

FINAL DRAFT

CitySpace
Planning Cape Town

NORTHERN DISTRICT PLAN



SPATIAL DEVELOPMENT PLAN &
ENVIRONMENTAL MANAGEMENT FRAMEWORK

TECHNICAL REPORT

2012



CITY OF CAPE TOWN | ISIXEKO SASEKAPA | STAD KAAPSTAD

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REFERENCE GUIDE TO CONTENTS OF THE DISTRICT PLAN:

Section	Purpose and focus
1. INTRODUCTION	<ul style="list-style-type: none"> Outline of background and legislative status of SDP and EMF
2. DEVELOPMENT AND POLICY CONTEXT	<ul style="list-style-type: none"> Planning directives and policy that inform the SDP.
3. KEY STRATEGIES: THE CONTEXT AND CENTRAL SPATIAL IDEAS	<ul style="list-style-type: none"> Key spatial strategies of the CTSD and how they are applied to the district. Contextualises strategies in terms of the “district now” and “what action is needed” to address issues. Identifies what spatial concepts should be applied to achieve strategy and address issues. Highlights the central spatial ideas, specific to the district, that are key to reinforcing a positive long term metropolitan and district spatial structure
3.1. Plan for employment and improve access to economic opportunities	<ul style="list-style-type: none"> Identifies the key challenges in respect of economic activity and employment in the district, giving consideration to the form and functioning of economic activity, the relationship between transport systems and land use Spatial concepts and structuring elements include: multi-directional accessibility grid, areas for intensification.
3.2. Manage urban growth and create a balance between urban development and environmental protection	<ul style="list-style-type: none"> Identifies the key challenges in terms of the natural environment and managing urban growth within the district. Spatial concepts and structuring elements include: natural assets, development edges, future urban growth areas.
3.3. Build inclusive, integrated and vibrant city	<ul style="list-style-type: none"> Identifies opportunities for integration and improving public environments including opportunities for civic precincts, destination places. Spatial concepts and structuring elements include: civic precincts, destination places, structuring open space and critical public links, integrated settlement patterns.
4. SPATIAL DEVELOPMENT PLAN: DISTRICT DEVELOPMENT GUIDELINES	<ul style="list-style-type: none"> Application of the spatial concepts and structuring elements identified in section 3, to the district. Forms the “broad level” guide to the desired future spatial form of the district and is supplemented by more detailed “sub-district land use guidelines” in section 6.2. Guidelines are grouped into 5 sections.
4.1. Spatial planning categories	<ul style="list-style-type: none"> This includes development guidelines at a broad district scale for the major land areas in the district (e.g. natural, agricultural and urban areas). The categories are aligned to those adopted by the PSD and CTSD.
4.2. Transport infrastructure and route designation	<ul style="list-style-type: none"> Provides direction to the desired positive functioning of land use / transport network to support the public transport network and the accessibility of social and economic opportunities in the district.
4.3. Conceptual designations	<ul style="list-style-type: none"> Provides broad guidance in relation to spatial concepts that are not precisely spatially defined at the district scale. (e.g. urban nodes, civic precincts, destination places). Land use and form implications may be detailed through local area plans.
4.4. Development edges	<ul style="list-style-type: none"> Provides direction to urban growth in relation to the definition of development edges in the district.
4.5. Precautionary areas and utility service infrastructure installations and networks	<ul style="list-style-type: none"> Provides development guidance in relation to areas which may present a risk or limits land use or activities in the district (e.g. flood prone areas, buffers associated with noxious uses).
5. ENVIRONMENTAL MANAGEMENT FRAMEWORK (EMF)	<ul style="list-style-type: none"> Provides support mechanism (inclusive of spatial development plan: district development guidelines) in review of development applications..
5.1. Environmental Impact Management Zones (EIMZs)	<ul style="list-style-type: none"> Provides a summary of status, environmental management priorities for environmental attributes. Based on environmental attributes, describes EIMZs, which provide an indication of possible impacts of activities on environmental attributes.
6. IMPLEMENTATION	<ul style="list-style-type: none"> Provides guidance in terms of actions required to implement the proposals contained in the spatial development plan.
6.1. Urban restructuring and upgrading: framework for capital investment	<ul style="list-style-type: none"> Provides an informant to aligning spatial planning (including new development areas and areas for land use intensification) with service and infrastructure planning. Identifies sector specific proposals (capital investment framework) in support of the spatial development plan (including for example new transport links, areas for public space investment, publicly assisted housing, new district scale open space proposals).
6.2. Sub-district development guidelines	<ul style="list-style-type: none"> Supplements the spatial development plan: district development guidelines with more detailed “sub-district development guidelines” that provide further direction in terms of achieving desired spatial form at a local level. Reference is made to where more detailed local area plans exist and will continue to

	provide guidance to decision making.
6.3. Local area planning priorities	<ul style="list-style-type: none"> Identifies key local area planning priorities for the district where further work is required along with lead actions and role players.

REFERENCE GUIDE TO ENVIRONMENTAL MANAGEMENT FRAMEWORK (EMF)*:

Content elements	Guide to location of content in the district plan
<ul style="list-style-type: none"> Identification of the area to which EMF applies An indication of the conservation status of the area 	<ul style="list-style-type: none"> Baseline information and analysis report: Section 2.1
<ul style="list-style-type: none"> A description of how information was captured; Identification of information gaps 	<ul style="list-style-type: none"> Baseline information and analysis report: Section 1 Baseline information and analysis report: Section 1
<ul style="list-style-type: none"> Specification of the environmental attributes in the area as well as parts of the area to which attributes relate Interrelationship and significance of the attributes; 	<ul style="list-style-type: none"> Baseline information and analysis report: Section 2.1 – 2.3 Summarised in Technical report: Section 5.2
<ul style="list-style-type: none"> Development pressures and trends; opportunities and constraints 	<ul style="list-style-type: none"> Baseline information and analysis report: Section 2.4. (see also section 3)
<ul style="list-style-type: none"> Description of the environmental (management) priorities in the area 	<ul style="list-style-type: none"> Baseline information and analysis report: Section 2.4 Summarised in Technical report: Section 5.2
<ul style="list-style-type: none"> Information on activities that would have a significant impact on those attributes and those that would not Information on activities that would be undesirable in the area or specific parts of the area 	<ul style="list-style-type: none"> Technical report: Section 5.2
<ul style="list-style-type: none"> Management proposals and guidelines 	<ul style="list-style-type: none"> Technical report: Section 5.2 (see also section 4 and section 6.2)
<ul style="list-style-type: none"> The desired state of the environment 	<ul style="list-style-type: none"> Technical report: Section 4 (see also section 3)
<ul style="list-style-type: none"> Revision schedule for the environmental management framework 	<ul style="list-style-type: none"> Technical report: Section 1.6
<ul style="list-style-type: none"> A description of the public participation process including issues raised by I&APs 	<ul style="list-style-type: none"> Technical report: Section 1.5 Baseline information and analysis report (annexure)

The EMF is an integrated though distinguishable component of the district plan. For ease of reference the table indicates how the EMF is structured across the district plan product.

ACRONYMS AND ABBREVIATIONS

Acronym	Abbreviation
CBA	Critical biodiversity area
CBD	Central business district
CESA	Critical ecological support area
CMA	Cape Metropolitan Area
CSDF	City Spatial Development Framework
CoCT	City of Cape Town
CTIA	Cape Town International Airport
CTZS	Cape Town Zoning Scheme
DSDP	District Spatial Development Plan
du/ha	dwelling units per hectare
EIMZ	Environmental Impact Management Zone
EIP	Environmental Implementation Plan
EMP	Environmental Management Plan (in terms of Section 11 of NEMA)
EMF	Environmental Management Framework
GIS	Geographic Information System
ICT	Information communication technology
IDP	Integrated Development Plan (in terms of the MSA)
IDZ	Industrial development zone
IEM	Integrated environmental management
IRT	Integrated rapid transit
ITP	Integrated Transport Plan
LGTA	Local Government Transition Act
LUMS	Land use management system
LUPO	Land Use Planning Ordinance (No. 15 of 1985)
MSA	Municipal Systems Act (No 32 of 2000)
MSDF	Metropolitan Spatial Development Framework
NEMA	National Environmental Management Act (No 107 of 1998)
NLTA	National Land Transport Act (No 5 of 2009)
NHRA	National Heritage Resources Act (No 25 of 1999)
NMT	Non-motorised transport
NSDP	National Spatial Development Perspective
OESA	Other ecological support area
PGDS	Provincial Growth and Development Strategy
PIIF	Public Infrastructure Investment Framework
POS	Public open space
PSDF	Provincial Spatial Development Framework
PTP	Public Transport Plan
SANRAL	South African National Roads Agency Ltd
SAHRA	South African Heritage Resources Agency
SDF	Spatial Development Framework
SDP	Spatial Development Plan
SMME	Small, medium and micro enterprises
TPC	Town-planning compliant
UDZ	Urban development zone
VPADD	Voluntary proactive deal driven
WSUD	Water-sensitive urban design

TERMS AND DEFINITIONS (A-Z)

Term	Definition
Accessibility grid	The grid of structuring routes (development and activity routes and activity streets) that facilitates convenient public transport access and multidirectional movement between the district and other parts of the city and within the district .See also section 3.1.3
Activities	In the context of the development guidelines (section 4), refers to the use of land or pursuits in particular locations that may be related to projects or programmes.
Activity route	See section 3.1.3
Activity street	See section 3.1.3
Aquifer	Area identified as reflecting physical extent of a water-bearing layer of soil, sand, gravel, or rock that will yield significant usable quantities of water.
Biodiversity network	Biological wealth of a specified geographical region: including the different marine, aquatic and terrestrial ecosystems, communities of organisms within these, and their component species, number and genetic variation.
Buffer 1 and 2 areas	See section 3.2.3
Cemetery	A place for the burial of human remains, and may include ancillary buildings such as an office and chapel, but does not include a crematorium.
Civic precinct	Concentration of public facilities (e.g. schools, clinics, library) located in close proximity. See also section 3.3.3
Coastal edge	Demarcated area around the coast, primarily to protect coastal resources, and avoid hazards and financial risks pertaining to areas at risk of flooding
Coastal node	Concentrated development at a specific coastal location.
Connector route	See section 3.1.3
Core 1 and 2 areas	See section 3.2.3
Critical biodiversity areas	Critical biodiversity areas are terrestrial and aquatic features in the landscape that are critical for conserving biodiversity and maintaining ecosystem functioning.
Critical ecological support area	Natural and rural areas with biodiversity importance which are essential for management consolidation, connectivity and viability of biodiversity in CBAs and protected areas.
Critical public link	Route link / public access that does or should serve to provide access to destination places and/or is associated with a existing or potential positive experiential quality relating to the surrounding environment along its length.
Cultural landscape	Sites and landscapes of historical significance, areas of scenic beauty and places of spiritual and/or cultural importance.
Destination place	A place that forms a significant landmark or area of attraction and is part of the unique identity of Cape Town. Due to these qualities, these places hold potential for exploiting economic opportunities particularly in relation to their role as destinations for locals and tourists.
Development corridor	See section 3.1.3.
Development edge	A demarcated edge line defining the outer limits of urban development for a determined period of time; there are two types of edge lines, namely urban edge lines and coastal edge lines, - the former being a medium- to long-term edge line, where the line has been demarcated in a position to phase urban growth appropriately, or to protect natural resources.
District plan	Document which includes integrated District Spatial Development Plan (DSDP) and Environmental Management Framework (EMF)
District spatial development plan	Document of which sections 4 and 6.2 feature as statutory components in terms of section 4(10) of LUPO.
Flood prone areas	Areas that are susceptible to inundation by a specific recurrence interval flood (e.g. a 1:100 year flood) which must be managed in terms of catchment management policies and by-law.
50yr flood line	Line to which flooding is likely to occur on average once every 50 years.
100yr flood line:	Line to which flooding is likely to occur on average once every 100 years.
Gap housing	Housing for households with a monthly income that fall outside the government housing subsidy income limit and find it difficult or are unable to access finance for housing in the private market (as their income is below the minimum typical income which would allow them to qualify for a conventional mortgage loan).
Inclusionary housing	Used to describe the inclusion (preferably on site) of residential units targeted at the gap and/or rental (social housing) market as part of the development of new areas. Where contextually appropriate and feasible, a subsidy housing component may be targeted.
Incremental densification	Small-scale densification that is almost invisible, e.g. subdivisions and second dwellings.
Inclusionary housing	Used to describe the inclusion (preferably on site) of residential units targeted at the gap and/or rental (social housing) market as part of the development of new areas. Where contextually appropriate and feasible, a subsidy housing component may be targeted.
Industrial development	Allows for all forms of industrial uses, except noxious industries. Allowance is made for limited forms if non-industrial activity such as a factory shop, service station, motor repair garage,, but these activities should not compromise the general use of the industrial area.
Informal	Settlement area consisting of informal structures, the occupants of which may or may not have

settlement	rights to the property or land upon which they reside.
Land use intensification	Refers to achieving a greater spectrum of mixed uses (commercial, industrial and residential) through the increased use of space, both horizontally and vertically, within existing areas or properties and new developments, accompanied by an increased number of units and/or population thresholds, in accessible, high-opportunity locations.
Metropolitan park	Park of landscaped / maintained open space with recreational facilities or an aspect of special interest which serves the needs of the metropolitan community. Generally significant in size and tend towards being large-scale multi-functional parks. Likely to be integrated with other large scale public facilities such as formal sports fields or with natural areas or including natural features such as a river or water body.
Mixed land use	Area of existing or proposed horizontal and/or vertical integration of suitable and compatible residential and non-residential land uses within the same area or on the same parcel of land; implies contextually-appropriate intensity of land use that should facilitate efficient public transport and a vibrant local urban environment.
Metropolitan open space system.	Inter-connected and managed open space network that supports interactions between social, economic and ecological activities, sustaining and enhancing both ecological processes and human settlements; includes natural areas, and active and passive recreation areas such as sports fields and parks, but also cemeteries, detention ponds servitudes, river corridors and road reserves to promote interconnection and multi-use.
Mobility	The ease with which people can travel with minimal delay on route.
Multi-functional	The combination of different yet compatible functions within one physical framework to serve a variety of social and community groups; allow for a wider range of facilities that reinforce one another in close proximity, offering greater access to potential users. Differentiation in activity may be physical (different activities on different floors or premises of the same building) or in time (using the same facility for different activities, but at different times).
New development area	An area earmarked for future development.
Nodal development	Significant and concentrated development in terms of scale, location, impact, diversity and agglomeration of function (facilities, services and economic activities).
Non-motorised transport	Transport modes which are not motorised (e.g. walking and cycling).
Risk activity / noxious industry	Comprises hazardous and noxious land uses in terms of smell, product, waste or other objectionable consequences of operation, or that carry a high risk in the event of fire or accident.
Other ecological support area	Transformed (e.g. extensive agriculture) sites with conservation importance.
Other structuring open space	Open space which is not part of the biodiversity network or significant agricultural areas, but has been identified to promote access to open space for active and passive recreation. Whilst the focus is on areas that usable and accessible for most of the year, the identification has included cemeteries, detention ponds, servitudes, river corridors and road reserves in order to promote the notion of a linked open space system.
Overlay zone	A category of zoning applicable to a particular area or land unit which: (i) stipulates development rules in addition to the underlying zone or base zone requirements, which may be more or less restrictive; (ii) may include provisions and development rules relating to primary uses additional uses or consent uses, limitations in addition to the underlying base zone, subdivision and subdivisional areas, special planning areas, development incentives, urban form, urban renewal, heritage and environmental protection, etc.
Potential high density development	Area proposed for new higher density development where the gross density should average 40+ du/ha. The achievement of this target could occur via a range of housing typologies and varying net densities across the area. The development of required community facilities and open space should be addressed as part of the development of this area. Controlled opportunities for home employment and low intensity mixed use development could be considered in these areas.
Potential medium density development:	Area proposed for new medium density development where the gross density should average 25-40du/ha du/ha. The achievement of this target could occur via a range of housing typologies and varying net densities across the area. The development of required community facilities and open space should be addressed as part of the development of this area. Controlled opportunities for home employment and low intensity mixed use development could be considered in these areas.
Potential low density development	Area proposed for new lower density development where the gross density could average 10-25du/ha. The achievement of this target could occur via a range of housing typologies and varying net densities across the area. The development of required community facilities and open space should be addressed as part of the development of this area. Controlled opportunities for home employment, additional dwellings and low intensity mixed use development on could be considered within these areas.
Public transport interchange	Public transport interchange which supports the transfer of public transport users between modes (rail/bus/taxi), but also functions to support economic activity.
Publicly assisted housing	The realisation of a range of housing opportunities, formal or informal, that the public sector plays a role in providing or supporting through its housing programmes.
Railway station upgrade	Upgrading of the physical station buildings and / or station environment. This could include the development of station forecourts, public access and landscaping intervention.

Rural living estates	Extensive land units (ranging in size) located inside the urban edge.
Scenic routes (SR1 and SR 2)	Public roads that traverse areas of outstanding scenic quality or that provide a view of scenic areas. Scenic routes facilitate appreciation of Cape Town's natural, built and cultural heritage, and in themselves have become attractions. Two types of scenic routes exist – SR1 routes, which are limited access routes that traverse areas of high scenic quality and SR2 routes which traverse areas of high scenic quality and are frequently accessed.
Smallholdings	Extensive land units (ranging in size) located outside the urban edge
Spatial concept	A concept used to describe a particular set of spatial features (e.g. urban node, civic precinct).
Strategic site	A land parcel or group of land parcels which due to its/their location or other unique attributes holds the potential to impact significantly on planning policy objectives such as densification and integration and in so doing make a significant contribution to restructuring the city.
Structuring element	Spatial aspect that provides structure or form to urban development (e.g. a main road provides structure to which land uses respond).
Subsidised housing	Housing supplied in terms of the National Department of Housing's housing subsidy scheme.
Transit station area	Refers to the areas that support transit (public transport) stations (including rail stations and trunk, road based IRT stations). These supportive areas are conceptually defined in the district plan, but are generally within comfortable walking distance of these stations (i.e. +/- 800m). Transit stations are categorised in the district plan (e.g. neighbourhood station / urban station), which provides an informant to potential development opportunities / desired land use mix in the supportive areas and which should be further defined and detailed at the local area level.
Urban civic upgrade	An area where public investment and/or improved urban management is required as a precondition for an improvement in the local social and economic conditions. These areas are generally strategically located to ensure that public investment has the greatest impact on the most number of people.
Urban development	Buildings and infrastructure with a residential purpose as well as offices, shops, community facilities and other associated buildings, infrastructure and public open space necessary to provide for proper functioning of urban areas and amenity and recreation. The term 'urban development' includes golf estates, vineyard estates with a residential component, equestrian estates with a residential component, rural living estates, eco-estates, gated communities and regional shopping centres. Urban development excludes noxious industry and generally excludes land for industrial purposes. However, service trades which are compatible with mixed- use development that generate a low impact on surrounding urban uses may be permissible if the nature and type of industry are deemed to form an integral part of an area demarcated for urban development purposes.
Urban edge	See development edge.
Urban edge management zone	Zone or buffer area on either side of the urban edge, where land uses are to be managed to protect the integrity of the urban edge line.
Urban node	Area characterised by the intensity, mix and clustering of activities/land uses (including commercial/business development and associated employment opportunities, higher-order services and higher residential densities). See also section 3.1.3.
Zoning	A category of directions setting out the purpose for which land may be used and the land use restrictions (e.g. height limits, building lines, bulk, coverage) applicable in respect of the said category of directions by the scheme regulations.

ANNEXURES

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Annexure B	Relevant legislation and policies per environmental impact management (EIM) zone
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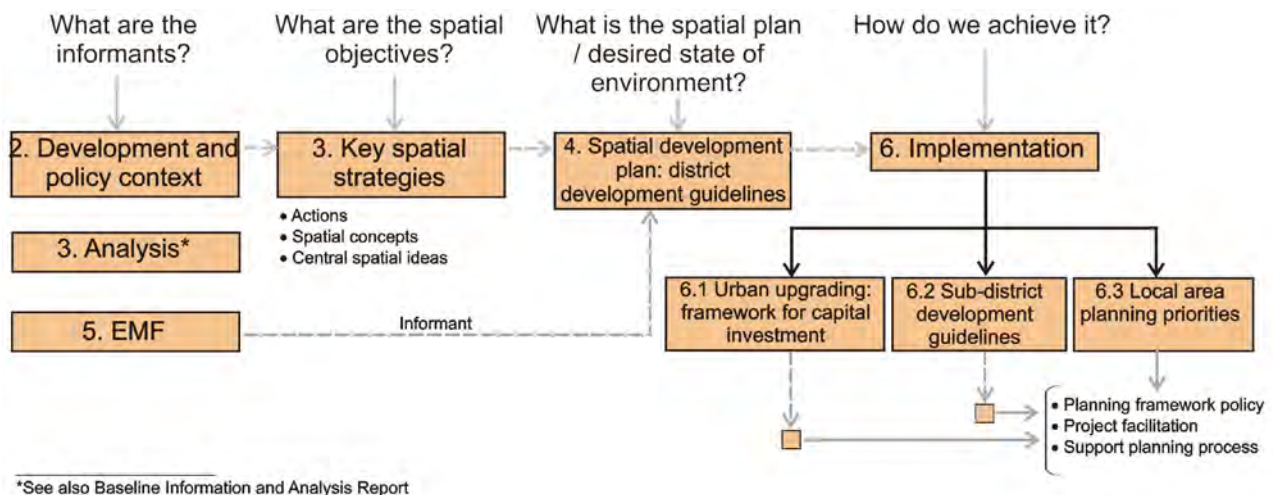
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1. INTRODUCTION

This district plan forms one of 8 plans developed for each of the planning districts of the City of Cape Town (CoCT), all of them informed by the city-wide Cape Town Spatial Development Framework (CTSDF). Whilst this plan is grounded in a sense of the current realities in the district, its focus is influencing the future today. In doing so it needs to have relevance to a wide range of stakeholders including communities and interest groups, the drivers of development and regulatory decision makers who all play a role in shaping urban development. As such the plan comprises of a number of elements, which include a discussion of the context and informants to the plan, the objectives of the plan, the plan itself and associated development guidelines and related to this, a set of implementation tools that are targeted at taking the broad proposals of the plan to a greater level of detail and action. To assist users of the plan, the diagram below summarises its contents.



Note:

- This district plan has been informed by a Baseline Information and Analysis Report prepared separately. It is used as an information source and it is not intended that this separate report be consulted for statutory decision making processes.
- The “district plan” is the term given to the integrated “structure plan” or spatial development plan (SDP) and environmental management framework (EMF) as contained in this document.

1.1 Purpose

The District Plan is a medium term plan (developed on a +/- 10 year planning frame) that will guide spatial development processes within the district. It will pursue the several strategic actions including:

- Aligning with and facilitating the implementation of the Provincial Spatial Development Framework (PSDF), Cape Town’s Integrated Development Plan (IDP) and Cape Town Spatial Development Framework within the district;
- Performing part of a package of decision support tools to assist in land use and environmental decision making processes;
- Delineating fixes and sensitivities which will provide an informant to such statutory decision making processes;
- Clearly giving direction to the form and direction of areas for new urban development in the district in a manner that is in line with the principles and policies of higher level planning frameworks;
- Providing a basis for land use change within the existing footprint at well as strategic public and private investment initiatives which will assist in achieving the principles and policies of higher level planning frameworks;

- Informing the development of priorities for more detailed local area planning exercises and frameworks that should provide detailed guidance to land use management and public and private investment.

1.2 Towards a rationalised policy-drive land use management system

The City's current planning framework comprises outdated plans with inconsistent status and conflicting development objectives. The City is updating and rationalising all aspects of the current planning framework guided by the relevant legislative and policy development environment. These initiatives promote a more responsive, flexible and policy-driven approach to land use management, in which a broader range of instruments and policies set the guidelines against which all land use decision-making takes place. The District Plan is one of the tools for evaluating applications for new or enhanced land use rights. The hierarchy and role of plans, policies and guidelines that form the cornerstone of the rationalised, policy-driven LUMS are outlined in Table 1.1.

Table 1.1: Hierarchy of spatial plans and policies

Spatial plan/ policy	Purpose	What it is replacing/ adding to	Who approves	Legislation/ policy guiding approval
CTSDF	Long-term (20+ years) citywide spatial structuring elements and plans, and overarching policy framework	Guide Plans (citywide), Metropolitan Spatial Development Frameworks and sub-regional plans approved in terms of Section 4(6) of LUPO	Province Council	MSA LUPO (Section 4(6))
District SDP	Medium-term (± 10 years) district-level spatial development plans which indicate land uses in new development areas, and upgrade interventions	Selected district and local structure plans approved in terms of LUPO and policy plans of district and sub-district significance.	Council	LUPO (Section 4(10)) – provision on the lapsing of structure plans after a specified time frame City's system of delegations
Environmental Management Frameworks	Environmental Impact Assessment and review of development applications.	First EMF for the district	DEA&DP with the concurrence of DWEA	GN 547 of 18 June 2010 under the NEMA and draft EMF guidelines
Local Development Plans	Detailed SDF related to, for example, the management of land uses and detailed local-level planning such as density plans.	Selected local structure plans approved in terms of LUPO and policy plans of local significance.	Council	LUPO (Section 4(10)) City's system of delegations
Strategy/policy documents	Detailed issue/land use-specific policy parameters that should determine land use decisions, such as densification, urban edge, and guest houses and bed and breakfast (B&B) policy	Will replace or complement existing policies	Council	City's system of delegations
Development guidelines	Detailed guidelines that should inform land use decisions, such as fire protection guidelines and urban design guidelines (for example tall buildings	Will replace or complement pre-existing guidelines	Council	City's system of delegations

Spatial plan/ policy	Purpose	What it is replacing/ adding to	Who approves	Legislation/ policy guiding approval
	guidelines)			

The CTSDF has initiated the process of rationalisation of spatial plans and policies by replacing the Guide Plans (Urban Structure Plans), where relevant, and previous metropolitan level planning frameworks. The District Plan will further contribute to the rationalisation of spatial plans through replacing selected s4(10) and City approved spatial plans of relevance to district planning.

Central to policy rationalisation efforts will be the **retention of a number of local development plans and policies that continue to provide direction** to development in parts of the metropolitan area. These will be reviewed over time and supplemented by new local plans in areas that are selected as priorities for local area planning initiatives. Selected local development plans and policies that will continue to provide direction are listed, where relevant, in relation to the sub-district development guidelines (see section 6.2) of the district plan.

1.3 Legal status of the district plan and the consistency principle

The district plan consists of two components, a Spatial Development Plan (SDP) and Environmental Management Framework (EMF) developed in terms of separate pieces of legislation:

- The “Spatial Development Plan” (SDP) term has been used to differentiate it from the Cape Town Spatial Development Framework. It is however regarded as a structure plan as provided for in terms of section 4(10) of the Land Use Planning Ordinance (LUPO) of 1985 and/or the equivalent as provided for in terms of any subsequent legislation that may replace LUPO.
- The Environmental Management Framework has been developed in compliance with the requirements of the National Environmental Management Act (NEMA) Action 107 of 1998 and regulations pertaining to environmental management frameworks promulgated under sections 24(5) and 44 of the said Act.

The statutory components of the District Spatial Development Plan in terms of section 4(10) of LUPO include:

- Section 4: Spatial Development Plan: District Development Guidelines and the accompanying Spatial Development Plan
- Section 6.2: Sub-district development guidelines and accompanying sub-district plans

The request for deviation from the spatial development plan will therefore only relate to cases in which the City of Cape Town deems there is a conflict between a development proposal and the statutory components of the SDP. The other maps, figures and text in the district plan are included for illustrative purposes and are intended to broaden the general understanding of the SDP and act as informants to the interpretation of the statutory components of the SDP. The preparation of local development plans and the assessment of development applications should therefore be guided by due consideration of these informants when interpreting the statutory components of the plan.

As specified in terms of section 5(3) of LUPO, neither the CTSDF, nor the district spatial development plan will confer or take away rights in terms of land. No guidelines or policies or any other provisions in respect of land designation that result from the CTSDF or district plan shall create any rights or exempt anyone from their obligations in terms of any other legislation.

With regard to the EMF, no provision in law is made for its amendment or for deviation processes. It must, however, be taken into account in the consideration of applications for environmental authorisation in or affecting the geographical area to which the framework applies. (see regulations

pertaining to environmental management frameworks under sections 24(5) and 44 of the National Environmental Management Act, 1998, (Act No. 107 of 1998).

1.3.1 Determining consistency with structure plans

Determining policy compliance and measuring consistency between plans.

In line with the consistency principle and hierarchical system of plans, a development proposal (or proposal contained in a lower-order framework plan) must be measured for consistency against the statutory components of the PSDF the CTSDf. The findings of such an assessment must be weighed as follows:

1. The statutory designation and/or text of the CTSDf provides for the proposal (and is generally in line with land development proposals);
2. The statutory designation and/or text of the CTSDf does not explicitly provide for the proposal; but on the other hand, the proposal is not necessarily clearly in conflict with the intent and purpose of the designation and/or text concerned;
3. The proposal is in conflict with the statutory designation and/or text of the PSDF or CTSDf.
4. The proposal is in conflict with the statutory designation and/or text of the District SDP and / or any other structure plan in terms of s4(10) of LUPO or City of Cape Town approved local development plans / land use policies.

These four initial findings lead to different planning and procedural outcomes, respectively:

- In the case of (1), the proposal is considered to be policy compliant and evaluated further, without any further action in terms of the framework or plan against which the proposal was measured;
- In the case of (2), a consistency ruling must be made. If it is positive, the development proposal can be further evaluated or considered;
- In the case of (3), consideration may be given to amending the framework or plan against which the proposal was measured as provided for in terms of Section 34(b) of MSA and Section 4(7) of LUPO (or subsequent provisions in legislation, which may replace it). The amendment of the impacted framework or plan should occur prior to or simultaneous with any other applications in terms of LUPO. Should this amendment not be approved, the proposal is not supported and may not go ahead.
- In the case of (4), the City of Cape Town can consider condoning a deviation from the approved policy. This deviation should be fully motivated as part of any LUPO or building plan applications that may be required. A guide is provided to inform the approach to considering these deviations. (see second note below).

Note: The hierarchy of plans and the consistency principle

- In terms of the consistency principle lower order spatial plans and policies must be consistent with higher order spatial plans and policies.
- The CTSDf is deemed to be consistent with the PSDF. Should the provisions of plans of a lower order in the hierarchy (including local scale structure plans) be deemed to be inconsistent with the CTSDf, the CTSDf will take precedence.
- The district spatial development plan, as a structure plan in terms of s4(10) of LUPO is deemed to be consistent with the CTSDf. Should the provisions of plans of a lower order in the hierarchy be deemed to be inconsistent with the district plan, the district plan will take precedence.
- In cases where an amendment of the CTSDf is approved, a simultaneous amendment to the district spatial development plan will be deemed to have been affected.

Note: Guide to considering deviations from the district plan

If no amendment to the CTSDF is required, but the findings of the assessment of an application trigger 4 (see above), a deviation from the district spatial development plan (relating specifically to the statutory components of the district spatial development plan) could be considered.

Should a deviation from policy be determined to be necessary, this should be advertised as part of the land use application. The assessment of a deviation from the district plan, should be integral to the LUPO process (i.e. consideration of LUPO applications such as rezoning). In relation to considering deviation from the district plan, reflection on the desirability of the proposed development (as specified in LUPO or replacement legislation), along with any possible negative impacts should be considered in the context of, but not limited to:

- The provisions of relevant legislation and higher order planning policy principles;
- Whether the proposal supports broader city planning imperatives including the CTSDF spatial development principles and strategies and city wide planning policies (e.g. policies relating to densification);
- Whether the proposal, in terms of proposed use and development form, supports the overall goals for the local area in which it is proposed, as reflected by City of Cape Town policy (e.g. local area spatial development frameworks);
- Whether the proposed land use reflects general compatibility or appropriateness within the surrounding land use context;
- The extent of any negative impacts on safety, health and well-being of the local community that may be affected and the degree to which these can be mitigated against.
- The extent of opportunity costs in terms of considerations of the highest and best use of the site(s) in question.
- Whether there are likely to be unacceptable impacts on the environment;
- Any changes in underlying context (e.g. environmental features) or new information which potentially support a different view of development suitability (as may be reflected in the district plan) at the location in question.
- Whether the land use is appropriate to occur in the proposed location at this point in time (i.e. a timing consideration related to growth informants, for instance the availability of bulk services).

1.3.2 Relationship between the SDP and EMF

The EIA regulations promulgated in terms of NEMA provide for the development of EMFs, which are intended to inform planning and environmental management. The various components of the EMF (as required in terms of the NEMA regulations) are spelt out in the reference guide in the front of the district plan.

The CoCT has integrated an EMF into each of the SDPs in order to ensure that the EMF effectively informs and responds to the planning context. The broad objectives of the EMF are:

- To inform and guide spatial planning in the district;
- To assist in facilitating investment;
- To function as a support mechanism in the environmental impact assessment process in the evaluation and review of development applications, as well as making strategic informed decisions regarding land use planning applications (as an integral part of the District Plan);
- To guide sustainable development in the area and determine the environmental management priorities; and
- To provide support to the process of delineating geographical areas within which specified activities are to be identified (or excluded from those listed) in terms of NEMA based on sensitivity of the environment to the potential impacts.

The EMF is developed as an input to the Spatial Development Plan, whilst also having some overlapping components. This should not create confusion or a basis for misalignment as:

- the proposals of the SDP (specifically the spatial development plan: district development guidelines, section 4) are also regarded as the “desired state of environment” (fulfilling the requirement for such a component of an EMF in terms of NEMA);

- the area / activity suitability matrix reflected as EIMZs should be read as an informant to section 4 (the spatial development plan: district development guidelines / EMF desired state of the environment) rather than a stand-alone component of the district plan.

In a limited number of cases, there are instances where significant environmental attributes are potentially impacted by the development proposals in the spatial development plan. These areas of impact are identified as part of the EMF in section 5. Development proposals in these areas would be evaluated as reflected in section 1.3.1 and would be subject to normal statutory processes where required in terms of LUPO, NEMA or other relevant legislation. Furthermore, a set of principles are proposed to guide the manner in which these “areas of potential impact” are addressed. These are included as Annexure A.

1.4 Alignment with Cape Town Zoning Scheme

The district plan offers a broad level of guidance to decision making at the district scale with supplementary guidelines at a sub-district level. In many cases, there will be a need to develop policies and plans at a greater level of local detail that provide further direction to land use management decision making. As part of these local area planning initiatives, a number of potential products may be developed (e.g. local area structure plans or spatial development frameworks or plans, densification plans, urban design frameworks).

In addition to these policy and guideline tools, and with the approval of the Cape Town zoning scheme, the concept of overlay zones is introduced. A number of these overlay zones will be put in place with the promulgation of the CTZS. An overlay zone may be imposed if it complies with the rules set out in the CTZS, and, as the City aims to establish a policy-driven LUM system, it must as far as possible be preceded by local planning policies. The development or updating of such local planning policies, may be motivated and prioritised through the district plan process. Overlay zones are thus not developed as part of the district plan itself. The introduction of overlay zones is not an inevitable consequence of local area planning initiatives, but needs to be considered carefully, based on the strength of individual motivation around the need for (more or less restrictive) development rules in addition to the underlying zone or base zone requirements. Overlay zones are a tool that would be employed on an exceptional basis, when it is critical and strategic that actual land use rights are managed to achieve the vision for Cape Town.

1.5 Overview of the District Plan drafting process

The drafting of the district plan has been undertaken in line with the legislative requirements of LUPO as well as NEMA. The district plan has also been the subject of a process of internal engagement within the City of Cape Town. A rigorous and inclusive public engagement process is critical for the successful preparation of the district plan(s) and as such has included three phases:

- **Phase 1:** In February 2008, the City initiated the first phase of the public engagement process in its 23 Subcouncil areas. The purpose was to launch the process; create a sense of public / stakeholder ownership of and involvement in the process; to elicit stakeholder views on the development issues facing Cape Town and also to identify the principles and strategic goals that should guide the preparation of the district plan (and CTSDP).
- **Phase 2:** The aforementioned engagement informed the preparation of the draft district plan(s) circulated for public comment between August 2009 and November 2009. The purpose of this round of engagement was to table and discuss the proposals contained in the draft district plan(s) including the integrated EMF and SDP.
- **Phase 3:** A final draft for public engagement was undertaken in 2011. This round of engagement was aimed at allowing for comments on the amended draft district plan(s), following which the final draft district plan has been submitted to Council structures for approval. The EMF (as a component of the district plan) is submitted to the PGWC, (who have been granted concurrence of National government) for approval.

1.6 Review of the District Plan

It is envisaged that the district plan will be reviewed on a 10 year basis and should thus fulfil the need for a sense of continuity and predictability, however, within that period there are likely to be components of the district plan that will require amendment or review as summarised below.

Table 1.2: Schedule for review of the district plan

Component of district plan	Scope of review	Period
District plan (SDP and EMF)	Comprehensive	10 years
Spatial development plan: district development guidelines	Limited, focussed on urban edge line.	5 year basis to coincide with review period for urban edge line.
EMF (EIMZ)	Limited to components that are potentially dynamic (e.g. biodiversity network)	5 year basis (may be updated more frequently)
Urban upgrading plan / framework for capital investment	Comprehensive	5 year (if required)
Local area planning priorities	Comprehensive	5 year (may be updated more frequently as progress made with local area planning initiatives)

The district plan could also be the subject of amendment as contemplated under section 4(7) of LUPO should this be necessary on a basis other than specified above.

1.7 Study area

The Northern District comprises of the jurisdictional area of the City of Cape Town, east of the N7, and include the area north of the N1 and east of the R300. The District include the areas of Bellville north of the N1, Durbanville, Kraaifontein, Brackenfell, Fisantekraal as well as the rural settlements of Klipheuwel, Mikpunt, Joostenbergvlakte and Philadelphia (See plan for Study Area).

2. DEVELOPMENT AND POLICY CONTEXT

2.1 Legislative context

The district plan which forms a structure plan in terms of the Land Use Planning Ordinance and an EMF in terms of NEMA has also aligned with the requirements of legislation including:

- Municipal Systems Act (No 31 of 2000) and municipal planning and performance management regulations (2001). The district plans compliment and support the Cape Town SDF which is a central component of the IDP in terms of the Act. They provide guidelines for land use management and inform a Capital Investment Framework;
- Development Facilitation Act (no 108 of 1996): its principles apply in the Western Cape and have informed the preparation of the CTSDf and District Plan;
- National Environmental Management Act (107 of 1998): it has informed the preparation of the district plan and specifically the EMF component;
- National Environmental Biodiversity Management Act (Act 10 of 2004);
- National Heritage Resources Act (Act 25 of 1999);
- National Land Transport Act (Act 5 of 2009);
- Land Use Planning Ordinance (No 15 of 1985). Section 4(10) makes provision for the preparation and submission of structure plans to council for its approval. The purpose is to lay down guidelines for the future spatial development of the area to which it relates in such a way as will most effectively promote the order of the area as well as the general welfare of the community concerned.

2.2 Strategy and policy planning informants

2.2.1 National and regional planning informants

The District plan is developed and aligned to the CTSDf and as such is aligned to a range of national and provincial planning informants including:

- The policy directives of the National Spatial Development Perspective;
- Provincial Growth and Development Strategy (2008);
- Provincial Spatial Development Framework (2009).

2.2.2 Metropolitan and district planning informants

The District plan is developed in a manner that is aligned to the CTSDf, seeking to detail its strategies and proposals at the district scale. Proposals regarding land development and public investment in space have thus been informed by:

- The spatial principles reflected in the CTSDf which should be used to guide decisions regarding the future development of Cape Town as reflected in figure on p.12;
- The three spatial strategies of the CTSDf – which have been detailed through the district plan reflected in the table hereunder;
- The spatial development policies and guidelines for land use management as detailed in the CTSDf.

Table: Key CTSDf Strategies to achieve sustainable, equitable and managed growth

Strategy	Sub strategy
PLAN FOR EMPLOYMENT AND IMPROVE ACCESS TO ECONOMIC OPPORTUNITIES: To improve the accessibility of people to urban opportunities, the City must adopt an integrated approach to land use planning, economic development and transport operations. Spatial planning will have a limited impact on economic growth and development	<ul style="list-style-type: none">• Promote inclusive shared economic growth and development• Redress the spatial dislocation between jobs and the population living in the Metro South East Address spatial economic imbalances

<p>unless the key drivers of growth are recognised and land and infrastructure are made available to guide and support economic investment and facilitate specialisation in desirable city locations. To this end, the City must ensure that it remains competitive and capitalises on existing and future sectoral comparative advantages to promote economic integration and efficiency. A clear spatial logic is necessary to inform economic investment and accommodate freight and logistics demands and improves access to economic opportunities.</p>	<ul style="list-style-type: none"> • Establish an integrated city-wide public transport system that supports the accessibility grid • Integrate land use, economic and transport planning. • Support the rationalisation, upgrade and/or development of economic gateways, and manage land uses around the appropriately.
<p>MANAGE URBAN GROWTH AND CREATE A BALANCE BETWEEN URBAN DEVELOPMENT AND ENVIRONMENTAL PROTECTION:</p> <p>To put Cape Town on a more sustainable growth path the City needs to protect and enhance its exceptional natural and rural environments. New urban development should be directed towards locations where its impact on critical biodiversity areas, wetlands and agricultural areas will be minimised. The City needs to promote a compact and efficient form of urban development. Densification must be promoted in appropriate locations in order to improve economies of scale and increase thresholds required for public transport. Urban expansion should be managed and ensure effective and efficient use of the city's resources. Planning decisions must be balanced, weighing the competing and conflicting demands of different interests in order to arrive at an optimum level of consensus to ensure short, medium and long term social equity, economic efficiency and environmental sustainability.</p>	<ul style="list-style-type: none"> • Facilitate urban development • Support incremental development processes • Encourage a more compact form of development • Appropriately protect the citizens of Cape Town from hazardous areas/activities • Appropriately manage urban development impacts on natural resources critical biodiversity networks • Make efficient use of non-renewable resources] • Protect and enhance the city's rural environment
<p>BUILD AN INCLUSIVE, INTEGRATED, VIBRANT CITY: The City must promote integrated settlement patterns in existing and new residential areas to accommodate Cape Town's growing population and redress social and land use fragmentation. An inclusive, integrated and vibrant city requires that basic services, social facilities and public open spaces are available and accessible to everyone. The City needs to promote equal opportunities, improve the quality of living environments, and reduce the levels of crime. Cape Town's heritage must be respected, protected and enhanced and a network of great destinations and public spaces should be established.</p>	<ul style="list-style-type: none"> • Transform the apartheid city • Proactively support publicly-led land reform and new housing delivery • Encourage integrated settlement patterns • Enhance the unique sense of place and quality of built form of Cape Town • Enhance the value of heritage resources and scenic routes • Promote accessible, city wide destination places

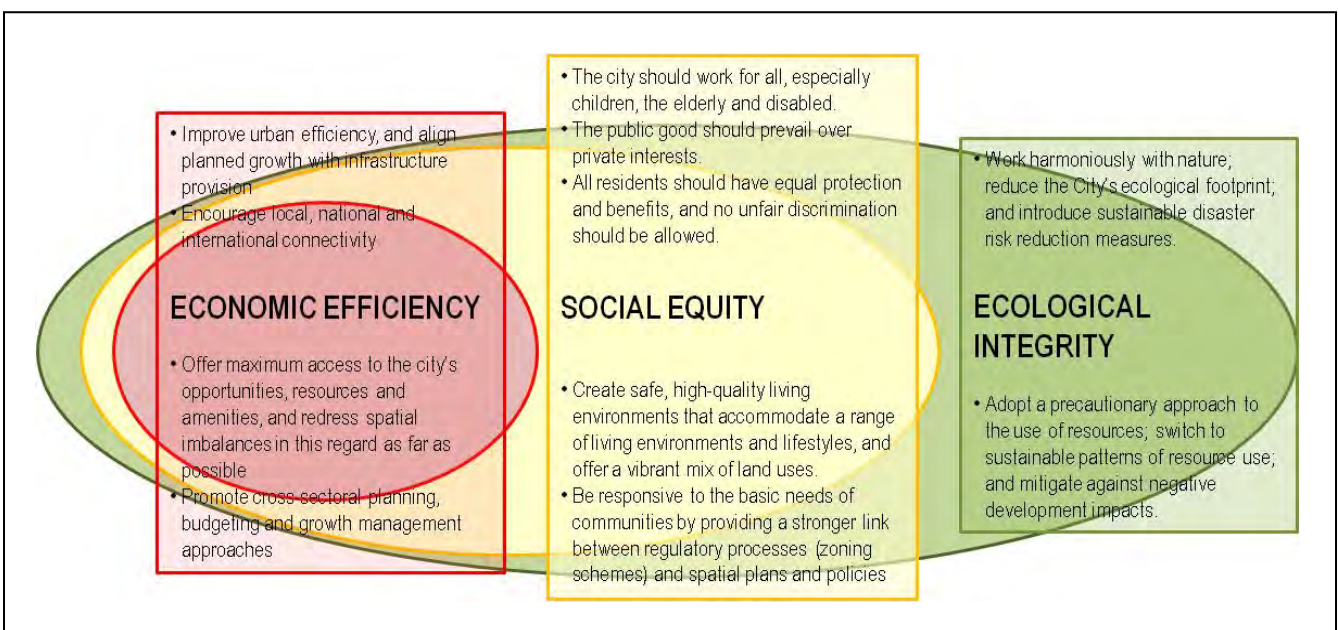
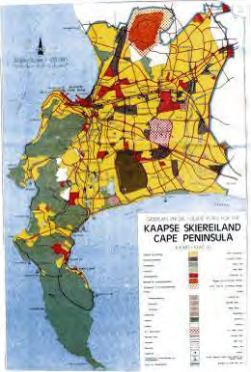


Figure 2.1: PSDF and City Spatial Development Principles

Furthermore, as part of the preparation of the District Plan for the Northern District, several key metropolitan and district level plans have been reviewed and served as informants.

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Plan & Status		Key features	Overview and Directives
Guide plan: Approved by PGWC, 1988		<ul style="list-style-type: none"> Approved LUPO 4(6) plan; Guidelines for location major land uses 	<p>Whilst the metropolitan and district level plans vary in terms of the detail of certain proposals, several themes are consistent including:</p> <ul style="list-style-type: none"> Improving conditions for local economic development and recognising that job creation in this area of the City is critical. Improving environmental quality and rationalising the undeveloped open space. Improving access to public facilities clustering them within nodes close to public transport interchanges.
MSDF redraft: Adopted by Council, 2001		<ul style="list-style-type: none"> Protect natural resources (Urban Edge) Open space system (MOSS) Densification on key public transport routes (Corridors) 	
City SDF:		<ul style="list-style-type: none"> Enhance the accessibility and value of the natural and rural environment and open spaces for the people of Cape Town Establish an integrated grid-based movement system Consolidate and intensify development on the accessibility grid Direct urban growth and promote compact, integrated development Develop more great people places 	

2.2.3 Local Area Plan Informants

In addition to the above district scale policies and plans, there are a number of local area plans that have relevance to the district. These plans have been considered to carry through any relevant and scale appropriate proposals into the district plan. These plans include inter alia:

- Urban Design Framework for Durbanville CBD (Planning Partners, 1999)
- Elsieskraal River Valley (ERV) Contextual Framework

3. KEY SPATIAL STRATEGIES

The District Plan gives effect to the key spatial strategies proposed by the Cape Town Spatial Development Framework at a district scale. These strategies are used as a basis for organising this chapter in relation to four key questions:

- What are the key spatial planning challenges facing the Northern District Now?** Key issues are drawn from the *Northern District Spatial Development Plan: Baseline Document*, which provides detailed information on the state of the district.

2. **What Action is needed to address these challenges?** This includes an articulation of a number of spatial objectives (both in terms of the role of the Northern District in the City and at an intra-district level) which aim to address the key issues identified.
3. **What are the general structuring elements and spatial concepts (spatial building blocks)** proposed by the CTSDf and district plan to contribute to addressing those challenges.
4. Associated with these spatial building blocks, what are the **central spatial ideas** around which proposals for the future spatial development of the Northern District will be built?

The chapter concludes by bringing together the ideas into a spatial vision and a composite spatial concept for the Northern District.

