**11.48%**
Corporate Energy efficiency	11,000,000	804,628	7,889,006	1,572,926	9,461,932	71.72%	86.02%
EPWP Projects	-	-	-	-	-	0.00%	0.00%
Integrated Rapid Public Transport Network(IRPTN)	239,543,000	5,858,093	14,916,415	-	14,916,415	6.23%	6.23%
Tembisa Urban Renewal Framework Projects	10,000,000	41,718	4,890,097	646,470	5,536,567	48.90%	55.37%
Other Provincial Grants	**3,850,376**	**301,947**	**301,947**	**20,718**	**322,665**	**7.84%**	**8.38%**
ICT Equipment	250,000	-	-	-	-	0.00%	0.00%
Office Furniture	100,000	-	-	-	-	0.00%	0.00%
OR Tambo Precinct Narrative Centre	2,350,376	301,947	301,947	-	301,947	12.85%	12.85%
Recycling - Buy Back Centre	200,000	-	-	-	-	0.00%	0.00%
Specialized Equipment	750,000	-	-	-	-	0.00%	0.00%
Tembisa Township Hub	200,000	-	-	20,718	20,718	0.00%	10.36%
USDG	**1,359,017,210**	**124,458,061**	**609,445,978**	**26,305,640**	**635,751,618**	**44.84%**	**46.78%**
Acquisition of Land for New Human Settlements	15,000,000	-	-	-	-	0.00%	0.00%
Alberton Lighting	700,000	-	-	-	-	0.00%	0.00%
Alberton: Install new OF Huntersfield	500,000	-	-	-	-	0.00%	0.00%
Atlasville Spruit flood management	5,000,000	664,981	888,468	839,049	1,727,517	17.77%	34.55%
Bedfordview Stormwater Protection	4,000,000	127,129	3,957,653	-	3,957,653	98.94%	98.94%
Bedfordview, Geometric Rd Improvement	2,000,000	-	1,914,983	-	1,914,983	95.75%	95.75%
Benoni Lighting	700,000	33,521	192,093	69,500	261,594	27.44%	37.37%
Benoni Network enhancement	3,000,000	642,629	642,629	853,833	1,496,462	21.42%	49.88%
Benoni,Const of S W Outfall Rynfild	6,000,000	-	-	-	-	0.00%	0.00%
Bluegumview Taxi Rank	5,000,000	-	15,000	-	15,000	0.30%	0.30%
Boksburg Lighting	700,000	471,862	471,862	10,500	482,362	67.41%	68.91%
Boksburg Network enhancement	3,000,000	-	2,597,218	6,435	2,603,653	86.57%	86.79%
Brakpan Lighting	700,000	-	215,157	302,607	517,764	30.74%	73.97%
Brakpan Network enhancement	3,000,000	45,388	2,448,438	544,064	2,992,502	81.61%	99.75%
Brownfield Property Acquisition	50,000,000	-	-	-	-	0.00%	0.00%
Building - Youth Friendly Services	2,000,000	-	-	1,904,048	1,904,048	0.00%	95.20%
Bulk Medicine Store: Conversion of Existing Structure	500,000	-	-	-	-	0.00%	0.00%
Bulk supply for new water supply (Dawn Park)	3,000,000	-	-	-	-	0.00%	0.00%
Cambrian Cemetery Ext	1,000,000	-	1,000,000	-	1,000,000	100.00%	100.00%
Cell development - Platkop	5,000,000	-	-	-	-	0.00%	0.00%
Cell Development - Rietfontein	16,700,000	3,895,436	5,798,148	-	5,798,148	34.72%	34.72%
Chris Hani Memorial	9,145,000	277,168	760,918	426,955	1,187,873	8.32%	12.99%
Const Fire Station/House Duduza	5,200,000	-	978,350	-	978,350	18.81%	18.81%
Const Fire Station/House Germiston Central	3,000,000	826,062	826,062	-	826,062	27.54%	27.54%
Const Fire Station/House Kwa-Thema	9,754,350	-	-	-	-	0.00%	0.00%
Const Fire Station/House Thokoza	2,000,000	-	-	-	-	0.00%	0.00%
Const Fire Station/House Zonkezizwe	5,600,000	1,287,624	2,431,638	-	2,431,638	43.42%	43.42%
Const Kempton Park Precinct	-	-	-	-	-	0.00%	0.00%
Const Precinct Stations Tokoza	6,000,000	-	-	-	-	0.00%	0.00%
Const Precinct Stations Zonkezizwe	7,500,000	-	-	-	-	0.00%	0.00%
Const Tembisa Precinct	-	-	-	-	-	0.00%	0.00%
Constr. Of Small Holding Roads	5,000,000	-	3,526,588	-	3,526,588	70.53%	70.53%
Construct Daveyton CBD/N12 Interchange	3,000,000	-	-	-	-	0.00%	0.00%
Construct new r&p;pumpst: Dalpark X13	2,500,000	324,115	324,115	-	324,115	12.96%	12.96%
Construction & Development of Duduza Reconciliation Park	3,500,000	-	-	-	-	0.00%	0.00%
Construction of a Softball Field & Golf driving range in Tsakane	14,000,000	5,300,856	9,525,359	-	9,525,359	68.04%	68.04%
Construction of K86	3,000,000	-	-	-	-	0.00%	0.00%
Construction of MVRA/DLTC Thembisa	2,500,000	-	-	-	-	0.00%	0.00%
Construction of New Library: Tsakane	14,400,000	745,250	745,250	-	745,250	5.18%	5.18%
Construction:New Library: Brakpan	11,600,000	-	-	-	-	0.00%	0.00%
Corporate Electrification	82,131,000	11,009,364	40,777,913	5,978,731	46,756,644	49.65%	56.93%
Corporate Lighting	4,500,000	-	-	-	-	0.00%	0.00%
Corporate Network enhancement	2,000,000	-	-	934,600	934,600	0.00%	46.73%
Daveyton Lighting	1,100,000	39,724	39,724	42,695	82,419	3.61%	7.49%
Daveyton Network enhancement	2,000,000	1,658,446	1,658,446	-	1,658,446	82.92%	82.92%
Develop Simmer & Jack Waste site	1,000,000	-	-	-	-	0.00%	0.00%
Develop/Upgrade Community Parks	4,500,000	232,540	1,499,596	1,164,791	2,664,387	33.32%	59.21%
Develop: Blesboksprui for tourism	2,100,000	-	32,565	67,635	100,200	1.55%	4.77%
Develop: Bunny Park	2,000,000	8,385	45,760	86,162	131,922	2.29%	6.60%
Develop: Cemeteries - Berms	3,000,000	1,487,795	2,987,388	-	2,987,388	99.58%	99.58%
Develop: Cemeteries Muslim Section	500,000	-	191,527	-	191,527	38.31%	38.31%
Develop: Community Park: Zonkizizwe	2,500,000	138,790	329,757	2,430	332,187	13.19%	13.29%
Develop: Kromvlei Cemetery - phase 2	2,500,000	-	28,900	-	28,900	1.16%	1.16%
Develop: Multi Purpose Park Motsua	4,000,000	2,131,192	3,904,652	-	3,904,652	97.62%	97.62%
Develop: Multi Purpose Park: Winnie Mandela	4,000,000	-	-	-	-	0.00%	0.00%
Develop: Nyoni Park	30,000	-	-	-	-	0.00%	0.00%
Develop: Vlakfontein Cemetery	2,770,000	-	371,803	-	371,803	13.42%	13.42%
Development of Town Entrances	1,200,000	89,689	89,689	161,941	251,630	7.47%	20.97%
Development Weltevreden Waste Site	11,000,000	-	-	35,797	35,797	0.00%	0.33%
Doubling Barry Marais Rd	250,000	-	-	-	-	0.00%	0.00%
Duduza Lighting	1,100,000	-	318,288	-	318,288	28.94%	28.94%
Eastleigh Spruit Channel	5,000,000	3,399,920	4,977,267	-	4,977,267	99.55%	99.55%
Edenvale Lighting	700,000	-	-	617,350	617,350	0.00%	88.19%
Edenvale Network enhancement	3,000,000	-	2,687,989	28,408	2,716,397	89.60%	90.55%
Elandsfontein, SW Implementation (North)	1,500,000	-	814,115	-	814,115	54.27%	54.27%
Emergency services to inf. settlements	2,500,000	23,929	1,933,675	57,000	1,990,675	77.35%	79.63%
Esangweni Pedestrian facilities/bridge	-	-	-	-	-	0.00%	0.00%
Establish MVRA/DLTC Katlehong	11,700,000	-	446,606	-	446,606	3.82%	3.82%
Etwatwa Ext 35 Essential Services	12,000,000	1,006,212	2,480,027	-	2,480,027	20.67%	20.67%
Etwatwa Lighting	1,100,000	-	-	-	-	0.00%	0.00%
Etwatwa Stormwater	3,000,000	-	2,172,020	-	2,172,020	72.40%	72.40%
EXT & UPGRADE DAVEYTON EAST. CLINIC	700,000	-	-	-	-	0.00%	0.00%
EXT & UPGRADE KEMPTON PARK CLINIC	50,000	-	-	-	-	0.00%	0.00%
Ext & Upgrade Motsamai Clinic	10,000,000	1,585,285	4,329,151	-	4,329,151	43.29%	43.29%
EXT& UPGRADE JOY CLINIC	2,500,000	56,303	1,326,147	-	1,326,147	53.05%	53.05%
EXT& UPGRADE TSWELOPELE CLINIC(ADD LEVEL 2)	10,000,000	1,219,787	4,500,028	-	4,500,028	45.00%	45.00%
Extension & upgrade CLINIC WHITE CITY	2,800,000	30,232	1,109,437	-	1,109,437	39.62%	39.62%
Extension & Upgrade Esangweni Clinic	500,000	-	-	-	-	0.00%	0.00%
Extension & upgrade Selope Thema Clinic	500,000	-	-	-	-	0.00%	0.00%
Fencing: Sport & Recreational Facilities	2,000,000	-	1,166,067	-	1,166,067	58.30%	58.30%