Positioning the Northern District in the context of the CTSDf strategies:

The Northern District is a strategic part of the City as it accommodates an already identified long term growth corridor, i.e. the Kraaifontein North East growth corridor, where adequate land (with limited agricultural- and biodiversity potential is available for integrated housing development. Therefore the opportunity exists to accommodate integrated (inclusive of social and commercial infrastructure) developments at large scale.

The District is also home to a vast hinterland, which comprise of inter alia the Durbanville Winelands, large tracks of land being utilised for wheat farming, as well as smaller settlements which include smallholdings and the Philippi town. The hinterland offers the opportunity to be enhanced by creating opportunities for tourist development, and thereby also increasing the quality of the environment. But, the hinterland is also under immense pressure for development outside of the urban edge, which needs to be managed in a responsible manner.

Although the District accommodates one of the largest commercial nodes in the City, it still lacks employment opportunities for the lesser skilled workforce, which is expected to grow at large scale in the near future.

Vision for the District: A district where opportunities for integrated development are explored and utilised to the fullest, inclusive of the development opportunities for employment centres. Concurrently, effort is made to enhance the quality and opportunities of the existing built environment and rural hinterland in order to develop a district with a unique character (which includes environmental quality).

3.1 Strategy 1: Plan for employment and improve access to economic opportunities

3.1.1 Northern District now

This section identifies the key challenges in respect of the economic activity and employment in the Northern District, giving consideration to the form and functioning of economic activity, the relationship between transport systems and (economic) land use, and reflecting on accessibility of economic opportunities in the district.

A number of challenges present themselves when considering the Northern District in relation to the City of Cape Town as a whole, and include:

- The district accommodates nearly 7% of the city population (in total 315736 people, 2007 figures, estimated) which has grown since 2001 with nearly 34%. The increase can be ascribed mainly to the developments of Wallacedene and Bloekombos. The population which resides to the south of the N1, is more than half of the total population of the district, whilst only taking up a third of the total built-up area. With the identification of the Kraaifontein north east development corridor (in the Cape Town SDF) as future growth corridor, a sharp growth in population will most probably be experienced over the next 5-15 years. It is expected that the majority of people who will reside in the corridor will be of the lower income group. Provision should therefore be made in the planning process to accommodate such expected growth. Most of the economically active people in the district are employed (56,13%), and the district has an unemployment rate of more than 13%. It is argued that the majority of the economically active people are well skilled, and are employed mainly in the Tyger Valley precinct area, the industrial areas and CBD's of Durbanville, Kraaifontein and Brackenfell, or otherwise outside of the district. Although no statistics are available regarding the numbers of employment outside of the district, the traffic volumes during peak hours, utilising the Durban Road, Okavango Road and Old Oak intersections to get on/off the N1 freeway, is a good indicator reflecting that an extensive number of people is employed outside the district.

Acknowledging that, at the level potential oversimplification from a city structural perspective, the City comprises a highly centralised core being served by an ever expanding periphery consisting primarily of low density urban sprawl. This urban form which is considered highly inefficient generates enormous amounts of mono directional movement at great financial, social and environmental cost to the City.

The Northern District falls within the urban periphery where extensive low density residential development has taken place without the required investment in employment creation opportunities being made. The district has been identified as one of the growth areas of the City and the identification of suitable land for industrial/ employment location to serve an ever increasing expanding residential hinterland is of strategic importance if the inefficiencies of the current urban structure are to be counterbalanced.

The concern is that little opportunity for employment is available for the lesser skilled workforce in the district, and therefore employment opportunities must be identified in the district in locations closer to the lower income environments. Cognisance should also be taken of future expected growth in the district, where it is believed that the primary growth will happen in the middle to lower income levels. Failure to provide employment centres where productive employment opportunities can be created will ultimately ensure that poverty, which is one of the main challenges of the City, will not be reduced.

Supporting a polycentric city, within the context of the Northern District, is the only way to address issues of integrated and sustainable development.

- The district includes some of the most important commercial areas in the city. These are mainly located in the south of the district and include the Brackenfell-, Kraaifontein- and Durbanville CBD's, and the Tyger Valley Waterfront and Durban Road precinct. Of these the most significant economic areas in terms of value are Bellville and Durban Road with a turnover of

12,1% of the total. Commercial properties account for 7,4% and industrial properties for 7,9% in terms of property value (in relation to the rest of the city). A large percentage of people within the district that are employed, have to travel outside the district to access employment, which may be afforded by the middle and higher income groups, but not by the lower income sector. Employment opportunities will need to be identified in areas where an increase in population growth is expected and where existing growth is experienced.

- The agricultural economy within the Northern District, largely accommodated within the Durbanville Hills, Klipheuwel area and along the Bottelary Road, is under constant pressure for development, and the contribution it makes to employment, inclusive of the tourist market, should not be underestimated.
- A significant component (whist difficult to quantify) of the economy in areas such as Bloekompos, Wallacedene, Northpine, Scottsville (located south of the N1) is undoubtedly made up of informal economic activity and small business. However, there are significant limitations on small businesses and the informal economy. For example, little provision is made in terms of allocation of appropriate space for informal traders operating at transport interchanges and along activity routes/ streets. Similarly small scale spray painters and panel beaters (among other small business operators) operate out of garages in residential areas rather than within formal business or industrial areas, resulting in conflicting land use relationships, as well as limiting possibilities for business growth.

Within the district, there are also a number of challenges that distinguish some parts of the district from others in respect of accessing economic opportunities and the existing transportation network, including:

- A concentration of established employment centres in the south western portion of the district, associated with north south movement routes such as Durban Road. The larger commercial areas are located along Durban Road/ Carl Cronjé Drive, Wellington Road and Old Paarl Road.
- Whilst emerging economic centres are beginning to gain momentum in the far northern parts of the district, again associated with key north south movement (Klipheuwel Road and Okavango Road) routes such as the Fisantekraal Industrial area and the Cape Gate corridor (along Okavango Road), there is a clear pattern of fewer economic activities and opportunities in the south eastern portion of the district, where east west connectivity is limited to Old Paarl Road.
- The Fisantekraal township area is locationally isolated, and whilst the notion of a future growth node has been established in the Darwin Road/ Fisantekraal area, no physical development has taken place in the surrounds that can act as stimulus for economic growth. The need for economic growth is further highlighted by the fact that the City has purchased land (i.e. Paarl Farm 725, portions 0, 8 and 64) along the rail line, which is also earmarked for public- and related housing development.
- The Malmesbury rail line which still primarily functions as a goods line, offers the opportunity to become a passenger line in future. PRASA has already agreed to the principle, which came about when the Būh-rein development (located to the north east of Kraaifontein, and west of the rail line) was approved in 2009, and the location of 3 future stations along the line (in the identified growth corridor), has been agreed upon.

3.1.2 What action is needed?

The following spatial objectives are aimed at addressing key spatial challenges and are relevant to the district in relation to the economy and movement networks of the City as a whole. They include:

- Reinforce and support established and emerging concentrations of district economic activity within the Northern District, particularly where they can be accessed via key movement routes/public transport routes.
- Encourage attraction of further investment into the district's established and emerging economic areas, as well as into areas with latent economic potential.
- Facilitate better access to economic opportunities in other parts of the City by facilitating efficient movement through the district towards metropolitan economic centres.

The following spatial objectives are aimed at addressing the key spatial challenges within the district and are relevant in relation to the intra district economy and movement networks:

- Reinforce and support a hierarchy and range of established existing economic areas which hold competitive advantages within the Northern District;
 - support well functioning existing industrial and commercial areas
 - encourage expansion of emerging industrial areas
 - protect and encourage further development of the rural economy
- Intensify development in proximity to the accessible existing economic centres to facilitate thresholds to support them.
- Encourage creation of new economic opportunities at locations with economic viability within the district by carefully considering the location and the form of such activity, as well as encouraging the requisite thresholds/ residential development to support them.
- Facilitate integration of economic activity by facilitating and creating the space for greater interaction and synergy between formal business, small business and the informal economy in locations to which it is suited.

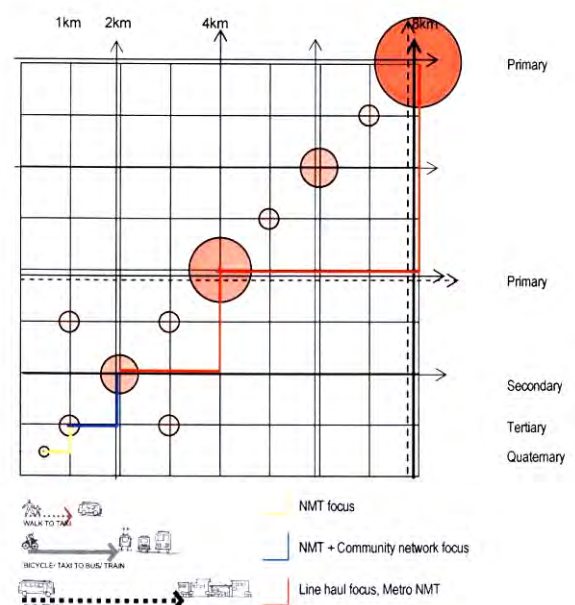
3.1.3 Spatial concepts and structuring elements

Spatially, there is a need to ensure that the movement system provides convenient access to jobs and other opportunities. Furthermore, there is a need to further concentrate employment in areas that are convenient and easy for people to access. In this regard, several spatial structuring elements (spatial building blocks) and concepts are significant in thinking about the spatial organisation of the City and district:

a) The multi-directional accessibility grid

The aim is to set up a grid of accessibility that facilitates convenient access and multidirectional movement between the district and other parts of the city (“primary accessibility grid”) and within the district (“secondary accessibility grid”) which will feed the primary grid.

This grid will compose a hierarchy of routes which provide varied, but complimentary roles in terms of accommodating a continuum of mobility and accessibility functions..



The **primary accessibility grid** incorporates:

- **Development Routes:** Development routes have a greater mobility function than activity routes. Mixed land use and higher-density development tend to be nodal, with access provided at intersections and generally linked to parallel and connecting side routes. Development routes may include short stretches of activity route-type development.
- **Activity Routes:** Activity routes are characterised by strip and/or nodal urban development along sections of the route. Activity routes are generally supported by a mix of land uses and higher density urban development. Activity routes are characterised by direct access and interrupted movement flows, especially at bus and taxi stops and traffic lights.



The primary accessibility grid is supported by a system of mobility links, which play a key role in reinforcing urban structure and include:

- **Urban freeways:** Urban freeways fulfil a mobility function, and do not permit direct accessibility to abutting land uses. The high connectivity provided by direct freeway/expressway connections tends to attract manufacturing, warehousing, major retail and industrial land uses. These opportunities tend to be realised around key intersections / off ramps and roads running parallel or linked to urban freeways.
- **The rail network:** the rail network provides for mobility over longer trip distances. The stations supporting the rail service are primary points of accessibility, particularly when associated with areas of high road based accessibility and can generally support intense concentrations of activity and medium to high land use densities.

The **secondary accessibility grid** incorporates:

- **Activity Streets:** Activity streets are characterised by strip and/or nodal urban development along sections of the route, although generally of lower intensity than typically found on activity routes. Activity streets are generally supported by a mix of land uses and medium-higher density residential development. Activity streets are characterised by direct access and interrupted movement flows, especially at bus and taxi stops and traffic lights.
- **Other Structuring Routes:** routes which provide structure (ordering land use configuration and intensities) to local areas and may accommodate a mixed activity / mobility function, but do their role in accommodating activity is less intense than activity routes/streets.

The secondary accessibility grid is supported by a system of lower order mobility links which may include:

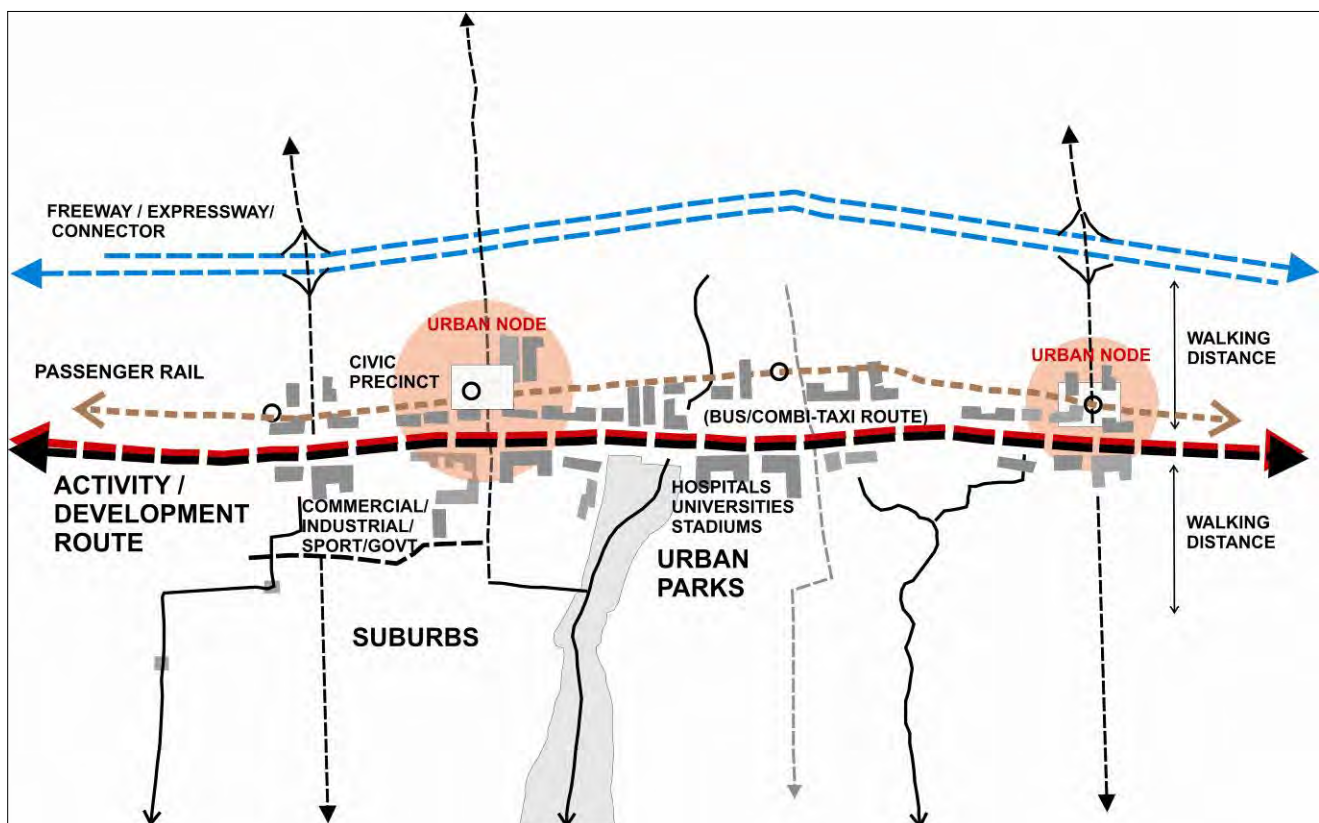
- **Connector route:** Connector routes connect different areas of the city and are typically characterised by high volumes of fast-moving traffic. In some instances, direct access to abutting land uses and residential properties is provided along connector routes.

Note: The route designation reflected above does not replace the City's Hierarchical Road Network Classification system, nor is it intended to run in parallel as a duplicate classification system. Annexure D describes the relationship between the CTSD / district plan route designations and DoT, the PSDF and the City's hierarchical road classification network.

b) Areas of land use intensification

The city's intention is to encourage land use intensification along the accessibility grid to ensure that the opportunities they offer can be accessed by a broader range of people (see Table 3.1). The process of land use intensification refers to achieving a greater spectrum of mixed uses (commercial, industrial and residential) through the increased use of space, both horizontally and vertically, in accessible, high-opportunity locations. Employment-generating activities, retail development, social facilities, public institutions and intensive mixed-use and residential development should be encouraged on and adjacent to the accessibility grid, particularly the primary accessibility grid. The spatial organisation of development in the areas of land use intensification can take a variety of forms, including development corridors, strip development and urban nodes.

- **Development corridors:** Development corridors are broad areas of high intensity urban development centred around activity and development routes. They are characterised by a dynamic, mutually supporting relationship between land use and the supporting movement system. Development corridors are generally supported by a hierarchy of transport services which function as an integrated system to facilitate ease of movement for private and public transport users. Corridor development is focused predominantly on activity / development routes serviced by mass rapid public transport services (i.e. rail or BRT); however, the system of routes may serve different functions, with some routes combining route functionality in terms of accessibility and mobility. Figure 3-2 shows the basic elements of development corridors, including activity routes, passenger rail, stations, modal interchanges and freeways/expressways. The combined operational capacity of the public and private transportation system supports a mix of land uses, and enables the development of medium and high levels of land use intensity.



- **Urban nodes:** Urban nodes are characterised by the intensity, mix and clustering of activities or land uses (including commercial/business development and associated employment opportunities, higher-order services and higher residential densities) at points of maximum

accessibility, exposure, convenience and urban opportunity. The generative capacity of an urban node is generally a function of the mix of land uses that it supports and its position in the accessibility grid (see Table below). The role and function of urban nodes is differentiated in terms of scale (metropolitan, sub-metropolitan, district, local) based upon its structural position within the accessibility grid, and the intensity and mix of land uses it supports. Urban nodes are identified as areas for further land use intensification, clustering and reinforcing economic land uses, public services and high-density residential development.

Alignment and hierarchy of the accessibility grid and areas of intensification

Accessibility grid	Span	Associated nodal development	Scale of operation	Areas of land use intensification
Primary	8–16 km	Metropolitan node	Citywide	Corridor/strip development/urban nodes
Primary	4–8 km	Regional node	Sub-metropolitan	Corridor/strip development/urban nodes
Secondary	2–4 km	District node	Inter-district significance	Strip development/urban nodes
Tertiary	1–2 km	Local node	Inter suburb	Usually urban nodes
Quaternary	0,5–1 km	Neighbourhood centre	Suburb	Usually nodal

- **Strip type development:** Strip development is characterised by intense and mixed use development often located along portions of activity routes/streets and development routes. Depending on the intensity of development, the width of the strip could range from half a street block to two or more blocks. The mix of activity along these strips may vary, with some areas having a stronger commercial/retail focus, while other may be characterised by dense residential development.

Other forms of intensification of development, on the accessibility grid (development routes, activity routes and streets) could be encouraged in a locally appropriate manner including:

- **industrial areas** where the changing of their nature is supported by the District plan;
- particular **business complexes** that are on the accessibility grid (development and activity routes / streets).

PLAN FOR EMPLOYMENT AND IMPROVE ACCESS TO ECONOMIC OPPORTUNITIES

Conceptual framework 1: Northern District

In the Northern District, increased intensity and greater mix of land use activity is proposed along activity streets and at specific points along development routes (which will form the backbone of the trunk or line haul road based public transport network), in relation to accessible modal interchanges and along local activity streets and other structuring routes in support of feeder road based public transport services.

In this context, spatial structuring elements in relation to the **accessibility grid** and intensification highlighted in the district spatial concept include:

- The reinforcement of the “*primary accessibility grid*” is informed at the city scale by:
 - North south axes - Durban Road, Okavango Road and the proposed Lucullus Road/ Maroela Road extensions, both to the north (to link with the R312) and the south (to link with Botfontein Road and Okavango Road).
 - East West axes – Wellington Road/Klipheuwel Rds., as well as Old Paarl Road.
 - Secondary east west linkages (Bill Bezuidenhout Avenue, Old Oak Road, De Bron Road, Frans Conradie Drive) and north south (Carl Cronjé Drive/ Tyger Valley Road, Jip de Jager Drive/ St. Johns Road) are promoted as development/ connector routes.
- In addition to the above, reinforcing the development of a “*secondary accessibility grid*” feeding local movement generators and the primary grid including:
 - A system of local activity streets within the area, such as Brighton Road/ Van Riebeeck Street, Darwin Road, Malborough Street;
 - A range of other structuring routes which contribute to the completing the secondary accessibility grid, such as Eversdal Road, De Villiers Road, Fairtrees Road, Brackenfell Boulevard ;
 - A system of interchanges or points of access where the secondary accessibility grid (community /feeder public transport network) meets with the primary grid (line haul, 18hr public transport network), such as Durban Road intersections with Bill Bezuidenhout Drive, Old Paarl Road, and Okavango Road intersections with De Bron Road and Brighton Road.

In addition, the promotion of areas for intensification accommodating a range of economic land uses such as mixed use urban development, industrial development and commercial/business complexes that are accessible and reinforce the public transport network and system of structuring routes.

- Major opportunities in the Northern District relate to:
 - Urban nodes: The existing business districts or town centres (eg Tyger Valley, Durbanville, Kraaifontein, Brackenfell CBD's) located along development routes, activity routes and activity streets.
 - Corridor type development: Durban Road, Cape Gate along Okavango Road and Old Paarl Road, as well as at a lower level, along activity streets such as Brighton Road, Maroela Road, and Malborough Road/ Darwin Road.
 - Mixed Use Node: The area of the Atlas Park industrial area offers opportunity for intensification. Land use rights (service industrial, commercial and residential) have been approved for the adjacent area known as Annandale, and immediately adjacent to Atlas Park, an application for the area known as Welbeloond is being processed (also for industrial, commercial and higher density residential).
 - The presence of an east west and northern rail line provides opportunity.

- Reinforcing industrial areas: Morgan Grounds along the R300, the Kraaifontein industrial area along the N1 and the emerging industrial area at Fisantekraal located in proximity to activity routes and development routes. In order to create the required need for centres of employment, the potential for either extending the aforesaid nodes, or creating new opportunities at viable locations, in close proximity to high density housing areas, need to be investigated. In this instance the extension of the Fisantekraal industrial area across the Klipheuwel Road, the extension of the Kraaifontein industrial area both to the east as well as across the N1, show potential. The vacant areas of the Morgan Grounds shows potential for infill development, but this provides for limited potential. The other area that shows potential, is the underutilised area to the west of Botfontein, which is already partially utilised for industrial related uses, has low agricultural potential, and is in close proximity to both the waste water treatment works and the lower income areas of Wallacedene and Bloekombos.

3.2 Strategy 2: Manage urban growth and create a balance between urban development and environmental protection

3.2.1 Northern District now

A number of challenges present themselves when considering the Northern District in relation to the City of Cape Town as a whole, and include:

- Development pressure on environmentally sensitive areas (eg Durbanville Hills area);
- Development pressure on valuable agricultural land (eg Durbanville Hills area as well as hinterland);
- An oversupply and good maintenance of public open spaces, especially in the more affluent areas of Bellville and Durbanville;
- Generally poor quality public open spaces, offering few opportunities for people to engage in passive recreational activities close to where they live, especially in the higher density poorer areas of Wallacedene, Bloekombos, Scottsville and Scottsdene;
- River corridors must be managed in an integrated manner which balances flooding, environmental, social and economic issues.

Within the district, there are also a number of considerations that distinguish some parts of the district from others in respect of the open space system and development pressure, including:

- Within a wider system of poorly developed open spaces, there are particular areas where the underdeveloped nature of open space presents challenges in terms of public/community safety given their seclusion and a tendency to attract unsavoury activities (Wallacedene and others).
- The western portion of the district (Elsieskraal River Valley and Van Riebeeckshof area) are characterised by an open space system, which offers linkage to the Jack Muller District Park, as well as opportunity to be linked to the Tygerberg Nature reserve. The system still offers opportunity for recreational development, especially through the Majic Forest area and along the Angelier dam.
- Areas along the river corridors, such as the Kleine Stink River (part of Diep River corridor) and the tributaries of the Mosselbank River, as well as the Kuils River are under pressure for urban development, and care should be taken to create active interfaces with the river corridors, should development be considered.
- The area reserved for the mining of construction materials (as determined by the former Urban Structure Plan, 1988 and reflected in the CTSDP), should be reserved for such purposes, but due care should be taken of impact on the environment, and existing available resources, when new applications are considered.

3.2.2 What action is needed?

The following spatial objectives are aimed at addressing the key spatial challenges related to specific areas within the district and are relevant in relation to proactively managing the natural and rural environment and urban growth:

- Encourage development of specific portions of the open space in areas of greatest need, which facilitate optimisation of the untapped potential which these systems hold.
- Prioritise open space development in areas where access to recreational open space is limited and the need, given population numbers relative to open space provision (eg Wallacedene and Bloekombos).
- Focus efforts in shaping the open space system on the quality of open space developed and the functionality of that space, rather than the quantity.
- Only consider new mining areas (construction materials) in instances where resources have been exhausted.
- Protect the Durbanville Hills from any large scale urban development, but consider developments which may enhance the tourist potential of the area.
- Guide large scale urban development towards the identified Kraaifontein North East development corridor, and thereby protecting the valuable agricultural land.
- Protect floodplains from inappropriate development.
- Facilitate an appropriate mix of land uses and income groups in the identified north east development corridor.

3.2.3 Spatial Concepts and Structuring Elements

a) Natural Assets

Cape Town's natural assets and biological diversity are part of what makes Cape Town a unique and desirable place in which to live, work and play. Because people derive benefits from the natural environment in a number of direct and indirect ways, natural resources play an important role in shaping where and how the city develops. The recreational functionality and functional integrity and connectivity of ecosystems must be improved, and an interlinking network of linear parks with foot and cycle paths should be established to facilitate easy movement of fauna and flora. Urban development must respect the presence, role and function of natural assets, and should make the most of the possible benefits residents and visitors can derive from them. The CTSDP and district plan identifies the natural assets that are of value to the city, merit protection in the longer term, and/or where the impacts of development need to be carefully managed.

Informed by their underlying environmental significance (e.g. agricultural land, biodiversity areas), the natural assets are categorised, each demanding different management approaches:

- **Core 1:** Statutory conservation areas (biodiversity areas that are formally protected and managed); critical biodiversity areas; conservation priority zones; critical, irreplaceable and restorable biodiversity sites; public conservation areas and private conservation areas.
- **Core 2:** Ecological corridors; critical ecological support areas; significant coastal and dune protection zones, major river corridors and waterbodies excluding waste water treatment works.
- **Buffer 1:** Rural areas, game and livestock farming areas and other natural vegetation areas that do not form part of the core areas, but are recognised as areas that could provide opportunities to establish biodiversity offsets. Essential utility service infrastructure may be located in buffer 1 areas.
- **Buffer 2:** Other ecological support areas, transformed game and livestock farming areas, and rural areas that do not form part of core 1 and core 2 areas. Essential utility service infrastructure, cemeteries outside the urban edge, and areas zoned public open space may be accommodated in buffer 2 areas.

- **Intensive agriculture (high potential and unique agricultural land):** high potential and unique agricultural land worthy of long term protection given unique production, cultural and heritage attributes.
- **Intensive agriculture (agricultural areas of significant value):** agricultural areas of significant value given (1) existing use, (2) potential and emerging agricultural use due to new cultivation technology, availability of irrigation water, new varieties and crop types and the realisation of terroir qualities, and (3) food security.

This categorisation is consistent with the categorisation contained in the Provincial Spatial Development Framework (PSDF, 2009) and also the CTSDf (2012). The network of natural assets is further integrated and linked into the urban areas via a system of structuring open space (including parks, sports fields).

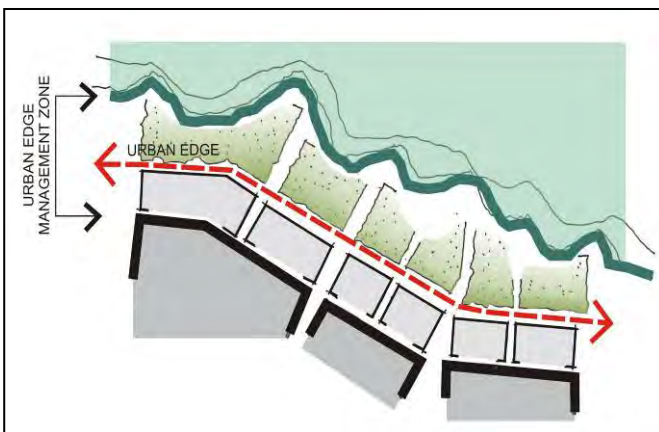
b) Development edges

The spatial growth of the district will be managed through the use of development edges, and the identification of future urban growth areas.

Whilst two types of development edges will be used to manage urban development: the urban edge and coastal edge, the former is relevant to this district.

- The **urban edge**: a medium to long-term edge line that has been demarcated to phase urban growth appropriately, or to protect natural resources. Spatial growth in the medium term (10–15 years) should be prioritised within the urban edge. In the longer term (15–50 years), the City will need to provide more undeveloped land for urban development, and the edge line will have to be adjusted on the basis of the city's growth direction.

Figure: Urban Edge



c) Future urban growth areas:

Urban development should be directed away from significant natural asset resource areas (e.g. nature and agricultural areas, aquifers) and hazards. It should occur as a priority within the existing footprint (such as development of underutilised infill sites or other forms of densification), and where it expands beyond this into areas of settlement / developmental opportunity that are appropriate for urban development. Future urban development should be as part of a phased, coordinated growth process associated with infrastructure provision (e.g. roads, stormwater, water, waste water, solid waste, and electricity services) as well as planning for the required range of social and community facility provision (e.g. health facilities, schools, libraries, parks and cemeteries).

PROACTIVELY MANAGE A SUSTAINABLE FORM OF URBAN GROWTH AND CREATE A BALANCE BETWEEN URBAN DEVELOPMENT AND ENVIRONMENTAL PROTECTION

Conceptual framework 2: Northern District

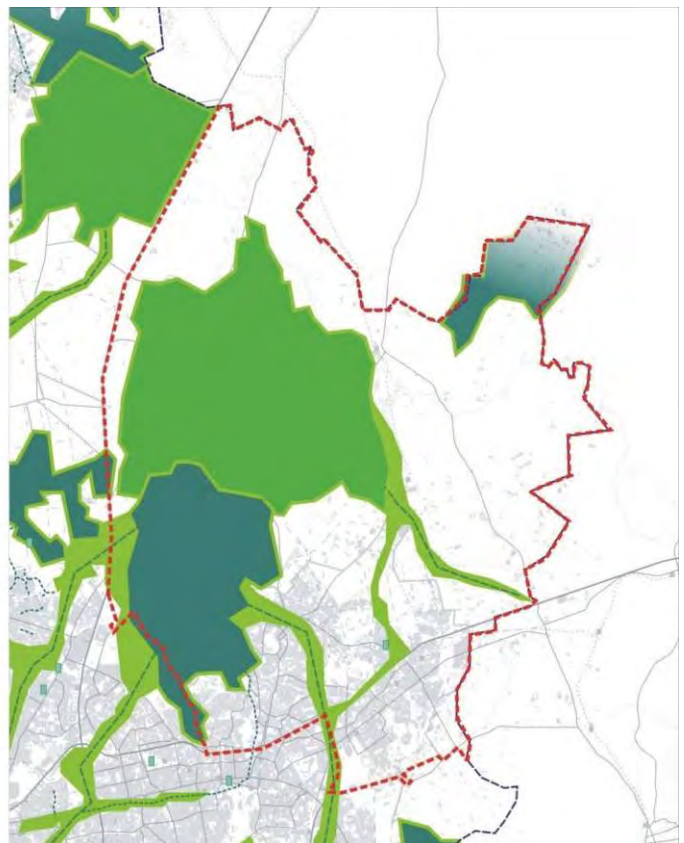
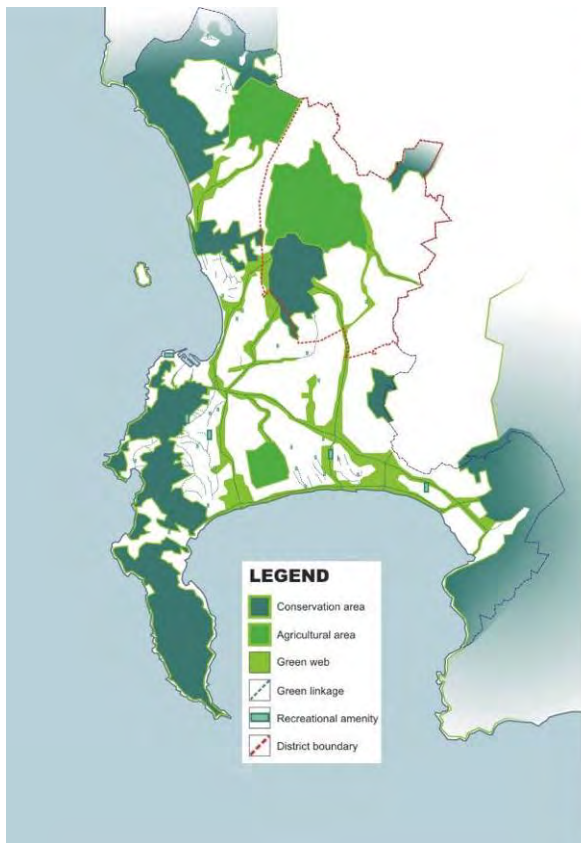
In the Northern District, the plan identifies the following as key structuring elements in respect of the Natural Assets within the district and supports:

- The reinforcement of the city scale *Natural Asset* elements, including:
 - Protecting natural areas such as the Tygerberg Hills as well as the Durbanville Hills agricultural area from any large scale urban development, as well as core flora sites such as Klipheuwel, Joostenberg Hill and Kloof in the east, Perdekop in the south, Kanonkop, Altydgedacht and Tygerberg Hill (adjacent to the Nature Reserve).
 - Protect the river corridors of the Kuils River, Elsieskraal River, Diep River (Kleine Stink River), and Mosselbank River.
- At the district scale, a set of Natural Asset elements, supports and compliments the city scale Natural Assets, including:
 - Retaining a continuous natural link along the Elsieskraal river corridor, inclusive of Majic Forest, as well as the open space linkages along the ridge area of Oude Westhof/ Van Riebeeckshof;
 - Protect the tributaries of the Mosselbank River which should provide an uninterrupted green link through the identified Kraaifontein North East development corridor;
 - Respecting the value of the Tygerberg Nature Reserve, Bracken Nature Reserve, the Durbanville Race Course and Cape Hunt and Polo Club as well as the Durbanville Nature Reserve;
 - Investigating the heritage value and opportunities for utilising such opportunities to enhance the value of the Bracken Nature Reserve where it's history (relating to Kanonkop and the former quarry) dates back to the Batavian period (early 1800's); Also re-inforce a green link to Perdekop via Suikerbos Street in Protea Village.
 - Protect the Uitkamp Wetlands Reserve north of Durbanville;
 - Recognising the need for a metropolitan level park in the identified growth corridor;
 - Retain and enhance the utilisation of the old Commonage (between Klein and New Streets) in Durbanville.

In addition, the **urban edge** is delineated in order to protect the key environmental and economic resources identified as part of the Natural Assets in the district.

- Major opportunities in the Northern District relate to:
 - Delineating an urban edge line to protect the agricultural areas with significant agricultural potential, especially the Durbanville Hills Winelands area;
 - Optimise the opportunity for integrated development in the identified growth corridor, which is located on land with low agricultural potential.
 - Investigate opportunities for urban growth in the identified growth corridor, and areas where development may have a positive effect on economic growth.

Future urban growth areas focus on the Kraaifontein north-east growth corridor: This is considered the main growth area of the district providing significant opportunity for new residential, commercial and industrial development, with the backbone of transport the envisaged northern passenger line, and Lucullus Road.



3.3 Strategy 3: Build an inclusive, integrated and vibrant City

3.3.1 Northern District now

A number of challenges present themselves when considering the Northern District including:

Low income residential development:

- The worst socio- economic conditions occur in Fisantekraal, Bloekombos and Kraaifontein East;
- These areas suffer from historic marginalisation in respect of investment in public facilities and services.
- There are limited opportunities for passive recreation in particular in the poorer areas and often the poorest people live in areas which are densely developed with limited purpose developed places of recreation.

Amenity and Facilities:

- The district is blessed with an abundance of special places, both purely natural environment (nature reserves) and rural character enriched (Durbanville Hills Winelands).
- The district is generally well provided for with social facilities, including health, education and sports. However, the lower income areas located south of the N1 Freeway need extra attention when the provision/ upgrade of facilities are considered.
- There is a major gap in respect of public facilities/services, as well as areas for recreation in areas such as Fisantekraal, Bloekombos and Wallacedene. The need for public facilities goes hand in hand with the availability or lack of space for developing such facilities.

3.3.2 What action is needed?

The following spatial objectives are aimed at addressing key spatial challenges in relation to building inclusive, integrated and vibrant living environments. They include:

- Encourage public investment that will be a catalyst to urban regeneration in areas which have historically been marginalised and suffer from a severe lack of public investment in public facilities and services, as well as urban infrastructure.
- Guide possible locations for infrastructure development which aims to address socio-economic challenges and accommodate social programmes, in a way that makes public facilities and services more accessible to a greater number of people within the district.
- Create places where people from across the district can gather, interact, socialise and participate in passive recreation while experiencing things which make the district unique by capitalising on significant untapped opportunities which present themselves in the form of points within areas of unique natural value and character.
- Encourage focussed facilities provision in the area of greatest need, namely the Kraaifontein East area.
- Consolidate and reinforce clustering of existing facilities in accessible locations.
- Cluster public facilities in the identified growth corridor in close proximity to public transport infrastructure such as train stations or line haul public transport routes.

3.3.3 Spatial concepts and Structuring Elements

a) Civic precincts

Social facilities and public institutions should be clustered in civic precincts, at the points of highest accessibility (the intersections of the grid). The hierarchy of the civic precincts will be determined by the hierarchy of the accessibility grid. The civic precincts that are of citywide significance will by and large be located at the intersection of the primary grid. The civic precinct will be the focus of public investment, and will create opportunity for private-sector investment in commercial, mixed-use and higher-density residential development. They will therefore be closely associated with urban nodes.

b) Destination Place

A destination place is a node, landmark or precinct that forms a significant point or area of attraction and is part of the identity of Cape Town. High-order destinations are those that every resident and visitor should visit at least once; while at a local level, destinations include public spaces such as squares, parks and sports facilities. Existing and proposed destinations and public spaces determine the configuration of the envisaged network.

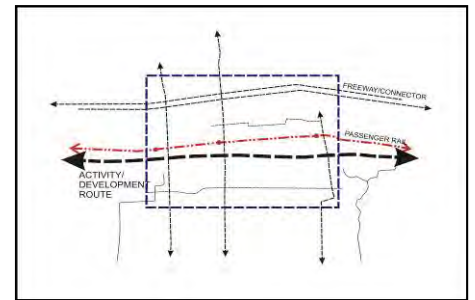
c) Structuring open space system and critical public links:

The structuring open space system reflects an interlinking network of parks, sports fields and green links for walking and cycling. This system provides structure to urban areas and provides for escape from the intense urban environment.

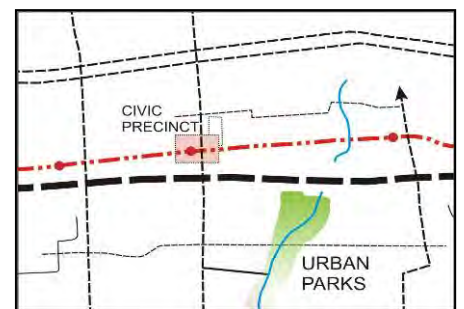
Critical public links are identified as a component of the broader non-motorised transport network creating links to significant destinations through the urban environment.

d) Integrated human settlements

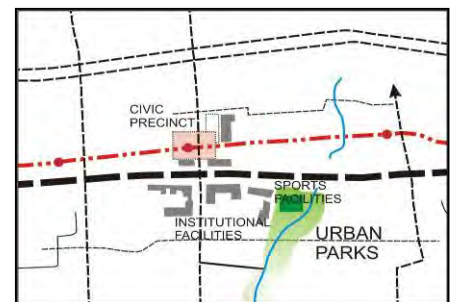
The promotion of integrated human settlement patterns is based on the qualitative aspects of the built environment as it pertains to the new growth areas of the City as well as upgrading of the existing areas. In principle these areas should support the creation of a wider mix of residential options and income groups, as well as make provision for an appropriate provision of social (including civic precincts) and economic opportunities.



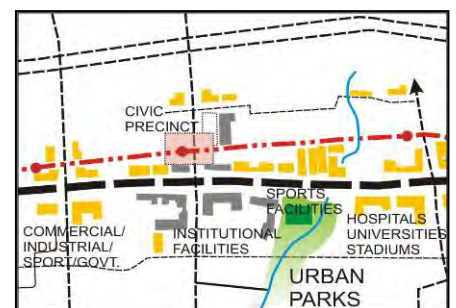
Road hierarchy



Interchange



Public investment



Private response

BUILD AN INCLUSIVE, INTEGRATED AND VIBRANT LIVING ENVIRONMENTS

Conceptual framework 3: Northern District

In the Northern District, the plan identifies the following as concepts in respect of the **civic precincts** within the district and supports:

- Reinforcement of a hierarchy of civic precincts distributed equitably across the district and located in high accessible locations, particularly on public transport routes, including:
 - Accessible civic precincts that provide access to local level public facilities and services such as the Durbanville CBD, Brackenfell CBD, Kraaifontein CBD (Brighton Road). The Brighton Road civic precinct provides opportunity to be strengthened in view of the availability of vacant land surrounding the municipal offices.
 - The need for another civic precinct that can serve the areas of Bloekombos and Wallacedene, which is in close proximity to public transport infrastructure, as well as the residential environment. The land, also known as Bloekombos Extension 3, comprising of Paarl Farm 732, portions 19/ 20, located along Maroela Road between Bloekombos and Scottsdene has been identified as a future civic precinct area, with easy access to the proposed Bloekombos station.
 - For the proposed corridor, establish a civic precinct along a high density activity street to be located between the rail line and the Lucullus Road development route.

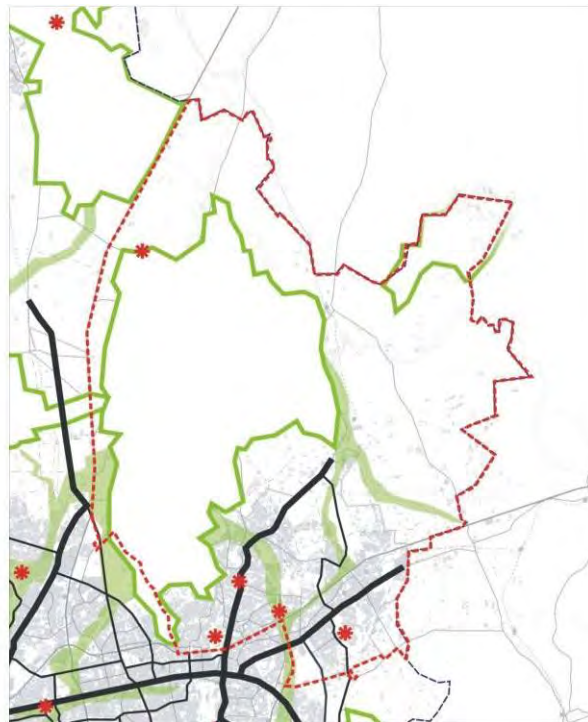
The plan also identifies the following as concepts in respect of the **destination places** within the district and supports:

- An equitably distributed range of destination places of metropolitan significance:
 - Related to access to significant natural resources such as the Tygerberg Nature Reserve, the Bracken Nature Reserve, the Durbanville Nature Reserve, as well as the Durbanville Hills Winelands (which comprises of a number of wine estates, scenic routes and cultural landscapes).
 - Related to access to heritage resources, such as the Philadelphia settlement.

Finally, the plan identifies the following areas for integrated human settlements, which aim to compliment and reinforce primary structuring elements by;

- Creating more integrated urban areas and creating thresholds to support non-residential land uses in specific locations, including;
 - Identifying targeted areas for reasonably significant new urban development which aim to compliment/ reinforce structuring elements such as public precincts (eg Bloekombos Extension 3).
 - Identifying smaller scale infill opportunities to address localised housing demand through public assisted means (eg Scottsdene, Morningstar).

Ensure efficient use of and effective management of utilities infrastructure which supports urban areas and facilitates new development, such as land fill sites and wastewater.



3.4 Synthesis: Conceptual Plan

The overall Conceptual Plan is derived from proposals in the 3 strategies been discussed above, and provides a combined concept that puts forward a primary structure for the district on which the composite plan in section 4.0 is derived from:

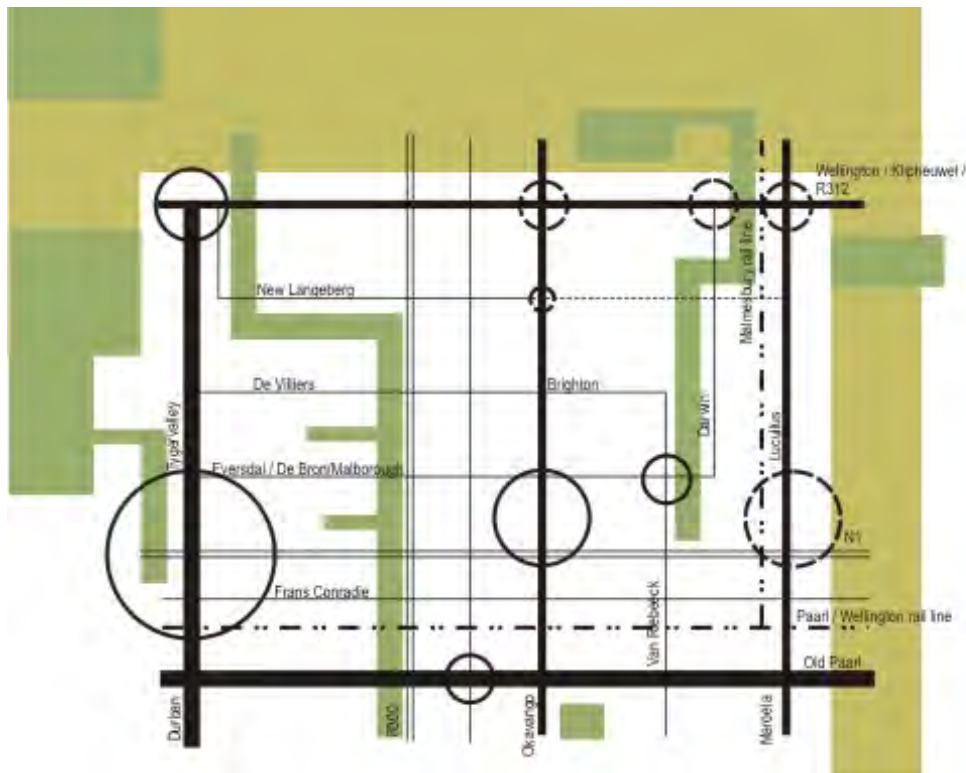


Figure 2: Concept for the district

i) The accessibility grid and areas for intensification/ new development

The primary accessibility grid is made up of 3 main corridors that are orientated in a north south direction, comprising the established Durban Road corridor (where intensification is still possible), the emerging Okavango Road corridor (where the section north of the N1 is starting to take form), and the newly identified Lucullus Road corridor, where the focus in future should be on the identified Kraaifontein north east growth corridor as well as the emerging areas of Bloekombos, Wallacedene and Scottsdene areas.

The primary north south grid is strengthened by two main east west development routes, i.e. Wellington/ Klipheuvel Roads as well as Old Paarl Road, as well as a secondary system of routes criss-crossing the primary grid.

Two freeways, i.e. the N1 and R300, are the primary mobility routes in the district, feeding the primary and secondary accessibility grid.

The accessibility grid is further enhanced by an existing east west passenger rail line, as well as a future proposed passenger line along the Malmesbury rail.

The major employment nodes (be they commercial/industrial in nature) are located at the points of highest accessibility on the primary accessibility grid, comprising of the Tyger Valley node (being the highest order in the district), located along the Durban Road Corridor; the emerging Cape Gate node along Okavango Road, and a future proposed mixed use node located at the N1/ Lucullus

Road intersection. The latter node is regarded as a longer term future employment node, which should accommodate employment needs along the identified growth corridor.

Smaller nodes, i.e. the Fisantekraal node (service industrial) and another mixed use node, located along Botfontein Road, have also been identified as employment centres.