APPLICATION OF GRANT RESOURCES BY GRANT PROGRAMME AND PROJECT	Sum of Adjusted Budget	Sum of Actual December 2013	Sum of Actual Expenditure Year to Date	Sum of Plus: Expenditure Commitments on Venus (Stores Orders, etc.)	Sum of Actual Expenditure Plus Commitments on Venus	Percentage Spent (Actual vs Adjusted Budget)	Percentage spent (incl.Commitments on Venus vs Adjusted Budget)
Germiston Lake	1,000,000	-	-	-	-	0.00%	0.00%
Germiston Lighting	700,000	1,167	267,734	264,124	531,858	38.25%	75.98%
Germiston Network enhancement	9,000,000	850,034	6,574,379	-	6,574,379	73.05%	73.05%
Germiston Theatre	14,013,300	-	-	-	-	0.00%	0.00%
Germiston: Elimination of Klippoortjie s pump s	10,200,000	813,946	8,927,031	-	8,927,031	87.52%	87.52%
Germiston: Upgrade and replace Dekema outfall sewer	6,000,000	-	6,000,000	-	6,000,000	100.00%	100.00%
Guard House Ablution Health Facilities	1,500,000	-	-	-	-	0.00%	0.00%
Human Settlements Essential Services	11,000,000	-	8,796,557	-	8,796,557	79.97%	79.97%
Impala Park Stormwater System Northrop Rd etc	2,000,000	111,762	1,910,352	-	1,910,352	95.52%	95.52%
Install SW in Palm Ridge	2,500,000	-	2,500,000	-	2,500,000	100.00%	100.00%
Isandovale,Erosion Protection Impl (North)	2,000,000	-	167,469	-	167,469	8.37%	8.37%
K136 & Rd 1894 Link Road	3,000,000	-	-	-	-	0.00%	0.00%
Kaal Spruit rehabilitation	200,000	-	-	-	-	0.00%	0.00%
Katlehong & Thokoza, Lining of Canal between Katlehong and Tho	1,100,000	-	1,100,000	-	1,100,000	100.00%	100.00%
Katlehong Implementation of Stormwater Masterplan	12,500,000	399,460	1,895,691	-	1,895,691	15.17%	15.17%
Katlehong Lighting	1,100,000	-	49,020	-	49,020	4.46%	4.46%
Kempton Park Lighting	700,000	-	49,172	-	49,172	7.02%	7.02%
Kwa-Thema Lighting	1,100,000	106,959	235,953	170,295	406,248	21.45%	36.93%
Kwa-Thema Network enhancement	3,000,000	503,972	694,027	-	694,027	23.13%	23.13%
Kwa-Thema: Upgrading of waternetwork C/F	1,000,000	-	23,115	-	23,115	2.31%	2.31%
Langaville Electricity Network Restitution	20,000,000	439,517	3,257,797	-	3,257,797	16.29%	16.29%
Langaville: Upgrade water and sewer network	11,000,000	2,953,626	2,953,626	-	2,953,626	26.85%	26.85%
Madelakufa Essential services	1,000,000	-	-	-	-	0.00%	0.00%
Minor Road Improvements: East	500,000	-	90,659	-	90,659	18.13%	18.13%
Minor Works for Roads and SW: South	650,000	-	-	-	-	0.00%	0.00%
Moderfontein 76 IR Ptn 7 E/tial SVC C F	500,000	-	-	-	-	0.00%	0.00%
Murray Park	5,500,000	-	70,525	-	70,525	1.28%	1.28%
N3,Const pedes brid btw Map & Voslo	1,000,000	-	-	-	-	0.00%	0.00%
NEW ALRA PARK CLINIC	6,600,000	706,334	5,146,512	-	5,146,512	77.98%	77.98%
New Reiger Park X5 Clinic	6,800,000	2,178,725	5,845,846	-	5,845,846	85.97%	85.97%
New Tamaho Clinic	7,810,000	778,471	5,540,676	-	5,540,676	70.94%	70.94%
New Vosloorus Hospital Taxi Rank	5,000,000	-	-	-	-	0.00%	0.00%
Nigel Lighting	700,000	-	-	-	-	0.00%	0.00%
Nigel: Upgrade/Eliminate Rockville pumpst	5,000,000	627,171	1,453,175	-	1,453,175	29.06%	29.06%
Olifants: Upgrade reservoir	1,000,000	-	282,500	-	282,500	28.25%	28.25%
PALM RIDGE	10,600,000	1,398,266	4,134,699	-	4,134,699	39.01%	39.01%
Palm Ridge Phases 5 & 6 Bulk & Essential Services	61,050,000	3,590,044	7,173,040	-	7,173,040	11.75%	11.75%
Palm Ridge Taxi Rank	5,000,000	-	-	-	-	0.00%	0.00%
Paving & Sidewalks: East	2,000,000	-	1,167,224	-	1,167,224	58.36%	58.36%
Payneville Ext 3 rehabilitation	2,000,000	-	244,434	-	244,434	12.22%	12.22%
Pedestrian Bridges: Greater Tembisa streams	100,000	-	-	-	-	0.00%	0.00%
Pedestrian Management Impl. (North)	7,300,000	638,770	6,839,910	-	6,839,910	93.70%	93.70%
Pedestrian Management: South	5,100,000	-	2,301,883	-	2,301,883	45.13%	45.13%
Phola Park Roads and SW	1,500,000	-	-	-	-	0.00%	0.00%
Phuthaditjaba Taxi Rank (Tokoza)	5,000,000	-	-	-	-	0.00%	0.00%
Pretoria Road Upgrading	3,000,000	-	-	-	-	0.00%	0.00%
Ramaphosa Taxi Rank	19,500,000	2,847,429	5,345,308	-	5,345,308	27.41%	27.41%
Refurbishment of Rental Property	21,000,000	1,107,350	4,653,956	8,227,619	12,881,575	22.16%	61.34%
Rehabilitate Dam Spillways	3,000,000	-	-	-	-	0.00%	0.00%
Rehabilitate Roads in Eastern Region	59,000,000	7,870,631	26,152,363	17,038	26,169,402	44.33%	44.35%
Rehabilitation of Duduza stadium	14,785,500	3,052,101	10,405,674	-	10,405,674	70.38%	70.38%
Rehabilitation of Katlehong Swimming Pool	1,900,000	444,262	643,181	-	643,181	33.85%	33.85%
Rehabilitation of Libraries	2,000,000	-	309,026	-	309,026	15.45%	15.45%
Rehabilitation of Roads (North)	58,000,000	6,801,088	57,983,215	-	57,983,215	99.97%	99.97%
Rehabilitation of roads: South	59,000,000	6,296,215	15,072,628	-	15,072,628	25.55%	25.55%
Rehabilitation of Sport Facilities	9,587,900	921,694	1,769,823	1,743,368	3,513,191	18.46%	36.64%
Rehabilitation of Swimming Pools	9,000,000	618,591	3,851,054	-	3,851,054	42.79%	42.79%
Rehabilitation of the Boksburg stadium	5,500,000	-	-	-	-	0.00%	0.00%
Rehabilitation of the closed Brakpan landfill site	8,000,000	33,970	33,970	-	33,970	0.42%	0.42%
Rehabilitation of Wattville stadium	11,502,100	1,700,581	11,150,870	-	11,150,870	96.95%	96.95%
Replace and repair O/S Dawn Park	2,300,000	-	-	-	-	0.00%	0.00%
Replace main water - Isekelo /Zephania Tembisa	100,000	91,550	91,550	-	91,550	91.55%	91.55%
Reservoir Construction	2,500,000	-	-	-	-	0.00%	0.00%
Resurfacing of Hard Courts	3,000,000	-	-	-	-	0.00%	0.00%
Roads East (AS and When)	32,000,000	-	31,769,853	-	31,769,853	99.28%	99.28%
Roads: Low Cost Housing: East	45,000,000	-	45,000,000	-	45,000,000	100.00%	100.00%
Roads: Low Cost Housing: North	9,000,000	-	9,000,000	-	9,000,000	100.00%	100.00%
Roads: Low Cost Housing: South	25,000,000	-	22,701,096	-	22,701,096	90.80%	90.80%
Rondebult/Buhlepark Roads & SW	5,000,000	2,715,080	2,715,080	-	2,715,080	54.30%	54.30%
Sandpan Areas Stormwater Outfall	5,000,000	-	-	-	-	0.00%	0.00%
Shared industrial Production Facilities in Tembisa & Thokoza	2,350,000	-	186,065	172,241	358,306	7.92%	15.25%
Sonneveld Stormwater Upgrading	1,000,000	-	261,625	-	261,625	26.16%	26.16%
Springs Lighting	700,000	-	6,877	-	6,877	0.98%	0.98%
Springs Network enhancement	3,000,000	880,368	1,824,627	294,595	2,119,222	60.82%	70.64%
Stormwater (AS and When)	25,000,000	4,835,668	18,460,402	-	18,460,402	73.84%	73.84%
Stormwater Upgrades (South)	3,000,000	1,824,000	2,693,450	-	2,693,450	89.78%	89.78%
Stormwater Upgrades: North	17,000,000	-	17,000,000	-	17,000,000	100.00%	100.00%
Stormwater Upgrading Thintwa	4,600,000	187,522	245,693	-	245,693	5.34%	5.34%
Styx Road Improvements	4,500,000	-	4,426,629	-	4,426,629	98.37%	98.37%
SW in Vosloorus	2,300,000	-	-	-	-	0.00%	0.00%
Swartsspruit Rehabilitation: Kempton Park	10,000,000	4,884,346	7,189,118	-	7,189,118	71.89%	71.89%
Tembisa 2 Lighting	1,100,000	-	116,457	-	116,457	10.59%	10.59%
Tembisa 2 Network enhancement	3,000,000	139,251	1,276,020	610,044	1,886,063	42.53%	62.87%
Tembisa Lighting	1,100,000	-	-	-	-	0.00%	0.00%
Tembisa Natural Watercourses upgrading	-	-	-	-	-	0.00%	0.00%
Tembisa Network enhancement	2,500,000	-	182,502	517,323	699,825	7.30%	27.99%
Tembisa: New water pressure tower (MIG)	1,000,000	-	-	-	-	0.00%	0.00%
Tembisa: Replace water pipe Isekelo	1,000,000	-	1,000,000	-	1,000,000	100.00%	100.00%
Tembisa: Western OF sewer	500,000	302,000	302,000	-	302,000	60.40%	60.40%
Tertiary Rds South Dept Construction	21,860	-	21,858	-	21,858	99.99%	99.99%
Tertiary Roads (South)	34,000,000	10,107,096	20,531,027	-	20,531,027	60.39%	60.39%
Tertiary Roads in Katlehong	8,000,000	307,825	7,944,143	-	7,944,143	99.30%	99.30%
Tertiary Roads in Thokoza- Phase 3	10,500,000	2,504,970	9,209,957	-	9,209,957	87.71%	87.71%
Tertiary Roads in Vosloorus- Phase 3	4,000,000	1,245,341	1,527,004	-	1,527,004	38.18%	38.18%
Tertiary Roads: North	30,000,000	-	30,000,000	-	30,000,000	100.00%	100.00%
Thokoza Fabrication Laboratory	5,000,000	3,793,666	3,793,666	-	3,793,666	75.87%	75.87%
Thokoza Lighting	1,100,000	-	-	-	-	0.00%	0.00%
Thokoza Network enhancement	3,000,000	-	1,009,149	-	1,009,149	33.64%	33.64%
Tokoza Implementation of Stormwater Masterplan	1,600,000	751,443	1,229,405	-	1,229,405	76.84%	76.84%
Township enterprise Hubs	11,000,000	1,012,251	4,352,359	-	4,352,359	39.57%	39.57%
Township Industrial Parks	2,500,000	-	2,468,082	-	2,468,082	98.72%	98.72%
Trading Stalls	4,000,000	-	4,000,000	-	4,000,000	100.00%	100.00%