Smaller nodes such as the Durbanville CBD, Brackenfell CBD are also located on the primary grid, and numerous secondary nodes are located on the secondary grid. As these nodes are located at points of highest accessibility, it should also be focussed on the provision of social amenities such as libraries, health facilities, multi- purpose community centres, etc.

ii) Manage the natural and rural environment, and urban growth

The concept highlights the 3 major 'green systems' in the district, comprising the Elsieskraal River corridor (linked to the Tygerberg Hills Nature Reserve via die open space system along the ridge area in Van Riebeeckshof), the Kuilsriver corridor and the Mosselbank River system. The other primary river system, i.e. the Diep River is located in the rural hinterland.

The district with its peripheral location is surrounded by a vast rural/ agricultural hinterland, comprising of the Tygerberg Hills/ Durbanville Hills viticulture area (Durbanville Hills Winelands), areas of significant agricultural potential, sensitive biodiversity remnants, smallholdings and rural villages such as Philadelphia and Klipheuwel. The hinterland contributes significantly to the economy of the region, and also provides a certain quality to the adjacent urban environment, and should therefore be protected from urban sprawl.

iii) Building of inclusive, integrated and vibrant living environments

The concept plan identifies the basic city structure, with its nodal points, and points of highest accessibility, where intensification of, as well as new higher order public amenities should be focussed.

4. SPATIAL DEVELOPMENT PLAN: DISTRICT DEVELOPMENT GUIDELINES

EMF: DESIRED STATE OF THE ENVIRONMENT

The spatial development plan essentially comprises the application of the spatial concepts and structuring elements discussed in chapter 3 to the context of the Northern District. The identification and active promotion of the structuring elements are fundamental to responding to the 3 spatial strategies and realising the appropriate medium to long term spatial structure for the district. This section also serves to synthesise the proposed broad spatial structure for the district and intended “end state” that will provide a guide to investment and land use decision making. It should be read in conjunction with the CTSDf (policies and sub-district development guidelines (contained in section 6.2 of this document).

The urban structure of the Northern District has in the past, and will be in the future be determined, primarily by the natural environment (river corridors, valuable agricultural land, scenic areas, biodiversity hotspots, mountain areas), main movement systems already in place (rail lines, major roads) existing opportunities for infill development and new development opportunities identified in the growth corridor..

The composite plan is the application of the conceptual framework and structuring elements to the Northern District at a greater level of detail.



The District Plan comprises 5 broad types of categories:

- Spatial planning categories
- Route designation
- Conceptual designations
- Development edges
- Precautionary areas and utility service infrastructure installations and networks

The District Plan has been generated on a geographic information system (GIS), which improves the accuracy and legibility of mapping. This is particularly useful to the mapping of development edges and the precautionary areas, which are generally cadastrally defined. However, the spatial planning categories, although appropriate at a district and sub-district scale, are generally broad classifications, which may require a greater level of detail, through sectorally specific plans or local area planning frameworks, to further guide decision- making at a local and site level.

4.1 Spatial Planning Categories

The land use classification system adopted by the District Plan is consistent with the bio-regional planning framework and broad provincial Spatial Planning Categories (SPCs) adopted by the PSDF (2009), and utilised by the CTSDf. The SPCs specify the inherent land use suitability of the city's environmental, cultural, and urban landscapes. Additional categories included in the District Plan, commensurate with the greater level of planning detail, are Other Structuring Open Space, Mixed Use Intensification, and Cemeteries.

Table 4.1: Spatial Planning Categories (SPCs)

Spatial Planning Category	District Elements	District development guidelines	Relevant CSDF Policies*
a) Core 1 (high conservation importance, comprising of statutory conservation areas and conservation priority zones, i.e. critical irreplaceable and connectivity biodiversity sites, as well as important restorable sites)	Tygerberg-, Bracken-, Durbanville Nature Reserves; D'Urbanvale wetlands, portions of the Durbanville Race Course, Cape Hunt and Polo Club, Kanonkop; Rondeboschjiesberg, portions of the Teleport site, the Diep River corridor; Portions of the Fisantekraal Airfield (areas around the landings strips); Portions of the R300 road reserve to the north and south of the Klipheuwel Road.	<ol style="list-style-type: none"> 1.Activities in these areas should focus on conservation use with conservation management activities (e.g. alien clearing, research) encouraged. 2.In general, low impact activities such as passive recreation (eg walkways and trails), environmental education and tourism may be appropriate, but should be subject to stringent controls. (e.g. limits to development footprint, management plans). 3.Where possible, all new utility infrastructure, services and structures should be located outside of these areas. 4.Formalised reserves and sites (e.g. Tygerberg-, Bracken Nature Reserves) should be regarded as 'no-go' areas and no further development of any kind should be allowed in these areas without a detailed assessment of the impacts. 5.Further subdivision of these areas should generally be discouraged and consolidation encouraged. 6.Reference should be made to the EMF's conservation and biodiversity priority zone and specific environmental attribute detail for further guidance around the potential desirability of specific activities. 	P1, P25-27 Action: Conserve remnants of sensitive and threatened vegetation types.
b) Core 2 (areas which exhibit habitat quality, provide for essential ecosystem	Portions of land along the Kuils River and tributaries; Portions along the Elsieskraal River and tributaries(below	<ol style="list-style-type: none"> 1.Activities in these areas should focus on conservation use with conservation management activities (e.g. alien clearing, research) encouraged. 	P1, P25-27 Action: Maintain and enhance

processes and where biodiversity is restorable; comprise of ecological corridors incl. dune systems, rivers, wetlands, flood risk areas)	the Door De Kraal dam); Portions of the Welgemoed golf course; The Mosselbank River tributary, within the existing urban edge of the city; Portions around the Kraaifontein- and Scottsdene Sewerage Works.	<ol style="list-style-type: none"> 2. In general, low impact activities such as passive recreation (eg walkways and trails), environmental education and tourism may be appropriate, but should be subject to stringent controls (e.g. limits to development footprint, management plans). 3. Establish and maintain appropriate river and wetland buffers and prevent inappropriate land uses in these areas. 4. Encouraging positive interfaces (e.g. through building orientation, permeable fencing) between abutting development and open space systems. 5. Where possible, all new utility infrastructure, services and structures should be located outside of these areas. 6. Sites indicated as Core 2, but which also fall within identified precautionary areas (i.e. floodprone areas) should take into account district development guidelines identified for these areas. 7. Reference should be made to the EMF's conservation and biodiversity priority zone and specific environmental attribute detail for further guidance around the desirability of specific activities in these areas. 	ecological linkages, especially along river courses (such as the Elsieskraal-, Kuils and Mosselbank Rivers This should include efforts to improve amenity value of these areas (rehabilitation of riparian system, positive interfaces, open/public space upgrading).
c) Buffer 1 (contain Other Natural Vegetation areas which comprise natural or endangered areas which do not justify designation as core areas; could provide opportunities for offsets)	There are very few (and very small) Buffer 1 areas identified within the District. These include: Areas along the Kuils - and Mosselbank Rivers, and an area adjacent to Durmonté.	<ol style="list-style-type: none"> 1. Low impact activities (as per Core 1/2) may be appropriate. 2. Extensive agricultural activities occurring in these areas, and which may impact on remnant natural vegetation should adopt low impact practices. (e.g. rotational grazing / resting cycles). 3. Reference should be made to the EMF's conservation and biodiversity priority zone and specific environmental attribute detail for further guidance around the desirability of specific activities in these areas 	P24-27, P32, P33
d) Buffer 2 (include least threatened areas of biodiversity, as well as extensive agricultural and smallholding areas)	Areas surrounding hilltops such Kanonkop and the Durbanville Hills; Portions of Farm Uitkamp located adjacent to Aurora in Durbanville; The Durbanville Race course area; Smallholdings and agricultural areas	<ol style="list-style-type: none"> 1. Low impact activities (as per Core 1/2) may be appropriate. 2. Development (e.g. structures) in support of both tourism and biodiversity conservation in Core Areas should preferably be located in Buffer 1 and 2 areas if logistically feasible. 3. Furthermore, agricultural use could be considered appropriate in these areas as well as uses or activities directly relating to the agricultural enterprise. This could include farm buildings and farm worker accommodation. 4. Further uses and activities could be considered where contextually appropriate such as small scale holiday accommodation, restaurants, farm stall / shop and tourist facilities. 5. Non agricultural uses (ie those specified in d.4 above) should be managed through spot rezoning or consent uses and fragmentation of farm units should be discouraged. 6. Reference should be made to the EMF's conservation and biodiversity priority zone and specific environmental attribute detail for further guidance around the desirability of specific activities in these areas. 	P25-27
e) Intensive Agriculture (inclusive of 'High Potential & Unique Agricultural Land' and 'Agricultural	Durbanville Hills area, and farms further to the north; Land located to the east of Botfontein Road	<ol style="list-style-type: none"> 1. Preserve and utilise high potential agricultural land. 2. Adhere to identified urban edges around the periphery of high-value agricultural areas to prevent urban intrusion 3. Encourage activities that reinforce primary 	P25, P28, P31-33

<p>Areas of Significant Value') (areas been ploughed for orchards, vineyards, forestry plantations, annual crops, pastures and irrigation lands)</p>		<p>agricultural use of these areas.</p> <ol style="list-style-type: none"> Limit non-agricultural uses to ancillary rural activities that do not detract from the primary agricultural use and character of the area, but contribute to local character and associated recreational and tourism potential. Limit (residential) development to existing zoning rights for agricultural land in these areas. Discourage further sub-division of agricultural land. Reference should be made to the EMF's natural economic resources zone and specific environmental attribute detail for further guidance around the desirability of specific activities in these areas in these areas A small portion of land south of Fisantekraal in the area classified as "other agricultural area" could be considered for future expansion of Fisantekraal (refer to detailed mapping in the City of Cape Town's Agricultural Land Review, 2008.) Rural development outside of the urban edge should not exceed densities of 1 dwelling unit per 10 ha (PSDF, 2005) and sub-division should be discouraged. In some areas, a lower density may be appropriate. Agricultural land zoned as "other agricultural land", east of Bothasig should be retained as part of the rural area, pending urban transition. Development limits on the hillsides of Kanonberg, Tygerberg, Kanonkop Koeberg and Rondebosieberg must be fixed. 	
<p>f) Small-holdings</p>	<p>Mikpunt, Joostenberg Vlake and Westerdale</p>	<ol style="list-style-type: none"> Small holdings around Mikpunt, Josstenberg Vlake and Westerdale should be retained for rural living. 	<p>P32-34</p>
<p>g) Other Structuring Open Space (includes recreational, sports, and education related open spaces, all closely related to urban development; also includes smaller linkage open spaces)</p>	<p>Include open space linkages along Elsieskraal- , Mosselbank- and Kuils Rivers, the Wlegemoed Golf course.</p>	<ol style="list-style-type: none"> In general, avoid development of these areas in a manner that would compromise open space linkage. Encourage development to respond to and promote opportunities for linkage between identified structuring open space in developed areas. In general, development adjacent to open spaces, or which rationalises these spaces, should be orientated towards the open space to encourage the use and passive surveillance of these areas. Design which compromises this condition (e.g. excessive blank walls and backing of development onto these spaces) should be discouraged. Subject to contextual informants, medium density development (e.g. 2/3 storey development) along open space interfaces could be considered to improve passive surveillance. Safety and security should be considered in the upgrading, landscaping or development of public open spaces. Where contextually appropriate, consider commercial activities such as small cafes, kiosks and restaurants that will enhance the open space. Where feasible, opportunities for low impact sustainable use of open spaces, by local communities, should be considered (e.g. small scale urban agriculture) but this should take into account the wider access / linkage needs and public open space provision requirements. 	<p>P41</p>

<p>h) Mineral Resources Areas (for the exploitation of building stone and related products)</p>	<p>Main mineral extraction area within the district include the Tygerberg area (for the exploitation of building stone and related products), as is originally reserved in the Urban Structure Plan(Volume 1, Peninsula, 1988). However, significant agricultural land and natural assets worth conserving are also found in the area.</p>	<p>1.Further mining activity (new quarries or extension to existing) should only occur subject to relevant environmental processes as well as an application for land use authorisation.</p> <p>2.Mining activities are generally not desirable within the Cultural Landscape Zones, however some high priority mineral deposits are located in these zones and the mineral extraction areas in located within the Durbanville Hills cultural Landscape. Where these occur, mining can be considered, subject to a full Heritage Impact Assessment and the appropriate mitigation measures and rehabilitation plans.</p> <p>3. Extraction of mineral resources should be considered prior to the authorisation of urban or other development on mineral resources.</p>	<p>P29</p>
<p>i) Urban Development (areas to be considered for a wide variety of uses including housing, public open space, community facilities, local business development and appropriate service industry, e.g warehousing of local scale)</p>	<p>A number of undeveloped areas are identified for new development to accommodate urban growth within the district. The locations for new development are indicated and guidance relating to the form of the proposed development is provided in order to guide public and private sector development and infrastructure provision. They include:</p> <ul style="list-style-type: none"> • The Stellenbosch University Business School site; • The extension of Wallacedene to the south and north; • The redevelopment of the Crammix quarry site (adjacent to the Maroela Road extension) and • Kruisfontein smallholdings (located adjacent to Crammix site), the • Welbeloond Farm development (adjacent to Atlaspark, located adjacent to the M12), • Infill development on vacant land in Scottsdene and • Morningstar, and partial redevelopment of the PP Smit sports grounds (located along Durban Road). • Development opportunities associated with the already identified growth corridor, 	<p>In the identified growth corridor the following principles should apply (1-5):</p> <ol style="list-style-type: none"> 1. Future developments in the growth corridor need to happen sequentially, dependant on the availability of bulk services. 2. Applications need to conform to the relevant Council policies, such as the CTSDf, the PSDf Objectives, and any other policy which may be applicable. 3. The form of a proposed development will be measured in terms of the land use guidelines, as well as the development concept for the growth corridor, as contained in section 6.2 of the report. 4. Any development proposal should be communicated from the outset with the relevant Council departments such as Spatial Planning (both Metro Spatial/ District Spatial/ Urban Design/ Land Use Planning, etc). 5. Proposed residential, industrial and open space development within the Durbanville Hills and Joostenberg Vlake landscapes, can be considered where it falls <i>within</i> the urban edge. However this development should be sympathetic to historical context of the area and EIA processes for activities in this area should include a Heritage Impact Assessment as per legislative requirement. 6. Development should not be allowed on steep slopes (slopes of more than 1:4) and on ridges. 7. Development limits on the hillsides of Kanonberg, Tygerberg, Kanonkop, Koeberg and Rondebossieberg must be fixed. 8. Evacuation (routes, evacuation facilities and likely evacuation time), must be considered and planned for in detail before the approval of any development in Urgent Planning Zone. 9. Do not permit groundwater abstraction and residential land use in landfill buffer zones, or any other activities where people are required to remain permanently on site. 10. Be sensitive where building height may have detrimental effect on views towards the rural landscape. 	<p>P1-P50</p> <p>Action; Fix development limits on hillsides of Kanonberg, Tygerberg, Kanonkop, Koeberg and Rondebossieberg.</p>

	<p>which refers to the still undefined zone in the Kraaifontein north east area, bordered by belt of sensitive biodiversity in the south, the R304 in the east, the Klipheuwel Road in the west, and Klipheuwel settlement in the north. The reasoning behind the southern boundary is not agricultural potential, but merely the fact that the rural area around the N1 at this location is regarded as a gateway into the City, which should be protected in the medium term.</p> <p><i>Note that the area outside of the existing City urban edge is indicated by means of a symbol in the Composite Plan, due to the fact that the exact extent of future growth (for the shorter and medium term, say up to a 10 year period, with a proposed urban form, and need for bulk infrastructure) is still to be determined. Council is in the process of considering an application for development in the growth corridor already, and another application is being processed at present. However, as these applications are located outside the 'Interim Urban Edge' in terms of the Statutory PSDF, the Provincial Government: Western Cape will be the competent authority resolving on these applications. This implies that the urban edge will be amended on an ad-hoc basis, as the edge cannot be pre-determined, based on objective reasoning.</i></p>	
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<p>j) Mixed Use Intensification (areas offering opportunity for intensified use, which can include residential densification and related uses, business use; include all business areas associated with identified urban nodes and business complexes, as well as business strip areas).</p>	<p><i>More detail in section 6.1.5 of report.</i></p> <p>1. Durbanville CBD: The area inside the secondary CBD area (therefore inclusive of the hard core area), comprising of the area demarcated by Plataan Str., Hoog Str., Weyers Avenue, Van Der Byl Str., De Villiers Extension, Wellington Rd., Paul Kruger Str., Hibiscus Way, Disa Str., and Protea Rd., offer opportunity for densification and intensification for residential en smaller office uses.</p> <p>2. Springbok Park area (Brackenfell): It is argued that the area has changed character already, and offers opportunity for extending the CBD, to provide opportunity for smaller businesses to establish themselves in the core area of the CBD.</p> <p>3. Part of the Arauna area (directly adjacent to Brackenfell Boulevard) is also regarded as having opportunity for intensification, where detail in this regard is being addressed in section 6.1.5.</p> <p>4. Brighton Road/ Van Riebeeck Road, and Malborough Road (Kraaifontein)</p> <p>5. Eikendal/ Belmont Park area (mainly along Old Paarl Rd.)</p>	<p>1. Facilitate mixed-use intensification development where possible to provide more employment opportunities close to residential areas, thereby reducing the need for commuting, and close to public transport, to facilitate good access.</p> <p>2. The nature of mixed use intensification should be subject to local context. Higher intensity and more intrusive commercial activities to be limited to core parts of identified areas, or preferably be guided by a local area framework.</p> <p>3. Particular attention is required to ensure an appropriate interface between these mixed use intensification areas and adjacent residential areas.</p> <p>Durbanville CBD</p> <p>4. With regard to the Durbanville CBD, The existing draft policy, i.e. Durbanville CBD Urban Design Guidelines, Planning Partners, 1999, is made applicable (as guideline), in terms of the District Plan until such time as the said document has been updated, and been formalised as policy. Densification should however not detract from the character of the CBD, or the adjacent urban fabric. The updating of the document is required in order to address the amendment to the boundaries of the CBD, as well as land uses to be considered, and the vehicular circulation in the CBD area.</p> <p>Brackenfell CBD</p> <p>5. More detailed design guidelines are however required to deal with issues such as building heights, street interfaces, types of business to be allowed, urban form, landscaping, etc. Other opportunities for intensification in the CBD include the potential for developing the vast underutilised parking spaces at the Hipermarket, the remaining portion of erf 13687(along William Dabbs Str.), as well as vacant erf 11297(along Old Paarl Rd).It needs to be recognised that the development of the Cape Gate corridor has a detrimental effect on the viability of the Brackenfell CBD, but notwithstanding the impact, it is argued that provision of smaller scale opportunities, as well as landscaping projects, may again revive the CBD area.</p> <p>Brighton Road</p> <p>6. The potential for redevelopment to take place along the said routes could be explored, but caution should be taken that such redevelopment/ intensification is not to the detriment of the adjacent residential fabric. In this regard the Urban Design Guidelines (ODA, 2011) will be applicable.</p> <p>Belmont Park/ Eikendal</p> <p>7. Effort should be made to identify redevelopment opportunities along the particular part of Old Oak Road (as activity route), in order to better the quality of the urban fabric in the environment.</p>	<p>P11-P16, P20, P22 P39-42</p> <p>Action: Update and formalise Durbanville CBD Urban Design Guidelines</p> <p>Formulate land use and urban design guidelines for Springbok Park and Arauna</p>
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<p>k) Industrial Development nodes (Industrial development areas comprise generally of all forms of industry except noxious trade and risk activity. Allowance must be made for limited forms of non-industrial activity, but these activities should not compromise the general use of the area designated for industry.</p> <p><i>Industrial development has particular requirements for road and waste infrastructure, and industrial zoned land should generally be reserved for industrial purposes to optimise this infrastructure and mitigate potential impacts.</i></p> <p>The reasoning for the proposals is based on the following locational requirements for industrial land:</p> <p>-The traditional locational requirements for the establishment of an industrial area is relative flat areas, located at points of relative high accessibility and enjoying access to major roads with adequate supportive municipal infrastructure remain valid pre- requisites.</p> <p>-For the establishment of any new industrial development a certain critical mass is required to make such an industrial area a recognised industrial development node. There may be</p>	<p>1. Morgan Grounds (R300): This area is regarded as an extension of the Stikland Industrial Area which is a well performing existing industrial area.</p> <p>2. Fisantekraal Industrial Node</p> <p>3. Botfontein Industrial Node (area is located in the north-western quadrant of the intersection of Botfontein Road and Bottelary Road)</p>	<p>1. General industrial uses should generally be supported in these areas.</p> <p>2. Due to particular requirements for road and waste infrastructure associated with industrial zoned land, these areas should generally be reserved to optimise this infrastructure and mitigate potential impacts</p> <p>3. Allowance could be made for limited forms of non-industrial activity, but these activities should not compromise the general use of the areas zoned for industry. .</p> <p>4. Industrial development is generally limited in the district and should be protected against (further) commercial or residential creep or intrusion.</p> <p>Fisantekraal</p> <p>5. This area should be supported as a significant emerging area of commercial and industrial development opportunity. A range of interventions (including urban upgrading and investment in infrastructure) are required to support economic development in this area. The proposed industrial node is located in a position which is highly accessible from all major roads, such as the N1, via the R304 and R312, as well as Klipheuwel Road. It is also argued that whilst the existing industrial developments only provide for smaller sites, opportunities should also be created for larger developments which could include risk activities. It is therefore proposed that the existing non- conforming industrial uses (such as Corobrick, Apollo Brick Fields) located across the Klipheuwel Road be included in the industrial node, in order to provide for the required 'mass', as well as to create opportunity for diversity of scale of development.</p> <p>Botfontein</p> <p>6. The area is ideally located in terms of accessibility to both the R300 (access via on/off ramps approved) as well as the N1, via the proposed Maroela Road extension through Wallacedene. The area is also located adjacent to the Scottsdene Sewerage Works which is currently being refurbished and extended at a cost of R34m, over a period of 3 years. Adequate treatment capacity is available to accommodate the proposed industrial development.</p> <p>The subject area is also in close proximity to extensive residential areas like Scottsdene, Wallacedene, Bloekombos and Kraaifontein (a total population of around 114 000 people, 2007 figures), residential dormitory areas where large scale employment opportunity is lacking and an unemployment figure of 39,4% is present (2007 figures).</p> <p>Immediately to the west of the subject property is the Crammix brickyard which is earmarked for future mixed use development, which should also include high density residential development.</p> <p>Existing land uses in the subject area comprise of large areas which are not being used for cultivation purposes, extensive areas are vacant or are being used for semi- industrial or business purposes. Furthermore, the subject area is not classified as an area of high agricultural potential. The small river stream (being part of the Bottelary River) along the southern edge of the area is suggested to be used to inform the delineation of the proposed industrial area. In addition Stellenbosch Farm No 17, portions 6 and 22 with a combined extent of 41,8 ha and</p>	<p>P4, P5, P7, P8, P16</p> <p>Action: Investigate proposed structure/ form of identified industrial areas.</p>
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l) Risk Industry	-	-	P4, P5, P7, P8, P16
m) Cemeteries	Durbanville and Kraaifontein Cemeteries	<p>The Northern District has traditionally employed the Durbanville and Kraaifontein cemeteries for burial, with the adjacent Bellville cemetery in Tygerberg District also serving this area. Significant urban development in the Durbanville, Brackenfell and Kraaifontein areas, as well as formal and informal high density development at Bloekombos, Wallacedene and Fisantekraal has increased grave demand, resulting in Durbanville cemetery having reached capacity and Bellville cemetery nearing capacity. The development of the Durbanville Memorial cemetery near Fisantekraal, being privately owned and operated, is providing interment services to higher income communities. Rural settlements (i.e. Fisantekraal, Klipheuwel and Philadelphia) have no provision for burial. This district, given current shortfalls and identified "greenfields" development between Kraaifontein and</p>	<p>P41, P47</p> <p>Action: Identify land for cemetery in growth corridor</p>

		Fisantekraal will require additional burial space in the short-medium term. Current development of the 9,9ha Wallacedene cemetery represents the commencement of such provision.	
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* list is not exhaustive

4.2 Route Designation

Transport infrastructure is reflected indicating selected elements of the district-wide movement system. In alignment with the CTSDf (2012), the Northern District Plan utilises a route designation indicating land use functionality that will encourage an appropriate level of development and more intense land uses to locate on, or adjacent to, the accessibility grid. This will contribute towards establishing the thresholds required for sustainable and cost effective public transport. It is important to note that opportunities along routes can also be linked to parallel streets and side roads. Furthermore, routes exhibit different characters and do not exhibit a uniform mix and density of land uses along their length. The district development guidelines should thus be read along with sub-district guidelines and local plans and policies where applicable and not necessarily be interpreted in a blanket manner for the length of the route.

The route designation reflected does not replace the City's Hierarchical Road Network Classification system, nor is it intended to run in parallel as a duplicate classification system. Annexure E describes the relationship between the CTSDf (2012) / district plan route designations and DoT, the PSDf and the City's hierarchical road classification network.

Table 4.2: Route Designation

Route Designation	District Elements	District development guidelines	Relevant CSDf Policies*
a) Activity Routes	<p>1. Durban Road/ Willie van Schoor Avenue (Primary Arterial)</p> <p>2. Old Paarl Road (Brackenfell) (Secondary Arterial)</p>	<p>1. The section of roads between the N1 intersection and Old Oak Road intersection is regarded as an activity route (except for the section along Ridgeworth). Should the PP Smit Sports grounds in future be relocated, access to the site off Durban Road should favourably be considered in order to allow for high intensity mixed use development.</p> <p>2. The section of Old Paarl Road running through the Brackenfell CBD (between Paradys Street and Brackenfell Boulevard) is regarded as an activity route, where pedestrian crossings should be introduced in such as way as to create a safe pedestrian area, and vehicular traffic be slowed down. For the section of road running through Eikendal and Belmont Park, the route is regarded as having the potential to become a higher density activity street. Provision should be made for more direct access, where possible, in order to allow for commercial/ higher density residential and informal trade use to increase its presence in the area.</p>	P3-4, P10-11, P13-16, P35, P39
b) Activity Streets	<p>1. Wellington Road (through Durbanville CBD)</p> <p>2. Brighton Road (Kraaifontein) (Primary Arterial)</p>	<p>1. Direct access from properties onto the street should be maintained. With any redevelopment of property, developers should be encouraged to provide applicable landscaping (hard and soft) to increase the pedestrian movement capacity of the activity street. The proposals as contained in the Durbanville CBD Urban Design Framework (1999) should be adhered to.</p> <p>2. Brighton Road as activity street offers the opportunity to become in future more of a mixed use precinct, where it is argued that it offers primarily opportunity for high density residential redevelopment as well as an amenity node, located in the surrounds of the municipal buildings. The road will also fulfil a function as public transport route, be it as trunk route or feeder route. A conceptual design for the future redevelopment of the road, is in the process of being finalised. Urban Design</p>	P3-4, P10-11, P13-16, P35, P39

	<p>3. Darwin Road/ Malborough Street (Kraaifontein)(Secondary Arterial)</p> <p>4. North East Development Corridor</p>	<p>Guidelines are also in the process of being formulated to steer future redevelopment proposals as well as to optimise future functioning of the road.</p> <p>3. Both roads are regarded as future activity streets, but which will merely have the function of mixed use high density residential streets. It is also believed that the suburban character of Malborough Rd. may in future be diminished to a large extent, and uses along the route be taken over by smaller business uses. The core of the adjacent residential fabric should however be protected.</p> <p>What is important, is that these routes should accommodate required amenities, and where possible, higher residential development should be encouraged on top of commercial buildings.</p> <p>Urban Design Guidelines is also required to not only indicate parameters for change in land use along these routes, but also guidelines for street interfaces, building lines, heights, parking location, etc.</p> <p>4. Activity streets, to act as high intensity amenity precincts, should be introduced in the high density housing areas in closer proximity to the proposed stations, in order to provide safe areas for pedestrian movement, community interaction and public facilities/ business use to establish itself.</p>	
c)Development Routes	<p>1. Okavango Road (Primary Arterial)</p> <p>2. Brackenfell Boulevard (Secondary Arterial)</p> <p>3. Old Paarl Road (Secondary Arterial)</p> <p>4. Durban Road (Primary Arterial)</p> <p>5. Lichtenburg Road (R312)(Primary Arterial)</p>	<p>1. This is a route of metropolitan significance and will accommodate line haul public transport services. Intensification to support public transport is proposed at nodal locations. However, higher order commercial facilities should rather in future be located along activity routes/streets such as Darwin Road in order to optimise accessibility for a wider and more diverse community. To the south of Old Paarl Road, it is preferred that a continuous road alignment be secured in order to establish continuity. This however will mean expropriation of residential properties located to the south of Old Paarl Road. Should the preferred alignment (from a transport perspective) not be possible, the road alignment of Kruishout Road will need to be utilised, which may have an impact on the mobility function of the route. This should not be regarded as only a negative impact, as the change in function of the route along this particular section (to create more development opportunities) may in the long term also have a positive impact on the quality of the surrounding urban fabric.</p> <p>2. This road should also fulfil the function of a development route, but its importance is regarded as secondary to that of Okavango Road.</p> <p>3. This road is regarded as a secondary road with both the functions of a development and activity route, i.e. to the east of the R300 the function of the road changes to that of an activity route, which should be strengthened by introducing more points of direct access.</p> <p>4. The route already fulfils a dual function as mobility and development route, whilst the portion running through the Tyger Valley node is fulfilling the function of an activity route (Willie van Schoor). The mobility function of the route should however not be underestimated. The northwards extension of the Tyger Valley node along Durban Road is not envisaged, as the longer term extension of the node is only envisaged to take up a portion of the Upper Oakdale area.</p> <p>5. Lichtenburg Road as a proposed class 2 route, should also in future, with the development of the North Eastern Development corridor take on a dual function as mobility and development route, where development is allowed at interchanges such as the proposed Lucullus Road intersection. The proposed extension of the R312, to link with Vissershok Road in future, is however regarded as a connector road only.</p>	<p>P3-4, P10-11, P13-16, P35, P39</p>

	6. Carl Cronjé Drive (Secondary Arterial)	6. The road is regarded as a development route, but consideration should be given to increased opportunities for safe pedestrian crossings at regular intervals. Such areas should be clearly defined by means of raised paved areas, and clear signage. Should overhead crossings be proposed in future, the transport authorities should consider that in a positive manner. The proposed half- diamond interchange on and off the N1, should be prioritised in order to alleviate congestion at the Durban Road interchange.	
	7. Lucullus/ Maroela Road (Primary Arterial)	7. The route should in future, with development in the growth corridor, also take on the function of a development route. The portion of Maroela Road, running through Wallacedene, should however be allowed to take on more of a function as an activity street, where amenities should be allowed to locate along the route in a nodal form.	
	8. Wellington/ Klipheuwel Road (between CBD and R312 intersection)(Primary Arterial)	8. The said road section is proposed to become in future a development road, on which residential uses should be allowed at intersections, such as the future Brackenfell Boulevard- and Okavango Road intersections. Such uses should however be limited in scale, as larger scale non residential uses should be encouraged along activity routes/ streets.	

d) Urban Freeways	<p>1. N1 Freeway</p> <p>2. R300 Freeway</p> <p>3. N7 Freeway</p>	<p>1. The N1 is regarded as the primary mobility route which is running through the district, and has got a major impact on the economic sustainability of the district. Certain interchanges on the N1, such as the Brighton Road interchange, has reached capacity and upgrade of the interchange needs to be prioritised.</p> <p>2. The R300 is regarded as having only a mobility function, and it acts very much as a bypass route in the metropolitan area. The extension of the road to the north, beyond the N1, should be prioritised, in order to alleviate congestion in areas such as the Durbanville CBD, along minor roads such as the R304, passing through Philadelphia. Presently 2 road alignments are being proposed, i.e. the R300 alignment linking into the N7 at a point to the north of Melkbosstrand, whilst a proposed east west arterial toll road alignment is supposed to link with the N7 at a point to the north of Big Bay. As the road falls under the jurisdiction of the SA National Roads Agency (SANRA), the local authority has no jurisdiction over the implementation of the road extension. The final road alignment is to be determined through inter alia the EIA process, which is still underway.</p> <p>3. This is the other freeway having an impact, but seeing that it runs on the western boundary of the district, the only impact it will have, is the potential of a secondary node to be developed at the intersection with the M12 and Tyger Valley Rd.</p>	P6, P10, P14-16
e) Connector Routes/ Structuring Roads	<p>1. Vissershok Road, Tyger Valley Road, Jip de Jager Road, the R304, the realigned Langeberg Road, as well as the proposed realigned Hendrik Verwoerd extension (to link via Hume Rd. with Carl Cronjé Drive) and the realigned De Villiers Road.</p> <p>2. Old Oak Road, Bill Bezuidenhout Avenue, Eversdal/ De Bron Roads (between Durban Road and Okavango Road), Fairtrees/ Lubbe Street/ Boland Way, and Koeberg Road</p>	<p>1. These roads are all regarded as connector routes, where mobility is the primary function of these routes.</p> <p>2. The characteristic mix of predominantly residential function and character but interspersed with small mixed use areas, as well as mix of mobility and activity functions should remain and generally be contained in their current forms.</p> <p>3. The role of these routes as (in many cases future) significant community service public transport routes should be reinforced.</p> <p>4. Support, where appropriate, limited commercial or mixed use activity at points on or along specified portions of these routes, subject to sub-district development guidelines and / or local area plans. Expansion of these uses should be strongly controlled.</p> <p>5. Civic upgrades, landscaping and NMT provision should be made as and where appropriate to ensure quality streetscapes.</p>	P10, P13-16
f) Railway Infrastructure	<p>1. Malmesbury line</p> <p>2. Paarl/ Wellington line</p>	<p>1. Should form the backbone of the proposed north east growth corridor. Three of the station positions along the Malmesbury line have been agreed to by PRASA, but the development thereof is understood to be dependent on future numbers of people to be accommodated in the growth corridor. Higher density housing development should be supported in close proximity to station positions, and east west linkages should be established to improve access to stations.</p> <p>2. Line accommodates higher order stations such as Kraaifontein, Brackenfell and Scottsville stations. Support greater land use intensification within walking distance of stations. The focus should be on identified nodal areas where</p>	P9-18

		<p>particular attention must be given to integration with other transport modes, but includes residential densification around stations located in residential areas.</p> <p>3. Retain existing passenger rail lines for public transport right of way.</p> <p>4. Develop public land holdings in proximity of station precincts to accommodate high density housing and mixed use.</p> <p>5. Adopt a precautionary approach to alienation of land associated with freight rail.</p>	
g) IRT (trunk routes)	(None identified as yet).	<p>1. Support the general alignment of proposed IRT trunk routes in the district with the accessibility grid (designated Activity Routes, Development Routes, and Activity Streets) and subject to the spatial planning principles for public transport route alignment (see CTSDf).</p> <p>2. Ensure public transport infrastructure is complimentary to the identified land use and development role of the route.</p> <p>3. Any future redevelopment of these roads, associated pavement areas, and land uses fronting these, should take place with the potential IRT infrastructure improvements in mind (e.g potential stations). This focus should also include NMT considerations.</p>	P9-18
h) Scenic Routes	<p>The routes mentioned hereunder are categorized as Scenic (S1) and Scenic (S2) routes. The S1 routes are limited access routes which traverse areas of high scenic quality, whilst S2 routes traverse areas of high scenic value but are frequently accessed. These include sections of Contermanskloof Road (S1), the R304 (S1) between Klipheuwel and Philadelphia, the N7 (S1), R302, Vissershok Road (S1) which include section of St. John's Road (S2), Durban Road (S2), Wellington/ Klipheuwel (S2), Tyger Valley Road (S1).</p>	<p>Development along scenic routes should not obscure views from the route or negatively affect the character of the landscape through which it passes. Guidelines for development along the said routes are contained in the Scenic Drive Network Management Plan (Phase B), July 2001, which should be consulted when development proposals are formulated for areas adjacent to the scenic routes</p>	P48
i) Critical Public Links	<p>Include the Elsiekraal open space system, Kuils River system (inc. links to Sonstraal and Vygeboom dams), tributaries of Mosselbank River, links between Bracken Nature Reserve and Perdekop, as well as link along Vergenoegd</p>	<p>1. Any development should ensure that critical public links are maintained.</p> <p>2. Uninterrupted public access along river corridors and green belts are essential.</p> <p>3. Informal pedestrian links should be formalised/upgraded wherever possible to provide for safer and better quality pedestrian environments .</p>	<p>P13</p> <p>Action: Ease of public access, with continuous / linked pathways and also</p>

	Street in Protea Village		cycle tracks, should exist throughout the district.
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* list is not exhaustive

4.3 Conceptual Designations

These are designated areas in the District plan having significance in guiding urban development, but which are not precisely geographically defined (or exclusive) areas, but rather conceptually indicated.

Table 4.3: Planning Concepts

Planning Concepts	District Elements	District development guidelines	Relevant CSDF Policies*
a) Urban Nodes	<p>The plan identifies the following urban nodes associated with the primary accessibility grid: It needs to be noted that the Tyger Valley node, Durbanville CBD and Cape Gate node is primarily focussed on vehicular transport, whilst the Brackenfell CBD is to a large extent focus on the proximity of rial transport which the Brackenfell station provides.</p> <p><u>Primary/ Metropolitan Nodes:</u></p> <ol style="list-style-type: none"> 1. Tyger Valley economic node 2. Cape Gate node <p><u>District Nodes:</u></p> <ol style="list-style-type: none"> 1. Durbanville CBD 2. Brackenfell CBD 3. Kraaifontein CBD (Brighton Road) <p><u>Lower Order/ Local Nodes:</u></p> <ol style="list-style-type: none"> 1. North East Growth Corridor <p><u>Strip type development</u></p> <ol style="list-style-type: none"> 1. Darwin/ Marlborough Drive 2. Lucullus Road/ Maroela Road <p><u>Neighbourhood Business complexes</u></p> <ol style="list-style-type: none"> 1. Neighbourhood business complexes 	<p>1. General: In general, support high intensity mixed use development (e.g. office, retail, residential), the extent of which should be guided by relevant city/district and local area policy guidelines. In general, support residential densification in line with the provisions of the City's densification policy and sub-district / relevant local area development guidelines. Support a more flexible position to parking provision and related departures in these nodes, where well served by public transport.</p> <p>2. Tyger Valley This area which is regarded as a second CBD to that of Cape Town CBD, should be supported and reinforced as an area for intense commercial, educational, sport and tourist related land use. A range of interventions (including urban upgrading and investment in infrastructure) are required to support economic development in this area, such as the half diamond intersection off the N1, pedestrian linkages between the developments (presently bisected by roads), and upgrade of the open space system (Elsieskraal River, Doordekraal Dam, Majic Forest). Furthermore opportunities for extension to the node should be identified, with clear directives for development/ redevelopment. In this regard the redevelopment of the Upper Oakdale area should not be considered for the duration of this plan. The redevelopment of the Bellville Velodrome site should be intergrated with the surrounding urban fabric, and further extensions to existing commercial development should only be considered on the basis of providing physical linkages to other surrounding precincts.</p> <p>3. Cape Gate The commercial area at the N1/ Okavango Drive intersection is regarded as an emerging commercial node which still offers ample opportunity for new development, which should be of a mixed use nature. High density residential development should also be encouraged along Okavango Road (as a public transport route) in order to support the commercial developments. Care should however be taken that the core of adjacent residential areas such as Windsor Park and Zoo Park be protected for business creep.</p> <p>4. Durbanville CBD This established CBD still offers ample opportunity for infill/ redevelopment/ intensification, but such developments should not detract from the existing character of the CBD, but should</p>	P3-4, P10, P16, P22

	<p>are spread throughout the district, and either serve the surrounding residential environment (Van Riebeeckshof Centre, Sonstraal Hoogte Centre), is located along the secondary transport network, to serve the passing trade (Glen Garry Village Centre along De Bron Road), or is located at secondary intersections, in close proximity to amenities, such as schools (Kenridge Centre).</p>	<p>strive to enhance pedestrian movement, should respect the heritage value of older buildings in the area, and should be in line with the scale and character of existing developments. Opportunities for higher density residential infill development in the soft- and hard core of the CBD should also be considered.</p> <p>5. Brackenfell CBD This commercial area is fragmented by the road system (Old Paarl Road, Brackenfell Boulevard), but offers opportunity for expansion (inclusion of Springbok Park, as well as limited area west of Brackenfell Boulevard, i.e. Ferndale) and redevelopment/ intensification by re-evaluating the opportunities offered by large underutilised parking areas (Hipermarket) and vacant land opposite the Brackenfell Station. As the success of the CBD is more focussed on users of the rail transport, effort should be made to optimise accessibility, which should include opportunities for the smaller business operations.</p> <p>6. Kraaifontein CBD This node is regarded as a lower order nodal development, which is only defined by a linear form along Brighton Road and Van Riebeeck Road. Redevelopment/ intensification along the said roads (identified as a public transport route), for commercial, public amenity and higher density residential use should be supported. Funding for the upgrade of the road in order to accommodate the public transport function, as well as expected increase in traffic movement, due to the corridor development in the north east, needs to be made available when required.</p> <p>7. Growth Corridor Proposed locations for future local nodes, which may also include civic precincts, are reflected on the Spatial Development Plan. These locations should not be regarded as fixed, but merely as proposed locations providing, from a spatial perspective, optimum accessibility.</p> <p>8. Darwin/ Marlborough Streets The linkage from the Cape Gate commercial node, to the identified north eastern growth corridor, via Marlborough Drive and Darwin Road, is believed to have in future a direct impact on land use along the said routes. It is argued that these routes should, over time, become more of a high density housing corridor, which must also accommodate public amenities and secondary business uses. Care should however be taken to protect the core of established residential areas located adjacent to such higher density corridors.</p> <p>9. Lucullus Road/ Maroela Road In the context of the identified north east development corridor, the said route is believed to become the backbone (for vehicular traffic) of the future growth corridor, which provides the opportunity to be developed into a higher density corridor. Along such corridor land uses such as public amenities, commercial development (both formal and informal), and high density housing can attach itself, but dependant on access policy. However, no residential-/ business development/ amenity should be considered if direct access cannot be obtained, thereby preventing development to back onto the route.</p> <p>Higher density housing development can be considered in the immediate surrounds, but should not be to the detriment of the surrounding residential fabric. These centres should be not be allowed to expand to accommodate uses not serving the immediate surrounding environment, such as office development.</p>	
b) Civic Precincts	<p><u>Higher order urban civic precincts</u> : Durbanville CBD, Kraaifontein CBD</p>	<p>1. Link the development of civic precincts to the redevelopment of business districts through public-private partnerships. 2. Local civic precincts should also be spread throughout the growth corridor, in positions with the highest accessibility, i.e.</p>	P41, P47, P50

	<p>(Brighton Road area where adequate land is still available for infill development), plus a newly proposed civic precinct in Bloekombos Extension 3, along Maroela Road, to serve the emerging communities of Wallacedene and Bloekombos.</p> <p><u>Local order precincts:</u> Brackenfell CBD, Scottsdene, Fisantekraal and the identified growth corridor.</p> <p>These are complimented by a local system of clusters, which is spread around the neighbourhood areas.</p>	along high density precincts in close proximity to public transport facilities.	
<p>c) Destination Places (relate to realising development opportunities with regard to the <i>natural destination places</i> focussing investment in a manner that enhances their special qualities and provides a new level of amenity and promoting the natural and recreational role)</p>	<p><u>Natural destination places:</u> 1. Tygerberg Nature Reserve, Bracken Nature Reserve, the Durbanville Nature Reserve</p> <p><u>Other Destination Places</u> The Durbanville Winelands which comprises of a number of wine estates, scenic routes and cultural landscapes;</p> <p>Philadelphia as a heritage special place;</p> <p>The Durbanville Rose Garden as a District Park, due to it's multi-purpose function.</p>	<p>1. Support recreational (and tourism) opportunities at the key identified open space areas with the potential to become major open space destination places in the district.</p> <p>2. Support tourist related/ recreational uses where appropriate, but scale, form and type of development should not be to the detriment of the landscape.</p>	P1, P50

* list is not exhaustive

4.4 Development Edges

The urban edge is a demarcated edge line defining the outer limits of urban development for a determined period of time. It is a medium to long-term edge line, where the line has been demarcated in a position to manage the growth of urban settlement, or to protect natural resource boundaries.

Table 4.4: Development Edges

Development Edges	District Elements	District Development Guidelines	Relevant CSDF Policies*
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a) Urban Edge	<p>1. The Durbanville Hills Winelands along the Tyger Valley- and Vissershok Roads; Farms located to the west of the Klipheuwel Road Smaller portions of land along the N1, on the eastern boundary of the district; Agricultural land located to the east of Botfontein Road.</p>	<p>1. Resource protection: the urban edge directs growth of the settlement footprint in the district away from a key environmental, agricultural and economic resource.</p>	P22, P23, P25, P26, P28, P33
	<p>2. Growth Management</p>	<p>2. The district has a peripheral location which gives rise to ongoing development pressure; a future growth corridor has been identified along the Malmesbury rail line to address future growth demand (especially addressing housing backlogs, as well as needs that will arise from urbanisation); the district is in dire need of employment investment, to provide for an increased population, especially in the lower income sphere, in order to provide a one- stop-shop situation where residents can live, work and relax without the cost of travelling, and therefore reduce living expenses. Therefore the focus should be on:</p> <ul style="list-style-type: none"> • Exploring infill opportunities within the settlement footprint oriented around reinforcing the public transport network; • Exploring sustainable development opportunities associated with the already identified growth corridor; • Exploring land with development potential, that can serve as existing/ emerging and future employment/ mixed used centres. <p><i>Note that for the areas outside the urban edge, where development applications are to be considered is indicated by means of a symbol in the Spatial Development Plan. This means that development applications will be considered in these areas, but any application will be considered on its own merit, taking into consideration the provisions of the CTSDP as well as any other applicable policy of the City.</i></p>	

* list is not exhaustive

4.5 Precautionary areas and utility service infrastructure installation and networks

These areas are generally defined at a cadastral level and are likely to present a form of risk to development or activities. Although this may not exclude any underlying use as depicted (e.g. urban development) the risks related to the identified precautionary areas may place certain restrictions on development (e.g. In terms of use, density, form).

Table 4.5: Precautionary areas and utility service infrastructure installations and networks

Precautionary Areas	District Elements	General Land Use Guidelines	Relevant SDF Policies
a) Utility Service Infrastructure	1. Fisantekraal-, Kraaifontein-, Scottsdene WWTW's.	1. Development in the district should aim to result in greater water usage efficiencies. Re-use of water should also be supported, with greatest potential in areas near WWTWs. No permanent activities or structures should be approved within the prescribed buffer area around the WWTW, except for the designated infrastructure and bulk services activities and structures.	P26
	2. Bulk infrastructure servitudes relating to ESCOM overhead powerlines that transverse the Kraaifontein north east growth area.	2. It is recommended that non- residential uses be established along these servitudes, and that such uses do not back onto the servitudes, but that the available space be integrated with the development, as open space utilisation.	
	3. Other	<p>3. Infrastructure is an essential part of urban development. In this regard, all land within the structure plan area designated as buffer 1 or buffer 2, may be used for the establishment of space extensive essential engineering infrastructure services and installations such as municipal engineering services, power substations, landfill sites and for telecommunications purposes, subject to any necessary environmental authorizations and applicable policy. Linear infrastructure which forms part of a services network such as power lines, bulk service pipes and ICT cabling may be suitable in any of the identified planning categories subject to relevant statutory authorizations and taking visual impact into account where appropriate</p> <p>No permanent activities or structures should be approved within servitudes, except for the designated infrastructure and bulk services activities and structures.</p> <p>Servitudes can potentially be used for public open spaces, urban agriculture etc. subject to the relevant planning approvals.</p> <p>Where feasible, electrical power lines should be placed underground.</p>	

b) Flood Prone Areas (where urban development is within floodlines)	Where applicable	<ol style="list-style-type: none"> 1. Reference should be made to the EMF's hydrological zone, and specific environmental attribute detail for further guidance around the desirability of specific activities within specified flood risk areas. 2. Undesirable activities in terms of the EIM Zone should only be authorised under exceptional circumstances, subject to compelling motivation (e.g. where there is an existing right). 3. Apply more restrictive building setback lines and maximise on-site water infiltration and permeability in relation to redevelopment initiatives in flood prone areas. 4. Although some agricultural activities may be permitted within the flood risk and flood fringe areas, the nature of the impacts and appropriate mitigation must be determined in the EIA process, and must be shown to be acceptable prior to approval (i.e. they must not pollute water resources or increase flood risk). 5. No agricultural activities should be approved within the 1:2 year flood line. 6. New development within the 1:100 year flood line should be subject to formal acknowledgement by the owner of flood risk, and is only permissible where there are existing rights. 7. Where facilities associated with sports fields, golf courses or picnic areas have been conditionally permitted in the 1:50 year zone, floor levels must be above the 1:50 year flood line. 8. In general, new buildings and developments abutting rivers should be orientated towards the river, where possible, and the principles of Water Sensitive Urban Design should be applied. 9. Aquifer re-charge areas and sole-source aquifers should be protected from potential sources of pollution. 	P20, P21, P26
c) Veld Fire Risk Areas	Urban areas abutting the urban edge around the Tygerberg Hills area	In general, avoid supporting land uses that are fire prone (e.g. informal settlement) or present challenges to evacuation (e.g. old age homes) and access to emergency services (e.g. gated security estates) along high veld fire risk urban edge areas.	P26

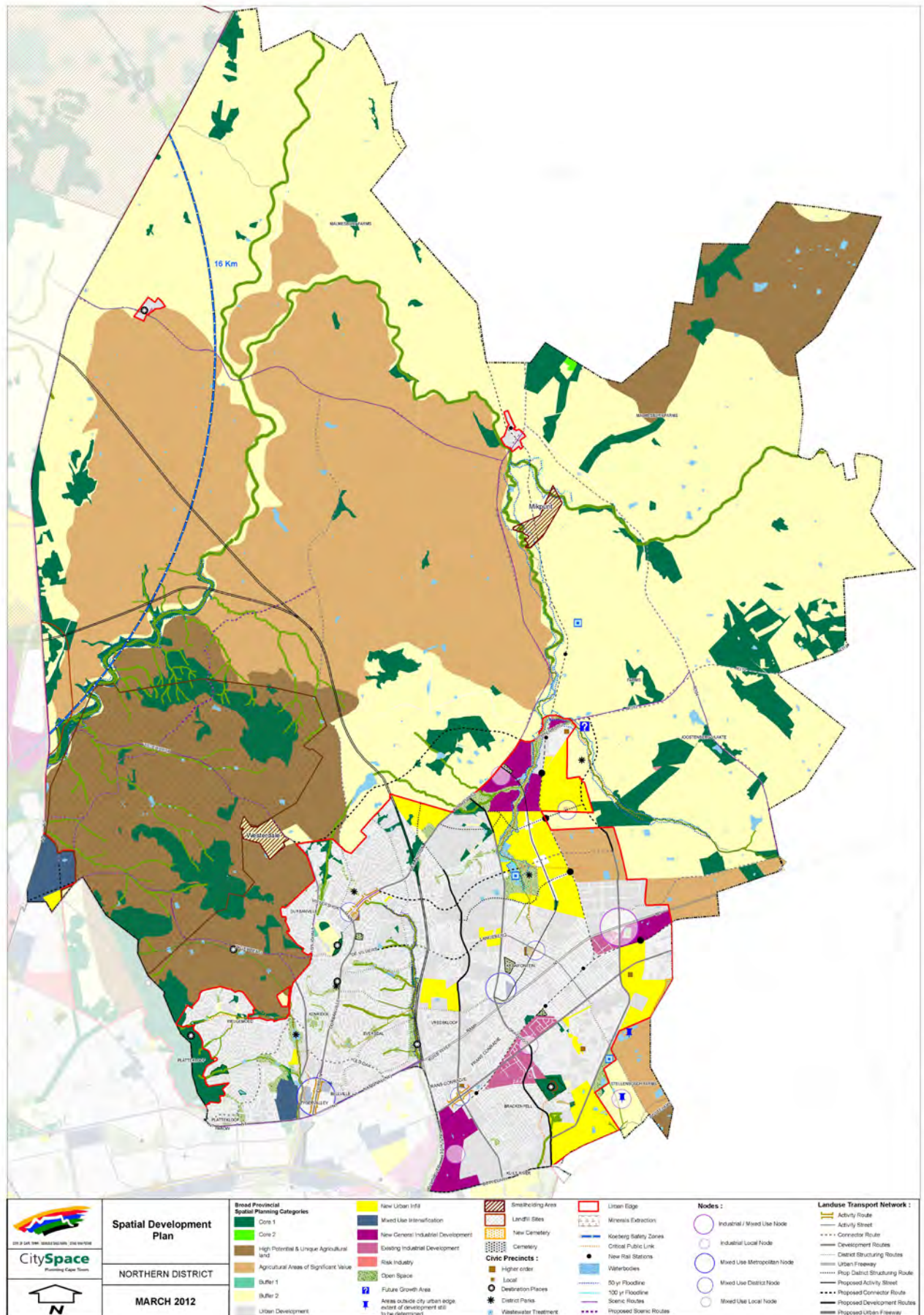


Figure 3: Spatial Development Plan

5. ENVIRONMENTAL IMPACT MANAGEMENT ZONES

5.1 Introduction

The following section describes the Environmental Impact Management Zones (EIMZ), which must be considered in planning, development and environmental and land management decisions. The information provided in this section has been informed by the attributes (characteristics and sensitivity) of the various environments described in the baseline information and analysis document. This chapter included management guidelines for each management zone. Further to these impact management zones, areas of potential impact have been identified that reflect areas prioritised for development purposes, but where underlying environmental attributes may be impacted.

5.2 Environmental impact management zones and land use development informants

Environmental Impact Management (EIM) zones have been identified using the best available information at the time of report compilation. They comprise areas with homogenous or similar environmental attributes. These EIM zones are intended to guide and inform planning and decisions regarding activities that require environmental authorisation and / or planning approval within these areas. They should be regarded as a basis for the possible future exclusion of certain activities listed in the NEMA EIA Regulations (2010) from the requirement for environmental authorisation.

The District Planning Office needs to be contacted for finer scale maps that enable the placement of individual properties relative to the EIM zones.

The following tables should be read together with the accompanying EIM Zone maps. Each attribute which is mapped as an environmentally sensitive zone, has an accompanying table indicating the following:

- **Kinds of developments, land uses or activities that would be undesirable:** These are types of activities which may be contrary to the desired state of the environment in a particular zone and should be discouraged, unless there is compelling motivation to the contrary.
- **Kinds of developments, land uses or activities that may have a significant impact:** These are types of activities that could be considered in a particular zone, provided potential impacts resulting from the activity are adequately assessed, prior to approval, and adequate mitigation measures to limit and reduce the negative impacts are identified and implemented.
- **Kinds of developments, land uses or activities that may not have a significant impact:** These are types of activities that are generally desirable and unlikely to cause significant impacts in a particular zone. However these activities are still subject to legislative requirements in terms of NEMA and other relevant legislation, as well as impact management norms and standards such as implementation of an Environmental Management Programme (EMP).

Additionally, each table indicates relevant **policy and guideline documents** which should be consulted (see also Annexure C).

Important note: The **kinds of developments, land uses or activities** described in the EIM tables below are not the listed activities as contained in the National Environmental Management Act

(NEMA) EIA Regulations (2010)¹ . In order to determine which activities will trigger the requirements for an Environmental Assessment process, reference must always be made to the NEMA EIA Regulations as well as the National Environmental Management (NEM): Waste Act, the NEM: Integrated Coastal Management Act, the NEM: Biodiversity Act (Act 10 of 2004) and the NEM: Air Quality Management Act. Reference should also be made to section 38 of the National Heritage Resources Act.

The need to undertake an EIA in any of the environmental impact management zones listed below should be determined by whether the proposed project includes one or more listed activities as identified in the EIA Regulations (2010, as amended).

Furthermore, should an EIA not be required, the local authority may still require an assessment of possible impacts on environmental attributes or specific environmental information in order to have sufficient information to evaluate an application made in terms of the Land Use Planning Ordinance (15 of 1985) or replacement legislation. Such requests for assessment or information may also apply in cases when there is likely to be any significant damage to or degradation of the environment, in which case an environmental assessment (or other precautionary steps as listed in section 28(3)) should be undertaken in terms of the Duty of Care Principle of NEMA (see below), sections 28(1), (2) and (3).

Note: Duty of Care Principle

Any person undertaking any activity that may cause damage or degradation to the environment is subject to the Duty of Care Principle in terms of NEMA, section 28.

NEMA (S 28(1)) requires that: Every person who may cause significant ... degradation of the environment must take reasonable measures to prevent such degradation from occurring ...or, in so far as such harm to the environment is authorized by law or cannot reasonably be avoided ... to minimize or rectify such ... degradation of the environment.

The Duty of Care Principle therefore may apply to any activity or land use, irrespective of whether it is included in the listed activities in the EIA Regulations (2010).

The measures required in terms of subsection (1) may include measures to -

- (a) investigate, assess and evaluate the impact on the environment;
- (b) inform and educate employees about the environmental risks of their work and the manner in which their tasks must be performed in order to avoid causing significant pollution or degradation of the environment;
- (c) cease, modify or control any act, activity or process causing the pollution or degradation;
- (d) contain or prevent the movement of pollutants or the cause of degradation;
- (e) eliminate any source of the pollution or degradation; or
- (f) remedy the effects of the pollution or degradation.

The environmental attributes are grouped on a number of EIM Zone maps as shown in Table 5.1 below.

Each zone is preceded by a summary of its status (summarised from the detailed description in the baseline report) and a description of the environmental management priorities.

¹ i.e. the List of Activities and Competent Authorities identified in terms of sections 24(2) and 24D of the National Environmental Management Act No 107 of 1998 (as amended)

Table Northern District: Overview of EIM zone maps

The environmental attributes are grouped on a number of zone maps as follows:

ZONE MAP NUMBER	Figure 4	Figure 5	Figure 6	Figures 7 and 8	Figure 9
ZONE MAP NAME	<i>Hydrological Zone</i>	<i>Conservation and Biodiversity Priority Zone</i>	<i>Cultural and Recreational Resources Zone</i>	<i>Natural Economic Resources Zone</i>	<i>Urban Uses and Utilities Zone</i>
ENVIRONMENTAL ATTRIBUTES	Flood Risk Areas <ul style="list-style-type: none"> • Flood risk area 1 (1:50 flood line) • Flood risk area 2 (1:100 flood line) • Flood risk area 3: (Flood prone areas) Rivers and Wetlands <ul style="list-style-type: none"> • Rivers and associated buffers • Wetlands and associated buffers Aquifers <ul style="list-style-type: none"> • Highly productive aquifers • Moderately productive aquifers 	Conservation and Biodiversity Areas <ul style="list-style-type: none"> • Protected areas • Critical Biodiversity Areas 1 • Critical Biodiversity Areas 2 • Critical Ecological Support Areas • Other Ecological Support Areas • Other Natural Vegetation 	Cultural and Heritage Areas <ul style="list-style-type: none"> • Cultural landscapes • Potential archaeological sites • Other significant heritage resource areas • Grade 2 heritage sites • Scenic Routes • Public Open Spaces • Structuring Open Spaces 	High Potential Agricultural Areas <ul style="list-style-type: none"> • High potential and unique agricultural land worthy of statutory and long-term protection • Agricultural area of significant value given existing, potential and emerging use • Other Agricultural areas • Smallholdings and agricultural areas Mineral Extraction Areas <ul style="list-style-type: none"> • Priority mineral resources 	Nuclear and Landfill Exclusion Areas <ul style="list-style-type: none"> • Nuclear Exclusion zones • Landfill sites and buffer zones Industrial and Commercial Areas <ul style="list-style-type: none"> • Industrial areas • Commercial areas Infrastructure and Utilities Areas <ul style="list-style-type: none"> • Infrastructure servitudes, including WWTWs

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5.2.1 Hydrological Zone

SUMMARY OF STATUS

The pollution and degradation of rivers, wetlands and groundwater systems within the Northern District, and the Western Cape in general, are critical issues. Many of the rivers in this District, have been degraded through pollution from agricultural stormwater run-off, treated effluent from WWTW and new industrial areas, water storage and abstraction (there are many farm dams in the district and water is abstracted primarily for agricultural purposes) as well as infestation by alien invasive fish and vegetation. Alien invasive vegetation is particularly bad along the Diep and Mosselbank Rivers.

There are also highly productive aquifers in the district and although these are currently only used for water abstraction for agricultural purposes (particularly the Klipheuwel aquifer) they are important resources and measures should be taken to ensure water quality is protected.

Note that floodlines have not been prepared for all watercourses. These need to be determined when development is contemplated.

ENVIRONMENTAL MANAGEMENT PRIORITIES

Management Priority	Priority area of focus
1. Enhance and restore	<ul style="list-style-type: none"> Restore the riparian zone by reintroducing indigenous riparian vegetation
2. Retain and protect	<ul style="list-style-type: none"> Establish and maintain river and wetland buffers Klipheuwel & Malmesbury aquifers and prevent pollution of recharge areas
3. EIA Requirements	<p><i>(Important issues to be considered in these zones include: stormwater quality and quantity management, catchment management, health and safety issues, biodiversity and rehabilitation, visual and heritage issues.)</i></p> <ul style="list-style-type: none"> Prevent inappropriate land uses in river-, wetland buffers and floodplains Improve agricultural practices to reduce sedimentation and water quality problems in the Diep and Mosselbank rivers No agricultural activities should be approved within the 1:2 year flood line Orientate new development (industrial and residential) along the lower reaches of the Mosselbank river towards the river Maintain and upgrade public open spaces along the upper reaches of the Elsieskraal and Kuils rivers Encourage the use of indigenous plants in landscaping along the upper reaches of the Elsieskraal and Kuils rivers A detailed Environmental Management Programme (EMP) must be drawn up and implemented for all activities approved in these zones, in accordance with the City of Cape Town's specifications for EMPs. A stormwater analysis is required to determine the extent and scale of activities that are, or are not, permitted. Types of activities that may have a significant impact (orange category) must demonstrate that there will be no significant impacts on aquifer water quality. Alternative locations (sites) for such activities must be considered in the EIA process.

4. Monitor and manage impacts	<ul style="list-style-type: none"> • Ensure that newly built dams allow for environmental flow releases • Clear invasive vegetation within river corridors (Diep, Elsieskraal, Kuils and Mosselbank) • Ensure effluent from industrial development is not discharged in the stormwater system or directly into rivers • Improve water quality, especially phosphorous levels in the Mosselbank River • Identify and implement measures to prevent E. Coli contamination of rivers and wetlands (particularly in the Deep and Mosselbank Rivers) • Principles of Water Sensitive Urban Design should be applied.
5. Research and Educate	<ul style="list-style-type: none"> • Maximise use of river corridors for recreational and educational purposes

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: HYDROLOGICAL ZONE: Refer to Figure 4

Note: All activities contemplated within the hydrological zone must be supplemented with the activities as contained in the Floodplain and River corridor Management Policy (2009)

Table 5.1a): Flood Risk Areas

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Flood Risk Area 1 <i>These constitute areas within the 1:50 flood line i.e. where floods of this magnitude are equalled or exceeded on average once in 50 years. NOTE: ALL ACTIVITIES LISTED AS 'UNDESIRABLE' ARE PROHIBITED IN TERMS OF THE FLOODPLAIN AND RIVER CORRIDOR MANAGEMENT POLICY (2009).</i>	<ul style="list-style-type: none"> Any activity which impedes the hydrological functioning and flooding of a river. Bulk infrastructure, including Waste Water Treatment Works (WWTWs), pump stations and power generation, electrical substations. Solid and liquid waste disposal. Telecommunication exchangers and transmitters. Manufacturing, storage, treatment, transportation or handling of hazardous substances. Any permanent building with foundations such as residential, business, educational, community and public facilities and institutions. Informal residential area. Railway stations or bus depots. Any structure that would pollute the river if it was flooded. The infilling or depositing of any material into a watercourse, in stream dam or wetland. Establishment of cemeteries. Abattoirs. 	<ul style="list-style-type: none"> Conservation related facilities or infrastructure. All excavation and mining related activities. Essential engineering and utility services relating to outfall sewers, stormwater systems and underground services. Transmission towers On-site sewage treatment (conservancy tanks). Road, rail, pipeline and cable crossings and bridges. Bank protection, flow diversion structures and earthworks (e.g. dams weirs, walls, levees). Parking areas. Pedestrian walkways. Agricultural and Agri-industrial activities. Resorts and camping/caravan sites. Sustainable harvesting of natural resources. Sports fields and picnic areas. 	<ul style="list-style-type: none"> Conservation activities. Public open space areas with appropriate low-impact recreation activities Agriculture (excluding grazing activities where presence of stock will affect water quality of a river, wetland or stream or cause erosion) 	<ul style="list-style-type: none"> City of Cape Town's Draft Floodplain and River Corridor Management Policy (2009) City of Cape Town's Management of Urban Stormwater Impacts Policy (2009).

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
	<ul style="list-style-type: none"> Industrial activities. Service stations. 			
Flood Risk Area 2 <i>These constitute areas within the 1:100 flood line, i.e. floods of this magnitude are equalled or exceeded on average once in 100 years.</i> NOTE: ALL ACTIVITIES LISTED AS 'UNDESIRABLE' ARE PROHIBITED IN TERMS OF THE FLOODPLAIN AND RIVER CORRIDOR MANAGEMENT POLICY (2009).	<ul style="list-style-type: none"> Bulk infrastructure, including WWTWs, pump stations and power generation. Solid waste disposal sites. Telecommunication exchangers and transmitters. Manufacturing, storage, treatment, transportation or handling of hazardous substances. Community and public facilities (including hospitals, old age homes, fire stations, educational facilities etc.) Informal residential areas Railway stations or bus depots. Any structure that would pollute the river if it was flooded. Establishment of cemeteries. Abattoirs. Industrial activities. Service stations Filling or Reclamation Activities 	<ul style="list-style-type: none"> Conservation related facilities or infrastructure. All excavation and mining related activities. Transmission towers and rooftop base stations Pedestrian walkways. Residential development (which complies with specific conditions for development within this zone*). Bank protection, flow diversion structures and earthworks (e.g. dams weirs, walls, levees) Tourism facilities (which comply with specific conditions for development within this zone*). Commercial development (which complies with specific conditions for development within this zone*). Renewable power generation. Facilities for the temporary landing of helicopters (but not maintenance or storage thereof). Agri-industrial activities Parking areas Resorts 	<ul style="list-style-type: none"> Conservation activities. Public open space areas with appropriate low-impact recreation activities. Resorts and camping/caravan sites. Essential engineering and utility services relating to outfall sewers, stormwater systems and underground services. On-site sewage treatment (conservancy tanks). Road, rail, pipeline and cable crossings and bridges. Agricultural activities. Sustainable harvesting of natural resources. 	

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Flood Risk Area 3 <i>These are areas prone to flooding. They are not necessarily associated with river or vlei systems, as flooding may originate from groundwater or collection of storm water or runoff in low lying areas.</i>	<ul style="list-style-type: none"> Activities can be considered in conjunction with the implementation of appropriate engineering solutions to localised potential flooding. 	<ul style="list-style-type: none"> Activities can be considered in conjunction with the implementation of appropriate engineering solutions to localised potential flooding 	<ul style="list-style-type: none"> Activities can be considered in conjunction with the implementation of appropriate engineering solutions to localised potential flooding 	

Table 5.1b): Rivers, Wetlands and associated buffers

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Rivers, wetlands and associated buffer areas <i>These are the buffer areas that have been determined via a series of standardised methodologies for the calculation of buffers (refer to the Floodplain and River Corridor Management Policy) River Buffer widths range from 10 – 40 m from the top of the river bank. Wetland buffer widths vary in width and may extend up to 75m from the outer delineated edge of the wetland.</i>	<ul style="list-style-type: none"> Any land use or activity that will have an impact on the vegetation cover or hydrological functioning of the buffer area, including: <ul style="list-style-type: none"> Industrial development; Mining activities; Business development; Residential development; Community and public facilities; Utilities and infrastructure; Agricultural activities; and Transport systems Infilling/reclamation 	<ul style="list-style-type: none"> Conservation related facilities or infrastructure. Essential engineering and utility services relating to outfall sewers and storm water systems. Essential road, rail, pipeline and cable crossings and bridges. Sports fields and picnic areas. Resorts and camping/caravan sites. Sustainable harvesting of natural resources. 	<ul style="list-style-type: none"> Conservation activities. Public open space areas with appropriate low-impact recreation activities. 	<ul style="list-style-type: none"> City of Cape Town's Floodplain and River Corridor Management Policy (2009) City of Cape Town's Management of Urban Stormwater Impacts Policy (2009). City of Cape Town: Prioritization of City Wetlands (2009) City of Cape Town Biodiversity Strategy
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Table 5.1c): Aquifers

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Highly productive aquifers <i>This zone includes highly productive intergranular, fractured and intergranular-and-fractured aquifers</i>	<ul style="list-style-type: none"> Manufacturing, storage, treatment, transportation or handling of hazardous substances. Solid and unregulated liquid waste disposal. *WWTWs. Any activity that can cause groundwater pollution or prevent the abstraction of water. Mining related activities and infrastructure. 	<ul style="list-style-type: none"> Water abstraction. Industrial activities. Establishment of cemeteries. Agricultural activities Stormwater management by means of infiltration 	<ul style="list-style-type: none"> Conservation activities and related facilities or infrastructure. Engineering and utility services (excluding waste disposal and WWTW). Roads, rail, pipelines and cables. Public open space areas. Residential development. Tourism facilities. Commercial development. Institutional facilities (including educational facilities). Transmission towers and rooftop base stations. Sustainable harvesting of natural resources. 	<ul style="list-style-type: none"> Department of Water and Environmental Affairs (DWEA's) Guideline for the Assessment, Planning and Management of Groundwater Resources in South Africa (2008) DWEA's Groundwater Resource Directed Measures (2006) DEAD&DP's Guideline for Involving Hydrogeologists Specialists in EIA Processes (2005)
Moderately productive aquifers <i>This zone includes moderately productive intergranular, fractured and intergranular-and-fractured aquifers</i>	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> All activities can be considered in this zone, however the following activities may have a significant impact: <ul style="list-style-type: none"> Manufacturing, storage, treatment, transportation or handling of hazardous substances. Solid and liquid waste disposal. WWTWs. Mining activities. Establishment of cemeteries. Water abstraction. 	<ul style="list-style-type: none"> Conservation activities. Conservation related facilities or infrastructure. Engineering and utility services (excluding waste disposal and WWTW). Public open space areas with appropriate recreation activities. Residential development. Commercial development. Tourism facilities. 	<ul style="list-style-type: none"> City of Cape Town's Management of Urban Stormwater Impacts Policy (2009)

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
		<ul style="list-style-type: none"> – Industrial activities. – Agricultural activities – Stormwater management by means of infiltration 	<ul style="list-style-type: none"> • Light industrial activities. • Roads, rail, pipelines and cables. • Transmission towers and rooftop base stations. • Sustainable harvesting of natural resources. 	

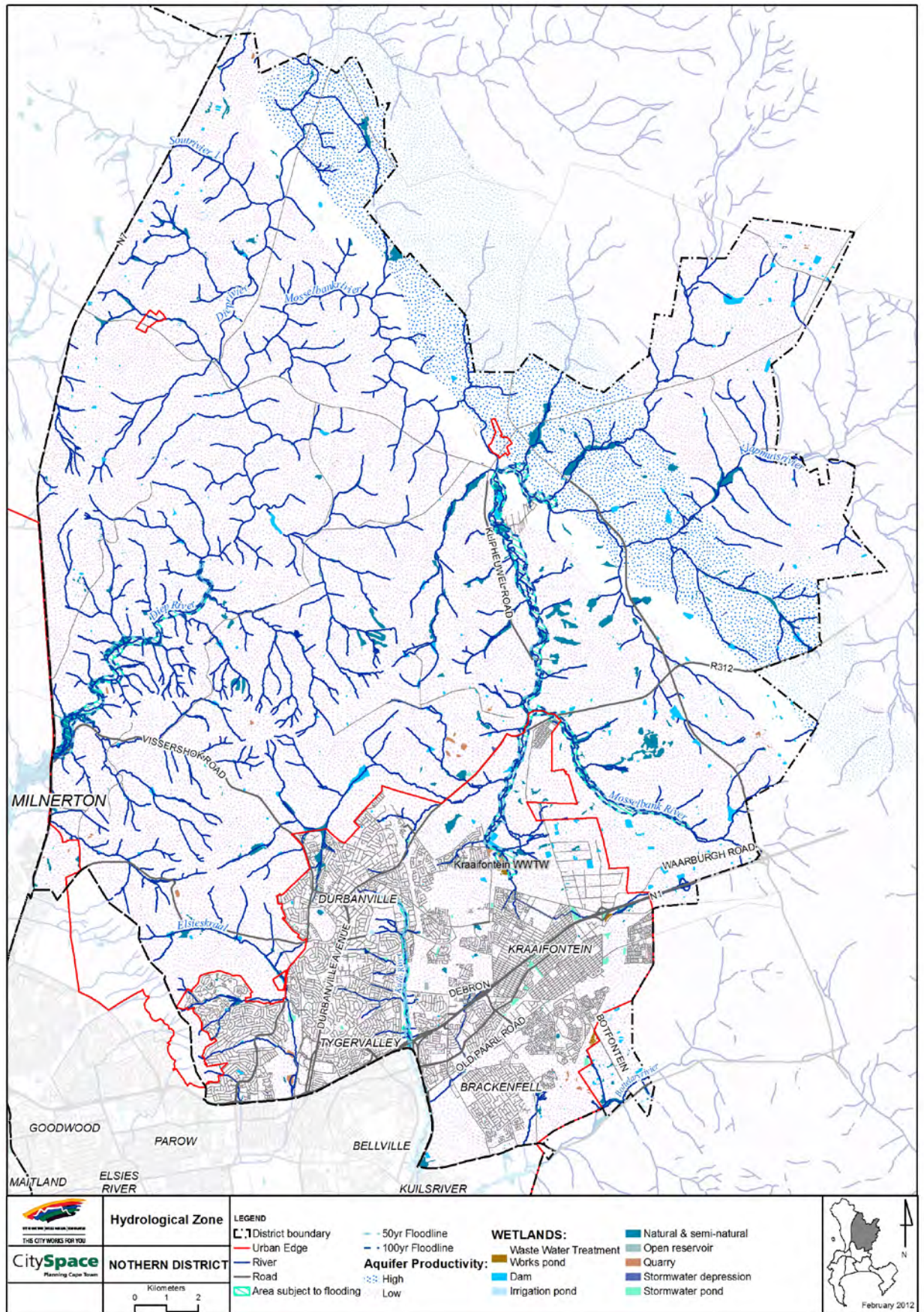


Figure 4: Hydrological Zone

5.2.2 Conservation and Biodiversity Priority Zone

SUMMARY OF STATUS

The natural vegetation of the Northern District has been heavily affected by the long history of agricultural activity in the area and urban development. However some fragments of important vegetation remain scattered throughout the district. These are predominantly Shale and Granite Renosterveld and some Sand Fynbos, which are exceptionally high in species diversity, and have a high incidence of vulnerable and endangered Red Data plant species and many endemic faunal species. Invasive alien vegetation is particularly problematic in this district, especially along river courses and threatens biodiversity in the area. There are a number of protected botanical sites in the district.

ENVIRONMENTAL MANAGEMENT PRIORITIES

Management Priority	Priority area of focus
1. Enhance and restore	<ul style="list-style-type: none"> Consolidate and reinforce the open space green corridors, connecting biodiversity remnants where possible e.g. through the Darwin Road Development areas, along the tributaries of the Mosselbank River and along the Elsieskraal and Kuils River corridors Introduce indigenous landscaping into public open spaces, particularly along river courses
2. Retain and protect	<ul style="list-style-type: none"> Conserve remnants of sensitive and threatened vegetation types
3. EIA Requirements	<p><i>(Important issues to be considered in these zones include: vegetation, connectivity and access, fire control and land management issues, pollution, invasive alien vegetation and faunal species)</i></p> <ul style="list-style-type: none"> Control development pressure in the key sensitive areas within the urban edge such as the areas between Bloekombos and Joostenberg (above Bonnie Brae etc). Where remnants conflict with areas earmarked for industrial and residential development, ensure botanical and faunal assessments are undertaken before these activities are approved (e.g. proposed industrial development in Kraaifontein and proposed residential development along Maroela Street near the N1). An EMP must be drawn up and implemented for all activities approved in this zone, in accordance with the City of Cape Town's specifications for EMPs. The Biodiversity Management Branch must be consulted w.r.t. biodiversity info. A variety of different types of critical vegetation are included within the CBA 1 zone. For planning purposes, reference must be made to a detailed biodiversity map and consultation with the Biodiversity Branch must take place. Identify opportunities to permit low impact sustainable development which contributes to a net increase in the protection of biodiversity and the establishment of functional biodiversity nodes and corridors. Opportunities for sustainable, low impact community utilisation of biodiversity resources should be identified.

	<ul style="list-style-type: none"> Note that unless the Biodiversity Network is secured elsewhere, other natural vegetation areas may become important if required as biodiversity offsets.
4. Monitor and manage impacts	<ul style="list-style-type: none"> Control and remove alien invasive vegetation (particularly along the river course of the Mosselbank and Diep Rivers) Control illegal dumping, particularly in and adjacent to biodiversity areas and rivers
5. Research and Educate	<ul style="list-style-type: none"> Where feasible, enter into partnerships with agricultural landowners to encourage the conservation of biodiversity remnants on existing farms

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: BIODIVERSITY: Refer to Figure 5

Table 5.2 Conservation and Critical Biodiversity Areas

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Protected Areas <i>This zone includes protected and managed biodiversity areas</i>	<ul style="list-style-type: none"> Any land use or activity that will have an impact on the vegetation cover or ecological functioning of the area, including: <ul style="list-style-type: none"> Manufacturing, storage, treatment, transportation or handling of hazardous substances. Solid and liquid waste disposal. Industrial activities. Residential and commercial development. All excavation and mining related activities. Establishment of cemeteries. Abattoirs. Agricultural and agri-industrial activities. Outdoor advertising. 	<ul style="list-style-type: none"> Tourism and hospitality facilities. Environmental education facilities. Essential engineering and utility services. Institutional activities (museums etc.) Parking areas and offices (related to conservation activities). Transmission towers and rooftop base stations. Any other activity entailing clearance of critically endangered indigenous vegetation. 	<ul style="list-style-type: none"> Conservation activities. Activities necessary for the management of the conservation area/ reserve. Hiking trails and walks. 	<ul style="list-style-type: none"> City of Cape Town's Natural Interface Study: Veldfire Planning Guidelines (2004) City of Cape Town Reserve Sensitivity and Zonation Plans (June 2010) DEAD&DP's Guideline for Involving Biodiversity Specialists in EIA Processes (2005) Western Cape Provincial Spatial Development Framework: Statutory Report City of Cape Town's Management of Urban Stormwater Impacts Policy (2009)
Critical Biodiversity Areas 1 <i>This zone encompasses critical irreplaceable, minimum selection, consolidation and connectivity biodiversity sites i.e. Bionet categories CBA 1a – e CESA 1a.</i>	<ul style="list-style-type: none"> Any land use or activity that will have an impact on the vegetation cover or ecological functioning of the area, including: <ul style="list-style-type: none"> Manufacturing, storage, treatment, transportation or handling of hazardous substances. 	<ul style="list-style-type: none"> Conservation related facilities or infrastructure. Essential roads, rail, pipelines and cables. Essential engineering and utility services. Tourism facilities. 	<ul style="list-style-type: none"> Conservation activities Urban open space areas with appropriate low-impact recreation activities. 	<ul style="list-style-type: none"> The Fynbos Forum's Guidelines for Environmental Assessment in the Western Cape (2005)

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
	<ul style="list-style-type: none"> – Solid and liquid waste disposal. – Bulk infrastructure including WWTWs and power generation. – Industrial and agric-industrial activities. – Residential and commercial development. – All excavation and mining related activities. – Establishment of cemeteries. – Abattoirs. – Outdoor advertising. 	<ul style="list-style-type: none"> • Hiking trails and walks. • Environmental education facilities. • Sustainable harvesting of natural resources. • Any other activity entailing clearance of critically endangered indigenous vegetation. • Agricultural activities (outside the urban edge). 		<ul style="list-style-type: none"> • City of Cape Town Biodiversity Net:work: C-plan and Marxan Analysis: 2009: Methods and Results • A Climate Change Strategy and Action Plan for the Western Cape, South Africa (2008) • City of Cape Town: Prioritization of City Wetlands (2009)
Critical Biodiversity Areas 2 (Restorable Irreplaceable Sites) <i>This zone encompasses the restorable biodiversity sites i.e. Bionet category CBA 2 (</i>	<ul style="list-style-type: none"> • Any land use or activity that will have an impact on the vegetation cover or ecological functioning of the area, including: <ul style="list-style-type: none"> – Manufacturing, storage, treatment, transportation or handling of hazardous substances. – Solid and liquid waste disposal. – Bulk infrastructure including WWTW and power generation. – Industrial and agric-industrial activities. – Residential and commercial development. – All excavation and mining 	<ul style="list-style-type: none"> • Conservation related facilities or infrastructure. • Essential roads, rail, pipelines and cables. • Essential engineering and utility services. • Tourism facilities. • Hiking trails and walks. • Environmental education facilities. • Sustainable harvesting of natural resources. • Any other activity entailing clearance of critically endangered indigenous vegetation. • Agricultural activities (outside the 	<ul style="list-style-type: none"> • Conservation activities • Urban open space areas with appropriate low-impact recreation activities. 	As above

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
	<p>related activities.</p> <ul style="list-style-type: none"> – Establishment of Cemeteries. – Abattoirs. – Outdoor advertising. 	<p>urban edge).</p>		As above
<p>Critical Ecological Support Areas (CESAs)</p> <p><i>These sites may comprise any habitat quality from very low condition to pristine. They provide for essential ecosystem services. They are required for additional consolidation and ecological support and are essential for management consolidation, connectivity and viability of biodiversity elements in protected areas and CBAs.</i></p> <p>Other Ecological Support Areas (OESAs)</p> <p>These sites are essential for management consolidation, connectivity and viability of biodiversity elements in CBA1, CBA2 and Protected sites</p>	<ul style="list-style-type: none"> • Any land use or activity that will change the existing land use and /or harden the surface of the site, including: <ul style="list-style-type: none"> – Manufacturing, storage, treatment, transportation or handling of hazardous substances. – Solid and liquid waste disposal. – Bulk infrastructure including WWTW and power generation. – Higher-density residential development. – Industrial activities. – Mining related activities. – Establishment of Cemeteries. – Abattoirs. 	<ul style="list-style-type: none"> • Agricultural activities (outside the urban edge). • Conservation related facilities or infrastructure. • Essential road, rail, pipelines and cables. • Essential engineering services relating to tourism facilities. • Tourism facilities. • Transmission towers and rooftop base stations. • Sustainable harvesting of natural resources. • Any other activity that is in keeping with the existing land use. 	<ul style="list-style-type: none"> • Conservation and restoration activities. • Urban open space areas with appropriate low-impact recreation activities. • Pedestrian walkways and trails. 	
<p>Other Natural Vegetation</p> <p><i>This zone encompasses other natural vegetation sites that do not fall into the categories discussed above.</i></p>	<ul style="list-style-type: none"> • Manufacturing, storage, treatment, transportation or handling of hazardous substances. • Industrial activities. • Mining related activities. 	<ul style="list-style-type: none"> • Conservation related facilities or infrastructure. • Essential road, rail, pipelines and cables. • Essential engineering services relating to tourism facilities. 	<ul style="list-style-type: none"> • Conservation activities. • Urban open space areas with appropriate low-impact recreation activities. 	

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
		<ul style="list-style-type: none"> • Pedestrian walkways and trails • Tourism facilities. • Institutional activities. • Residential and commercial development. • Agricultural activities. • Transmission towers and rooftop base stations. • Establishment of cemeteries. • Sustainable harvesting of natural resources. • Any other activity entailing clearance of critically endangered indigenous vegetation. 		

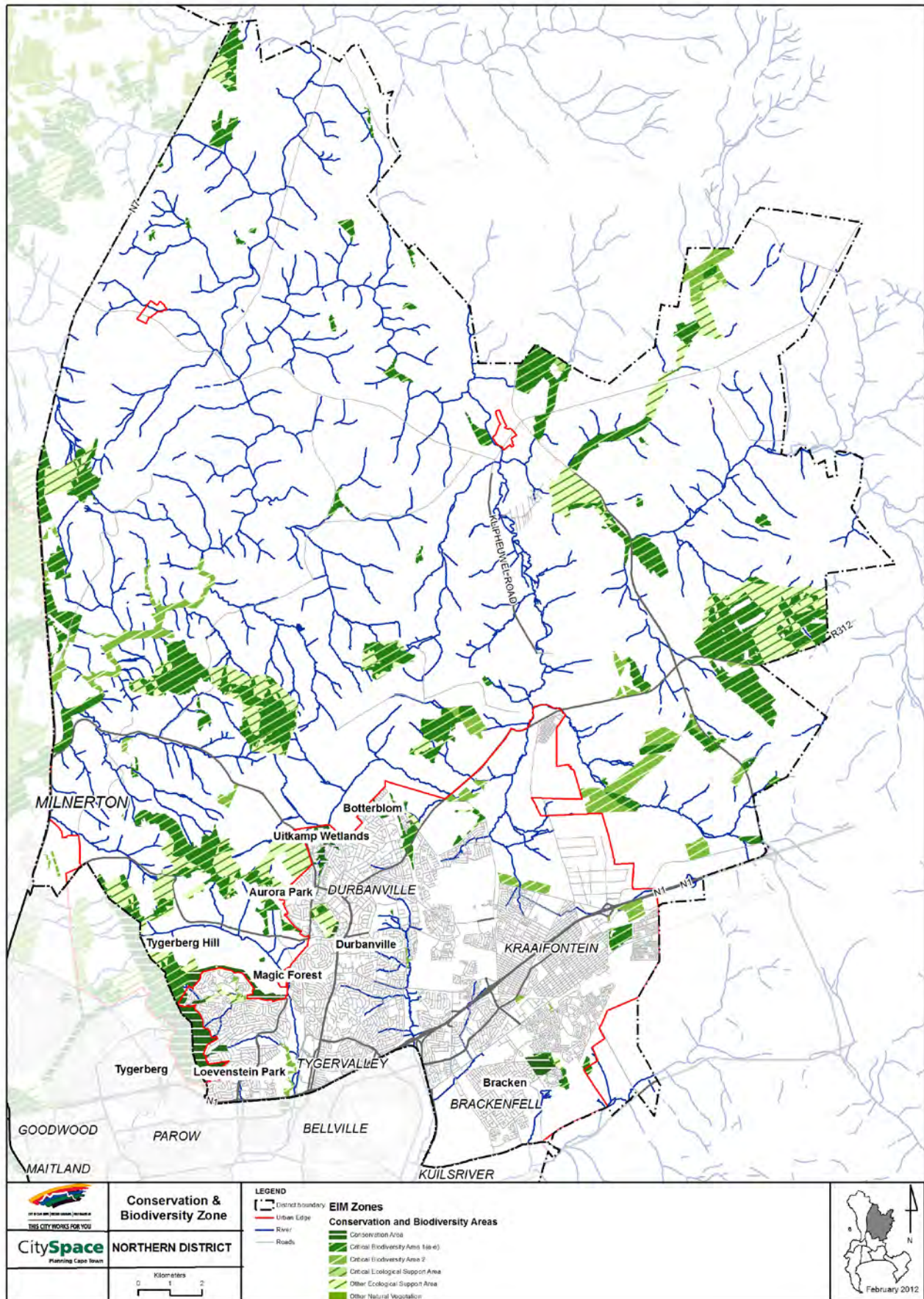


Figure 5: Conservation and Biodiversity Zone

5.2.3 Cultural and Recreational Resources Zone

SUMMARY OF STATUS

The Northern District has a long history of human occupation. The district represents a number of important cultural landscapes, which have their origins in the early outposts, associated with the Dutch East India Company station at Table Bay. Many of the current farmsteads and the associated vineyards and agricultural land are of historic and cultural importance. Many of these landscapes also contain occasional silcrete outcrops which were very often quarried by pre-colonial people. There is also a high archaeological potential associated with 18th and 19th century homesteads. The cultural landscapes of the district are under pressure from urban and industrial development and many of the old farmsteads have been inappropriately altered or destroyed.

Management Priority	Priority area of focus
<ul style="list-style-type: none"> Retain and protect 	<ul style="list-style-type: none"> Retain urban rural context of the Joostenberg Vlakte, Agterpaarl/Paardeberg and Koeberg/Swartland Cultural Landscape Retain agricultural viability Scenic Routes
<ul style="list-style-type: none"> EIA Requirements 	<p><i>(Important issues in these zones include: archaeological, heritage, visual and architectural/landscaping issues)</i></p> <ul style="list-style-type: none"> Avoid development and urban sprawl outside of the urban edge Limit subdivision and manage density around the urban edge, particularly adjacent to the Durbanville Hills Cultural Landscape Manage and control development of the Philadelphia area as a heritage town. Notification of Heritage Western Cape and undertaking of a Heritage Assessment of appropriate scale is recommended for proposed development in any of the above areas. NIDS must be in terms of Section 38 of the NHRA (no. 25 of 1999) The formal protection of Tygerberg Hills should be promoted. Local communities must be consulted in the removal or redevelopment of public open spaces. Illegal dumping and pollution should be strictly monitored within these areas. Authorisation of the activities in these zones must be in compliance with the City of Cape Town Outdoor Advertising and Signage By-Law, 2001. Authorisation of the activities in these zones must be in compliance with the City of Cape Town By-Law Related to Streets, Public Places and the Prevention of Nuisances, 2004.
<ul style="list-style-type: none"> Monitor and manage impacts 	<ul style="list-style-type: none"> Prevent illegal demolition and alteration of identified and unidentified heritage structures and places Consultation with the City's Heritage Department is required where applications may have an impact on heritage.
<ul style="list-style-type: none"> Research and Educate 	<ul style="list-style-type: none"> Review and adequately assess architectural styles and development on heritage sites

- Inventorise heritage sites in Philadelphia, the Joostenberg Vlake Cultural Landscape and Agterpaarl/Paardeberg

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: HERITAGE: Refer to Figure 6

Table 5.3a): Cultural and Heritage Areas

Environmental attributes ²	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Philadelphia and the surrounding Koeberg/Swartland Farms <i>This includes the settlement of Philadelphia and the surrounding landscape..</i>	<ul style="list-style-type: none"> • Buildings and structures that are unsympathetic to the 19th century streetscapes and buildings of Philadelphia. • Development outside of the urban edge. • Development impacting the cultural landscape. • Unsympathetic landscaping and formalization. • Inappropriate signage and advertising. • Unsympathetic alterations to heritage resources. • Inappropriate utilities such as pylons and overhead cables. 	<ul style="list-style-type: none"> • *Mining related activities and infrastructure. • Engineering and utility services. • Essential road, rail, pipelines and cables. • Public open space. • Agric-industrial activities. • Agric-tourism activities. • Hiking and horse trails. • Transmission towers and base stations. • Waste disposal activities. • Sustainable harvesting of natural resources. • Establishment of cemeteries. • Inside the urban edge within this zone the following may also be considered: <ul style="list-style-type: none"> – Residential and commercial activities. – Institutional facilities (education, museums). – Tourism and hospitality 	<ul style="list-style-type: none"> • Restoration of historical sites, streetscapes and cultural landscapes. • Appropriate landscaping. • Tourism facilities for day visitors. • Agricultural activities excluding larger scale infrastructure such as industrial barn, and plants. 	<ul style="list-style-type: none"> • D:EA&DP's Guideline for Involving Heritage Specialists in EIA Processes (2005) • D:EAD&DP's Guideline for Involving Visual Specialists in EIA Processes (2005) • D:EA&DP's EIA Guideline Series: Guideline for the Management of Development on Mountains, Hills and Ridges of the Western Cape (2002) • City Of Cape Town Scenic Routes Management Plan • City Of Cape Town Heritage Resources Strategy • Tygerberg Heritage Mapping Project (2002) • Philadelphia Conservation Guidelines (1993) • Oostenberg Heritage Mapping Project (2002)

² Please note that cultural landscapes, potential archeological areas and other heritage areas have been mapped based on the best available data and have not been refined, peer-reviewed or ground-truthed.

Environmental attributes ²	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
		facilities.		
Cultural Landscapes <i>This includes the cultural landscape of Durbanville Hills, Joostenburg Vlake and Agterpaarl / Paardeberg farms.</i>	<ul style="list-style-type: none"> • Unsympathetic additions and alterations to structures or farmscapes. • Inappropriate urbanisation. • Subdivision of land. • Development outside of the urban edge. • Any alterations, additions or new structures unsympathetic to protected buildings or the general character of area. • Outdoor advertising. • Inappropriate formalization of landscapes endangering rural qualities. • Inappropriate utilities such as pylons and overhead cables. 	<ul style="list-style-type: none"> • *Mining related activities and infrastructure. • Engineering and utility services. • Essential road, rail, pipelines and cables. • Public open space. • Agric-industrial activities. • Agric-tourism activities. • Hiking and horse trails. • Transmission towers and base stations. • #Inside the urban edge within this zone the following may also be considered: <ul style="list-style-type: none"> – Residential, industrial and commercial activities. – Institutional facilities (education, museums). – Tourism and hospitality facilities. – Bulk infrastructure and power generation. 	<ul style="list-style-type: none"> • Agricultural activities, excluding large scale infrastructure. • Restoration of historical sites, facilities and buildings. • Appropriate landscaping. • Conservation activities. • Tourism facilities for day visitors. 	
Klipheuwel Radio Station <i>This includes the Klipheuwel long wave radio station site</i>	<ul style="list-style-type: none"> • Activities which would necessitate the demolishing or further deterioration of residential and industrial buildings associated with the only surviving long wave radio station site in the world. 	<ul style="list-style-type: none"> • Engineering and utility services. • Essential road, rail, pipelines and cables. • Public open space. 	<ul style="list-style-type: none"> • Restoration and conservation of historical buildings and infrastructure. • Tourism facilities for day 	

Environmental attributes ²	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
		<ul style="list-style-type: none"> Tourism facilities. 	<ul style="list-style-type: none"> visitors. Viewing sites. 	
Scenic Routes <i>These include sections of the Old Malmesbury Road, R304, R302 Vissershok Road, N7 and Tygerberg Road</i>	<ul style="list-style-type: none"> Activities which compromise or restrict views. Activities inconsistent with the landscape / townscape. Outdoor advertising. 	<ul style="list-style-type: none"> Dependent on section of road. Suitable activities should be congruent and sympathetic to landscape / townscape. 	<ul style="list-style-type: none"> N/A 	The guidelines in terms of the "Scenic Drive Network Management Plan (City of Cape Town, July 2001) needs to be adhered to.