APPLICATION OF GRANT RESOURCES BY GRANT PROGRAMME AND PROJECT	Sum of Adjusted Budget	Sum of Actual December 2013	Sum of Actual Expenditure Year to Date	Sum of Plus: Expenditure Commitments on Venus (Stores Orders, etc.)	Sum of Actual Expenditure Plus Commitments on Venus	Percentage Spent (Actual vs Adjusted Budget)	Percentage spent (incl.Commitments on Venus vs Adjusted Budget)
Tsakane Lighting	1,100,000	15,307	15,307	-	15,307	1.39%	1.39%
Tsakane Network enhancement	2,000,000	-	24,475	154,460	178,935	1.22%	8.95%
Tsakane: Provide water Tsakane x 6 and 10	500,000	115,954	360,734	-	360,734	72.15%	72.15%
Upgrade Joe Mzamane Road Kwa- Thema	3,000,000	-	-	-	-	0.00%	0.00%
Upgrade of First Road: Putfontein	3,000,000	-	2,700,000	-	2,700,000	90.00%	90.00%
Upgrade Outfall Sewers in Vosloorus C/F	14,000,000	-	-	-	-	0.00%	0.00%
Upgrade Sewer Networks	3,300,000	-	1,117,939	-	1,117,939	33.88%	33.88%
Upgrade Water Network C/F Etwatwa X19	1,000,000	-	-	-	-	0.00%	0.00%
Upgrade: Construction of Memorial Sites	2,500,000	-	-	-	-	0.00%	0.00%
Upgrading Germiston Station Taxi Rank	-	-	-	-	-	0.00%	0.00%
Upgrading of the Kwa-thema stadium	8,966,200	2,192,670	7,893,482	-	7,893,482	88.04%	88.04%
VILLA LIZA	4,000,000	-	-	-	-	0.00%	0.00%
Vosloorus Lighting	1,100,000	-	1,031,213	-	1,031,213	93.75%	93.75%
Vosloorus Network enhancement	500,000	-	224,871	-	224,871	44.97%	44.97%
Vosloorus: Replace water main supply	750,000	-	750,000	-	750,000	100.00%	100.00%
Water and Sewer Retic. Welgedacht	6,000,000	-	249,725	-	249,725	4.16%	4.16%
Grand Total	**1,656,960,586**	**132,622,562**	**646,349,522**	**32,546,605**	**678,896,127**	**39.01%**	**40.97%**