Table 5.3b): Public Open Spaces

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Structuring Open Spaces <i>This includes structuring public open spaces</i>	<ul style="list-style-type: none"> • Waste disposal activities (including WWTW). • Mining activities. • Industrial activities. • Residential development. 	<ul style="list-style-type: none"> • * Limited commercial activities. • Institutional activities (museums, churches etc.). • Tourism facilities. • Establishment of cemeteries. • Sustainable harvesting of natural resources. • Transmission towers and rooftop base stations. • Outdoor advertising. • Small-scale urban agricultural activities. • Service Stations 	<ul style="list-style-type: none"> • Conservation related facilities or infrastructure. • Public open space areas with appropriate recreation activities. • Essential engineering services relating to outfall sewers and storm water systems. • Road, rail, pipeline and cable crossings and bridges. • Landscaping. 	<ul style="list-style-type: none"> • City of Cape Town's CMOSS Strategy • City of Cape Town's Management of Urban Stormwater Impacts Policy (2009) • City of Cape Town's Floodplain and River Corridor Management Policy (2009)

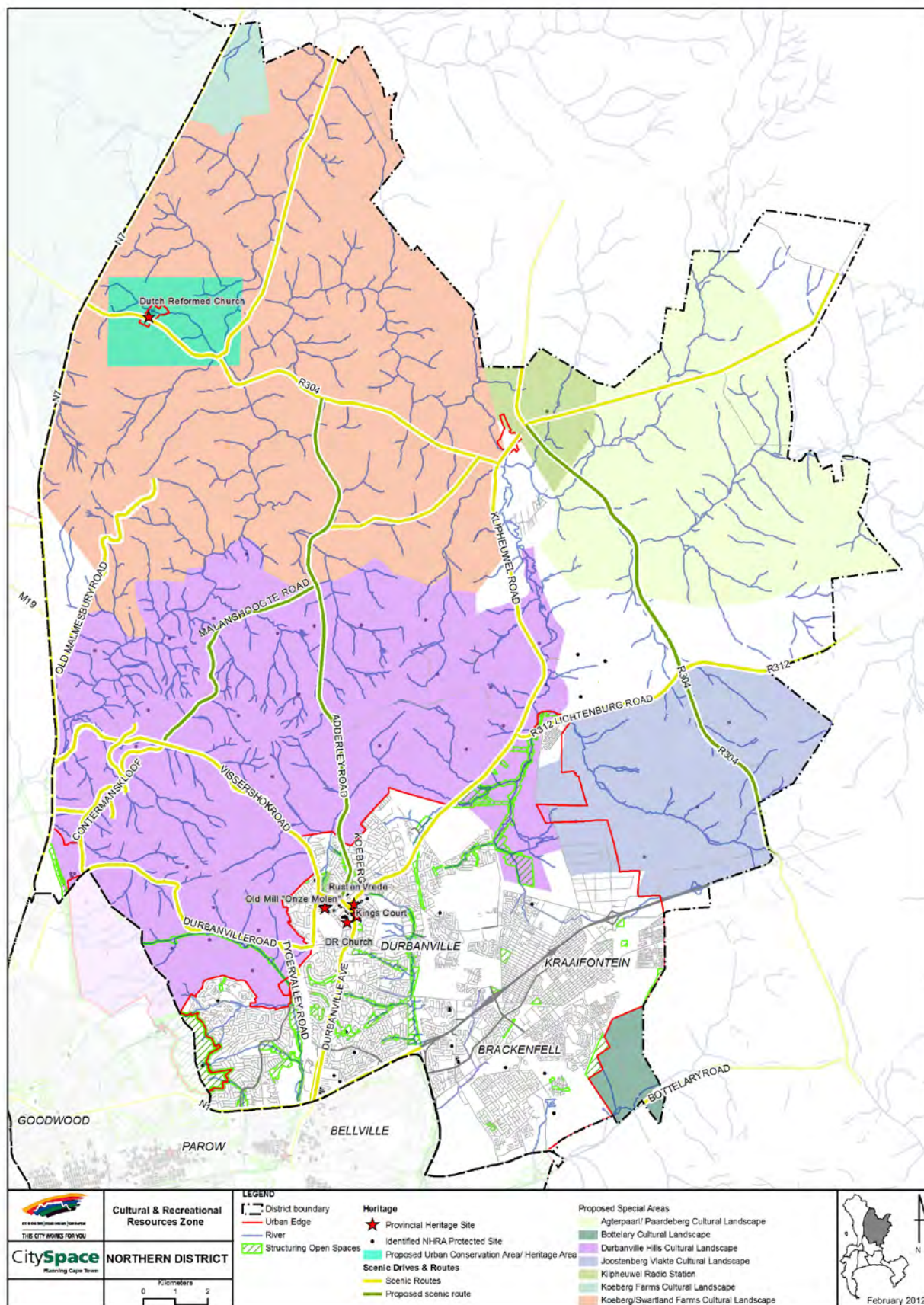


Figure 6: Cultural & Recreational Resources Zone

5.2.4 Natural Economic resources zone

SUMMARY OF STATUS

Sand and gravel is used for building material and is considered a limited economic resource. There are concerns regarding the limited availability of unexploited sand and gravel resources and this creates conflict between demands to exploit remaining resources and maintaining the integrity of the receiving environment in which these resources occur. The main issues with regards to mineral extraction in the Northern District are the management of the mineral extraction zone, which falls within an area of high and medium agricultural potential, and contains some important biodiversity fragments and the core flora site, Kanonkop, as well as illegal sand mining.

Agricultural land contributes significantly to the province and country's Gross Domestic Product. The Northern District includes a relatively large portion of high and medium potential agricultural land, particularly in the eastern section of the district. These areas are under threat from development.

ENVIRONMENTAL MANAGEMENT PRIORITIES

Management Priority	Priority area of focus
1. Retain and protect	<ul style="list-style-type: none"> • Preserve and utilise high potential agricultural land and areas currently being used for agriculture • Conserve cultural landscapes • Prohibit mining in the Kanonkop core flora site, although this falls partially within the mineral extraction area
2. EIA Requirements	<p><i>(Important issues in these zones include: soil potential, water pollution, biodiversity, economic and social issues, slope, heritage and visual issues)</i></p> <ul style="list-style-type: none"> • Where feasible within the urban edge, extract mineral resources (e.g. building sand) prior to development (e.g. south of Ferndale where industrial development is proposed) • In some areas where smallholdings and mineral resource areas overlap, applications to mine should be considered on their merits and in consultation with the Department of Agriculture. • Mining activities should not be authorised without the required EMPs and rehabilitation plans. • Mining companies must commit sufficient financial resources to rehabilitation, prior to approval. • Where high priority mineral resources conflict with areas of biodiversity importance, specialist input from the Biodiversity Management Branch is to be obtained, prior to the authorisation of mining activities. • Where high priority mineral resources conflict with areas of archaeological and heritage importance, an assessment of these impacts must be undertaken and appropriate mitigation measures approved by Heritage Western Cape, prior to authorisation. • Where high priority mineral resources conflict with areas of high agricultural potential, input must be obtained from the Department of Agriculture, prior to authorisation. • Sand mining can be considered in areas of high potential agricultural soil provided sufficient measures are implemented

	<p>to stock-pile and return top-soil. In addition, the depth of mining should not exceed a minimum level above the water table ($\pm 500\text{mm}$).</p> <ul style="list-style-type: none"> Mineral resource close to visually sensitive areas, scenic routes and residential areas must consider the visual, health and safety impacts and adequate mitigation measures must be determined, prior to approval.
3. Monitor and manage impacts	<ul style="list-style-type: none"> Monitor mining within the mineral extraction zone Prevent illegal and/or unmonitored sand and gravel mining near Brackenfell and to the north of the district towards Malmesbury
4. Research and Educate	<ul style="list-style-type: none"> Refine and confirm mapping of high priority agricultural areas

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: ECONOMIC RESOURCES: (Refer to Figures 7 and 8)

Table 5.4a): High Potential Agricultural Areas

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
<p>High potential and unique agricultural land</p> <p><i>This encompasses areas that are deemed worthy of statutory or long-term protection.</i></p>	<ul style="list-style-type: none"> Residential and commercial development. Manufacturing, storage, treatment, transportation or handling of hazardous substances. Industrial activities. Activities that can pollute water or soil resources (which are required for agricultural activities). Other non-agricultural land use (except those permitted in zoning schemes). Mining activities. 	<ul style="list-style-type: none"> Dams and weirs. Water abstraction. Road, rail, pipelines and cables. Engineering and utility services and infrastructure. Agri-tourism (including farm shops/stalls). Animal care facilities. Sustainable harvesting of natural resources. Transmission towers and rooftop base stations. Riding stables. 	<ul style="list-style-type: none"> Agriculture (excluding abattoirs and feedlots). Horticultural activities. Handling and storage of agricultural product. Hiking trails and paths. Residential units (as allowed in zoning schemes). 	<ul style="list-style-type: none"> National Policy on the Protection of High Potential and Unique Agricultural Land (2006) Strategic Plan for South African Agriculture (2001) Land Redistribution Policy for Agricultural Development DEAD&DP's Guideline for Involving Economists in EIA Processes (2005) Urban Agricultural Policy for the City of Cape Town (2007) City of Cape Town's Agricultural Land Review (2008)
<p>Agricultural land of significant value</p> <p><i>These areas have significant value given their existing or potential and emerging use.</i></p>	<ul style="list-style-type: none"> *Residential and commercial development. Manufacturing, storage, treatment, transportation or handling of 	<ul style="list-style-type: none"> Dams and weirs. Water abstraction. Road, rail, pipelines and cables. 	<ul style="list-style-type: none"> Agriculture (excluding abattoirs and feedlots). Horticultural activities. 	

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
	<ul style="list-style-type: none"> hazardous substances. Industrial activities. Activities that can pollute water or soil resources (which are required for agricultural activities). Other non-agricultural land use (except those permitted in zoning schemes). Mining activities. 	<ul style="list-style-type: none"> Engineering and utility services and infrastructure. Agri-tourism (including farm shops/stalls). Institutional activities (e.g. agricultural schools). Animal care facilities. Sustainable harvesting of natural resources. Transmission towers and rooftop base stations. Riding stables. Retail and commercial activity related to marketing of the area's produce. 	<ul style="list-style-type: none"> Handling and storage of agricultural product. Hiking trails and paths. Residential units (as allowed in zoning schemes). 	
Other agricultural areas <i>This constitutes areas of lower agricultural potential or value, but which function as the rural hinterland.</i>	<ul style="list-style-type: none"> Urban development <i>outside</i> of the urban edge. Industrial activities. Storage of hazardous substances. Activities that can pollute water and soil resources (which are required for agricultural activities). Institutional facilities. Mining activities 	<ul style="list-style-type: none"> Dams and weirs. Water abstraction. Road, rail, pipelines and cables. Agri-industrial activities. Cellars and storage facilities. Offices for agricultural related activities. Tourism and hospitality related facilities. Sustainable harvesting of natural resources. Transmission towers and rooftop base stations. 	<ul style="list-style-type: none"> Agriculture (excluding abattoirs and feedlots). Agri-tourism (including farm shops/stalls). Animal care facilities. Engineering and utility services and infrastructure. Hiking trails and paths. Residential units (as allowed in zoning scheme). Conservation activities. Riding Stables. 	

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Smallholdings and agricultural areas <i>This constitutes areas currently being used for agricultural purposes, regardless of soil potential.</i>	<ul style="list-style-type: none"> • Urban development. • Industrial activities. • Storage of hazardous substances. • Activities that can pollute water and soil resources (which are required for agricultural activities). 	<ul style="list-style-type: none"> • Dams and weirs. • Water abstraction. • Road, rail, pipelines and cables. • Agri-industrial activities. • Residential and institutional facilities for rural community. • Retail and commercial activity for the rural community. • Cellars and storage facilities. • Offices for agricultural related activities. • Tourism and hospitality related facilities. • Sustainable harvesting of natural resources. • Transmission towers and rooftop base stations. • *Mining activities 	<ul style="list-style-type: none"> • Agriculture (excluding abattoirs and feedlots). • Agri-tourism (including farm shops/ stalls). • Animal care facilities. • Engineering and utility services and infrastructure. • Hiking trails and paths. • Residential units (as allowed in zoning scheme). • Conservation activities. • Riding Stables. 	

Table 5.4b): Mineral Resource Areas

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Priority Mineral Resource areas <i>These are areas that have been identified in the Mining Structure Plan (2002) as high priority mineral deposits.</i>	<ul style="list-style-type: none"> • Mining activities extending below the water table. • Mining activities that do not effectively implement the required EMP and rehabilitation plans. 	<ul style="list-style-type: none"> • Urban and infrastructure development prior to mineral extraction. • Mining activities which have the relevant approved environmental procedures and documents. • Related infrastructure and facilities. 	<ul style="list-style-type: none"> • Post mining and rehabilitation land uses. 	<ul style="list-style-type: none"> • The Mining structure Plan 2002.

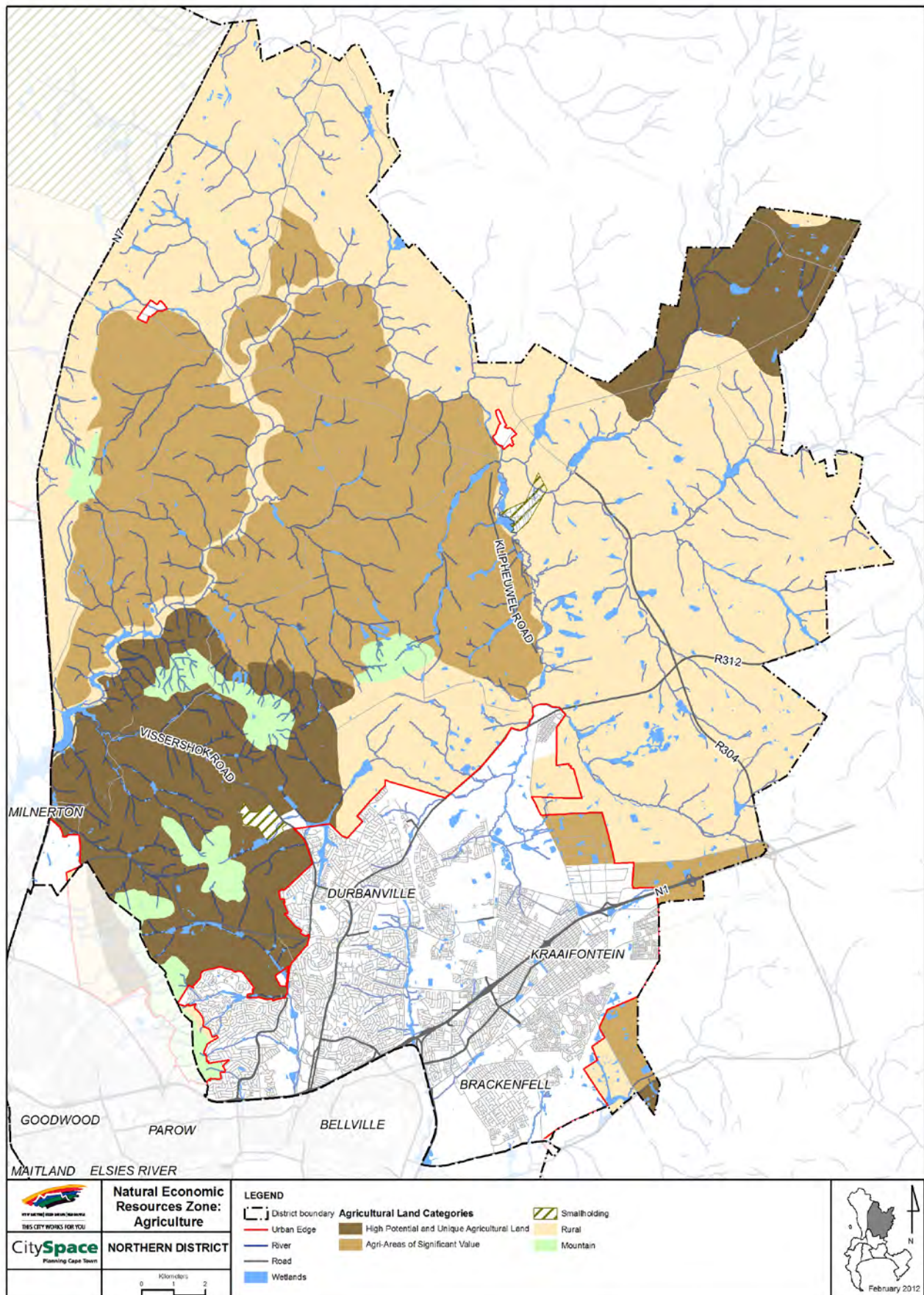


Figure 7: Natural Economic Resources Zone: Agriculture

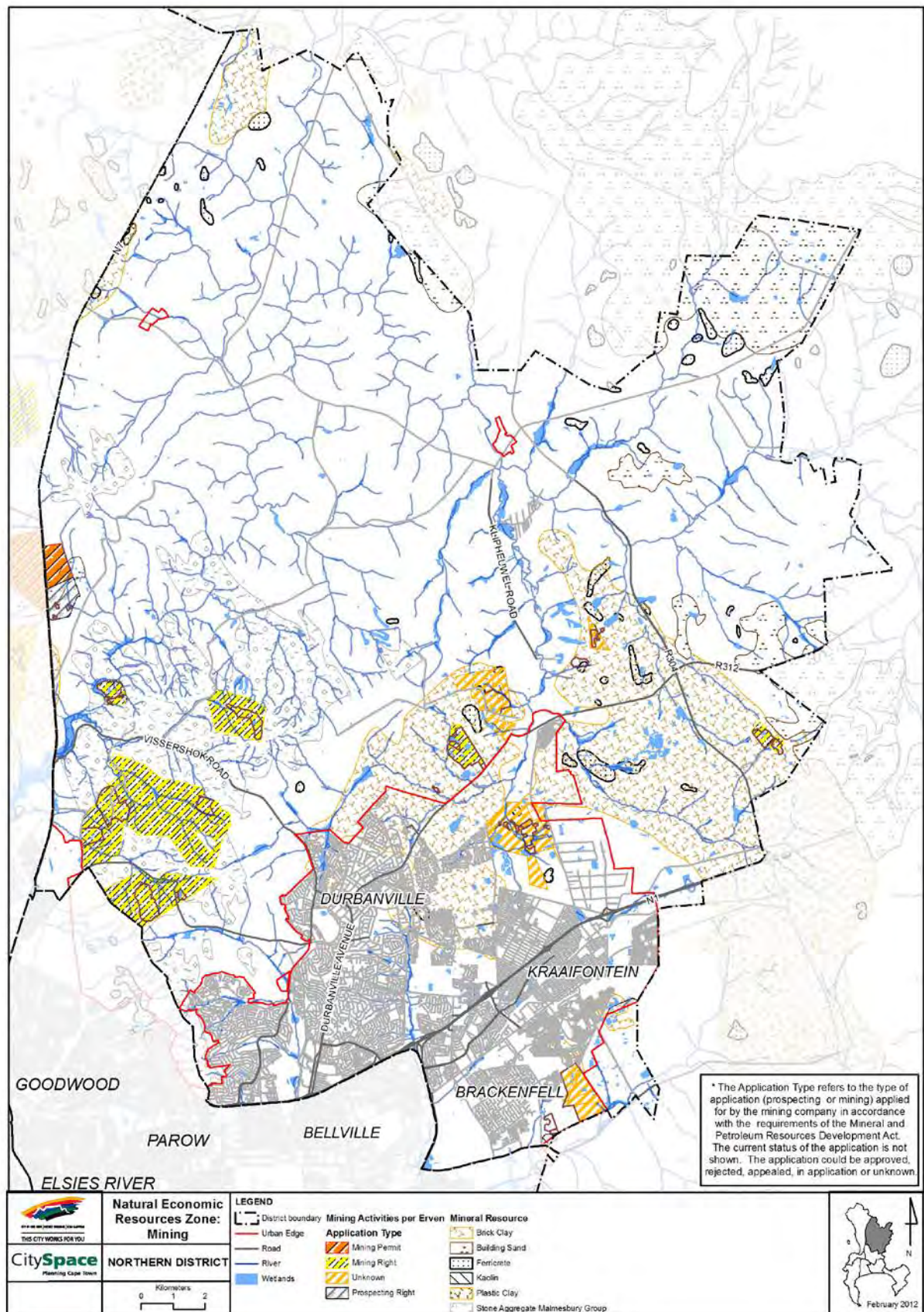


Figure 8: Natural Economic Resources Zone: Mining

5.2.5 Urban Uses and Utilities Zone

SUMMARY OF STATUS

The Northern district is characterised by disparities between low density, predominantly middle to high income areas, which are well serviced, and a large proportion of informal settlements (~12%) and poorly serviced areas. There is an urgent need for lower income housing in the district. The urban section of the district is characterised by a high dependence on the commercial sector (around the Durbanville CBD and along Durban Road) and there are limited job opportunities in the north and north-west of the district, close to many of the poorer areas.

The large agricultural area, is under a great deal of pressure from urban development and over the past 20 years urban development has encroached into these areas, often on high potential agricultural lands (e.g. around Welgemoed).

Increasing waste generation leads to cumulative contamination and pollution in the long term, as the receiving environment has limited capacity to assimilate and breakdown waste. Solid waste from the Northern District goes to Vissershok landfill site and a new regional landfill is being proposed in this district at the Kalbaskraal site. Even with the proposed new site, without interventions to minimise and recycle waste, the City will face an environmental and health crisis.

Pollution and degradation, particularly of rivers and wetland systems within the Northern District is a critical issue. Many of the rivers in the district have been seriously compromised through poor agricultural practices and insufficient capacity at the existing WWTW. Air pollution is not currently monitored in the district but the Kilarney area pollution “hotspot” is situated close to the district’s western boundary.

ENVIRONMENTAL MANAGEMENT PRIORITIES

The SDP proposes a variety of strategies to address urban settlement areas and growth pressures. They are not repeated here. The management priorities below are largely related to pollution and waste management

Management Priority	Priority area of focus
1. Retain and protect	<ul style="list-style-type: none"> Protect and sustainably develop natural and urban special places such as the Tygerberg Hills, Durbanville Rose garden, Bracken Nature Reserve, and the water body at the Universtiy of Stellenbosch Business School
2. EIA Requirements	<p><i>(Important issues in these zones include: air, stormwater and groundwater pollution, health and safety issues, access, noise, odour and visual issues)</i></p> <ul style="list-style-type: none"> Use and extent of landfill buffer zones, must be addressed in closure plans and approved by the relevant authorities. Freshwater and/or groundwater specialist input must be obtained, and appropriate mitigation measures implemented, for industrial activities proposed on highly productive aquifers or close to river and wetland buffers. Improve service provision to informal settlements e.g. Fisantekraal, Klipheuwel, Goliath and Wallacedene Control activities in and adjacent to river and wetland buffer areas
3. Monitor and manage	<ul style="list-style-type: none"> Improve effluent quality from WWTW by ensuring sufficient capacity within the district by constructing the Fisantekraal

impacts	<p>WWTW, upgrading the Scottsdene WWTW and implementing measures to prevent overflow incidents at the Kraaifontein WWTW</p> <ul style="list-style-type: none"> • Monitor and manage stormwater quality • Implement the strategies contained in the Integrated Waste Management Policy • Monitor and enforce industry's compliance with air pollution standards, particularly in proposed new industrial areas
4. Educate	<ul style="list-style-type: none"> • Encourage sustainable agricultural practices

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: URBAN USES AND UTILITIES: Refer to Figure 9

Table 5.5a) Nuclear and Landfill Exclusion Areas

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Urgent Planning Zone <i>This includes the areas from 5-16km from the Nuclear Power Plant</i>	<ul style="list-style-type: none"> Any development, which accommodates or caters for people that could not be evacuated within a 16 hour period. 	<ul style="list-style-type: none"> Facilities and residential development catering for vulnerable groups, such as the elderly or children. 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> NNR Regulations no 287, in terms of the NNR Act 47 of 1999 NNR Report on the Technical Basis for Emergency Planning at the Koeberg Nuclear Power Station, 2000. City of Cape Town, Koeberg Nuclear Emergency Plan, traffic Evaluation Model, HHO. March 2006. DWAF, Second Edition, 1998 Waste Management Series. DWAF, <i>Draft</i> Third Edition, 2005 Draft Waste Management Series.
Landfill sites and buffer zones <i>This includes a landfill site that has reached capacity and is closed. It is indicated on Zone Map C5.</i>	<ul style="list-style-type: none"> Residential development. Educational facilities. Health and social facilities. Groundwater abstraction. 	<ul style="list-style-type: none"> Commercial activities. Industrial activities. 	<ul style="list-style-type: none"> Other activities, subject to conditions and approvals of the relevant authorities and specifications of the relevant closure plans. 	

Table 5.5b): Industrial and Commercial Areas

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Industrial areas <i>This includes areas currently zoned for industrial use.</i>	<ul style="list-style-type: none"> Any upgrades or additional industrial activities which exceed air emission standards or will contribute to ambient pollution exceedences. 	<ul style="list-style-type: none"> Heavy (Scheduled) Industrial activities. Incinerators. 	<ul style="list-style-type: none"> Light industrial. Commercial. Infill development. 	<ul style="list-style-type: none"> A Guide to Reporting and Estimating Emissions for the Integrated Pollutant and Waste Information System (IPWIS) 2005.

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
		<ul style="list-style-type: none"> Major roads. Air fields. 	<ul style="list-style-type: none"> Engineering and utility services and infrastructure. Sub-stations and electrical infrastructure. 	<ul style="list-style-type: none"> City of Cape Town's Air Pollution Control By-Law (2001). Air Quality Management Plan for the City of Cape Town (Sept, 2005).
Commercial areas <i>This includes areas currently zoned for commercial use.</i>	<ul style="list-style-type: none"> Heavy (scheduled) industrial activity. 	<ul style="list-style-type: none"> Light industrial Incinerators. Major roads. Air fields. 	<ul style="list-style-type: none"> Commercial. Infill development. Engineering and utility services and infrastructure. Sub-stations and electrical infrastructure. 	<ul style="list-style-type: none"> City of Cape Town's Management of Urban Stormwater Impacts Policy (2009)

Table 5.5c): Infrastructure and Utilities Servitudes

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Infrastructure Servitudes <i>This includes power cables and underground pipelines and infrastructure</i>	<ul style="list-style-type: none"> Permanent structures and buildings other than those related to service provision. 	<ul style="list-style-type: none"> Roads and rail. Transmission towers and rooftop base stations. Agricultural activities (including urban agriculture). 	<ul style="list-style-type: none"> Conservation activities. Public open space. Landscaping. Stormwater management. Pipelines and cables. Engineering and utility services and infrastructure. Power generation activities and power lines. Pedestrian walkways. Sub-stations 	<ul style="list-style-type: none"> City of Cape Town's Management of Urban Stormwater Impacts Policy (2009) City of Cape Town's Floodplain and River Corridor Management Policy (2009)

5.3 Areas of potential impact on selected natural environmental attributes

In the context of the Environmental Impact Management (EIM) zones, **areas of potential impact** are identified where new development is proposed on areas which have natural environmental attributes that are sensitive or have ecological value. These potential impact areas are shown in figure 5.7. The purpose of identifying these areas is to ‘flag’ the potential impacts that will need to be assessed in detail as part of an application for Environmental Authorisation, should this not already occurred.

There are several important considerations in terms of the assessment of these potential impacts as part of the application for environmental authorisation:

- The development proposals in the SDP reflect the desired future spatial development pattern in area, provide a strategic context and act as an informant to the project level assessment of impacts.
- The assessment of the potential impacts related to areas identified in figure 5.7 should occur within a broader assessment of the sustainability of any particular development proposal. This would include consideration of social justice / equity and economic development / prosperity in addition to ecological integrity factors.
- No relative significance has been assigned in the SDP/EMF to the potential impacts relating to the selected environmental attributes – this will need to be assessed as part of the EIA process.
- Figure 10 identifies areas of potential impact on wetlands and conservation and biodiversity areas only. The assessment of other environmental factors including the features identified within other EIM zones is required as part of the project specific EIA process.

Annexure A provides principles for assessing development proposals in the identified areas of potential impact.

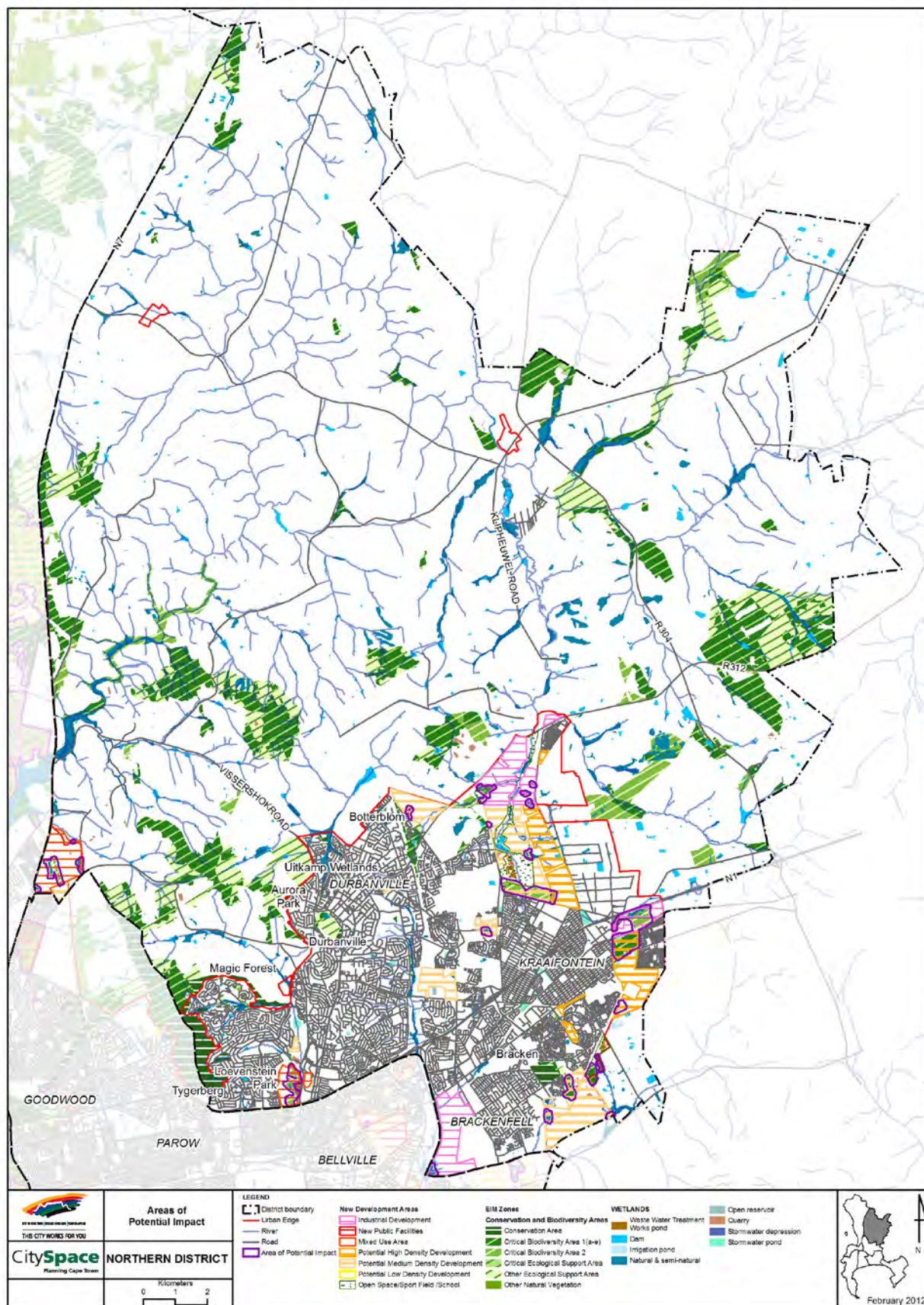


Figure 10: Areas of potential impact

6. IMPLEMENTATION

6.1 Urban restructuring and upgrading: framework for capital investment

Urban restructuring and major upgrading deals with:

- changes that need to occur within the existing urban footprint to reinforce the SDP, which require sector specific capital investment.
- informing planning around the capital investment requirements (public and in some cases private) associated new development areas and areas where major intensification is proposed (introduced in the box below).

ALIGNING SERVICE AND INFRASTRUCTURE PLANNING WITH THE SPATIAL PLAN

Two considerations are important in terms of planning for services (public facilities, parks) and infrastructure (transport, bulk infrastructure / utility services). Firstly, there is a need to address backlogs based on the existing demands and secondly a need to plan for new demand. In terms of the latter the SDP attempts to inform by:

- locating areas for intensification of urban use (e.g. areas where redevelopment is being promoted) as well as new development areas (focussed on significant green field development).
- Providing some indication, where possible of the quantum of development and likely phasing of development

This planning approach will be supplemented by more detailed modelling exercises conducted on a sectoral basis.

New development areas (see Figure 11: New Development Areas for location)

	Area	Likely land uses	Possible yield
1.	University Stellenbosch Business School	Mixed Use	Bulk as in existing agreement (Tygerberg)
2.	Velodrome Precinct	Commercial/ Hotel	about 200 000m ² commercial/ hotel
3.	PP Smit Sports Grounds	Commercial	
4.	<i>Scottsdene Infill Development</i>	<i>Medium/ high density housing</i>	<i>2000 units</i>
5.	Morningstar housing dev. (erven 5643, 13999)	Medium density housing	150 units
6.	Kraaifontein Industrial Area Extension	Service Industrial	
7.	Extension 3, Bloekombos	Medium to high density housing	4000 units
8.	Fisantekraal Industrial Area	Service Industrial	
9.	North Eastern Growth Corridor	Residential and related uses (low to high density)	68 000 units (longer term)
10.	Morgan Grounds Industrial	Service Industrial	
11.	Welbeloond/ Annandale	Mixed Use, inclusive of medium density housing	3235 res. units, 67 000m ² commercial, 245 000m ² industrial
12.	Philadelphia Informal Settlement formalisation	High density housing	50 units
13.	Joostenbergvlakte Mixed Use Node	Mixed use, but primary use to be service industrial	
14.	Botfontein Service Industrial	Service industrial	
15.	Crammix site (Brackenfell)/ Kruisfontein smallholdings	Mixed use, primary use to be medium density housing	3000 units (Crammix), 1500 units (Kruisfontein smallholdings)
16.	Area east of Durmonté	Medium density housing	500 units
17.	Andrag grounds	Medium density housing	1500- 2000 units
18.	GAP housing Wallacedene/Klein Begin	Medium density housing	800 units

Major intensification areas:

- 19. Soft-/ hard core of Durbanville CBD (residential densification and intensification, re. redevelopment)
- 20. Springbok Park area (Brackenfell CBD) (mix of commercial)
- 21. Brighton Road/ Van Riebeeck Road, and Malborough Road (activity streets)
- 22. Eikendal/ Belmont Park area (mainly along Old Paarl Road)

Note that where general densification of existing areas are proposed, it will be subject to availability of services and the payment of Development Contributions to effect collective upgrading.

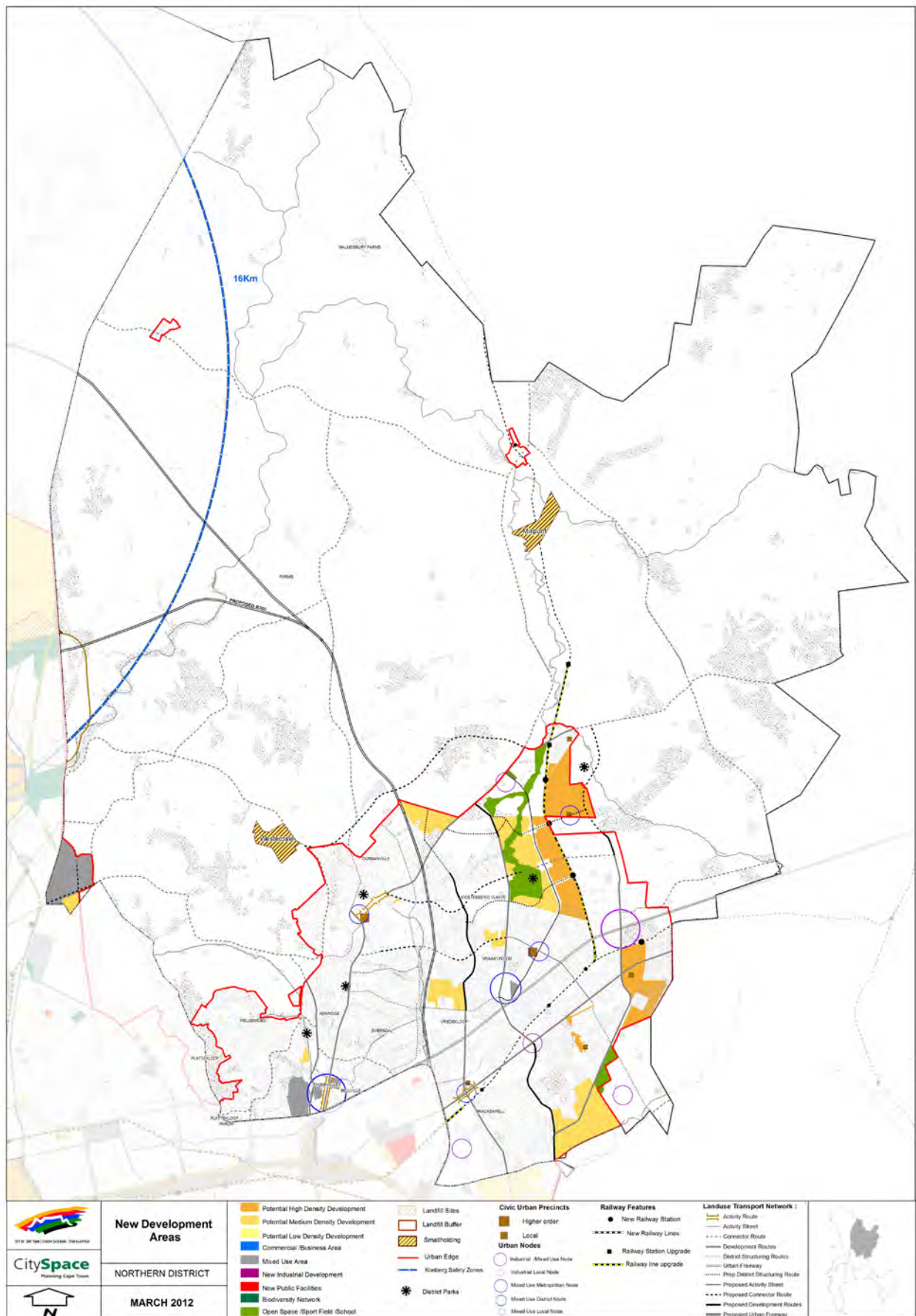


Figure 11: New Development Areas

6.1.1 Transport infrastructure

a) New Road links

Freeways:

The R300 forms a strict mobility route (as urban freeway) with limited access linking urban districts and facilitating metropolitan distribution. The further extension of the R300 (National Road 21, section 1, known as Route no. 300) northwards, and the alignment thereof, is presently being debated, and the final alignment will be subject to the outcome of the required EIA process and other processes. It needs to be recognised that the extension of the said route is dependant on the programme for implementation by the South African National Roads Agency (SANRA). There is concern that should development be encouraged along this route, it could undermine the urban edge. The further extension of the route north of Durbanville should therefore not be regarded as a motivation for development beyond the current alignment of the urban edge.

Primary Arterials:

The extension of Lucullus Rd/ Maroela Street (as development route), to link up with Kruis Rd in the south, should be regarded as an important north south link for the development of the identified growth corridor. Should any development be approved in the Kraaifontein North East Development Corridor (east of the rail line), the extension of Lucullus Road between the N1 and the R312, should be the first priority, in order to provide a direct link from/onto the freeway, and not to increase through traffic along Wellington Road (R302).

The extension of Okavango Road to link from Uitzicht to Wellington Road remains a priority, in order to provide for an alternative direct link onto the N1, which may alleviate congestion through the Durbanville CBD. The extension of Okavango Road to the south, is intended to be extended straight across Old Paarl Road. The proposed extension will then run along the eastern boundary of ERF 12232, Brackenfell, after which it will realign with Kruisfontein Rd. to the north of erf 9257, Brackenfell. It is foreseen that the extension will then follow along Kruisfontein Road down to Bottelary Road to the south, whereafter it will follow the erstwhile N7 reserve. The extension across Old Paarl Road is however not a priority at present.

The extension of De Villiers Road (connector route), the section from Verdi Str. to Brighton Rd., as well as the section between De Villiers Drive and Fairtrees Avenue is also regarded as a main east west arterial. The completion of the road link may also alleviate congestion in the Durbanville CBD. Furthermore, the completion of the said road link may contribute to the redevelopment opportunities along Brighton Road.

The proposed extension of the R312 (Lichtenburg Road) will also fulfil an important east west linkage to the Vissershok Road, although the environmental impact that the extension may have, is still to be determined.

The Jip de Jager Rd. extension to link via St. Johns Rd with the Vissershok Rd. will most probably also alleviate congestion along Durban Road and Tyger Valley Road.

Secondary Arterials

The realigned Langeberg Road (connector route), as well as the Eversdal/ De Bron Roads (connector routes), are proposed to serve as the main east west arterials.

Brackenfell Boulevard (Class 3) is regarded as a secondary north south arterial road, and the completion of the road link to Wellington Road seems to be the first to be implemented, due to the availability of funding. The completion of the road link will at least provide a direct link between the N1 Freeway and Wellington Road, which should have a positive effect on traffic volumes through the Durbanville CBD already.

Tyger Valley Road provides additional access to the Tyger Valley node in the south, and Tygerberg Road (MR 200) will in future be realigned to provide direct access to Blaauwberg to the west.

Darwin Road as an activity street to link Brighton Road with Klipheuwel Road is a requirement for the development of the Darwin Road Development Area. The road will not only provide

accessibility through the new development area, but will also create the opportunity for commercial and other non- residential developments, which may also include public facilities, and low impact office developments. It is crucial that accesses along the route be optimised in order to accommodate the proposed function as an activity street. It is believed that the said route will in the short term not develop the character of an activity street, but in the longer term, with all of the adjacent land parcels be developed, it's potential as an activity street may be realised.

Other linkages that will need prioritisation in the Kraaifontein North East Development Corridor is the extension of New Langeberg Road to link with Lucullus Road, as well as the building of the so-called East West Connector Road between Okavango Road and the R304 (consult the North East Development Corridor Bulk Services Master Plan, ARCUSS GIBB, 2009).

b) Public transport infrastructure

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Stations

All stations along the Kraaifontein line are regarded as harsh and not user friendly environments. It is therefore required that forecourts be developed for these entry points by introducing functional landscaping elements. Examples may include the defining of parking/ pedestrian areas, defining movement corridors, introducing soft landscaping in the form of trees to soften the built environment. The development of the Bloekombos station is regarded as a priority in order to facilitate an increased utilisation of rail transport by the surrounding lower income communities of Bloekombos and Wallacedene.

Taxi ranks

Most of the taxi ranks in the district are of small scale. In most cases these spaces are not defined (Wallacedene in particular), and effort should be made to introduce landscaping elements to define the boundaries, create adequate public facilities, as well as opportunities for informal trade to happen at these facilities. It is therefore recommended that the informal rank along La Boheme Street in Wallacedene be formalised.

The Durbanville rank also requires special attention with regard to its operation, and general appearance of the facility. It is the only interchange serving the Durbanville/ Fisantekraal and outlying farming/ rural areas. It is ideally located in terms of its linkages to the major road transport network, its proximity to the CBD, as well as areas of residential densification. The functional integration of the interchange with its surrounds is critical.

It is recommended that the traffic flow patterns of the taxis and buses be investigated, if needed additional parking and movement space be created, that pedestrian movement corridors be formalised, that protection against natural elements be provided for commuters, that ablution and informal trading facilities be upgraded, and that measures be implemented to increase the safety of the environment. The need for additional parking for commuters living further away should also be investigated.

The goal of the above should be to provide for a fully functional and integrated transport facility, which will address the needs of the wider environment.

Intercity Bus Interchange

The Intersite bus rank at Parc du Cap (Mispel Street), is regarded as an operation that needs a defined area for its operation. It is recommended that the land parcel mainly owned by the South African National Roads Agency(SANRA) between Willie van Schoor Avenue and Durban Road (inter alia 3775-3776, 3779-3780, 3800- 3801etc) be investigated for utilisation as a long distance interchange.

It should be realised that the mentioned site can be regarded as a gateway into the Tyger Valley precinct, but the need for a formalised long distance transport facility cannot be negated.

However, should it transpires that, due to space/ design requirements the said site cannot accommodate the operation, that alternative locations be investigated. Such facility should however be located in close proximity to a trunk IRT route, and therefore it is recommended that

the facility be located either along Willie van Schoor Avenue/ Durban Road, or along Carl Cronjé Drive.

c) NMT (Non Motorised Transport) infrastructure

Safe movement spaces should be created for both pedestrians as well as cyclists along roads such as Darwin Road (the link between Brighton Road and Klipheuwel Road), Maroela Street, and its proposed extension to link with Kruis Road. All future access roads that will link the residential fabric to the proposed stations in the Darwin Road Development Area should provide for safe movement of pedestrians and cyclists.

6.1.2 Open space system

Open space upgrading, enhancement and development (associated with the natural environment and higher order sports and recreation facilities) is critical to achieving the vision for this district. In particular, the latent potential of the existing (degraded) natural systems should be optimised. In this regard, several interventions relating to the open space system are proposed.

a) Linear open space system

It is proposed that open space upgrading/ new open space development seek opportunities within the local linear open space system. The focus for upgrading and development of the linear spaces should be where there is potential to cluster uses (such as development of a park in the system adjacent to a primary school site/ sports fields/ other community facilities).

Tyger Valley Precinct

Both the Stellenbosch Business School site and the Bellville Stadium/ Velodrome site (at a more regional scale) is regarded as strategic sites (major mixed use potential) where it's development/ redevelopment should also have a positive impact on the provision of public spaces, and the restructuring of the wider built form in general. The proposed partial relocation of the PP Smit sports grounds to the northern portion of the site, should be regarded as an ideal opportunity for the provision of public space (both active and passive), which may include the existing golf driving range, now located along Carl Cronjé Drive.

It is crucial that the different parts of the open space system (be it green spaces, or hard landscaped spaces, which may also take on the form of 'town squares') be linked by means of pedestrian walkways/ alley ways/ pedestrian bridges (that can be regarded as safe spaces). The purpose should be to not only create recreation spaces (which may have different functions, be it active, or passive recreation), but also to provide desired movement spaces, that links together the different developments, as well as to integrate non-motorised movement with the Elsieskraal open space system. It is therefore be recommended that with the redevelopment of the Velodrome site, the University of Stellenbosch Business School site, or further developments at the Tyger Valley Centre, or Willowbridge, it be made conditional that open space linkages be introduced.

Darwin Road Development Area

The Kraaifontein Sports Complex (located east of the Kraaifontein Waste Water Treatment Works) should be further developed, also to include the land to the north (existing shooting range site, to be closed down), or portion thereof. It is argued that with the implementation of the Darwin Road Development area, at least 20 000 residential units will be added to the area. This will put huge pressure on the local authority for the provision of sports facilities. It is also reasoned that adequate land will be available, should the shooting range site be included, to provide for a District Park to serve the wider residential environment. Such facility is regarded as much needed as the existing built-up area does not provide for passive and active recreation at the district scale. Such District Park then also needs to be linked, even if along road reserves, with the Mosselbank River corridor,

in order to create a linear linked open space system. It is recommended that the district park takes on the form of an informal sports park, which could accommodate uses such as kick-abouts, soccer fields, basket ball pitches, a trim park, BMX track, and informal foot paths which could also be utilised for informal training.

North East Development Corridor

The principle of creating a linear open space system should be followed, which should strive to link the Mosselbank River corridor with public facilities, such as schools, sports fields, and recreation spaces, in order to optimise pedestrian/non motorised accessibility between the different land uses, as well as optimising the use of public facilities.

b) New District Parks

Durbanville CBD

The open space between New and Plein Streets in Durbanville (old commonage), located adjacent to the taxi/bus rank, provides opportunity to be upgraded and developed as a District Park, which can also accommodate facilities for utilisation by the public transport users, such as seating facilities, kick-abouts for children and more soft- and hard landscaping elements, e.g. walk ways/ cycle ways.

Darwin Road corridor

It is recommended that part of the Kraaifontein Sports grounds (to be extended to the north to include portion of the shooting range facility) in future be developed as a district park, which could take on the form of a trim park facility.

North East Development corridor

It is recommended that another district park be developed east of the Malmesbury rail line as part of the identified growth corridor. Such district park could also form part of sports fields development, which could be accommodated within the river corridor area.

Elsieskraal River Open Space System

The Elsieksraal river corridor, inclusive of Majic Forest, and the open space linkages along the ridge area of Oude Westhof/ Van Riebeeckshof, is regarded as a district park, in view of the different recreational functions/ roles it has within the urban environment.

Durbanville Rose Garden

The Durbanville Rose Garden is also defined as a district park, due to the visitors it attracts from areas outside the district, as well as diverse function it has.

c) River corridors

The provision of active and passive recreation space is also recommended, where applicable and accessible in locations along the major Metropolitan Open Space System, such as the Kuils River, Elsieksraal River, and Mosselbank River 1:100 year flood plains, as well as the Sonstraal Dams in order to optimise the utilisation of the green system. In the instance of the Mosselbank River tributary, running through the proposed growth corridor, it could also be developed as a semi-natural district park, with foot/ cycle paths along the river corridor, which could increase accessibility. Both the Elsieksraal- and Kuils River is regarded as ecological corridors, with a district park function.

River corridors plans need to be prepared in terms of the Floodplain and River Corridor Management Policy (2009).

d) Storm Water Detention facilities

The existing storm water detention ponds, as well as those to be provided as part of new developments, also have a role to play in the open space system of the city. Their multi-functional use including for recreational activity should be promoted, where appropriate.

e) Existing sports complexes

Upgrading of sport and recreation facilities should be focussed on sports complexes. Efforts should be made to broaden the diversity of activity available within these areas to include activities beyond formal sport to passive recreational activity.

The following situation prevails in the District:

- The Blue Ridge Sports complex in the Wallacedene area accommodate presently 28 soccer clubs, whilst only 4 soccer fields are in existence. Space is still available to accommodate more informal fields.
- In Bloekombos the 2 existing soccer fields do not fulfil the needs of the extending community.
- More soccer- and hockey fields are required for the Scottsdene Sports complex.
- In Wallacedene the planned sports fields have all been taken up by housing development, and only 1 soccer field is available.
- The Morgenster Sports grounds in Brackenfell is fully developed, and more cricket fields are required.
- As been stated before, the Kraaifontein sports fields will need to be extended in future to accommodate expected growth in the Darwin Road corridor area. With the partial closure of the shooting range facility, adequate land will become available to provide for the needed extension.
- Durbanville Sports Complex accommodates 3 soccer fields, a baseball field, a cricket field (doubling up as a hockey field), 1 substandard soccer field and 2 netball courts. The adjacent solid waste dump site is in the process of closing down, and as the site is on the same level as the other fields, it is recommended that the site in future be redeveloped to accommodate more sports fields. Furthermore, the open space site opposite De Villiers Rd. is also proposed to be developed to accommodate a junior soccer field.
- Morningstar sports fields accommodate a rugby- and soccer field, as well as a swimming pool. No extension to sports fields is foreseen.
- The proposed relocation of a portion of the PP Smit sports fields to the former solid waste dump site, located on the University of Stellenbosch Business School (USB) land, is regarded as a long term proposal, where implementation will only be possible once agreement between the City and the US has been reached on the redevelopment of the site.
- Bellville Stadium and Velodrome: Both facilities are part of a redevelopment process, where a tender has been adjudicated by the City in 2009. The status quo at the Bellville Stadium will remain, but options are being explored to relocate the Velodrome.
- Fisantekraal: A soccer field and substandard rugby field are in existence at the settlement, but the facility accommodates 27 soccer clubs (with a huge impact on maintenance). Space is available to extend the rugby field.
- Philadelphia: A combined rugby/ soccer field exists, but the problem is that the field is still in private ownership (church). Steps are being taken to survey the site, but the transfer of the site to the City still needs to be investigated.
- Klipheuwel: A combined rugby/ soccer field exists.

From the above it is clear that more land is required for sports fields development, especially for the area to the south of the N1 freeway (Wallacedene/ Bloekombos/ Scottsdene areas). It is therefore proposed that land in Bloekombos Extension 3 (east of Maroela Rd.) be made available for further sports field development. It has also transpired that no swimming pool facility is in existence in the area south of the N1. As the housing areas accommodate many lower income households, it is recommended that such facility also be developed in the Bloekombos Extension 3 area.

6.1.3 Publicly assisted housing

Publicly assisted housing, in the context of the district plan, relates to the realisation of a range of housing opportunities, formal or informal, that the public sector plays a role in providing or supporting through its housing programmes.

The spatial plan supports housing sector planning by:

- giving direction to where these opportunities could occur by identifying land suitable for urban development (refer to section 4 and Figure X: Composite District Spatial Development Plan).
- giving further spatial direction through identifying “new opportunities” for publicly assisted housing development (section 6.1.3a),
- providing a framework for “informal settlement development and upgrading” processes in the district (section 6.1.3b).

In the context of the housing backlog, urbanisation trends and land availability patterns at a City and district level, publicly assisted housing, in this district, will generally focus on:

- Small to medium scale residential infill development building on opportunities around pockets of well-located underutilised or vacant land that exists.
- Large scale identification of integrated housing opportunities (identifying land for high, medium and low density housing) in the agreed upon (in terms of the City SDF) Kraaifontein north eastern growth corridor.

a) New opportunities

Identification of new opportunities for publicly assisted housing is guided by the CTSDf policies and associated criteria (see Table below). Note that although there is not adherence to the first criteria mentioned in the table below, the identified growth corridor is ultimately focussed on the development of a more compact city, as well as focussed on the utilisation of existing infrastructure such as the Fisantekraal WWTW, the existing Malmesbury rail line, etc. Sites identified in the District include sites which may be part of new subsidised housing projects on the 5 year housing plan, as well as the area identified for high density development in the growth corridor.

Criteria to be used to guide the identification of land for subsidised and gap housing

Principle	Subcomponents
Contain urban sprawl and protect the urban edge	The land identified should: <ul style="list-style-type: none">• contribute to the development of a more compact city;• maximise the use of existing infrastructure and service capacity; and• not be located adjacent to the urban edge (where possible).
Facilitate urban integration, and promote the establishment of viable communities	The land identified should: <ul style="list-style-type: none">• be in close proximity to existing economic, social and public transport opportunities; and• support a mutually beneficial mix of social, residential, recreational, commercial and employment opportunities.
Facilitate a range of housing options and delivery approaches	The land identified should: <ul style="list-style-type: none">• be suited to the development of new settlements, the upgrade and de-densification of existing informal settlements, high-density housing, rental accommodation, and the release of land to the homeless; and• note that the size of the housing project, and type of delivery agent influence its economic viability.

Be suited to housing development	<p>The identified land should:</p> <ul style="list-style-type: none"> • encourage environmentally sustainable land development practices and processes; • not lead to the loss/have a damaging impact on natural and built assets that merit longer-term protection; and • ensure healthy, safe living conditions.
Take the beneficiaries' economic and social well-being into account	<ul style="list-style-type: none"> • When identifying land, and providing infrastructure and shelter for the unhoused and poorly housed, it is important to take their livelihood strategies and social support networks into account.

b) New subsidised housing projects

A number of infill sites are identified, which are the subject of subsidised housing infill projects in the short to medium term. These are reflected on the Urban Restructuring Plan.

These new subsidised housing projects identified for the Northern District include:

- **Scottsdene**
The infill development on inter alia erven 2402, 4258, 2728, 652, 125, 145- 147, 140- 142, 251 is proposed for a mix of housing opportunities which could include the different forms of subsidised housing, as well as private housing. The main objective should be to alleviate the scale of back- yard dwellers in Scottsdene and surrounds. The vacant parcels of land can still accommodate at least 1500- 2000 units, all varying in extent and type. Furthermore, erven 4258, 3423 (Provincial Government Housing Board) and erf 13585, located partially along Old Paarl Road can also be utilised for higher density subsidised infill housing development.

A GAP housing project is also been planned for 800 units, to be located adjacent to Grootboom Avenue and Lincoln Road (Klein Begin), on the eastern boundary of Scottsdene.
- **Morningstar**
The Municipal Depot site (erven 13999 and 14011), located along Langeberg is proposed for higher density infill development, which may also take the form of rental stock. The interface with the adjacent single residential fabric however needs to be treated in a sympathetic manner. Access needs to be taken over the Public Open Space erf 5643. A total yield of approximately 150 units is proposed for the site.
- **Wallacedene**
Phases 10A and 10B, with a total yield of about 1900 units, appears on in the 5 year plan of the Housing Directorate. Note that phases 3- 9 is already in the construction phase (different stages of implementation), and will total a yield of about 6000 units.
- **Kraaifontein north east development corridor**
The Kraaifontein growth corridor, which is primarily focussed on the existing rail line, is believed to accommodate in future a major component of public housing, which should be located especially in closest proximity to the rail line, and envisaged rail stations, in order to optimise public transport utilisation. Although the objective should be to provide for integrated housing opportunities, it is argued that by concentrating the majority of the public housing component in closer proximity to the rail stations, accessibility to other social infrastructure can be optimised. In this regard it should be noted that the City is already the owner of Paarl Farm 725, portions 0, 8 and 64 (located on both sides of the rail line)(for which a total yield of 5000 is

planned), as well as Paarl Farm 724, portion 15 (a yield of 1000 units). These said portions are all earmarked for public and social housing development.

Cognisance need to be taken of the fact that in future, public housing may take the form of site and service provision (which may also have different forms). However, what is important is that such developments take place in a structured and planned way, i.e. that the form of such developments be thoroughly planned to provide for public amenities, which should include public open space.

It is important that the development of these sites occurs in an integrated manner. In this regard, there needs to be concurrency in the planning, budgeting and roll out of required social and services infrastructure relating to the development of these sites.

c) Further land identification for publicly assisted housing projects

Further land has been identified specifically for investigation for publicly assisted housing projects. This is limited to publicly owned land and will be updated over time based on new information.

Bloekombos/ Wallacedene :

The area known as Bloekombos Extension 3, located south of Maroela Road Intersection (N1), to the south of the rail line, offers ample opportunity for infill higher density public housing. Paarl Farms 732/ 20, and 320/20 (almost 43ha in extent) are both owned by the City of Cape Town, whilst Paarl Farm 732/ 19 (on which a secondary school has recently been completed) is owned by the Provincial Housing Board. The portion located south of the Old Paarl Road (Farm 320/ 20) is presently been occupied by the Tygerberg Raceway, but the lease agreement is to expire in 2014, and it is recommended that such lease not be renewed, as the land is much needed to address housing needs. A framework plan for the said portions of land, has been drafted and should guide the future urban form of development, which should mainly be focussed on the provision of public housing. A total yield of about 4000 units can be achieved.

In addition to these sites other smaller infill opportunities should be explored. These could include:

- the development of new buildings as part of existing housing estates, especially where these can contribute to a safer well defined public environment and improved safety;
- development of over-scaled road reserves and buffer strips.
- rationalising underutilised open space, such as the underutilised sports fields in Bloekombos, located at the c/o Sam Njokozela Street and Old Paarl Road. It is argued that formal sports fields should rather be developed in Bloekombos Extension 3, to serve a wider community, and the almost 36 000m² s site be utilised to address housing needs in Bloekombos.

The intention is that those sites that are found developable should be pursued as new public housing projects or if not feasible for development by the public sector alone, should be the subject of partnership efforts where the provision of inclusionary housing should be a priority.

Sites identified for further investigation are:

- Erven 2728 (4800m²), 9325 (5366m²), Brackenfell (Scottsdene area, along Eoan Rd);
- Erven 240- 247 (1,8ha), erven 197-208, erven 174- 178 (all Scottsdene);
- Portion of erf 148, portion of sportsfield site, located along Wolwefontein Rd. between Scottsdene and Northpine;
- Erven 5281- 5282, 2309- 2313, 2315- 2327, Kraaifontein (Belmont Park, 18 subdivided erven, extent varies between 490m²- 1000m², ideal for GAP housing). In this regard it is desirable that a framework plan be developed for these erven, to provide clarity on structure, form and proposed use;
- Erven 4525, 4533 (Republic of SA)(Kroonden Rd, Northpine, 6ha in extent), erf 5908(Garden Cities, 1,5ha in extent) and erf 18486 (Group Five; old hostel site for integrated housing development;

- Erven 6999- 7002, 6971- 6980, 6953- 6957, 6960- 6962, 10190 (vacant single residential erven located behind Kraaifontein Civic Centre, ideal for old age home, or higher density housing)
- Erven 746- 748, Peerless Park West (along Frans Conradie Drive)(about 1,4ha in extent);
- Erf 3030, Kraaifontein Station (2700m²), erven 4889- 4894, Kraaifontein Station (4000m²), portion erf 8036, Scottsville (4000m²)(along Frans Conradie Drive), portion erf 8287, Scottsville (1,7ha)(along Frans Conradie Drive), erven 9877- 9880, erf 7759 (along N1, Scottsville) and erven 841- 846 (Peerless Park West);
- A portion of land is required adjacent to the sports fields in Philadelphia to accommodate back-yarders (about 50 erven required)(needs further investigation).

Note that most of the above properties are City owned, unless otherwise specified.

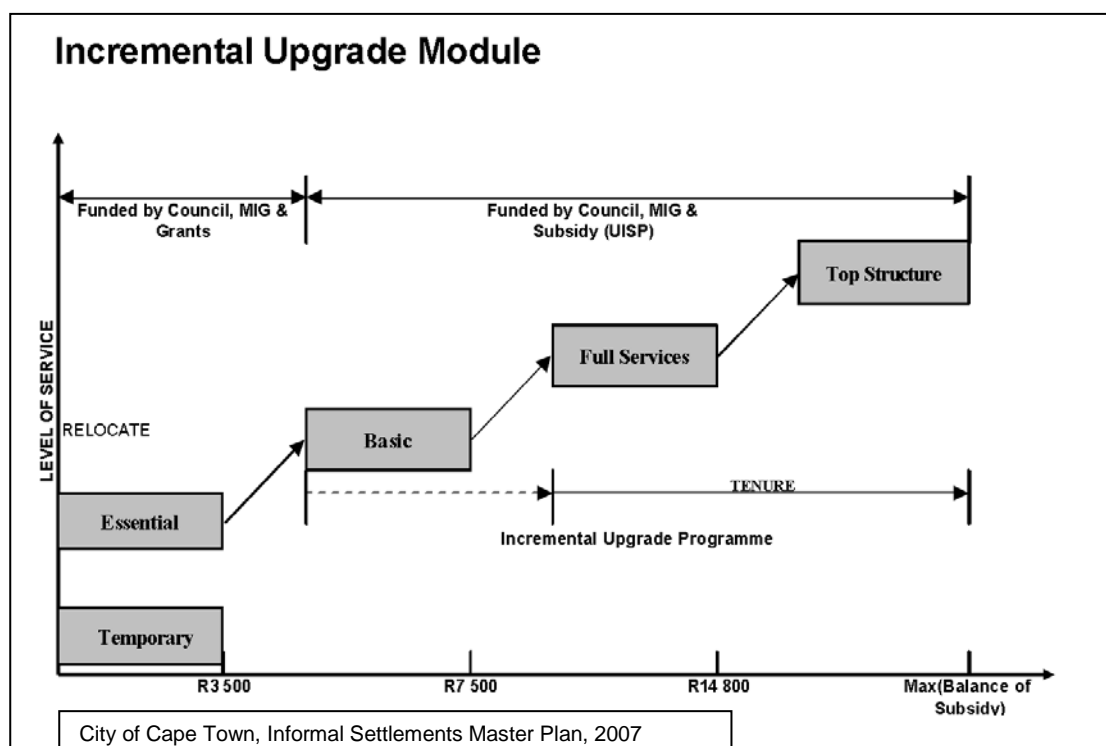
d) Partnerships and inclusionary housing

The provision of new affordable housing opportunities in the district cannot be addressed through the development of public land alone nor should all publicly owned land be developed solely for public housing purposes. In this regard, the role of partnerships in line with the inclusionary housing provisions of the PSDF and draft Cape Town SDF should be pursued. Areas which should be a particular focus of these efforts are those where their location can contribute to restructuring through the provision of affordable housing close to socio-economic opportunities. This includes:

- Public land developed for a mix of uses where there would be an opportunity to provide inclusionary housing (potentially through cross subsidisation initiatives). An example of this could be the City owned land in the growth corridor, along Darwin Rd., i.e. Paarl Farm 725/0,8,64, as well as privately owned land in the growth corridor.
- Parastatal or private land where inclusionary housing should be targeted as part of development efforts. An example of this is the land owned by the Provincial Government Housing Board, i.e. erven 4258 and 3423 (3,3ha), located along Old Paarl Rd. in Scottsdale. Another possibility is private land in Northpine, portion of erf 18486 (Brackenfell), which was earmarked for hostel development, which was never fully implemented.

e) Informal settlement development and upgrading

Informal settlement upgrading is a priority in terms of the City's obligation to provide basic services in terms of its constitutional mandate, as well as more broadly, improving the quality of life of its citizens through improving the urban environment. The City of Cape Town's incremental approach to upgrading is illustrated in the figure below.



The situation in the Northern District is as follow:

- **Philadelphia**
The Philadelphia informal settlement is identified as an area that needs upgrade and formalisation in particular. The provision of public facilities, inclusive of passive and active open space, should also be considered in the upgrade process. Provision for extending the urban edge, is proposed to be made on the northern boundary around the settlement only, and only residents residing in Philadelphia for an extensive period, need to be accommodated. No large scale provision for public housing should be allowed, as it will be to the detriment of the heritage character of the settlement.
- **Klipheuvel Informal Settlement (Cape Farm Vryheid)**
It is proposed that the informal settlement on Cape Farm Vryheid (private land) be relocated to the Fisantekraal township, and no formal urban development should be considered on the private land, now occupied by the informal settlement.
- **Fisantekraal**
The informal settlement on Portion 15 of Paarl Farm 724, is proposed to be formalised as part of a public/ private partnership. This will be dependant on the outcome of the land use application process, as well as the availability of funding.
- **General**
In general, an ongoing effort should be made by all relevant parties, to increase the quality of the less formal housing environments such as Wallacedene and Bloekombos in the Kraaifontein area through the development of the major open spaces, appropriate landscaping along major access ways and around community facilities.

Also note that allowance must be made in the provision of essential and basic services for the management of grey water and flooding.

There is, however, also a need to plan for new housing opportunities, which may, at least initially, in future, accommodate residents on an incremental basis.

f) In-situ upgrading

One of the key issues facing informal settlement upgrade is the issue of which settlements should be regarded as permanent and thus becoming the focus of upgrading beyond access to basic services (e.g. in situ upgrading) and which settlements or areas within settlements should be considered temporary and suited to relocation. In this regard the City of Cape Town's Informal Settlements Department has proposed that informal settlements be categorised into three types according to their location and circumstances, which will inform the nature of interventions. More than one category could be applied within an informal settlement to account for the existence of multiple circumstances. The proposed categories are as follows:

- A – occupation is permitted.
- B – occupation is only temporarily allowed because it is either demonstrably to the disadvantage of existing rights holders or it is very difficult or costly for services to be supplied.
- C – occupation is prohibited because it is hazardous to the residents or the wider community.

The following table indicates in more detail how the categories would be defined and suggests the kind of intervention that could be appropriate. The extent to which such interventions are possible will be dependent upon the availability of resources and the strength of the required partnerships between the City and resident communities.

Category	Circumstances		Intervention
C	1	Occupation poses a direct threat to the safety of the wider urban community (e.g. under power lines)	Registration of addresses and their occupants, Essential Services to the periphery only, no electricity connections and an arrangement between the City and residents (and any other party that is involved with the community) which will organise the vacating of the area and securing it from re-occupation
	2	Occupation poses a <u>real</u> danger to the resident community because of hazardous soil conditions (e.g. flooding, methane)	
B	3	Occupation prevents a higher use for which the land is intended to be used within 5 years	Registration of addresses and their occupants, Essential Services, individual electricity connections and the potential for a partnership-based programme that will create physical and socio-economic improvements for the residents to the extent possible.
	4	Occupation reduces the value of neighbouring property	
	5	Occupation contravenes the rights of servitude holders, but is not necessarily dangerous	
	6	The settlement cannot be serviced without great difficulty or inordinate expense	
A		None of the above	Registration of addresses and their occupants, at least full Essential Services (communal water standpipes and toilets to prescribed ratios, solid waste removal and area lighting), individual electricity connections and the potential for a comprehensive partnership-based improvement programme that could include access to greater security of tenure.

In the light of these criteria, some informal settlements within the district are regarded as permanent settlement areas. In this regard, it is critical that apart from addressing requirements for basic services as is constitutionally mandated, these areas are upgraded into dignified neighbourhoods with associated social and economic opportunities as informed by a clear plan and programme for these settlements.

g) Emergency housing and new incremental development areas

The identification process for land for new incremental development areas should reflect on the land for investigation for publicly assisted housing (see section 6.1.3a). It is critical that land identified and planned in this regard is developed in a manner that supports the future development of integrated human settlements i.e. the development of these areas requires comprehensive planning taking into account needs for public facilities, engineering services, open space and principles of good urban form.

6.1.4 Infrastructure upgrading

The District has a service index of 9,59, which is far above the city average. This indicates that people residing in the district have on average a much better level of service delivery than the rest of the city.

a) General

i) Sanitation:

The Fisantekraal Waste Water Treatment Works (WWTW)(phase 1 for capacity of 24 mega litres) is under construction and it should be operational by October 2010. The bulk lines to the WWTW are in place, and the pump station as well as the rising main is completed.

Adequate flow is required at the new treatment works, and for that reason flow from the Durbanville and Kraaifontein has been diverted via the newly installed pumpstation, to the new WWTW (estimated at 20 000 units, calculated at 12 280 kl/day, which will again create capacity at the Bellville and Kraaifontein WWTW. In this regard the Uitkamp pump station is to be eliminated, the Durbanville collector sewer and the Mosselbank rising main are diverted to the new WWTW.

Future new developments, within the urban edge, as well as expected future developments outside the existing edge can be accommodated within phase 1 of the new WWTW, estimated at 20 000 units (calculated at 600l/unit/day). Fairly longer term developments will require the implementation of phase 2 of the Fisantekraal WWTW which is estimated to be in the region of between 2022-2028 (dependant on a growth rate of 4-6%). Phase 2 is estimated to provide for a capacity of 40 mega litres.

In order to serve new developments east of Kruis Road and west of Botfontein (both Brackenfell), a sewer line is urgently required along Bottelary Road, which will go to the Bellville WWTW.

In general it should be note that stormwater ingress in the older system is increasing, which is having a direct effect on the capacity in the district.

ii) Water:

The existing capacity is adequate to serve the existing built environment. The Protea Heights reservoir (capacity of 12 mega litres) is completed, and the second phase of the rising main from Jakaranda Street is also completed, whilst the pump station is under construction. The latter will serve the Morgan Grounds area along the R300.

The planned Spes Bona reservoir (300 mega litres capacity) is to be constructed within the next 10 years. Linkages between the said reservoir and the Glen Gary reservoir (Brackenfell), which will also be linked to the Voëlvlei main line, are also to be constructed in the near future.

It should however be borne in mind that the network is becoming outdated and an increase in pipe bursts is being experienced.

The Muldersvlei Reservoir site / purification works (bulk storage and purification) is also planned for construction in order to accommodate untreated water from the Berg River Dam near Franschoek. Budget provision by the City will be required in this instance in the near future.

iii) Electricity:

In general it can be stated that capacity for proposed infill/ new developments/ intensification/ densification is available throughout the District, but dependant on the scale of development. In certain instances upgrades to the system, in the form of new substations (may it be main- or step-down stations), change in transformer capacity in substations, or upgrades to the high voltage overhead system, may be required. It needs to be noted that the City has the first right to reticulation., and if not preferred/ possible, may refer such application to ESCOM. In most instances this will happen where the City has no infrastructure in close proximity.

iv) Stormwater:

The most pressing problems are being experienced in Kraaifontein in general. Huge problems are being experienced in the Brackenfell CBD area. For the Bellville and Durbanville areas, only local upgrades of the existing system is required. This is due mainly to the accumulative effect of smaller new developments/ redevelopments.

Stormwater systems are to be designed and operated in terms of the Management of Urban Stormwater Impacts Policy (2009 as amended). This policy aims to control the quantity, rate and quality of stormwater runoff. In general land needs to be reserved for this purpose within developments.

Projected flooding along watercourses through currently developed areas may limit development potential and densification must be accompanied by mitigation measures to reduce runoff in accordance with an approved Stormwater Master Plan.

v) Transport:

The following short term priorities have been identified:

Brackenfell area:

- The R300/ Bottelary Road interchange (especially the northern ramps) for which planning has been completed and access approval been obtained from SANRA (South African National Roads Agency);
- The doubling of Bottelary Road from the R300 to Brackenfell Boulevard
- The doubling of Brackenfell Boulevard from Frans Conradie Rd. to De Bron Rd. as well as from Protea Rd. to Bottelary Rd.;
- The Okavango Road/ Old Paarl Road interchange and link to Kruis Road. The second priority will be the continuous link of Okavango Road across Old Paarl Road;
- The upgrade of Kruis Rd. from Bottelary Rd. to Kruisfontein is becoming a priority as capacity is limited;
- Specific upgrades to Old Paarl Rd. north east of Okavango Rd. through the Eikendal/ Belmont Park areas, which will be dependant on requirements linked to land use change/ intensification;
- The Maroela link to Botfontein Road through Wallacedene. (Note that the further extension to link with Kruis road is not regarded as priority and will be dependant on new developments in the vicinity);
- Dualling of Frans Conradie Rd./ Van der Merwe Str. from Van Riebeeck Rd. to Okavango industrial area.

vi) *Kraaifontein area:*

- The Brighton Road/ N1 interchange, as well as the upgrade of Brighton Road/ Van Riebeeck Rd. in order to optimise accessibility;
- The dualling of Darwin Road from Brighton Road to Mostert Street, and the linkage from Darwin Road via New Langeberg Road to link with Okavango Road;
- Upgrading of Darwin Rd./ Malborough Str. from Cape Gate to Dan King Str.;
- Dualling of Okavango Rd from Impala Str. to Vatican Str. and the completion of Okavango Rd. from Vatican Str. to Wellington Rd.;
- Completion of Brackenfell Boulevard from De Bron Rd. to Belami Drive;
- Completion of Brackenfell Boulevard from Wildebees Str. to New Langeberg Rd. and across;
- Completion of New Langeberg Rd. from Brackenfell Boulevard to Okavango Rd.

vii) *Bellville area:*

- Extension of Jip de Jager Rd. from Race Course Rd. to Diemersdal Str.;
- Dualling of Jip de Jager Rd. from Van Riebeeckshof Rd. to Golf Course in Welgemoed;
- Dualling of Eversdal Rd. from Durban Rd. to Fairtrees Rd.

viii) *Durbanville area:*

- Completion of De Villiers Rd. from Langeberg Ridge to Brackenfell Boulevard and the dualling of De Villiers Rd from Fairtrees Rd. to Langeberg Ridge. Also completion of De Villiers Rd. from Fairtrees to Helderberg Str.;
- Circulation of Durbanville CBD roads, i.e. Wellington Str., Main Rd., Queen Str., Oxford Str., Plein Str., and Church Str.;
- Upgrading of Wellington Rd. from Langeberg Rd. to Brackenfell Boulevard intersection;
- Localised capacity upgrades of Vissershok Rd./ St. Johns. Rd./ Racecourse Rd. and Tyger Valley Rd. up to the Tygerberg Valley Rd. intersection.

ix) Solid waste:

A new transfer station has been completed between Sandringham Rd, and the rail line, east of Maroela Rd. All solid waste is transferred to the Vissershok site. The environmental authorisation for the new metro solid waste site north west of Klipheuwel has been granted by the PGWC in early April 2009. The process followed is under review.

The transfer station in Morningstar is to be closed down towards 2010, which will create opportunity for infill development and much needed road connections.

- b) **New/ Infill development** (the spreadsheet re. new developments, under section 6.1, refers, as well as the New Development/ Intensification Areas Map, with corresponding numbers)

(Note that the statements made hereunder should be regarded as general guidelines only)

1&2. University of Stellenbosch Business School, together with the Velodrome redevelopment:

- Water and Sanitation;
Water network needs to be strengthened, whilst the sewer line to the Bellville WWTW needs to be enlarged at a cost of approximately R78m, which is to be paid for by the velodrome redevelopment.
- Electricity;
Expected capacity requirement for the Business School site(all inclusive area) is about 7MVA, and for the Velodrome is about 12MVA. Another step- down substation may be required at the velodrome. The Boston substation needs to be rebuilt, and dependant on its future location, the said areas will be served from the mentioned and Oakdale substations, as no more capacity will be available from the Door-de-kraal substation, which serves Tyger Valley/ Willowbridge.
- Roads and Stormwater;
Half diamond intersection from Carl Cronjé Drive on/off N1 required. Major intersection upgrades in vicinity will be required. A public transport component will be required.
On- site attenuation for stormwater required to pre- developed flow volumes (not possible for Velodrome redevelopment, therefore upgrading of system will be required).

3. PP Smit Sportsgrounds:

- Water and Sanitation;
No real problems are expected with regard to water and sanitation services capacity.
- Electricity
No problem with regard to capacity is foreseen. Proposed redevelopment is regarded as longer term proposal.
- Roads and Stormwater;
Intersection upgrades will be required, as well as a component of public transport implementation, as Durban Rd. is reaching capacity.
No major upgrades to stormwater system required. On- site attenuation for stormwater required to pre- developed flow volumes.

4. Scottsdene infill development:

- Water and Sanitation;
Minor upgrades are required for both water and sanitation bulk services.
- Electricity;
ESCOM area.
- Roads and Stormwater;
Minor roads and stormwater upgrades required.

5. Morningstar housing development (erven 5643 and 13999):

- Water and Sanitation;
Minor upgrades are required for both water and sanitation bulk services.

- Electricity;
No problem is foreseen with regard to capacity.
- Roads and Stormwater;
Minor intersection upgrading required. No major upgrading required for stormwater.

6. Kraaifontein Industrial Area extension:

- Water and Sanitation;
Area can be serviced with minor upgrades to the water and sanitation bulk services.
- Electricity;
Network can be extended to accommodate development, from the Marais substation.
- Roads and Stormwater;
Upgrade of Sandringham and Maroela Rds. will be required.
On- site attenuation for stormwater required to pre- developed flow volumes. Existing stormwater system will also require upgrading.

7. Extension 3, Bloekombos:

- Water and Sanitation;
Additional water supply needs to be installed. Adequate flow to Kraaifontein/Scottsdene WWTW's.
- Electricity;
ESCOM area.
- Roads and Stormwater;
Upgrade of Maroela Rd. and Old Paarl Rd. will be required.

8. Fisantekraal Industrial Area:

- Water and Sanitation;
Master planning been concluded. Pump station is required for sewerage, plus a water main line required.
- Electricity;
Area will most probably be an ESCOM area, but southern most area can be reticulated by the City via the Marais substation.
- Roads and Stormwater;
Local intersection upgrade of Wellington Rd. required as well as the strengthening of the north-south network.
On- site attenuation for stormwater required to pre- developed flow volumes.

9. North Eastern Growth Corridor:

- Water and Sanitation;
Master planning been concluded. Phase 1 of the proposed Garden Cities development can be accommodated within phase 1 (24mega litres) of the Fisantekraal WWTW. Phase 1 of the proposed development can also be accommodated with existing bulk water infrastructure, but thereafter a bulk water reservoir of 35megaliteres at Spes Bona will be required. Budget provision will need to be made by the City for the proposed water purification works, main bulk lines and bulk reservoir of 300 mega litres to be located at Spes Bona.
- Electricity;
Transformers at Briers substation will need to be upgraded. Another substation may be required along the R312 (being planned already), and the Kraaifontein substation may also serve a portion of the area located to the east.
- Roads and Stormwater;
The east- west link road is required, as per the master planning. Localised intersection of Wellington Rd. and the R312 required. Lucullus Rd. needs to be completed between the N1 and the R312. Okavango Rd. needs to be completed to Wellington Rd. Darwin Rd., New Langeberg Rd as well as Okavango Rd. will need doubling for certain sections of road. A public transport component will be required.
The stormwater system is to be focussed on the Mosselbank tributary. A bulk stormwater network will be required. On- site attenuation for stormwater required to pre- developed flow volumes.
For detail requirements, the North East Development Corridor Bulk Services Master Plan, ARCUS GIBB, 2010, needs to be consulted.

10. Morgan Grounds Industrial:

- Water and Sanitation;
Most of the required infrastructure (water and sanitation) for the proposed development has been installed.
- Electricity;
Northern portion of vacant area already been reticulated, and for remainder another substation is planned which will be operational by 2011, to serve the total area.
- Roads and Stormwater;
The Cilmore Str. link across the R300 needs to be completed. Also localised intersection upgrades required.
For stormwater, minor retention upgrades required. On- site attenuation for stormwater required to pre- developed flow volumes.

11. Welbeloond/ Annandale:

- Water and Sanitation;
For water capacity, a reservoir as well as bulk supply lines area required. For sanitation, a pump station is required, as well as upgrade of existing pump station. Furthermore, existing sewerage lines will need upgrade.
- Electricity;
Both areas are to be reticulated by ESCOM.
- Roads and Stormwater;
The Tyger Valley Rd. new road alignment and link to the N7 need completion (Annandale). Also require the completion of the M12 to the N7 (Welbeloond). A half-diamond interchange on/off the N7 also required, which is to be responsibility of Annandale development.
The stormwater system will be focussed on the Kleine Sink River (Diep River system). On- site attenuation for stormwater required to pre- developed flow volumes.

12. Philadelphia Informal Settlement:

- Water and Sanitation;
No capacity is available regarding sanitation services. The system of evaporation dams are overcapacity due to the over- subscription at schools. Water capacity is also questioned as only a 150mm supply pipe is providing water to the settlement.
- Electricity;
Adequate capacity will be available for minor development.
- Roads and Stormwater;
No major upgrades for both roads and stormwater required.

13. Joostenbergvlakte Mixed Use Node:

- Water and Sanitation;
Sanitation can be picked up via the Buh- rein main sewer line. For water capacity, an extra water reservoir will need to be built.
- Electricity;
Area can be reticulated from both the Marais and Kraaifontein substation, but some upgrades may be required. Proposal is regarded as a longer term development option.
- Roads and Stormwater;
Lucullus Rd. will need upgrade. Capacity at the N1 interchange will need to be investigated.
A complete new stormwater reticulation system will be required.

14&15. Botfontein Service Industrial Area and Crammix Mixed Use Area:

- Water and Sanitation;
A proposed sewer line along the Kuils River being planned, will be required. Adequate water supply seems to be available.
- Electricity;

A main substation will be required for developments at Botfontein and Crammix sites, as sites being too far away from both the Brackenfell- and other main stations. The capacity at the ESCOM 15 MVA line should not be a problem to serve a new main station.

- Roads and Stormwater;
Botfontein Rd. will need upgrading, as well as the intersection with Bottelary Rd. The intersection on the N1 as well as Van Riebeeck Str. will need upgrade. East west connectivity to Kruis Rd./ Botfontein Rd. will be required.
On- site attenuation for stormwater required to pre- developed flow volumes.

16. Area east of Durmonté:

- Water and Sanitation;
Area can be serviced via the Uitkamp main sewer. Adequate water capacity is available.
- Electricity;
The City is to reticulate the area, as an upgrade to the Durbanville substation is planned.
- Roads and Stormwater;
Brackenfell Boulevard will need to be extended beyond Wellington Rd. and the intersection on Wellington Rd. will need upgrade.
On- site attenuation for stormwater required to pre- developed flow volumes.

17. Andrag grounds:

- Water and Sanitation;
Capacity is available with regard to sanitation and water.
- Electricity;
Area to be served from the Eversdal substation where adequate capacity should be available.
- Roads and Stormwater;
Brackenfell Boulevard link from De Bron Rd. needs to be completed to Belami. Intersections along Fairtrees Rd. and De Bron Rd. will need upgrade.
On- site attenuation for stormwater required to pre- developed flow volumes.

18. GAP Housing in Wallacedene:

- Water and Sanitation;
600 units need to be drained to the Scottsdene WWTW (160mm pipe in Grootboom Avenue), 200 units to the Kraaifontein WWTW (along Lincoln Road). Adequate water capacity is available as adequate capacity is available at the De Novo reservoir.
- Electricity;
ESCOM area
- Roads and Stormwater;
No major road upgrading required.
On- site attenuation for stormwater required to pre- developed flow volumes.

19. Soft- /hard Core of Durbanville CBD (densification and redevelopment):

- Water and Sanitation;
The Durbanville collector sewer was upgraded in 2010, where a certain volume of flow is to be redirected to the Fisanterkaal WWTW, which will again create capacity in the area. Water capacity seems not be a problem.
- Electricity;
Adequate capacity should be available as a 2% growth p.a. is allowed for.
- Roads and Stormwater;
Strengthening of the existing grid system will be required, including Church Str. (as an alternative/ complementary road to Wellington Rd.), Koeberg Rd, Plein Str. and Queen Str.
Stormwater system will need investigation, dependant on the scale of intensification of land use.

20. Springbok Park (mix of commercial):

- Water and Sanitation;
No problem foreseen with regard to sanitation and water capacity.
- Electricity;

Adequate capacity should be available as a 2% growth p.a. is allowed for.

- Roads and Stormwater;
No major upgrades required for both roads and stormwater systems.

21. Brighton Road/ Van Riebeeck Road, and Malborough Road (activity streets):

- Water and Sanitation;
Sanitation will be a problem as the pump station is already overcapacity. Water capacity should not be a problem as the system in the area is systematically been upgraded.
- Electricity;
Adequate capacity should be available as a 2% growth p.a. is allowed for.
- Roads and Stormwater;
The Conceptual Design for Brighton Rd. and Van Riebeeck Rd by Ice Group (Boland), 2010, will be applicable.
No major upgrade to the stormwater system is foreseen.

22. Eikendal/ Belmont Park area (mainly along Old Paarl Road):

- Water and Sanitation;
Water capacity should not be a problem, but sanitation will be a problem as the Mulder Street pump station is already overcapacity.
- Electricity;
Adequate capacity should be available as a 2% growth p.a. is allowed for.
- Roads and Stormwater;
Old Paarl Rd. will require upgrade, dependant on the scale of redevelopment.
No major upgrade to the stormwater system will be required.

6.1.5 Public facilities and public space

a) Urban and civic upgrade

i. Brackenfell CBD Area (Pick & Pay Hypermarket/ Brackenfell Library/ Municipal offices)

The above node stands out as an area that needs special attention in order to create a vibrant node with accessible visual qualities, in order to draw more investment, especially along Old Paarl Road as a development route, and in particular around the station precinct. This could be achieved by creating/ increasing the pedestrian accessibility across/ along major access roads, and by appropriate landscaping, for example change of surfacing of sidewalks and parking areas. The underutilised parking areas adjacent to the Hypermarket should also be reconsidered for development, where such redevelopment could strengthen the intensification of the node. Furthermore, the station precinct can be strengthened by considering development on the remaining portion of erf 13687 (along William Dabbs Street), as well as promoting development on erf 11297 (along Old Paarl Road). To strengthen the linkage to the public facilities across Old Paarl Road, the introduction of a dedicated pedestrian crossing across Old Paarl Road is proposed.

Furthermore, the redevelopment of Springbokpark as well as part of the Arauna (along Brackenfell Boulevard), to accommodate a mix of smaller scale commercial and office development, should be promoted. Guidelines for the redevelopment of the existing residential area is required, which should address cadastral subdivision/ consolidations, required landscaping, pedestrian linkages, access management, etc.

ii. Eikendal/ Belmont Park (area between rail and Old Paarl Road)

The area in general requires urban upgrade (through urban renewal process) as it's general appearance is that of urban decay. Effort is required to increase redevelopment opportunities along this particular part of Old Paarl Road as an activity route, in order to create energy/ vibrancy in the urban fabric. Such redevelopment may create the energy for a general upgrade in the adjacent residential fabric. As a first step a precinct plan for the area should be drafted with the community in order to identify redevelopment opportunities and actions required to upgrade the area.

iii. Durbanville CBD and Morningstar

Although the Durbanville CBD is not indicated on plan as such for further upgrade, steps are required to facilitate the protection of the remaining rural character of the business area, and in particular the historic buildings in the CBD. It is therefore recommended that the Urban Design Guidelines (Planning Partners, 2008) be implemented especially where new development applications are being considered. It is recommended that the draft Urban Design Guidelines be amended (where applicable) and be formalised as a 4(10) structure plan.

The Morningstar residential area that is located adjacent to the soft core of the CBD also requires special attention as an area with a specific historic value. Care should be taken, and guidelines be developed in order to protect and enhance the residential character of the area. It is recommended that the commercial uses along De Villiers Road be legalised, but no further business creep into the residential fabric should be allowed.

iv. Brighton Road (Kraaifontein)

Brighton Road, which is located in a suburban environment, is argued to remain an activity street, providing a suburban function in an area of marginality. However, it is believed that the street is underperforming and has little identity, but it does offer an opportunity to increase the quality of the public environment. Should the public environment be strengthened (e.g. by means of landscaping), it is argued that such increase in quality, may create an impetus for redevelopment which will strengthen the quality and function of the road.

The civic precinct which comprise of the municipal buildings, community hall, library and health facility, located at the civic centre along Brighton Road provides ample opportunity to be strengthened, and to become an integrated public facility hub serving the surrounding urban area. Erven 6925- 6930 (located to the west), as well as erven 6953- 6957, 6960- 6962, 6971- 6980 and 6999- 7002, is owned by the City, and provides adequate space to accommodate future required higher order public facilities, such as health facilities.

It needs to be noted that a Conceptual Design for the upgrading of Brighton Road/ Van Riebeeck Road (up to Old Paarl Rd.), together with Urban Design Guidelines (addressing redevelopment opportunities) are in the process of being finalised. Both the Conceptual Design as well as Urban Design Guidelines should be formalised and approved as formal policies of the city.

v. Bloekombos Extension 3

The Bloekombos Extension 3 area (also see 6.1.3) offers the opportunity to act as a visual gateway into the Bloekombos/ Wallacedene area, by introducing a mix of commercial, high density housing and clustering of social facilities in locations which is highly accessible to and from the proposed Bloekombos Station. A draft conceptual framework plan has been produced for the area, showing the proposed locations of the civic precincts. Such precincts should be reserved for higher order public facilities, such as multi- purpose halls, clinics, library's, early childhood centres, sports fields etc, whilst lower order functions such as crèches and church sites should be located within the residential fabric.

b) Critical public links

i. River Corridors (as part of MOSS)

The Elsieskraal open space system (Oude Westhof area) running from Welgedacht (and also from Altydgedacht) along Protea Valley/Doordekraal, provides a direct pedestrian link to the Tyger Valley area, and further south towards the Jack Muller Park.

The above river corridor provides the opportunity as a critical natural linkage system to also provide/ increase pedestrian accessibility between the built environment, and bigger open spaces such as the Jack Muller Park, to the rural areas, as well to nodal areas such as Tyger Valley. Effort should be made to increase such accessibility by means of formal footpaths, and where roads interrupt such accessibility, such road reserve should also be utilised to provide the linkage. Further to this it is important that fencing along such river corridors, or individual open spaces, forming part of the system, not be considered anymore.

The multi- purpose function of specific areas along the corridor should also be further explored. It is recognised that intensive use of areas, such as the 'Angelier' dam (where a pilot project for angling has been introduced) may create management problems, but it can also be argued that optimum use of the open space system is required to increase safety aspects, etc. In this regard it is recommended that more partnerships with the surrounding residential areas (as is the case with Van Riebeeckshof) be explored to increase the functionality of the open space system.

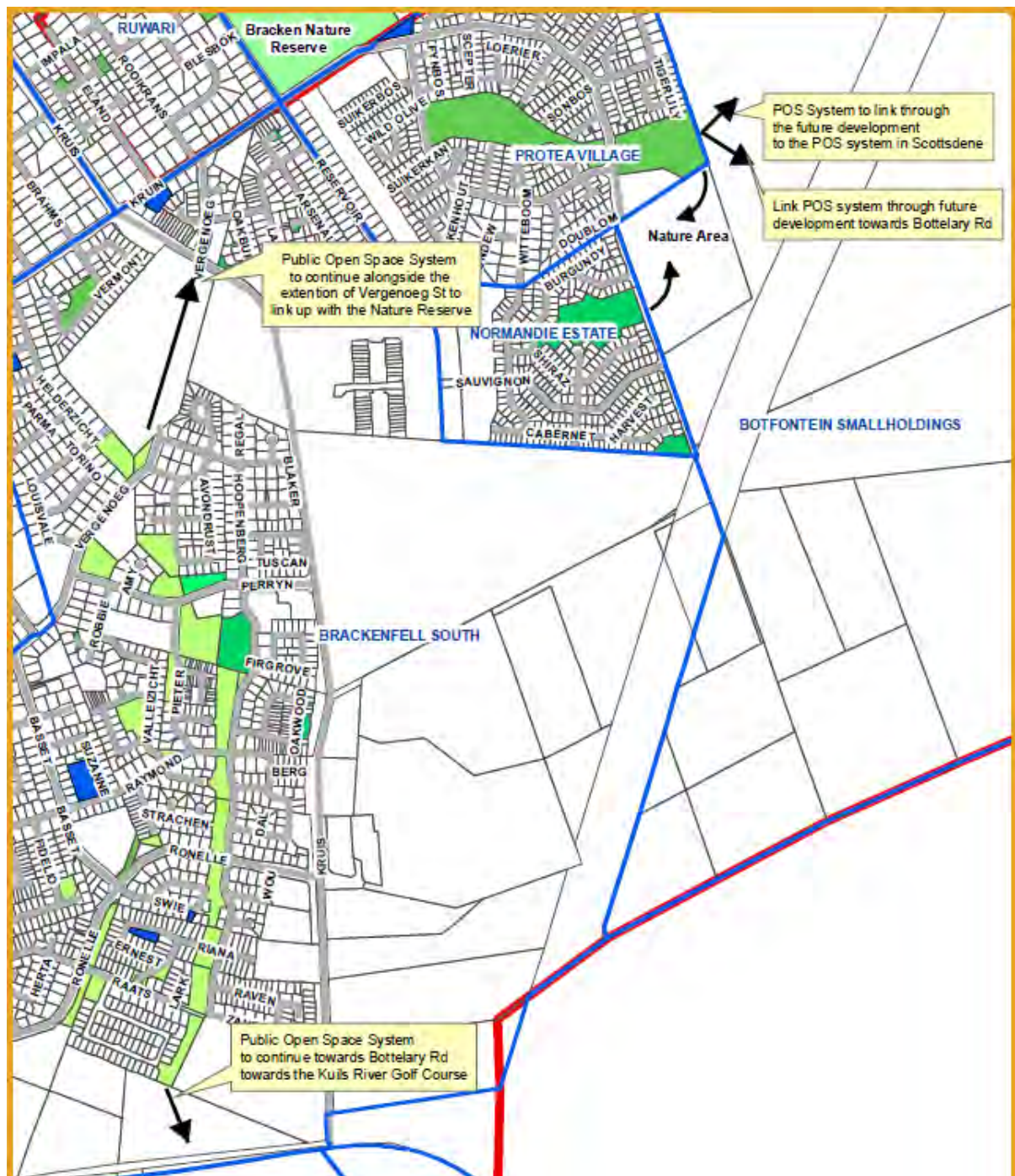
It is also being proposed that the said open space system be formally linked to the open space corridor running along the northern boundary (ridge) of Oude Westhof/ Van Riebeeckshof via Majic Forest. This corridor has been specifically created to link with the Tygerberg Nature Reserve, but as this is no longer possible, the link could still increase the value for passive and active recreation along the space system. Should development in future be considered for the wedge (obstructing a green linkage to the Tygerberg Nature Reserve), the provision of an open space linkage as part of such development, should be put forward as a condition of development. Should this happen, the open space linkage to the nature reserve should be proclaimed and managed as part of the said reserve.

Other critical public links that need to be maintained, include that of the Kuils River (inclusive of the linkage to the Sonstraal and Vygeboom dams), as well as along the tributaries of the Mosselbank River, which form part of the future north east growth corridor. In the latter instance the river tributaries could also be utilised to provide pedestrian access to planned sports fields, such as the Kraaifontein sports fields, as well as the proposed district park which is to form part of the sports field site.

ii. Bracken Nature Reserve

The open space linkage between the Bracken Nature Reserve and Perdekop, via Suikerbos Str./ Kruin Str. in Protea Village can also be strengthened by means of soft/ hard landscaping in order to optimise pedestrian movement along the public link. Furthermore, the open space linkage along Vergenoeg Str. needs to be continued with the further development of Stellenbosch Farm no 4 portions 1 and 8, in order to establish a continuous link between the Bracken Nature reserve in the north and the Kuils River Golf course in the south. See Map hereunder.