REFERENCE DOCUMENTS

Additional to input received as documented in the MSDF Participation Report, the following reference documents were used in drafting the BEPP:

- City Budget Forum, 21 January 2011, Presentation by the Department Human Settlements.
- Comprehensive Municipal Infrastructure Plan 2013-2028, Ekurhuleni Metropolitan Municipality, 2013
- Confronting Fragmentation: Housing and Urban Development in a Democratising Society, P Harrison, M Huchzermeyer & M Mayekiso, UCT Press, 2003.
- Development of an Operations Plan for an IRPTN North/South Corridor (Draft), GOBA Mott MacDonald JV, 4 February 2011.
- Growth and Development Strategy, 2055.
- Ekurhuleni Economic Strategy, EMM Item LED 2-2003 CM, 27 February 2006.
- Ekurhuleni Integrated Development Plan, EMM, 2010.
- Ekurhuleni IDP, Budget & SDBIP 2009/10 – 2011/12, EMM, 2010.
- Ekurhuleni Integrated Transport Plan, Volume 1.
- Ekurhuleni Local Economic Development Policy, EMM Item LED 2-2003 CM, 27 February 2006.
- Ekurhuleni Municipal Housing Development Plan (Draft October 2011), Plan Associates.
- Ekurhuleni Strategic Integrated Transport Plan, EMM, 2002.
- Long Term Financial Plan, EMM Item AF (222010) EO CM, 27 May 2010.
- Long Term Funding Strategy Draft 1, Ekurhuleni Metropolitan Municipality, 20 October 2011.
- Metropolitan Spatial Development Framework, EMM 2011.
- Ministry of Human Settlement, Media Statement – Cities get new powers and funding for human settlements, 4 March 2011.
- Modal Integration Strategy and Action Plan for the Ekurhuleni Metropolitan Municipality area, EMM Item BRT (012009) MC, 17 September 2009.
- O.R. Tambo International Airport Long Term Development Path, ACSA Power Point Presentation, September 2008.
- Proposed Framework for the Review of the Growth and Development Strategy (GDS), Mater Plans and Operational Plans at EMM, Power Point Presentation 26 July 2010.
- Sustainable Manufacturing? The Case Study of South Africa & Ekurhuleni, Simon Roberts, Juta (2006).
- Regional Spatial Development Framework (RSDF), Region A, 14 February 2013
- Ekurhuleni Integrated Human Settlement Development Process and Funding Model, EMM Item B-HS (03-2012)
- ERWAT Strategy 2032, Facility Development Plan
- The SA Local Government Briefing, SA Local Government Research, October 2013

ANNEXURE A: PERFORMANCE MATRIX

Built Environment Performance Indicators

The EMM City Planning Department should be leading and guiding the metro with regards to the city's developmental objective. With a strong forward planning focus within the department, there are no existing measurable tools to assess the performance and projection of development within the city. The existing tools such as the MSDF are frequently outdated by the time the document is approved and ready to be utilized by other departments. The pace of development trends moves swiftly and in order to adequately track these changes a unique system needs to be developed in which these trends can be identified early enough for stringent mitigation measures to be put in place.