It is also important to create linkages to the Nature Reserve from areas such as the Hazendal reserve and Northpine.



iii. Lower income environments

The road linkage to the proposed Bloekombosbos station, should be designed in such a way as to provide for adequate pedestrian/ cycling movement between the station, the areas of Wallacedene/ Bloekombos and Bloekombos Extension 3. It is also proposed that adequate provision for NMT movement be provided along the proposed Maroela Road extension, to link with the extended Okavango Road.

iv. Tyger Valley Node

Pedestrian linkages across roads such as Bill Bezuidenhout and Carl Cronjé Drive should be made conditional for any further extensions (increase in bulk) to the commercial precincts, in order to link the separated nodal forms and thereby optimising pedestrian movement, and reducing vehicular movement between the commercial centres.

c) Destination Places

i. Natural Special Places

The Bracken Nature Reserve, Durbanville Wine Route (Tyger Valley Road/ Vissershok Road valley areas), Durbanville Nature Reserve, Tygerberg Nature Reserve have been identified as natural special places. It is proposed that ongoing effort be made to maximise the attraction that these areas offer. It is reasoned that a lot of opportunity is still available at the Bracken Nature Reserve to utilise its heritage value, and existing structures on the site for recreation purposes, in order to increase the utilisation of the reserve.

With regard to the Durbanville Wine Route, it is proposed that tourist related development be considered within the confines of existing homesteads ('werf'), but that the scale and nature of such developments not diminish the farming operations/ agricultural potential of the farm(s).

ii. Heritage Special Place

The settlement of Philadelphia is regarded as a settlement of specific heritage value, and no further formal urban extension to the boundaries of the settlement should be considered, except for the formalisation of the informal settlement on the northern boundary of the village, in order to accommodate people residing in Philadelphia for an extensive period.

Furthermore, it is recommended that the settlement be promulgated as an Urban Conservation area and or the Philadelphia Local Structure Plan (draft, 1994) be formalised and approved as a 4(10) structure plan/ policy, in order to protect the heritage value of the settlement.

iii. Durbanville Rose Garden

The Durbanville Rose Garden is classified as a District park, due to its multi- purpose function. It is also regarded as a special place/ destination place, due to the fact that it attracts visitors as far afield as the southern suburbs.

d) Cemeteries

The reservation of a 10-20ha cemetery site is required within the Kraaifontein-Fisantekraal "green-fields" development (up to 25 000 households requiring 0,2ha of burial space per annum) to cater for burial demand in such development during the short-medium term, as well as to provide for grave demand from the existing Durbanville-Kraaifontein area, and the outlying urban and rural settlements of Fisantekraal, Klipheuwel and Philadelphia. Furthermore, such cemetery could also serve the northern areas of District D. Development of the Wallacedene cemetery will address burial demand in the eastern portion of the District C, serving Bloekombos, Wallacedene and environs.

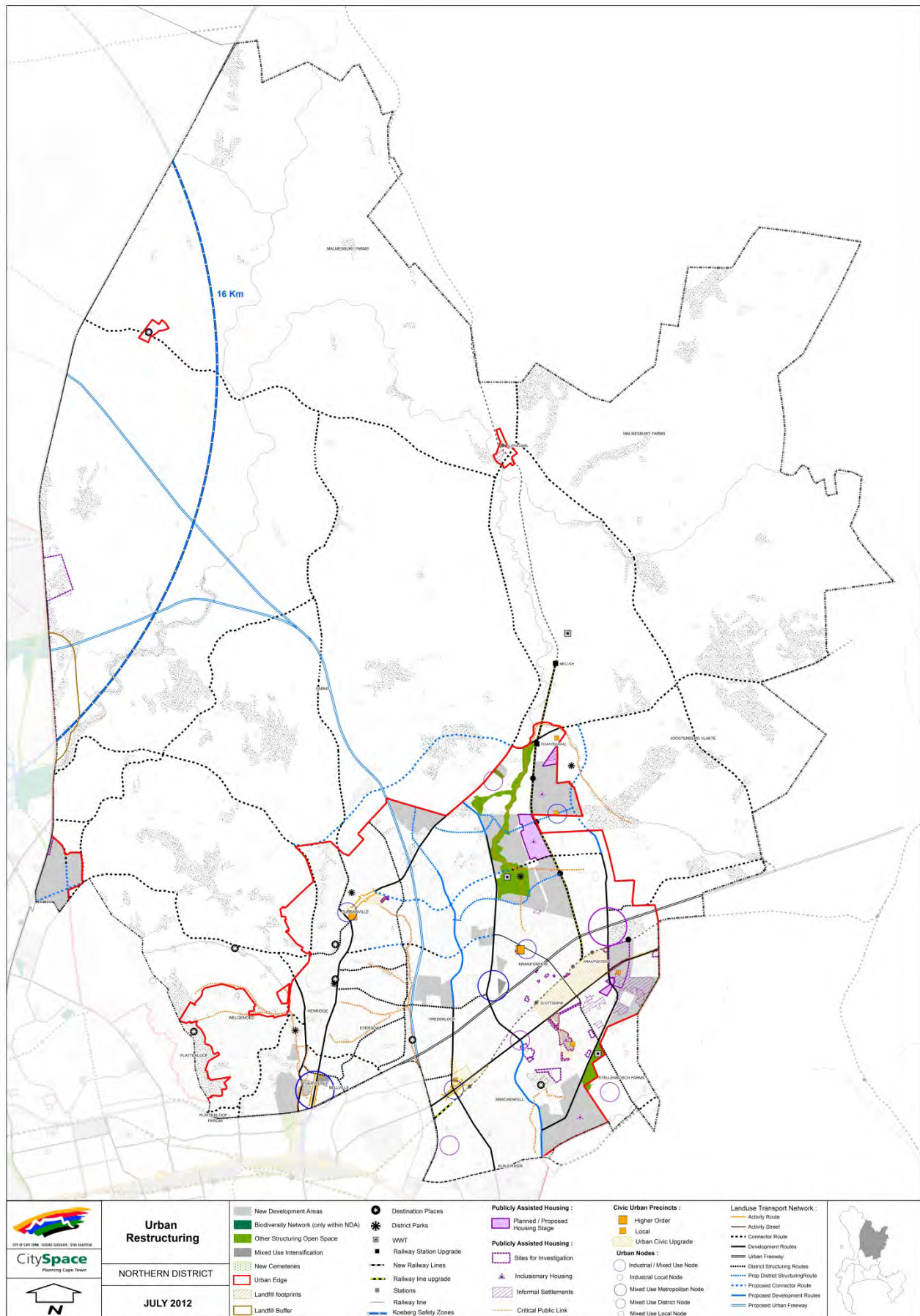


Figure 12: Urban Restructuring

6.2 Sub- district development guidelines

As indicated in section 1.1 the purpose of the district plan is to provide broad guidance for land use, and environmental, decision-making across the district. This is reflected in a spatial plan of the desired future development vision across the district (Chapter 4). However, districts are essentially large areas identified for management purposes, determined primarily by population number, and bounded by clear management boundaries such as 'freeways'. The future spatial development vision for one part of the district, for example Tyger Valley/ Durbanville, is quite different to that in a different part of the district, such as Bloekombos/ Wallacedene. Thus, land use guidance in support of achieving this variable vision needs to be reflective of local area character, and development capacity and desirability.

The purpose of this section is to provide more localised, or sub-district, guidance for land use and environmental decision-making.

In the Northern District, 4 very clear sub-district geographical areas can be identified (see Figure 13) within which district future spatial development visions apply. The demarcation of the areas is very much based on topographical similarities (valley and ridge), existing land use similarities (urban form and function), and the primary movement function. The boundaries should only be regarded demarcation boundaries, in order to describe spatial/ land use proposals. These are:

- **Sub-district 1: Tyger Valley/ Durban Road Corridor;**
- **Sub-district 2: Cape Gate/ Okavango Road Corridor,**
- **Sub-district 3: Lucullus Road/ Maroela Road/ North Eastern Growth Corridor,**
- **Sub-district 4: Agricultural/ Rural Hinterland**

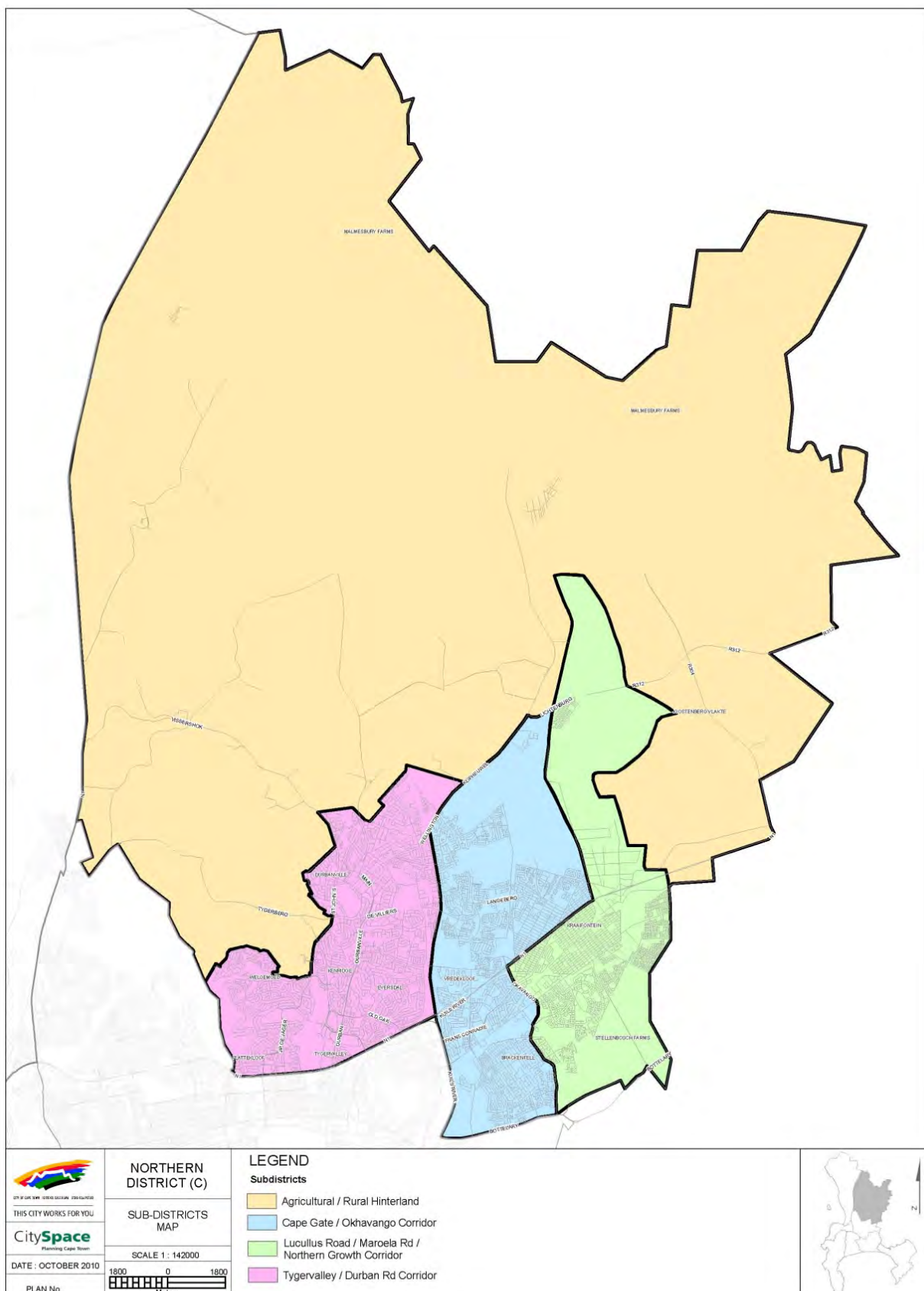


Figure 13: Sub- Districts Map

6.2.1 Sub- district 1: Tyger Valley/ Durban Road Corridor

This sub-district encompasses the urban development area within the western portion of the Northern District up to the R300 road reserve, i.e. excluding the rural hinterland which is addressed as Precinct 4. This Sub-district essentially includes all areas on both sides of Durban Road, with the R300 alignment forming the eastern boundary, and the Tygerberg Nature Reserve the western boundary, and includes inter alia the Tyger Valley commercial node, with the adjacent residential suburbs of Welgemoed, Hoheizen, Loevenstein, Protea Valley, Door-de-kraal, Oude Westhof, Van Riebeeckshof, Welgedacht, Upper Oakdale, Ridgeworth, Rosendal/ Rosenpark, De Bron, Kenridge, Eversdal and environment, and Durbanville in total (inside the urban edge). The residential area of Durmonté and the adjacent undeveloped portion of land to the east of the said area is also included in the sub-district.

The section that follows deals with the following areas within this sub-district:

- a) The Tyger Valley Node (Tyger Valley Shopping Centre, Willowbridge Lifestyle Centre, Tyger Waterfront, University of Stellenbosch grounds, Velodrome and surrounding office developments.
- b) Durbanville CBD (core area)
- c) Residential areas

Vision:

- To develop a mixed use node at Tyger Valley that is integrated, providing an extensive and diverse range of opportunities, which is safe, and the different uses are linked to form a coherent unit in order to optimise accessibility and limit vehicular trip generation.
- To optimise opportunities for infill/ redevelopment within the Durbanville CBD, without compromising the rural character of the area.
- Furthermore, to protect the character of the surrounding residential fabric through appropriate densification and protection of the integrity of the area through addressing business creep.
- Ensuring that the integration of land uses are optimised, where opportunity allows. This includes densification and providing opportunity for small business development.

a) Tyger Valley Node

Vision and Contextual analysis: The vision is to strengthen the role of the *Tyger Valley Node* to the point that this area be recognised as the second multi-purpose CBD of the City of Cape Town (although different in extent, urban form and function) with a corporate address. Increased densities must be promoted, but without losing sight of creating a pedestrian friendly (non- motorised) environment. Future development within this area must consequently focus on achieving a better integration between the different developments, as well as on optimising its accessibility and development opportunities (i.e. truly a mixed use area).

The Tyger Valley Node includes the Tyger Valley Regional Shopping Centre, Willowbridge Lifestyle Centre, Tyger Waterfront, University of Stellenbosch grounds, Velodrome and surrounding office development and is regarded as a gateway to the Northern District. It is not only strategic in terms of its function within the Northern District, but also has a more regional significance. In this regard, it needs to be recognised that the CBD area actually extends also to the area south of the N1, i.e. it includes the area up to the Bellville Station, and may in the longer future also include the PRASA land to the south.



This area currently accommodates extensive vacant portions of land (e.g. surrounding the Velodrome, the University of Stellenbosch Grounds, the SANRAL/ City of Cape Town land at the Durban Road/N1 interchange and the Transnet land behind Willowbridge). This is regarded as both a constraint and an opportunity. Development is currently very fragmented and the vacant land enforces this fragmentation. It does, however, presents major opportunities to ensure better integration as part of future developments.

An extensive road network ensures that this area is very accessible. It however, also currently dominates this area and contributes to its fragmented nature. This is due to it acting as a series of substantial barriers between the various developments which make integration very difficult. A good example is the width of Carl Cronje Drive, together with the difference in height between the Tyger Valley Shopping Centre and the Willowbridge Lifestyle Centre which presents quite a challenge to improve connectivity between these sites.

Development Guidelines: Pedestrian links between the major development pockets, the interface created by the buildings and proper landscaping on the street front becomes important mechanisms to overcome the fragmented nature of development within this area.

Pedestrian connectivity: Ensuring pedestrian connectivity from Parc du Cap to Tyger Valley Shopping Centre become a reality during the development and upgrading of the currently underutilised Velodrome Precinct. Improved pedestrian crossings within this node must be encouraged and be put forward as a condition for extensions to or redevelopment within this node. The nature of the surrounding roads, as well as the difference in levels between some of the developments presents a major challenge and consequently necessitates elevated pedestrian connections in order to bridge these barriers. As part of the consideration to link the different developments, and provide a more integrated development, the provision of public transport should become a priority for landowners. Should this happen, the required parking ratio's should be reconsidered in order to optimise the use of space.

The tendency for shopping centres to be targeted by criminal elements, furthermore, results in the shopping centres securing their premises with security fences. This threatens the vision to improve pedestrian connectivity. It is therefore important to ensure that free pedestrian access be maintained

in spite of the fences. The area can further be secured by optimising opportunities to create the right mix of uses in the precinct, i.e. by introducing a significant component of residential development throughout the precinct, will increase activity which may assist in securing the area.

Building form: The vision for this node to become the second CBD of Cape Town, together with the consideration of the scale (width and significance) of the road network within this area must be reflected in the allocation of bulk, the heights of buildings, as well as the building form to be accommodated. The ideal bulk and height for the various development pockets is not clear at this stage and needs to be informed by a holistic urban design framework for this node.

The treatment of the edges of the development pockets and therefore the placement of buildings on the site must also receive attention. Buildings must be placed on the edge of the development pocket (i.e. avoid parking areas along the major roads), with specific attention to pedestrian scale. The role of land-use and landscaping in creating an appropriate interface between the buildings and the abutting road network must also be acknowledged.

The following sites are strategic within this node, due to the sites being vacant and/or the development potential thereof:

- *Transnet land, between the low density residential area and Willowbridge*



- The position of Erf 1201, Waterfront, Bellville has an important transitional role between the low density residential area to the west (Door de Kraal) and the Willowbridge Lifestyle centre (i.e. part of the Tyger Valley Node) to the east. The transition between these two very different areas, as well as the protection of possible views from Door de Kraal, must be addressed in the development proposals. The slope of the site and the interface with the Elsiekskraal River (an important feature and pedestrian link within this precinct) must be acknowledged in the height of buildings, design and land uses to be considered. Considering the above, this site is regarded to be suitable for residential development with a possible inclusion of office and/or limited retail uses (i.e. complimentary to the residential uses) on

ground floor along the Elsieskraal River interface. Access to this site must remain from the Old Oak Road extension as currently planned.

- The corner of Erf 32915 at the Old Oak Road/Carl Cronje intersection:



- o No further extension of the business node towards the north, i.e. into Kenridge is supported. This includes the office development on erf 35050, where no further

extension will be supported. This is discussed more fully under the Residential Component in the paragraphs below.

- This site (erf 32925) has the potential to accommodate a statement building to celebrate its position on the Carl Cronje/Old Oak Drive intersection, i.e. in terms of visibility and being the gateway into the Tyger Valley Node as approached from the rural hinterland. Development proposals must, however, be sensitive to its proximity to the residential development (Kenridge) to the north. Clear guidance in terms of the heights that could be accommodated must be obtained from the above-mentioned Urban Design Framework.
 - The most likely opportunity for a link between Willowbridge and the Tyger Valley Shopping Centre presents itself in the form of an elevated pedestrian bridge that links into the future buildings on either side of Carl Cronje Drive (i.e. on the north-western portion of Erf 32915 and the north-eastern portion of Erf 38722. This potential link must be protected during the consideration of development applications on either of these two sites.
 - Development of the north western corner of Erf 32915 must be incorporated into the Tyger Valley shopping centre extensions and must not be treated as another island development on this site.
- *The corner of Erf 32915 at the Bill Bezuidenhout/Willie van Schoor intersection*



- *Erf 21750, the Velodrome development pocket*



- The development of the long-term lease area as a further phase to the Velodrome development is critical in achieving the required connectivity between the Tyger Valley Shopping Centre and the development to the south. This pedestrian link would again have to be in the form of an elevated pedestrian bridge that links into the future buildings on either side of Bill Bezuidenhout Drive. Provision of such a potential link must be further explored and protected during the consideration of any development applications on any of these sites.
- The above focus on connectivity must extend further south towards Parc du Cap (Erf 23975) and the University of Stellenbosch (Erf 23974), as well as east (through erf 32139) towards the Durban Road Corridor.
- The development on erf 35781 and 38746 both accommodate a podium level. The Velodrome development must take these levels into consideration and respond appropriately in order to ensure connectivity between these developments.
- The so-called Bellville Veodrome site is in the process of being redeveloped. The land uses accommodated on the Velodrome site should be orientated towards retail, offices, residential, conference facilities, hotel, entertainment and sport. The Urban Design Framework should form the bases for consideration of the detailed development proposals. Approvals will be structured according to the package of plans approach in order to allow for the necessary flexibility, but still ensuring that the integrity of the development be maintained.

- Erf 21750, Durban Road Corridor in the vicinity of the Velodrome



- It is expected that the Velodrome development will result, in future, in the redevelopment and intensification of the Durban Road Activity Corridor in the vicinity of the Tyger Valley Node, i.e. especially the section between Bill Bezuidenhout Drive and the N1 National Road. It is, however, not expected nor encouraged for this activity corridor to extend all the way along Durbanville Avenue into the Durbanville CBD. The reason for this view and the guidelines relating to the section of Durbanville Avenue abutting the low density residential areas will be discussed in more detail under the Residential Component in the paragraphs below.
- The development along the Durban Road Activity Corridor is characterised by relatively low bulk factors (between 1 and 1.5). The parameters which were applied to the various street blocks in terms of approved substitution schemes and policies were different in terms of the permissible height, coverage, bulk and parking ratios. Development between Bloemhof and Mispel Street entailed the consolidation and redevelopment of a number of properties. The development between Artrim and Bloemhof Street is, however, very much still characterised by converted dwelling units. Consolidation of properties and intensification (in terms of height and bulk) of the development along this activity corridor is supported and must be encouraged. The height of the building on Erf 38766 (proposal about 7 storeys) is regarded as more appropriate for this area. In consideration of the parking problems currently experienced within this area, a parking ratio of at least 4 parking bays per 100m² GLA for offices and 6 parking bays per 100m² GLA for retail must be applied to all applications for additional bulk. This is in order not to exacerbate the existing parking issues.
- The same principles relating to pedestrian scale, etc discussed above, will also apply along this section.
- The possible relocation of the PP Smit Sports fields as part of a sports precinct on Erf 23974 (refer below) must be investigated as this provides the opportunity for further intensification of this corridor. Detailed guidelines to ensure the appropriate future development of this site (considering its context in terms of the locality within the corridor, but also abutting residential areas) must be formulated through the preparation of a local development plan for the area between Bill Bezuidenhout, Durban Road and the N1.
- Upper Oakdale, to the south of the PP Smit Sports fields is currently well maintained and addresses the needs of a specific market. This area is, however, under direct influence of the Tyger Valley Node and is regarded as the long term expansion direction of the Tyger

Valley Node. This neighbourhood should be afforded protection for the next 5 to 10 years (timeframe for this District Plan), but a Local Precinct Plan, as referred to above, should be formulated for this area in order to guide the future redevelopment of this area. Such plan must address suitable land uses, guidelines in terms of which what types of development can be supported (bulk, height, etc), as well as the implementation (when and how) thereof.



- The existing public parking area on Bella Rosa Street is not sufficient to address the actual parking need. This parking area must receive attention in terms of visual enhancement through the planting of trees on the abutting public open space, i.e. along the verge of the parking area. The City of Cape Town's City Parks Department has been requested to include this area as part of their tree planting programme.
- O'Kennedyville is (with the exception of the street block between Roger, Twist and Morester Streets, as well as the properties surrounding Danena Close) also fully developed. The existing high density residential development lacks provision of sensible open space. The existing open space, i.e. Erf 17445 therefore needs to be protected and properly maintained.



- The area to the west of Twist Street accommodates business uses with the precinct to the east of Twist Street largely accommodating residential units. Limited business uses (service sector/community orientated uses, e.g. hair/beauty salon, coffee shop) should be included on the ground floor, abutting Twist Street during the consideration of development applications along this stretch. This is due to the function of Twist Street as a connecting street between Old Oak Road and Rosenpark. The focus of this area should, however, remain residential in nature in order to strengthen residential densities within the activity corridor. This is especially with the long term vision of the Integrated Rapid Transport (IRT) system towards Durbanville along this route.

The area is characterised by the overspill of parking within the road reserves (as is the case with Rosenpark). A parking ratio of 2 bays per unit needs to be enforced during the consideration of applications for residential development.

- The vacant and underutilised land abutting the Durban Road and Willie van Schoor Avenue interchange with the N1 National Road.



- The SANRAL/City of Cape Town properties, situated between Mispel, Durban, the N1 National Road and Willie van Schoor Drive, is strategically located as a gateway to the Tyger Valley CBD, the Durban Road Corridor Precinct and the Northern District. These properties were expropriated for the purposes of the construction of the Durban Road/N1 interchange. Access to these sites is therefore the single biggest challenge to overcome in order to develop this land.

The prominence and gateway/landmark status of this site must be reflected in the future development thereof. The architecture, building form (bulk, height, etc) and proposed uses (i.e. not another vehicle show room, but offices and limited retail can be considered) must therefore receive special attention during the consideration of any development applications for these properties.

It must also be noted that municipal services transverse some of the properties and the impact thereof on the future development must be investigated. The City of Cape Town consequently owns properties within this development pocket.

An overall conceptual development plan, setting out the relevant development principles, must be prepared for the entire site, even if the intention is to develop it in phases. The purpose of this plan is to plan the area properly in order to ensure that a possible phased development does not foreclose future development options on the remainder of the site.

- The informal long distance bus stop in Mispel Street is in close proximity to the above development pocket. This facility fulfils an important function, but is not addressing the need sufficiently as no parking, waiting or other facilities are available. It is critical that this facility be formalised in an appropriate manner. The above-mentioned development pocket is regarded as the ideal position, in that this vacant land is in very close proximity to the N1 and Durban Road Corridor (the bus operator's route towards the West Coast).

The City has over the years tried to facilitate the investigation and establishment of a formal long distance bus terminus in this position. This requirement has consequently been taken into consideration by SANRAL during their recent

investigations relating to erven 3775-3776, 3779-3780, 3800-3801, Bellville. Access and the geometry required to accommodate the long distance busses are challenges that might leave this pocket as unsuitable to accommodate the much needed terminus. In the event that the detailed work does prove this to be the case, then an alternative site needs to be identified as a matter of urgency.

Alternatives that were mentioned in discussions with the local planning office, but which have not been investigated in detail at this point in time, are the southern portion of the Velodrome site (Erf 21750, Bellville) and to the west of the Mispel/Carl Cronje intersection (i.e. portions of erf 1682 and 23974, Bellville). Both these sites present their own sets of challenges. Unfortunately, the provision and implementation of a much needed proper long distance bus terminus is consequently not going to be addressed in the very near future. This must, however, not detract from the importance of identifying and developing a suitable site which makes sufficient provision for the existing and long term needs relating to a long distance bus terminus.



- Erf 23974 (University of Stellenbosch Grounds), especially the portion abutting the N1



- This site is regarded as one of the gateways into the Elsies Kraal River Valley. Future development of this site must contribute to the mixed use nature of the Tyger Valley node. Appropriate uses include commercial (office and retail), residential (medium to high density), with a strong focus on education, technical services and research orientated facilities. Sport and recreational facilities can be accommodated on the former dump site. Low impact uses should, however, be limited in order to optimise the development opportunities, as well as to ensure the proper integration of this site into the Tyger Valley node.
- The interface between the future development and the abutting high quality, low density residential area (Hoheizen) must receive special attention. The placement of the higher buildings must in particular not only respond to the gateway status of this site and the visual exposure along the N1, but also respond to the slope of the land and be sensitive to the views enjoyed by the residents in Hoheizen. It is again critical that an Urban Design Framework provides the necessary basis for consideration of appropriate bulk, building heights, etc.
- The consideration of any development proposals for this site must not only ensure the continuation of the Elsieskraal River Public Open System past Erf 23974 toward the Jack Muller Park, but must ensure proper integration of the site with this system. This is in order to optimise pedestrian connectivity within the wider precinct. The opportunities presented by the water body must also be capitalised upon. The incorporation of the water body as a focus area within the open space system must be optimised. This is not only in terms of the visual relief it presents from the surrounding high density development, but also in terms of the ambience and recreational opportunities that it offers. In this instance, the Tyger Falls and Tyger Waterfront developments limited the interaction with the water body within their development to a 5m walkway and a narrow green link with the open space system to the north. Residents are not presented with any real relief from the high density development in terms of green areas where they can relax (or exercise) in. The repetition of past mistakes must therefore be avoided.
- Although the extensive road network ensures that this area is very accessible, the implementation of the half diamond intersection from/onto the N1 and Carl Cronje

- Drive is critical in unlocking the potential of both the US Grounds, as well as the Velodrome property.
- The desirability, alignment and functionality of the proposed extension of Hendrik Verwoerd Drive to link via Hume Road onto Carl Cronje drive must receive further investigation. This link should, if required, not create a direct access to the Tyger Valley node. The impacts of such an alternative access road through Erf 23974 on the residential character and fabric of Hoheizen is a concern from a planning perspective.

In summary, the preparation of a holistic urban design framework for the Tyger Valley Node which addresses the above-mentioned aspects is critical to ensure proper guidance during the consideration of development applications within this node.

b) Durbanville CBD

Vision and Contextual analysis: To ensure that new developments/ redevelopment fit into the character of the CBD, as well as to create opportunities for redevelopment in such a way as to strengthen the character of the CBD.

The CBD core is the area framed by Gladstone, Church, De Villiers, Queen, Biccard and Koeberg Roads. The development of the block bordered by Wellington, New, Queen and Oxford is deemed essential. The inclusion of the Post Office and other commercial entities between Wellington and Queen is supported. The opportunity exists to create a pedestrian link between the taxi rank and Oxford Street. Piecemeal development would hamper such a vision. Care should however be taken that a development of such a scale does not become inwardly focussed, neglecting the interfaces on the abutting Wellington Road and Queen Street.

Wellington Road currently lacks a human scale due to the width of the road reserve, the traffic that it carries and the absence of proper interfaces between shops and sidewalks. Looking further afield, the potential exists to start to create the 'Woodstock' feel i.e. improving interfaces by permitting inter alia the construction of roof overhangs onto public land. The continued application of the 5m building line along Wellington Road as required by the Provincial Authorities are deemed to be detrimental to the creation of workable and human scaled interfaces.

Development Guidelines:

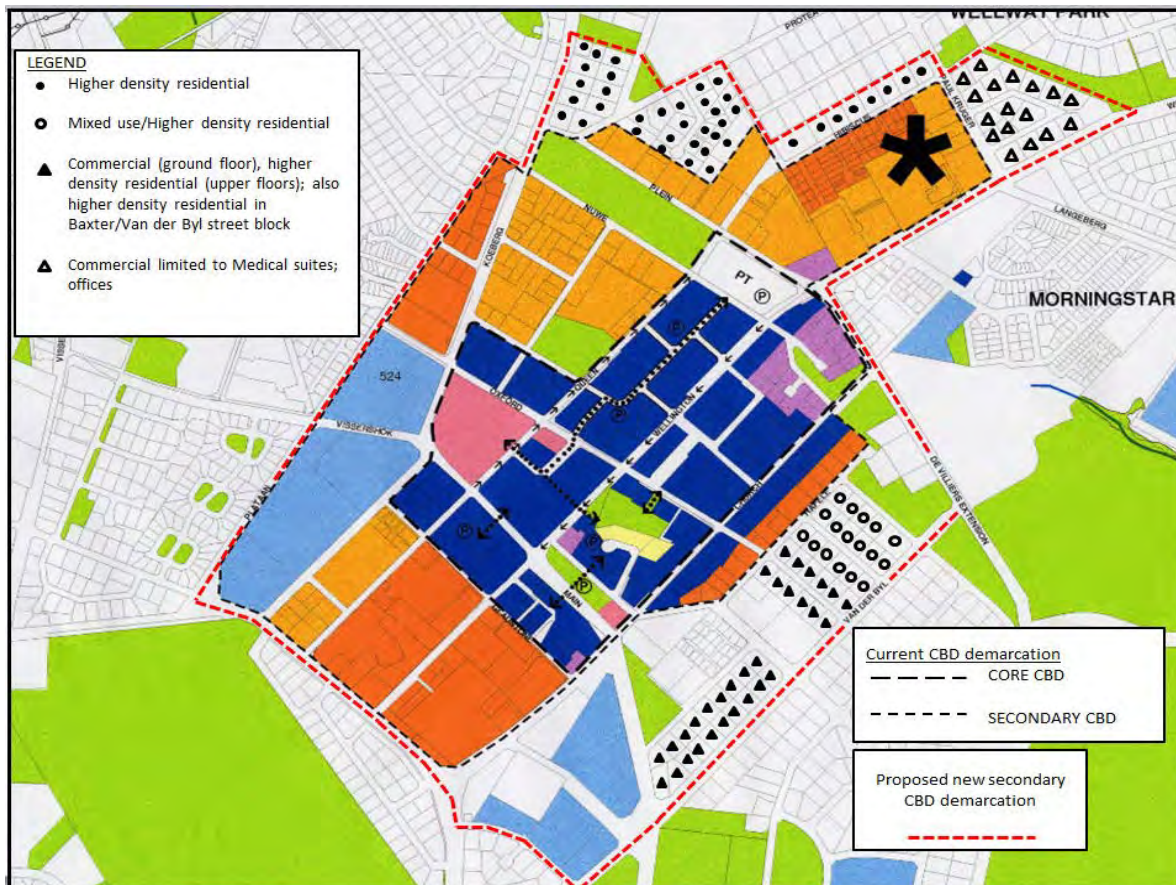
- The core area

Given the growth that has been experienced, it is proposed that the secondary CBD be expanded to include the area bordered by Plataan, Koeberg up to Erf 1343, Protea, Disa, Hibiscus (properties fronting onto Hibiscus), Somerset Crescent, Wellington, De Villiers, Van Der Byl, Weyers, and High Streets.

- Somerset Crescent: Somerset Crescent is already in a transition phase with a number of properties acquiring a General Business zoning for medical and office related purposes and redevelopment has started taking place.
- Oxford: Similarly to Somerset Crescent, Oxford Street between Van Der Byl and Hafele is seen as ideal to provide 3 storey mixed use buildings i.e. commercial on ground floor and residential on upper floors. In the interim however, and given that redevelopment will only be considered where 2 or more properties consolidate, General Business zonings are granted and the gross leasable areas fixed on the existing footprints. The type of uses permitted here excludes retail activities.
- Windell & Newhaven: The properties abutting Windell and Newhaven Streets are currently still very much residential in nature except for some occupational practices

and guest houses. The intention is to allow higher density development here in future upon consolidation of two or more properties. Mixed uses that complement the residential uses may be considered. Where such mixed uses require redevelopment, two or more properties must consolidate. In terms of the design of purely residential developments, the ideal is 2 and 3 storeys with 'broken' roof structures to avoid excessive massing and a repeat of some of the older, 'heavy' apartment blocks elsewhere in the CBD.

- Van Der Byl: The properties wedged between Van Der Byl, Baxter and Louw Streets currently present a mix of pure residential, and residential with occupational practices. The intention is to treat this block similarly to the Oxford block and allow higher density residential with the potential for office use. Redevelopment will only be considered where 2 and more properties consolidate.
- Hibiscus: The new demarcation of the secondary CBD includes the properties fronting onto Hibiscus Road. Opportunity exists for diversifying the residential land uses here i.e. higher density residential subject to the consolidation of two or more properties. This is motivated in support of residential opportunities in close proximity to the core CBD and public transport.
- Protea/Disa/Ixia Street Block: Similar to the above, higher density residential will be permitted where there is consolidation of two or more properties. Limited height will be permitted where structures are located adjacent to existing Single Residential properties.
- Koeberg, Plein, Murray Street Block: The strip of public open space (Erf 1343) as well as Koeberg Road is deemed to be a sufficient buffer to demarcate the secondary CBD. Higher density residential with appropriate design and height which is sensitive to the existing residential context can be supported on Erven 1331 – 1335, 1339 – 1341 and 3955 and 3956. Such developments would need to allow for combined accesses and consolidations of a number of erven. The number of erven will depend on the type and scale of the development proposed.
- Beck/Langenhoven/High/Queen Street Block: The rezoning of a number of properties has already been approved with limitations placed on the building footprints and gross leasable areas. In future, and when redevelopment becomes imminent, the vision is that property owners will combine efforts to develop the street block holistically.



- **General CBD Design Principles:**

The principles contained in the draft Durbanville CBD Urban Design Framework (Planning Partnership, September 1999) are supported. This framework should form the basis for negotiations around design and placement of buildings especially with regards to Wellington Road and the poor public interface that it currently exhibits.

- Increased height is supported i.e. four to five storeys, especially along Wellington Road and portions of Oxford Street.
- The notion of adjusting the street building line to 0m is essential if the vision of creating a human- scale activity route is to be realized. Urban design should acknowledge the preference to pedestrian movement.
- The couplet system for Wellington Road is no longer on the table.
- Utilise the Durbanville CBD Design Guidelines as guide for consideration of applications, be it building plan assessment, or land use applications for redevelopment.

A stronger stance should be taken to enforcing the design guidelines. For this reason it is proposed that the document be updated and formal approval be sought.

c) **Residential Areas (Bellville, Durbanville)**

A number of very popular low density residential neighbourhoods are located within this precinct, namely: Loevenstein, Hoheizen, Welgemoed; Kenridge, Door de Kraal, Protea Valley, Welgedacht, Kanonberg, Oude Westhof, Van Riebeeckshof, De Bron, Chantecler, Rosendal, Stellenberg, Stellenridge, Ridgeworth, Amanda Glen, Durbell, Durbanville Hills, Durbanville Extensions 2, 13 and 28, Aurora, Vierlanden, Nerina, Schoongezicht, Nature's Valley, Wellway Park; Durmontè; D'Urbanvale; Vygeboom; Sonstraal; Valmary Park, Aurora and Tara.

Protection of the Residential Character:

The majority of the residential areas within this precinct are established neighbourhoods with a special character, due to amongst others the following characteristics:

- Very accessible in terms of road access, community facilities, open space and recreation, as well as commercial opportunities;
- In most of the above instances, great views due to the locality on the hills (Welgemoed, Eversdal, Aurora, Vygeboom, etc.), but also due to its locality on the rural hinterland (e.g. Kenridge, D'Urbanvale and Vierlanden);
- Characterised by large properties accommodating a large numbers of trees and other vegetation (i.e. very green and established areas).

These neighbourhoods address a specific need in the market which is different from that presented by the more modern, higher density residential areas (i.e. lock up and go in the form of smaller single residential properties and group housing developments). Some of the newer developments within this precinct (such as Kanonberg, Vierlanden and D'Urbanvale) share some of the above characteristics and are already or will over time display the same characteristics as the more established neighbourhoods. It is important to enhance and protect the character of these residential areas, while still sensitively densifying where appropriate (refer guidelines below). This ensures that a wide range of erf sizes and types of development are available, not only within this precinct, but also within the entire Northern District. It is for this reason that subdivisions are generally not supported within the following neighbourhoods, but densification in the form of second dwellings is, however, encouraged:

- Bellville: Loevenstein, Hoheizen, Welgemoed, Protea Valley, Kanonberg, Van Riebeeckshof, Oude Westhof, Door de Kraal, Kenridge, De Bron, Eversdal, Chantecler, Rosendal, Stellenberg, Stellenridge en Ridgeworth. It must be noted that title deed restrictions, constitutions and specific approvals applicable in certain neighbourhoods (e.g. Welgemoed, Kanonberg and Eversdal) may prohibit 2nd dwellings and consequently necessitate statutory processes to address such restrictions.
- Durbanville: Eversdale, Sonstraal, Amanda Glen, Kenridge including Durbell and Durbanville Hills, Durbanville Extensions 2, 13 and 28, Aurora, Vierlanden including Nerina, Schoongezicht, Nature's Valley and Wellway Park; Durmontè; D'Urbanvale; and Tara to the west of the Kuils River.

The following principles apply with regard to the consideration of second dwellings:

- The architecture of the second dwellings must conform to that of the main building.
- Departures from the 120m² restriction in terms of the regulations issued in terms of the Land-Use Planning Ordinance, No 15 of 1985 may be considered (through a process of recommendation to PGWC), but subject to the following considerations:
 - The placement of the buildings must be such that the development appears to be one building (i.e. architectural features may be utilised to create such appearance);
 - Consideration of the relevant building lines;
 - Acknowledgement of the position of existing vegetation (i.e. especially mature and indigenous trees must be protected); and
 - Screening of the impact of the structures from the streetscapes by means of landscaping.

The above neighbourhoods have, due to their character (and in some instances spectacular views), the potential to accommodate more guest facilities. Care must, however, be taken during the consideration of conference facilities and function venues within neighbourhoods (i.e. generally not supported), since the traffic generation and social activities associated therewith are often conflicting with the residential environment. The City of Cape Town's Guest Accommodation Policy provides guidance with regard to the scale and nature of such facilities.

Residential Areas requiring specific attention:

Some of the residential areas require protection due to the special character thereof (in addition to that discussed above) and/or specific influences, namely:

Loevenstein:

- Although Hendrik Verwoerd Drive accommodates direct access, it also fulfils an important function in terms of mobility within the wider area. The forward planning for this area to date encouraged increased densities along Hendrik Verwoerd Drive. The market has not acted upon this policy. This is most probably due to the fact that 2 or more properties would need to be consolidated to enable such development and considering the market value of these properties a low impact development would not be feasible. The properties within this area enjoy spectacular views over False Bay and towards Table Mountain. The protection of these views is critical and densification is therefore not regarded as suitable. The potential of this area to accommodate tourist accommodation should be capitalised upon (this might entail rezoning from single residential to general residential to accommodate such facilities). For this reason, as well as due to the close proximity of the Tyger Valley Node, office and retail uses are also not supported along Hendrik Verwoerd Drive. In order to protect the views, no redevelopment to the south of Hendrik Verwoerd Drive must accommodate structures which are higher than a single storey structure as viewed from the level of Hendrik Verwoerd Drive.
- Kenridge, Ridgeworth and Bloemhof:

Ridgeworth and Kenridge are good quality neighbourhoods, which are accessible via a number of abutting major roads and are well located in proximity to the Tyger Valley Node. It is not the vision for these areas that the commercial precinct should expand into these neighbourhoods (not now and not subsequent to the timeframe of this District Plan). The quality of these neighbourhoods, the close proximity thereof to employment and accessibility to social amenities necessitates the protection thereof.

Business creep can easily threaten the integrity of these neighbourhoods and must consequently be protected against such onslaughts. The provision of community orientated business uses must be focused in existing nodal development and/or in close proximity thereto. The potential of specific intersections (for minor developments) and/or link roads must, however, be acknowledged, but also managed through the preparation of development plans to provide proper guidance in the consideration of development applications within these areas. Only uses complementary to the residential environment (e.g. Doctor's practices, crèches, Pilates Studio, professional offices such as attorneys or accountants) can be considered. Any changes to the buildings must be per guidelines developed to ensure that the residential character of the structures generally be maintained. Only off-street parking (to be screened by proper landscaping) should be considered, and the extent and nature of any advertising be limited. It is recommended that the residential component be maintained on the site in order to address the lack of security during the evenings. It must be ensured that such residential component be sensible and not merely a pretence to obtain approval for non-residential uses within residential areas.





The remainder of Ridgeworth must be protected from commercial infiltration. A higher density residential buffer is currently promoted in terms of the current policies for the area along the periphery of Ridgeworth. This is, however, not regarded as appropriate due to this low density residential area's inward orientation, as well as the boundary wall along Old Oak and Durban Roads, which isolates the neighbourhood from the impacts thereof.

- Eversdal:

Stodels Nursery between Eversdal Road and the N1 National Road has been located within this area for many years and originated from the then agricultural use of the property. The undetermined zoning reflects this history (all agricultural land within Bellville is zoned undetermined). The existing forward planning for this area demarcates the Stodels site for the purposes of high density residential. This is in line with the general principle to accommodate densification along the major roads. The reality is, however, that the nursery is a regional destination and will not relocate for, at least, the timeframe of this District Plan. Accommodation of business uses (i.e. other than occupational practice) and the consequent strengthening of this area as a business node are not regarded as appropriate along this route.

The informal traders have reacted to the presence of the nursery and conglomered along the Eversdal Road reserve in the vicinity thereof. This is not an ideal situation and has led to a number of complaints from the surrounding community. A current investigation is evaluating the future relocation of the informal traders to a more appropriate location within this area, along the Kuils River corridor, and in a more formalised manner (i.e. with the provision of parking, landscaping, ablution facilities, etc).

The Bellville Zoning Scheme makes provision for working from home on all residential properties, as well as for a Dentist, Doctor and Veterinary Surgery and Places of Instruction (e.g. crèches) to be accommodated on Single Residential properties with Council's Special Consent (i.e. a formal application process). The Chantecler/Eversdal Road intersection is not regarded as a local node and business uses are therefore not encouraged or supported in this position. The above community orientated uses may, however, be considered in this position.



- Valmary Park and Tara (Uitsig Crescent):

No further subdivision must take place within Valmary Park and Uitsig Crescent in Tara. These areas provide for sizeable erven of $\pm 2000\text{m}^2$ and must be protected due to its unique character and the variety of erf sizes it presents within the District.



- Vygeboom and Eversdal Heights:

Vygeboom still accommodates single residential properties ranging from $6\,000\text{m}^2$ to nearly 2ha in extent. The unique character and ambiance of this neighbourhood requires protection. Further subdivisions therefore need to be treated with circumspection.

Eversdal Heights accommodates slightly smaller residential properties (up to a minimum of 1000m^2 , but also includes plots which ranges from 1900m^2 to nearly 2ha in extent. As per Vygeboom, the unique character of this neighbourhood requires protection. Opportunities for minor subdivisions (for both Vygeboom and Eversdal Heights), however, do exist, but in order to retain the character the subdivision sizes will be restricted to a minimum of 2000m^2 . This should be regarded as a guideline, but applications for subdivision will need to motivate that the impact of further intensification will not be to the detriment of the single residential character of the area. No removal of existing trees and larger shrubbery should be considered for the purpose of

subdivision and the 'massing' of residential buildings should be evaluated in terms of erf size, i.e. no large building footprints on smaller plots should be considered.

It is expected that there will be pressure to develop the remaining plots for the purposes of security estates. The City of Cape Town's *Gated Development Policy*, November 2007 will apply and provide guidance during the preparation and assessment of such proposals. The inward orientation and typical boundary walls associated with such developments are, however, a concern within this context and could impact on the protection of its character. The provision of landscaping to soften the impact of future development on the streetscape must also receive the necessary attention. Access to the developable pockets must be determined in consultation with the Transport, Roads and Stormwater Departments, but with special care that the roads do not create direct links between Eversdal Heights and Vygeboom.

- Basson, Boucher and Squire:

This secluded neighbourhood does not form part of the CBD demarcation (at least not for the timeframe of this District plan) and densification of this area is consequently not foreseen.

- Wellway Park East:

This neighbourhood presents an interesting scenario. With the future realignment of Langeberg Road, Wellway Park East will be wedged between three main roads: Wellington, Langeberg and Lubbe. Currently, there are no major movements with regard to development applications in this neighbourhood. The location of this triangle is raised purely for future reference. The opinion is held that this area should not be opened for major densification at this stage.

Further subdivision or densification:

Until now, the minimum erf size for single residential properties for most parts of Durbanville has been 850m², while Bellville had no prescribed minimum erf size, but were rather evaluated in terms of the character of the area in which the property is situated. It is proposed that future subdivision within this precinct should be evaluated in terms of the appropriateness thereof in a specific context (i.e. considering the above guidelines), as well as whether a subdivision can actually physically be accommodated on-site with due cognisance of existing buildings, established trees and building lines.

The principle of allowing higher density residential along major roads is supported. A number of these roads, such as Eversdal, Jip de Jager, Durbanville Avenue, Old Oak Drive, etc. functions as mobility routes (i.e. limited access) and/or are adjacent to low density residential areas with an inward orientation. This together with the scenic route attributes (with special reference to Durbanville Avenue) is the reason why residential densification and/or linear commercial development are not being regarded as appropriate along such instances.

There may be specific instances within the above neighbourhoods that may have merit for consideration of subdivision/densification, with specific reference to the following:

Welgemoed:

- There are original properties between Totius Street, Welgemoed and the Tygerberg Nature Reserve which have to date not been subdivided into two. Such subdivision must still consider the average erf size of the surrounding properties. This is since the placement of the existing buildings on the properties may result in the subdivision not being meaningful in terms of its surrounding context.

Other properties/areas that provide opportunity for densification:



- Morningstar:

The proposal is to provide more housing opportunities in the form of Council Rental Units. The provision of social infrastructure to serve the community will also be investigated and form part of the proposal. For the most part it is envisioned that Morningstar will retain its status quo.

With the expansion of Durbanville, Morningstar is now situated on the edge of the Durbanville Central Business District and is a prime example of a lower income residential area close to employment, social amenities and transport opportunities. At the time of writing, the City is busy with a survey among backyard dwellers to understand the need as well looking at the redevelopment of Erf 13999 for housing.