Since 2011, City Planning has been tasked with the drafting of the Built Environment Performance Plan and the Capital Investment Framework. Experience over the last two years shows that there is a huge gap in relation to communication and information sharing among departments with the majority of departments, City Planning included, not capturing important, relevant data. With departments spread across the metro, the simple sharing of a large document can be a tedious and timewasting task irrespective of the technology at hand. Even if the information is available in document form, most of the reports or studies are done in an un-editable format or non-manipulative format which renders the data useful only for that particular study or document. This in turn becomes wasteful expenditure due to duplication should another department require data for another project.

With the call from National Government to move away from utilizing consultants for work that can be done in house, manipulative data needs to be at hand.

The built environment performance indicators, though useful for measuring the city is currently extremely difficult to populate and set targets. Much of the data required of these indicators are either not available in the required format or certain boundaries for measuring the data have not been established as yet as in the case with all data related to integration zones.

Other difficulties involve the intertwining of public and private financial data held by financial institutions as well as data regarding public entities investments within certain projects located in the Metro. Capacity and data capturing systems within many departments are another key issue that needs to be addressed.

The development of a GIS based data bank from which all departments can work from is the best possible solution to populating these and other indicators. Much of the Metros data could be stored in this particular data bank and extracted in the required format as and when needed. This would eliminate duplication of work by consultants and provide a more thorough and accurate description of the Metro and its challenges.

The following is an attempt at completing the table together with the relevant comments from various departments.

INTERMEDIATE OUTCOME (Higher Order Numbering)	OUTPUT (Lower Order Numbering)	Data Collection Frequency (Years)				TARGET[1]										
		¼	1	2	5	Phase 1			Phase 2[2]						Department	Notes
						12/13[3]	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21		
A1.1 Formal council approval of IDP/IDP Review with identified Urban Development Zones, Social Housing Restructuring Zones and Integration Zones (Y/N)		✓				B	N	N	Y						Strategy & Corporate Planning	
	A1.1.1 Submission of BEPP in required format by prescribed date, including: (a) Council approval of Integration Zones in compliance with Urban Network and ICDG guidelines; and (b) List of names and values of catalytic projects where procurement process is completed in each Integration Zone for each financial year of the current MTREF, including unallocated amounts (Y/N)	✓				B	N	N	Y						City Planning: Special Projects	
A1.2 Number of annual actions identified in the CSIP which have been implemented		✓				B									City Planning: Special Projects	Actions to be identified

	A1.2.1 Signed CSP Participation Agreement, including schedule of Capacity Support Implementation Plan (CSIP) (Y/N)	✓				B	N	Y	Y						City Planning: Special Projects	
A1.3 (To enter the CSP), an unqualified audit opinion by AG (with or without findings) for last financial year (Y/N). (To progress to phases following Phase 1), no material financial or supply chain management irregularities in spatial transformation projects in integration zones reported by the AG (Y/N).			✓			B	Y	Y	Y						Finance	
	A1.3.1 Financially unqualified audit opinion by AG for last financial year)		✓			B	Y	Y	Y						Finance	
	A1.3.2 % Change in Total value of irregular, fruitless and wasteful expenditure identified by AG		✓			B									Finance	Note: Data to be obtained and targets determined in conjunction with Finance
A2.1 Number of rezoning applications in integration zones approved			✓			B									City Planning: LUMS	Upon finality of Integration zones system for data collection needs to be in place
A2.2 Number of building plans approved within Integration Zones			✓			B									City Plannning: Building Control	Upon finality of Integration zones system for data collection needs to be in place
A2.3 Percentage variation between property rates levied on undeveloped and developed land in Integration Zones OR Number of development rights lost (to be decided)			✓												Finance	Upon finality of Integration zones system for data collection needs to be in place

A3.1 Percentage variation between budgeted and actual R&M expenditure city-wide	✓				B									**Finance**	**Note: Data to be obtained and targets determined in conjunction with Finance**
A3.2 Cumulative total Rand value of capital expenditures of other public sector entities in Integration Zones as percentage of cumulative total Rand value of catalytic projects in Integration Zones		✓			B only									**Finance**	**Public entity data required; Catalytic projects to be determined.**
A3.3 Percentage change in the value of private finance invested in catalytic project		✓			B only									**Finance**	**Data to be sourced from private sector; Catalytic projects to be determined.**
A3.4 Percentage change in the value of privately owned buildings completed in Integration Zones		✓			B									**City Planning: Building Control**	**Data to be sourced from private sector;**
A3.5 Actual municipal capital expended on catalytic projects as a percentage of the budgeted value of municipal capital for catalytic projects	✓				B only									**Finance**	**Catalytic Projects to be determined**
B 1.1 Percentage annual change in number of newly serviced land parcels			✓		B									**City Planning: LUMS**	**Data not available in this format. The outcome should refer to the number of proclaimed erven instead**
B 1.2 Number of hectares of rural land re-designated to urban land			✓		857	771	693							**City Planning: LUMS**	**Rate of urbanisation to change upon incorporation of LESEDI into**

															EMM
B1.3 Gross Residential Unit Density per hectare within integration zones			✓		**B**									**City Planning: LUMS**	**Upon finality of Integration zones system for data collection needs to be in place**
B1.4 Annual change in the number of completed subsidised rental housing units within Integration Zones			✓		**B**									**Human Settlements**	**Upon finality of Integration zones system for data collection needs to be in place. Define Rental Stock; Define Integration Zone; EDC Targets; Refurbishment of units included?**
B1.5 Annual increase in the number of completed privately owned rental housing units within Integration Zones			✓		**B**									**City Planning: LUMS**	**No data available on privately owned rental stock**
B1.6 Cumulative ratio of housing ownership types in Integration Zones			✓		**B**									**City Planning/ Research**	**Integration zones to be identified. No data available on housing ownership types**

B1.7 Number of units in the gap market (city-wide)			✓		B									**Human Settlements**	**Stats SA data to be utilised. FLISP; NHFS; Province; No system in place**
B1.8 Percentage change in the total number of informal settlement dwelling units within Integration Zones that have not benefitted from integrated upgrading programmes			✓		B									**Human Settlements**	**Integration zones to be identified. Human Setllements to populate data**
B2.1 Annual percentage change in proportion of households within 500 metres of access points to integrated public transport system within integration zones			✓		B			5		5		5		**Transport**	
B2.2 Percentage decade change in share of household income spent on transport costs for passengers city-wide				✓	B only					-2				**Transport**	
B2.3 Percentage change in average weekday peak hour commuting time of passengers via the scheduled public transport system city-wide				✓	B only					-5				**Transport**	
B2.4 The number of Early Childhood Development facilities provided in integration zones			✓		B									**City Planning**	**Integration zones to be identified**
B2.5 The number of libraries provided in integration zones			✓		B									**City Planning**	**Integration zones to be identified**

B2.6 Percentage change of commuters (city-wide) using private motorised transport			✓	B only					-2				**Transport**	
B 2.7 Annual percentage change of all passenger trips that use the same ticketing system		✓		B	0	0	0	0	5	2	2	2	**Transport**	
B2.8 Percentage annual change in capital expenditure on transport infrastructure spent on integrated public transport networks city-wide		✓		B	350	350	15	5	5	5	5	5	**Transport**	**Confirmation needed**
B2.9 Percentage change in the total kilometres of dedicated walkways and cycle paths in relation to the length of roads within integration Zones		✓			5	2	4	2	2	2	2	2	**Transport/ Roads**	**Confirmation needed**
C1.1 Four-yearly percentage change in total market value of all commercial properties in Integration Zones			✓	B only									**Finance**	**Integration Zones to be identified. Market value data required**
C1.2 Number of hectares of serviced space proclaimed for informal traders within Integration Zones		✓		B									**Economic Development**	**No data available**
C1.3 Annual percentage of available passenger spaces in weekday scheduled public transport trips that are occupied		✓		B									**Transport**	**Note: To be determined**

D1.1 Greendrop score for municipality		✓			**74,9%**									**Water & Sanitation**	**Note: Blue drop score not within indicators??**
D1.2 Kilolitres of Bulk Water entering network (self-provided or purchased		✓			**B**									**Water & Sanitation**	**To be determined**
D1.3 kWhc (Kilowatt hours) purchased by the municipality		✓			**61**	**66**	**71**	**77**	**83**	**90**	**97**	**105**	**113**	**Energy**	
D1.4 Tonnage of waste produced that goes to landfill		✓			**1,5 m**									**Waste Management**	**To be determined**
D1.5 Litres of treated wastewater reused		✓			**B**									**Water & Sanitation**	**To be determined/ Private or public?**
D1.6 Annual Rand value of energy bought from renewable sources as a percentage of the Rand value of all energy bought		✓			**B**									**Energy**	**To be determined/ Private or public**
D1.7 Number of subsidies paid for Solar Water Heaters		✓			**B**									**Energy**	**To be determined**