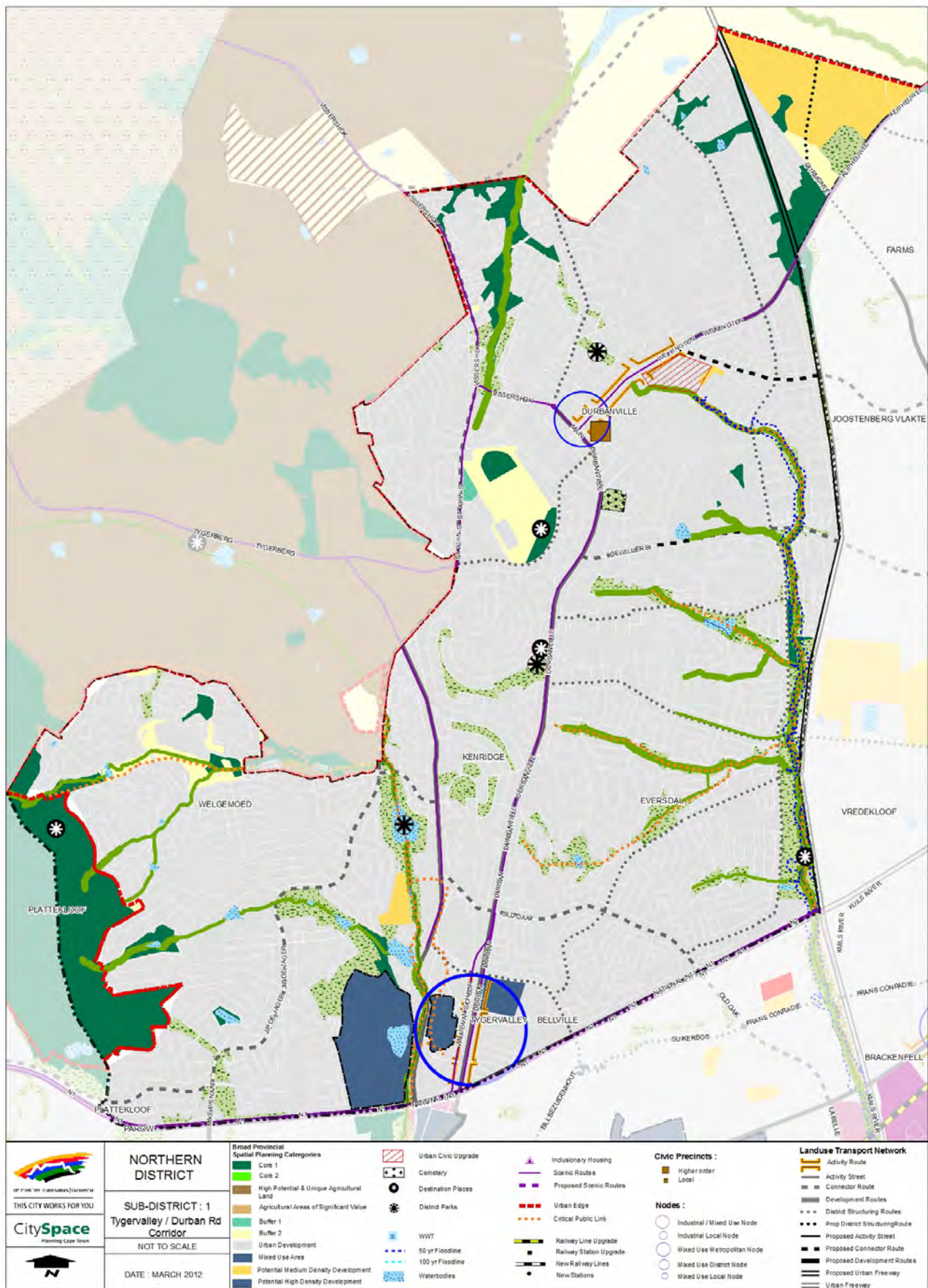


Figure 14: Sub- District 1

6.2.2 Sub- district 2: The Cape Gate/ Okavango Road Corridor

This Sub-district includes all areas surrounding the Okavango Road Corridor, where the western edge is the R300, and the eastern edge being the Malmesbury rail line (for the area north of the N2), and the Paarl/ Wellington line south of the N1. The sub-district include the areas of Brackenfell and Kraaifontein and portions of Durbanville, which include then areas such as Goedemoed, Graanendal, Uitzicht Sonstraal Heights, Vredeklouf, Hoogstede, Protea Heights, Sonkring, Morgan Grounds, all inside the urban edge.

The section that follows deal with the following areas:

- i) Andrag Grounds
- ii) Langeberg Smallholding Area
- iii) Tanner Street and Surrounds
- iv) Darwin/ Malborough/ Brighton Road Activity Streets
- v) Windsor Park and Zoo Park
- vi) Grasso Property (Portion 41 of Farm 725)
- vii) Cape Gate Commercial Node
- viii) Kleinbron/ Kleinbron Park
- ix) Brackenfell CBD, Old Paarl Road, Brackenfell Station
- x) Springbok Park/ Arauna
- xi) Protea Road, Protea Heights Neighbourhood
- xii) Industrial Areas
- xiii) Residential Areas (Sonkring, Burgundy, Vredeklouf, Vredeklouf Heights, Protea Heights, Morgenster, Morgenster Heights, St. Michaels, Bracken Heights, Ferndale, Hoogstede)

Vision: To capitalize on the opportunities that the evolving Cape Gate strip development offers on the one hand, but also to protect the core of established residential areas that encircle the node. Furthermore, to ensure that undeveloped land/ land for redevelopment gets reserved for appropriate use. In the latter instance the focus should be more on integrated, mixed and higher density development.

Contextual Analysis: The core of the corridor comprises of the evolving Cape Gate commercial node, which takes on the form of strip/ linear development, which is surrounded by old and new well established lower density housing areas. This linear development has already, and will in the near future have an impact on the surrounding residential fabric.

The backbone of the corridor is supported on the western side by Brackenfell Boulevard (development route) and Darwin Road/ Malborough Street as higher density activity streets on the eastern perimeter. The corridor is further supported by the Kraaifontein CBD, which, can be argued, has become, since the development of Cape Gate, a secondary CBD, mainly comprising of public facilities and smaller scale business operations. This scenario may change once De Villiers Road is directly linked to Brighton Road, and the north east development corridor becomes a reality. It is also argued that the Cape Gate development impacted negatively on the Brackenfell CBD, inter alia due to access from Cape Town along the N1 Freeway being removed. Opportunities therefore need to be sought to revitalise these commercial precincts.

Area north of N1

i) Andrag Grounds:

Vision and Contextual analysis: The vacant land is located between the existing residential developments of Sonstraal Heights and Vredeklouf.

Although earmarked for residential use this area lends itself to a major mix use development that is highly assessable via De Bron Road to Brackenfell Boulevard and the future R300 extension.

As this property is bordered by existing urban development and major roads this site offers an ideal opportunity to create a higher-density project that through good design and innovation can become a good example of high density (mix use) in-fill development.

This area should be considered in the context of the need for higher density development to support the densification targets of national, provincial and local government.

Development Guidelines: Increased densities will be considered but it needs to be demonstrated that a quality urban environment can be created and infrastructure requirements can be addressed.

The Package of Plans approach is proposed for the development management and development control of this site. It is a staged planning and approval approach whereby appropriate levels of detail are prepared and submitted for approval, and through which the project may be managed until there is confirmation of formal development provisions applicable to individual land units, that comprise the development.

ii) Langeberg Smallholding Area:

Vision and Contextual analysis: It was always the intension and vision that the area, over time, be developed for residential purposes. A few of the smallholdings have already been developed for group- and single residential purposes.

Development Guidelines: It is proposed that the area be developed as a mid to high density area with an overall density of 30 units per hectare. This density can easily be accommodated within this area.

It is suggested that the higher density developments must be positioned next to Langeberg road, a higher order route, which acts as a form giving element and lends itself to appropriate densification. The nearer development moves towards the already established (mostly single residential) Langeberg Ridge neighbourhood, densities must be scaled down in order to protect the character of the surrounding area, thus acting as a buffer.

The form the higher density development (next to Langeberg Road) should take is two to three storey buildings with smaller erven or sectional title developments. As mentioned, the development next to Langeberg Ridge should only consist of single to double storey dwellings on larger erven.

No direct access must be granted to developments off Langeberg Road, only at points as indicated in the draft Langeberg Urban Structure Plan.

Due to great visibility at the four corners, located on the intersection between Langeberg and Okavango Road, it is proposed that these smallholdings be developed as a mix between high density residential and commercial uses or just commercial.

iii) Tanner Street and Surrounds

Vision and Contextual analysis: This area is located in Windsor Park adjacent to the Cape Gate Shopping Centre and bordered by Darwin Road and Tiger Street. The area is characterised by a mix of mainly single residential erven, large vacant school sites and business zoned properties.

With the initial planning of the Cape Gate Regional Centre, Tanner Street was indicated as a key collector road that will connect Darwin Road with Okavango Road. However, due to the current sub standard geometrics as well as poor conditions of Tanner Street it was a requirement that Tanner Street be closed off. This was to prevent commercial traffic accessing a commercial centre through a single residential environment - thus using a road which was never designed and built to carry the associated traffic volumes.

The recent approval of a new private hospital directly west of the residential area will however act as a catalyst for change in the surrounding residential area. Property owners in the vicinity of the current road closure have approached the planning department with a view to develop a strategy whereby they will directly benefit from the new development dynamic. In addition, it is worth mentioning that the property owners in Windsor Park have been able to negotiate a donation of R1 000 000, 00 from the owners of the private hospital for the sole purpose of upgrading Tanner Street and improving the environmental quality of the surrounding area.

It was also anticipated that the establishment of the new hospital will give rise to the demand for medical related offices and services within the surrounding area. It is argued that the area identified within Windsor Park is well located to capitalise on this opportunity presented by this new hospital. The aforementioned can now be confirmed as numerous land use applications to utilise properties in the identified area for medical related offices were approved within the last year.

Development Guidelines: The development concept is based on an incremental process. The first step is to identify an area which can be logically isolated from the existing residential area of Windsor Park with minimum disruption to the existing residential area and to physically link the identified area with the large Cape Gate commercial node, with the understanding that this area will over time change its land use role and function.

It is argued that the area identified within Windsor Park is well located to capitalise on this opportunity presented by this new hospital. The ultimate objective is to rebuild Tanner Street to acceptable standards and geometrics (once sufficient funds are available) and to open the link through to Marlborough/Darwin Road.

The main objectives are to facilitate the following processes:

- **Redevelopment:** The first step will be to allow departures for those properties who apply for business rights on single erven in Tanner Street. Such applications will be considered with a site development plan that will address the street elevation (facades) and landscaping of sites. If consolidation of two or more erven is proposed, rezonings to general business and general residential zonings will be supported.
- **Closing of streets:** The proposal is to close Tiger Street at the intersections with Tennant and Grant Street and halfway down Tanner Street. This will mean that there will be a single access point to and from the proposed “block development” to Cape Gate and Okavango Road. Ultimately the street will function as a Class 4 Road which will allow entrances to the development, every 25m. The street will also consist of a turning circle at the eastern end to regulate traffic flow and to offer the option of future reconnection to Darwin Road (when capital is available or development requires it). However, a traffic impact assessment and traffic management plan will need to be submitted to the Engineer’s Department for consideration.
The single residential properties located in Tennant and Grant Street will still have unaffected access to and from Darwin Road.
- **Upgrading of road and landscaping:** Although the funding for the much needed upgrading of the whole of Tanner Street with regard to new surfacing and road widening is currently not available, there are other options available. Private funding has been made available to upgrade Tanner Street’s sidewalks and a plan that illustrates the defining of the sidewalk, interim parking provision on the public open space and the proposed turning circle.
- **High density redevelopment/ Land use compatibility and integration:** The proposed zonings (a mix between general residential and general business), that are low impact in nature, will be done in such a manner that it will be compatible with the surrounding built environment (presently consisting out of a mix of Single Residential and General business sites).

The proposed layouts of these developments must be done in such a manner that it will respect the abutting single residential properties and supportive of the Cape Gate commercial node and recently approved Medi– clinic on Erf 17048, Brackenfell.

iv) Darwin/ Marlborough/Brighton Road Activity Streets

Vision and Contextual analysis: It is foreseen that over time the whole dynamic of these roads will change due to expected growth in the north east development corridor, the expected upgrade of Brighton Road, and the implementation of the De Villiers Road linkage to Brighton Road. Therefore, quality higher densities and mix uses on these activity streets must be encouraged in order to achieve sustainable development for the future. The vision is also the creation of job opportunities and to provide residents the opportunity to apply for conversion of their properties for higher density residential/ commercial purposes.

These routes are in dire need to be upgraded and have big potential to be redeveloped into a mixed use environment as the existing developments along these routes are low- key in nature.

Problem areas include unauthorised land uses, structures, no designated areas provided for informal trading, no physical change in the street elevation of dwelling units when use of property is changed, no stop & go and off loading points provided for taxi's and busses, ad hoc departures and rezoning being granted, no signalised pedestrian crossings being provided, urban decay setting in, low bulk factors and lack of height (form giving elements).

Development Guidelines:

Darwin Road/ Malborough – activity streets (between N1 and Brighton Road):

- Consolidate erven to realise block development with one access point to the consolidated block;
- Development must support and strengthen Cape Gate as a node (linear type development promoted);
- Allow blanket zonings;
- Commercial activities (on ground level) combined with high density residential (on first and second floor);
- No service industry, minimum retail;
- Promote densification and mixed land use development (office, retail and residential);
- One block of mix uses east and west of Darwin Road to protect single residential fabric between Darwin and N1 and Darwin and Tiger;
- Re-design of street elevations – new facades required, to move away from residential character;
- Introduce landscaping elements through introduction of formalised sidewalks, street furniture, thereby creating pedestrian friendly road reserves;
- Create a pedestrian and public transport friendly activity street;
- Increase height and the applicable bulk factor in order to provide definition to the activity street- 3 storey buildings.

Darwin Road activity corridor north of Mosselbank up to new Langeberg Road:

- Darwin Road to be having a mobility and activity function;
- High density residential (maximum density of 60 units per hectare) with direct access to blocks of development together with community shopping centres on higher order intersections.

Intersection of Darwin Road and the New Langeberg Road:

- Small scale activity node on intersection consisting of both commercial and retail.

Brighton Road activity street:

- Must fulfil a mobility as well as activity function;
- This area must become the CBD for the areas still to be developed to the north of Brighton road;
- One block of retail, combined with commercial north and south of Brighton road between Darwin and the N1;
- Brighton road to the west of Darwin Road up to Okavango Road, higher density re-development to be promoted;
- Proposed heights: 3-5 storeys;
- Create built to lines – encourage building close to streets to define corridors;
- Create and strengthen nodes at specific intersections (Darwin, York);
- Relax parking restrictions in area close to public transport and create public transport facilities;
- Identify suitable locations for informal trading;
- Introduce landscaping elements through introduction of formalised sidewalks, street furniture, thereby creating pedestrian friendly road reserves;

Note that the Urban Design/ Land Use Guidelines, as being contained in the draft guideline document, ODA, 2010, will also be utilised in the consideration of development applications.

v) Windsor Park and Zoo Park

Note that the arguments for development along Darwin Road and the area next to Cape Gate Medi-Clinic (Tanner Street) have already been discussed and this section focuses merely on the residential triangles.

Vision and Contextual analyses: Due to this area being bordered by the N1, Cape Gate and the fact that it is split in the middle by Darwin Road, it opens up many opportunities for densification and mixed use development. Many departure applications have already been approved in this area and developers have already bought a fair amount of land.

The location next to N1, with its major exposure and connectivity, provides a diverse range of opportunities for redevelopment. The question arises where to allow development and where to protect against it.

Although Zoo Park is in close proximity of the Tanner Street proposals and Cape Gate development, the neighbourhood must be protected from any form of re-development as nothing warrants the change of use from residential. This neighbourhood is inwardly orientated due to the fact that it is bordered by Okavango and Brighton Road, higher order roads with no access points. This neighbourhood can't logically be incorporated into the surrounding area (that could well be developed), thus there is no argument for breaking up its residential fabric.

Development Guidelines:

No development must occur further north than Jannie Rossouw Street as nothing warrants the residential fabric to be broken up. This obviously excludes the erven adjacent to Tanner Street (mix use, higher density residential) and the N1 (higher density residential).

Triangle between Cape Gate regional Centre, Marlborough Road and Tanner Street:

- Redevelopment and the consolidation of erven – Tygervally type of scenario – to support Cape Gate;
- Uses must comprise of commercial uses such as attorneys and estate agents with minimum retail.

Triangle between N1, Darwin Road Activity Street and Brighton:

- This area can be redeveloped once Darwin Road has been sufficiently developed;
- Promote high density residential closer to the N1 with the commercial component for the first block adjacent to Darwin Street. Existing, high quality low density residential to remain in-between.

Southern triangle formed between the N1, Darwin Street and Tanner Street:

- Excellent locality in terms of visibility from N1 as well as access;
- Promote a mix of high density residential and commercial.

vi) Grasso Property (Portion 41 of Farm 725)

Vision and Contextual analysis: This property is located at the intersection of Pinehurst Drive with Okavango Road and stretches eastwards towards Joostenbergvlakte. The property is furthermore split in the middle by Sarel van Deventer Road (road to Kraaifontein Sport Field). This property lends itself to mix use development. However, it needs to be noted that the site is indicated as a Critical Biodiversity Area 2 (CBA2) in terms of Conservation Management. The exact details in this regard should be addressed in the EIA process, should an application be lodged.

Development Guidelines:

It is proposed that the portion directly abutting Okavango Road be utilised for commercial and service industrial activities as it will be opposite the commercial activities of Pinehurst Phase 4 and abuts the Kraaifontein WWTW.

The portion of property located east of Sarel van Deventer Road can again be developed as higher density residential with a proposed density of $\pm 50-60$ units per hectare.

vii) Cape Gate Commercial Node (Okavango Road)

Vision and Contextual analysis: To capitalize on the opportunities that the vacant portions of land in the node still offer, and furthermore to prevent large scale commercial development to spread along the Okavango Road corridor.

Development Guidelines: Only 2 vacant properties are still available for development in the node, i.e. Erf 17047 on which a business component is to be established, with a residential component on the western portion, and portion 133 of Farm 311 (triangle between De Bron Rd., Okavango Rd. and the N1) where a mix of high density residential, commercial and service industry will be promoted.

The basket of rights as been set out in the Cape Gate Development Framework will apply for any development in the node.

For the area further to the north along Okavango Road, such as the New Langeberg intersection, no larger scale nodal development will be considered. This can be attributed to the fact that it will be abutted by Avalon Estate, the Kraaifontein WWTW and Pinehurst. The close proximity of the Pinehurst intersection with Okavango Rd. also will prevent the intersection from being a viable as yet another commercial node.

viii) Kleinbron, Kleinbron Park

Vision and Contextual analysis: The residential character of these areas should be retained. This includes ensuring that views are protected where possible.

The above mentioned areas contains large properties with higher market value and high capital investment with some of these properties enjoying views of the Stellenbosch mountains (Kleinbron Estate). These properties are also highly accessible to commercial activities and services located on Okavango Road and to the major transport routes such as the N1 Freeway.

Development Guidelines: Council should encourage and facilitate the establishment of home-occupation / guest accommodation in a manner that does not impact on the character of the residential area. Where the subdivision of individual properties is not appropriate, the construction of second dwelling units may be considered. Building line departures and increases in coverage should be considered.

Areas south of N1 (Note that all other residential areas are being dealt with under para. xiii hereunder)

ix) Brackenfell CBD, Old Paarl Road, Brackenfell Station

Vision and Contextual analysis: To enhance the development potential of the activity route by promoting redevelopment of land for high density mixed-use development. This will entail the implementation of residential, commercial and community uses within the corridor area.

Old Paarl Road is in need of urban renewal in the form of better landscaping and the implementation of measures to slow down traffic speeds and to better accommodate pedestrians. The Brackenfell station requires upgrading and formalization of the informal trading as no provision is currently made for informal trading.

With the development of the R300, the direct access to the CBD via Brackenfell Boulevard when driving on the N1 from Cape Town was removed. This in turn leads to the Brackenfell CBD not being as accessible as in the past. The high mobility function of Old Paarl Road within the CBD hampers pedestrian accessibility and further negatively influences linkages between activities within the CBD.

The Brackenfell CBD is currently aimed more towards vehicular accessibility than pedestrian accessibility.

Three shopping centers are situated along Old Paarl Road and is in no way linked to each other. This has lead to the Brackenfell CBD effectively being divided into 3 activity portions. The CBD is characterized by an “ocean” of underutilized parking areas being mostly situated around the 3 shopping centres, the CBD itself being characterized by mostly low density development.

No opportunities exist for the informal trader within the Brackenfell CBD. The Brackenfell station is currently in dire need of upgrading. A suitable site will have to be identified for informal trading close to the Brackenfell station. There should also be aimed at providing a link the Brackenfell Station and Brackenfell CBD.

Development Guidelines: It is proposed that high density mixed uses be encouraged throughout the CBD and that development along Old Paarl Road be allowed to take on the form of 3 -5 storey structures. A bulk of 1.5 can be achieved where higher densities are considered as appropriate. Where general residential developments abut single residential development, the design and layout of the general residential development should be a maximum of 2 stories in order to create a suitable non intrusive interface with such single residential properties.

Vehicular movement will have to be slowed down along Old Paarl Road and Brackenfell Boulevard in order to assist in creating a safer pedestrian environment. Landscaping should also be introduced to assist pedestrian movement and enforce the linkages between the three existing shopping centres. New development/ redevelopment should be outward focussed in order to prevent activity “spots” as currently found on Old Paarl Road. New areas for possible CBD growth/ redevelopment, e.g. Springbok Park, which would strengthen the CBD especially along the main road, should be identified.

Erf 13687 and 11297, Brackenfell, situated on the corner of Old Paarl Road and William Dabbs Street, should be re-evaluated for possible future office and residential development.

x) Springbok Park/ Arauna

Vision and Contextual analysis: To guide development and businesses in these areas in order to strengthen the Brackenfell CBD, to minimize any impacts on the remaining residential neighbourhoods, and to provide opportunities for smaller scale commercial development.

Arauna is situated mostly along Brackenfell Boulevard to the north of the CBD, while Springbok Park is situated to the west of the CBD and bordered by both Brackenfell Boulevard and Old Paarl Road. A significant number of businesses have moved into these areas over the last few years. Even though temporary office uses are supported, these areas have almost totally lost its residential character. The two neighbourhoods are also characterized by a shortage of parking throughout the areas. There is thus an opportunity to redevelop and enhance and strengthen the Brackenfell CBD by the redevelopment of these two areas.

Development Guidelines:

(For detail, refer to the draft “Management Strategy for Arauna and Springbok Park, Brackenfell”, dated January 2012)

Permitted Land Uses:

Arauna:

- The erven alongside Brackenfell Boulevard are restricted to offices, service retail and small scale, low impact businesses i.e. lawyers, architects, medical suites, hairdressers, crèches, etc.
- The remainder of the erven within Arauna – between Brackenfell Boulevard, Windhoek Street, Paradys Street and Handel Street are restricted to office use.

Applications for land use change can be considered either within the existing structure, or through redevelopment of the site.

The utilization of the existing structure for a land use change will be considered by means of applications for temporary land use departures.

Applications for rezoning and redevelopment will only be considered where 2 or more properties are consolidated. This is to ensure appropriate scale and form.

(The existing commercial structures have the potential to be redeveloped considering that the majority of these buildings are single storey. These redevelopments must be done through consolidations and rezoning.)

Springbok Park:

Portion A (*portion east of Brackenfell Boulevard*):

- Small scale, low impact business, service retail and offices could be allowed on erven situated within Portion A.
- High density residential is permitted on first and second floor.

A formal application must be submitted for change of land use by means of an application for temporary departure or rezoning. Applications for rezoning **MUST** include consolidation of three (3) or more erven.

Portion B (*portion west of Brackenfell Boulevard, with H O de Villiers being western boundary*):

- Offices, service retail and small scale, low impact businesses e.g. lawyers, architects, medical suites, hair salons and crèches on erven situated within Portion B.
- Full retail activities and high density residential for properties on Old Paarl Road only.

A formal application must be submitted for change of land use by means of an application for temporary departure or rezoning. Applications for rezoning **MUST** include consolidation of three (3) or more erven.

xi) Protea Road, Protea Heights neighbourhood

Vision and Contextual analysis: To ensure that development, especially along Protea road, be done in a manner as to minimize any impact on the existing residential neighbourhood.

The nature and scale of activities are to be limited to only small scale, low impact businesses inclusive of professional offices, consulting rooms, veterinary services and community facilities.

Due to construction of Cecil Morgan Drive, that serves as an extension of Protea Road the volume of traffic has increased to the degree that the residential amenity of the area has been compromised. A number of businesses have started operating from residential properties in this road and even further into the neighbourhood without Council's consent. These business ranges from crèches, professional offices to hair- and beauty salons.

Development Guidelines: The Land Use Control Guidelines for Protea Road has been approved by Subcouncil 2, Bergdal, to guide development and businesses in order to minimize impact on residential neighbourhood. Landscaping and architecture, as per the guidelines, should be properly introduced to ensure that the residential areas bordering this street are protected. The Guidelines also ensure that all forms of advertising are designed in such a manner as to further protect the residential fabric of the surrounding area. All business (except for guesthouses and crèches) should be focussed along Protea Road and not deeper within the Protea Heights residential neighbourhood. Therefore, only properties with direct access onto Protea Road should be considered for redevelopment.

xii) Industrial Areas (existing and proposed)

Vision and Contextual analysis: The preservation of existing industrial areas/ land reserved, or zoned for industrial purposes should be ensured. The need for some non-related activities should be recognized and established within these areas to ensure availability of services to workers and industrialists (take-away's etc.) The development of quality environments (visually more attractive

areas) should be ensured as well as the maintenance of appropriate interfaces with residential and other developments. In this regard noise impacts from industrial areas should also be evaluated.

A number of industrial uses are currently negatively influencing abutting residential areas in terms of noise and visual impact. There has also been an increase in non-industrial related uses locating themselves within the industrial areas. A lack of sufficient on-site parking on these industrial properties has also been observed.

The Morgan Grounds industrial area (adjacent to R300) presents opportunities for economic enterprises and job creation. Development within this area should be guided to ensure the provision of adequate parking to industrial developments. The potential impacts on abutting residential communities should also be recognized.

Development Guidelines: The selective establishment of non-industrial related opportunities within these areas is necessary to ensure availability of services to workers and industrialists without compromising the functioning of the area as an industrial estate. Development of industries should recognize the potential impact on abutting residential communities and ensure that appropriate interfaces with residential areas are introduced. Sufficient on-site parking for industrial activities should be supplied and building heights of 2 floors should be supported.

xiii) Residential Areas (Sonkring, Burgundy, Vredeloof, Vredeloof Heights, Protea Heights, Morgenster, Morgenster Heights, St. Michaels, Bracken Heights, Ferndale, Hoogstede)

Vision and Contextual analysis: To protect the integrity and quality of these primarily single residential areas, but also consider densification which will not detract from the quality of the urban fabric.

Opportunities exist to ensure creation of quality urban environments, as well as to create developments with a sense of place and unique character. There has been an increase in businesses being illegally conducted from homes within these residential developments.

Development Guidelines: Only certain business activities like crèches (in line with the approved policy) and guesthouses should be allowed within existing residential neighbourhoods. All other businesses should locate either within the Brackenfell CBD or, along Protea Road, if allowed, or within the Arauna and Springbok Park residential neighbourhoods. Densification should be considered in the form of second dwelling units. No business development will be considered in Jakaranda Street.

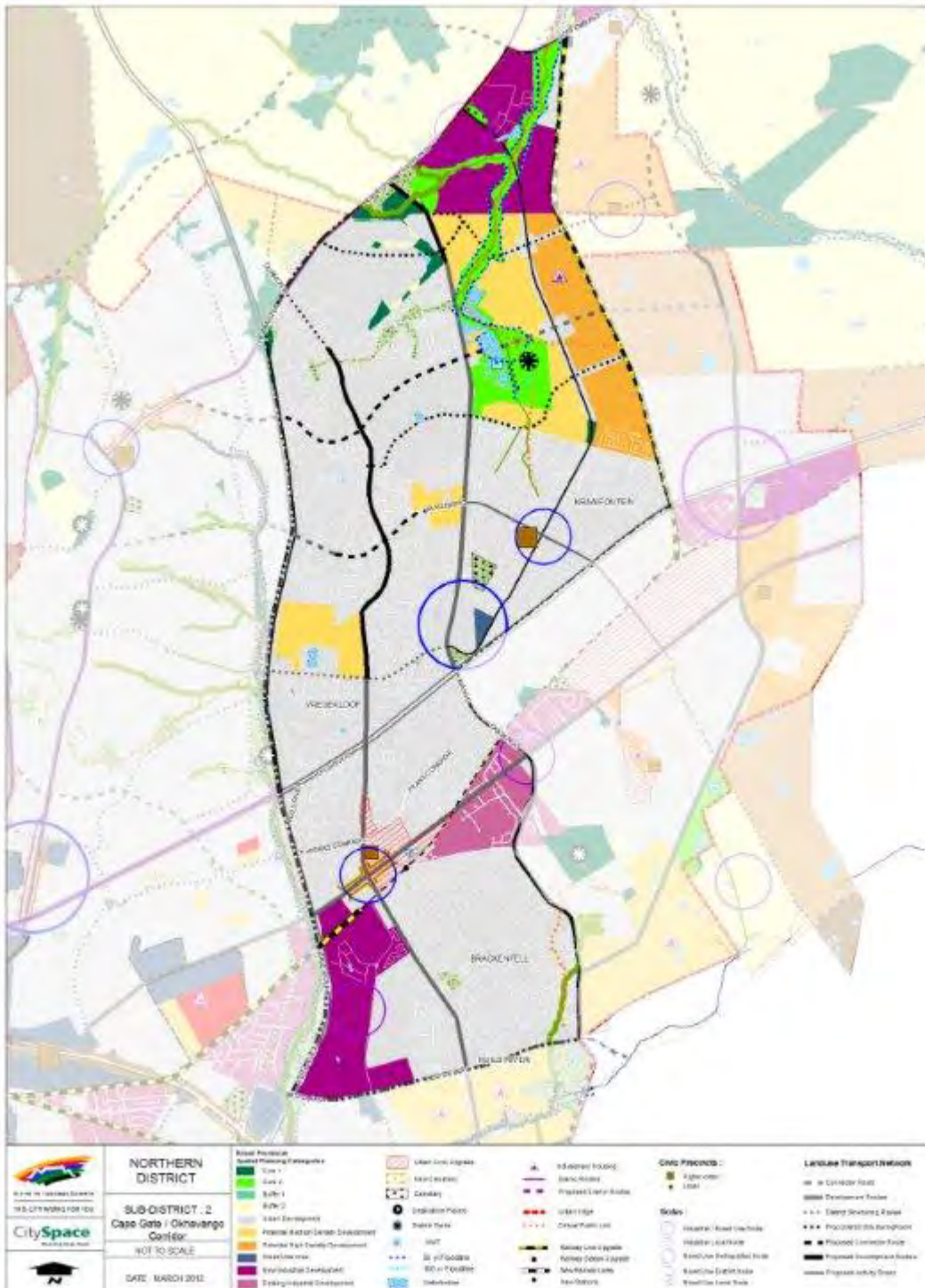


Figure 15: Sub-District 2

6.2.3 Sub- district 3: The Lucullus Road/ Maroela Road/ North Eastern Growth Corridor

This Sub-Area includes areas inside/ outside the urban edge, where the Malmesbury rail line forms the backbone of the corridor, and the eastern boundary is formed by the R304/ Klipheuwel Road. In the latter instance, the eastern boundary should be regarded as an arbitrary line, the reason being that the exact extent of the proposed growth corridor is still to be determined. The western boundary can be regarded as Darwin Road, and also include the Fisantekraal Industrial area.

The growth corridor also includes established areas such as Joostenbergvlakte, Scottsdene, and emerging areas such as Bloekombos, Wallacedene and Fisantekraal; all areas where change in city structure, form and land use may be expected in future.

Note that the sub-area is been split in 2 sections, i.e. the area north of the N1 Freeway, and the already/ partially developed areas to the south of the N1.

The section that follows deal with the following areas:

- i) The Growth Corridor
- ii) Joostenberg Smallholding area
- iii) Crammix Site (Portions 1-4, 7 of Farm 214, Brackenfell)
- iv) Kruisfontein Smallholdings
- v) Bona Fide Rural/ Farm Areas (Properties along Botfontein Rd. and Bottelary Rd.)
- vi) Scottsdene
- vii) Bloekombos and Wallacedene
- viii) Belmont Park
- ix) Botfontein Smallholdings
- x) Kraaifontein Industrial Area

Vision:

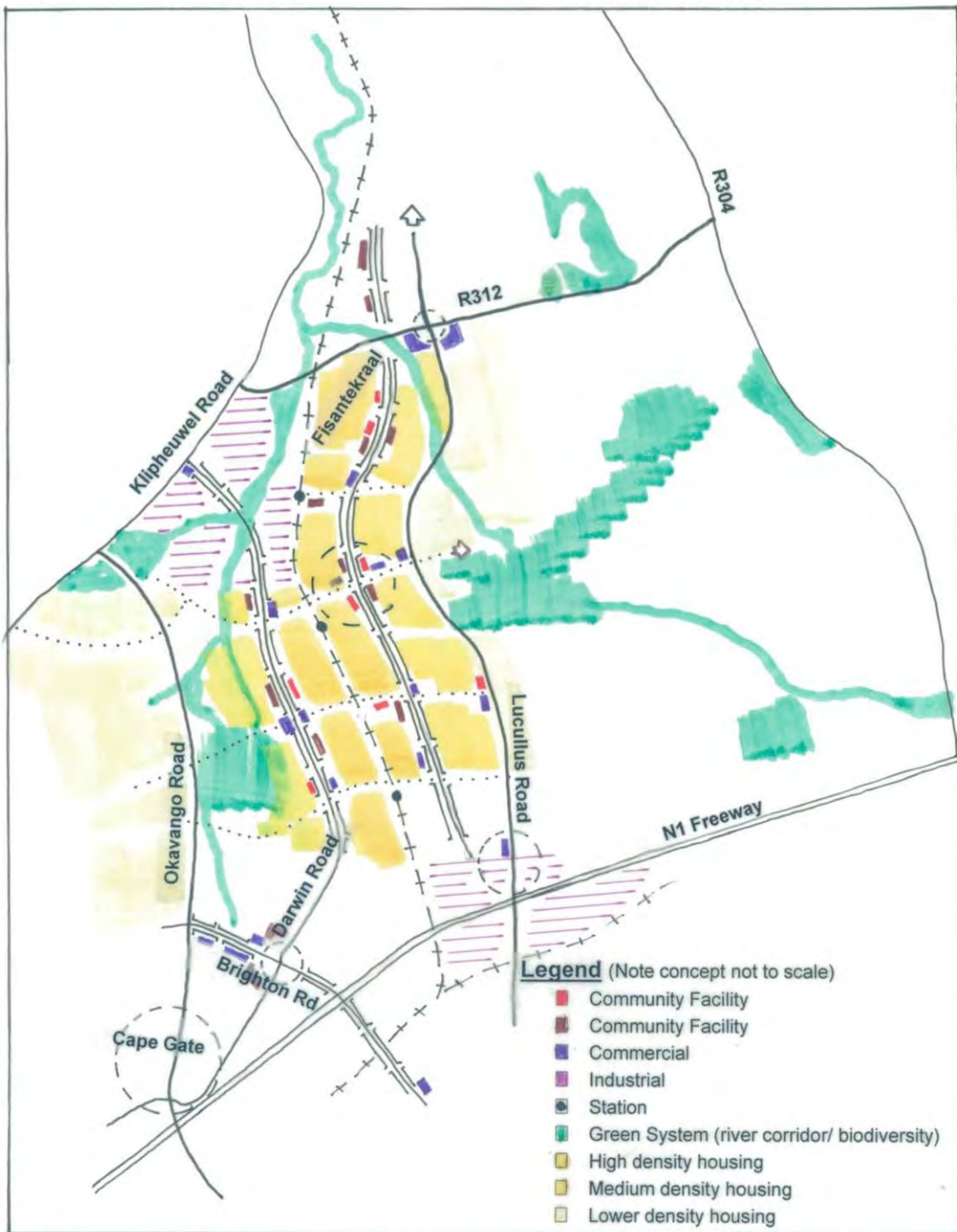
North Eastern Growth Corridor: To establish a growth corridor along the Malmesbury rail line which is primarily focussed on higher density integrated and inclusionary housing development, where adequate employment opportunities are identified as well as the required public infrastructure being developed simultaneously. The vision therefore is to create an environment where people can play, live and work in the same area, and thereby reducing living costs.

Area south of the N1 Freeway: To firstly improve living conditions and access to services and infrastructure for the poorer areas, and secondly to create opportunities for redevelopment/ infill development in order to address housing needs in the communities, as well as to create access to employment opportunities.

Contextual Analysis: The growth corridor is primarily focussed on a future passenger rail line as the main public transport mode, which should be supported by road based public transport along feeder and trunk routes. In the north a low income settlement (Fisantekraal) has already been established, and an informal settlement of about 1000 households has established itself to the south east of Fisantekraal. The City has already purchased 3 portions of land in the corridor (100ha plus), and to applications for township establishment are being processed presently. The corridor is already supported by the Fisantekraal Industrial are, which is taking off.

The main structuring elements of the corridor are (see concept below):

- The rail line which runs in a north south direction, with 4 station locations already been determined;
- The Mosselbank tributaries which run in a north south direction on both sides of the Malmesbury rail line;
- The extended Lucullus Road will form the primary north south mobility /development route of the corridor which will be assisted by primary mobility routes such as the R304, R312, and Klipheuwel Road.
- The emerging employment nodes at the N1/ Lucullus Rd. intersection (Kraaifontein Industrial area) and the Fisantekraal Industrial area.
- Darwin Road as a higher density activity street;
- The high voltage overhead Escom power lines crossing the corridor in a east west direction.
- Sensitive biodiversity hotspots located to the east of the proposed extension of Lucullus Road;
- High density housing developments to the south of the N1 (Bloekombos, Wallacedene) where vacant portions of underutilised land is still available to address housing needs, as well as needs for public infrastructure (see sub district map);
- The proposed extension of Maroela Road to link with Kruis Road and Okavango Road to the south.



The area to the south of the N1 Freeway mainly comprise of the higher density housing areas of Wallacedene and Bloekombos and the more established areas of Scottsdene, Scottsville, Eikendal, Peerless Park and Belmont Park. Furthermore, the Brackenfell Industrial Area and Kraaifontein Industrial areas are mostly fully developed, and offers only minor opportunities for infill development and expansion. Vacant portions of land is however still available adjacent to Bloekombos (local authority/ provincially owned) and in Scottsdene to address housing and social infrastructure needs. The planned Bloekombos station is also regarded as a priority by all parties involved, which will have a positive impact on the lower income environments are concerned, with regard to access to opportunities, cheaper transport costs, etc. Other vacant land that poses opportunity for redevelopment include the Crammix to the south, and a number of the small holdings to the west of Botfontein Rd. which is regarded as not sustainable anymore to serve any agricultural function.

Area north of N1

i) The Growth Corridor (see concept above)

In the first instance, developments in the growth corridor should be happening in a sequential manner, i.e. a singular development should not be considered in a location which is in a remote position away from existing urban development. Development applications should also only be considered on the basis of the availability of bulk services as well as the availability of funding for public infrastructure, which should include public schools. Furthermore, it should be clearly understood that the growth corridor is not meant to be only for government assisted housing. Investment by the private sector is regarded as crucial in order to create a sustainable, viable and good quality urban environment.

As been stated above, the proposed passenger rail line forms the backbone of the corridor, which should be supported by two high density activity streets on both sides, i.e. Darwin Road to the west of the rail line, and another to the east (as indicated in the concept).

The idea is to internalise the public street again, and by creating such multifunctional streets, spatial and visual order can be created. Although a segregation of land use will still occur, it is envisaged that accessibility to the different uses can be optimised at a local scale of movement. Therefore mobility along these streets should become secondary, whilst accessibility becomes the primary objective.

These activity streets should be pedestrian orientated, high density local scale streets, along which lower order community facilities, schools, open spaces, local scale commercial development, and high density housing development should be promoted.

High density housing development (e.g. walk-ups) should also be promoted along Lucullus Road (as public transport route), together with higher order public facilities, such as the primary sports fields site, health facilities, etc. Care should be taken that no building backs onto the road. This can be achieved through design guidelines, which should be submitted at the precinct plan level, as well as optimising accessibility along the route.

Housing development could include 3-storey walk-ups, and row housing (both single- and double storey). Along the streets, provision should be made for 'town squares' where informal activities such as informal trading should be allowed. Street building lines should be relaxed to a minimum along the activity streets, in order to create a safer pedestrian friendly space, where vehicular speeds are being slowed down.

No higher order nodal development (meaning commercial/ office) should be allowed to locate at points along the mobility routes such as Klipheuwel Road, the R304 or R312. Any nodal developments should be focussed at points of highest accessibility along the public transport routes, but in closest proximity to the higher density housing development.

The highest densities of housing development should be focussed on the areas along the activity streets, the rail line and Lucullus Road. A minimum gross density of 40 units/ha should be ascribed in these areas. For the areas to the west and east of the activity streets, a minimum density of 30 units/ha should be ascribed, and further away, a minimum density of 25 u/ha should be maintained. The aforesaid does not imply that portions of lower density development cannot be accommodated in the areas prescribed for higher density development, as the aim should only be to realise the prescribed minimum density across the total development area. It is recommended that housing provision should be integrated, i.e. housing options for different levels of affordability should be located in the same environment.

As been indicated in the concept plan, east west linkages to the proposed station positions should be insisted upon, in order to optimise accessibility, especially for pedestrians/ cyclists. In this regard the North East Development Corridor Bulk Services Master Plan (ARCUS GIBB, Jan. 2010) should be consulted. A secondary node, comprising of higher order public facilities, should be accommodated at the intersections of the activity streets with the so-called east west link road (see concept for node). Station forecourts should be having a positive interface with the surrounding urban fabric, in order to create safe accessible spaces. High density housing development can also be focussed around the

station forecourts, where the forecourts can have a multi- purpose function, i.e. to also function as for example open spaces/ town squares.

Open space provision should rather focus on the provision of larger spaces which should be developed for both active and passive recreation, which could serve larger residential cells. All open spaces should be overlooked by residential properties, and no residential property should back onto an open space. The open spaces should be linked to each other, either by means of road verges, or linear open space provision, which should again be linked to the river corridors and biodiversity hotspots. Sports fields should be provided at a central location which is highly accessible. For the section of the corridor to the west of the rail line, it is proposed that the Kraaifontein Sports Complex be extended to the north, in order to serve the particular section of the corridor. For the section to the east of the rail line, it is proposed that only one sports complex be provided for the entire section. The location should preferably be along the extended Lucullus road, adjacent to the river corridor, in order to optimise pedestrian accessibility.

The Fisantekraal Industrial area which is busy developing, should be retained for industrial purposes, and a range of opportunities for industrial development should be provided, i.e. not only smaller erven for warehousing/ storage purposes. Provision should be made for a pedestrian linkage to the proposed station. Furthermore, the interface between development and the river corridor should be treated in a sensitive manner, i.e. no development should be allowed to back onto the river. The river corridor should also be utilised to provide for pedestrian movement. The interface between development and Klipheuwel Road should also be treated in such a way that the development does not back onto the road.

The land located directly north of the Joostenberg Smallholding area is still being utilised intensely for horticultural purposes, and this area will be protected for such purposes for the medium term (5 years to 15 years). It is however accepted that once development around the said land has happened, the sustainability for horticultural production will be negatively affected.

ii) Joostenberg Smallholding area

Vision and Contextual analysis: To create opportunities for an employment node to be developed in the form of an industrial precinct, which will act as an extension of the existing Kraaifontein industrial area (south of N1) and provide employment opportunities for those residing in the development corridor.

The area has come under immense pressure for redevelopment as is experienced from the occurrence of unauthorised land use activities.

The area lends itself perfectly for industrial type development due to the following factors:

- location next to N1 (high accessibility/ visibility);
- close to work force (diverse income groups);
- affordable land;
- relatively flat topography;
- location opposite an industrial area (south of N1) that is partly developed;
- smallholding area (for residential purposes) is not sustainable in the long term;
- location next to railway line with new proposed stations;
- adjacent to north eastern growth corridor;
- Large properties with high market value and high capital investment.

Development Guidelines: The development must be based on an incremental process with phasing plans being drafted to identify the areas where initial demand for development is foreseen to be greater and will have a lesser impact on the surrounding area. A first step will be to identify an area which can be logically isolated from the existing smallholding area, i.e. the area between N1 and existing 8000m² smallholdings which can easily link up with the existing industrial area (south of the N1) with the understanding that the whole area will over time will change its land use role and function.

Initially temporary departures for those properties who apply for industrial type rights on single smallholdings will be considered subject to submitting detailed site development and landscaping plans.

If consolidation of two or more properties is proposed the merit of possible rezoning can be considered. All of the above will however be subject to intensive public participation- and environmental processes.

It will furthermore have to be investigated what type of industrial uses can be accommodated, how the area will link up with the existing industrial area and how the existing services or lack thereof will be able to accommodate such uses. Therefore, a precinct plan will be required in order to address the future form and function of the area, as well as engineering infrastructure (bulk services) required. However, no applications should be considered positively until such time as the Kraaifontein Industrial Area has been fully developed, and a precinct plan has been compiled for the subject area.

The conflict between the existing tourist related facilities that was encouraged and the new vision for the area must also be investigated. The opinion is held not to allow any further tourist related facilities.

Area south of N1

iii) Crammix site (Portions 1-4, 7 of Farm 214, Brackenfell)

Vision and Contextual analysis: To optimize the opportunity for redevelopment of the quarry site, to provide for a mix of higher density residential (which should include a range of typologies), commercial and public infrastructure, which will enhance the quality of the built environment. Such development should also strive to optimise the advantages that the physical character of the site offer.

The Crammix site is a brick quarry site, which has almost been mined out, offers a unique opportunity for redevelopment. The site offers some qualitative physical features, such as views towards the winelands and Stellenbosch mountains, areas which can be utilised as water features, etc.

Development Guidelines: A mixture of higher density residential (group housing, general residential, but also single residential) and commercial development is proposed for the site, with the required community facilities (school, sports fields, church sites, etc.). A minimum density of 30 units/ha should be prescribed.

A package of plans approach is proposed, whereby an overall urban design framework should be submitted as a first step in the application process. Detailed Site Development Plans (also dealing with building footprints, interfaces), inclusive of landscaping plans, should thereafter be submitted for each phase/ precinct of development. Innovative methods of dealing with stormwater drainage is required.

iv) Kruisfontein Smallholdings

Vision and contextual analysis: The vision for the Kruisfontein Smallholdings entails facilitating opportunities for densification in a manner that will not detract from the character of the area. As the Kruisfontein smallholdings do have a view towards the Stellenbosch mountains, future development should ensure and consider protection of these views, where possible.

Development along or close to Bottelary Road currently does not take into consideration its scenic value. Previous developments within the area lack architectural diversity which has resulted in a visually unappealing residential neighbourhood.

Development Guidelines: Higher densities should be encouraged on the Kruisfontein smallholdings, especially along Kruisfontein Road and Bottelary Road. Heights of two to three storeys should be considered.

v) Bona Fide Rural/ Farm Areas (Properties along Botfontein Rd. and Bottelary Rd.)

Vision and Contextual analysis: Opportunities for densification and infill development should be facilitated in such a manner that will enhance the character of the area. To establish a buffer area between the residential area of Wallacedene (area east of Botfontein Road) and the intensive agricultural hinterland, in order to protect the sustainability of both uses.

A cemetery is located on erven 25413 and 27825, Wallacedene. An area was also reserved for urban agriculture, adjacent to the cemetery. These areas were intended to serve as buffers between urban and agricultural development. However, the area earmarked for horticulture has been diminished, which has given rise to problems being experienced on the adjacent farm.

Bottelary Road acts as a gateway into the Stellenbosch wine route, and with the proposed half diamond interchange at the R300, accessibility to/ from the area will be increased. The redevelopment opportunities along Bottelary Road, as well as along Botfontein Rd. should therefore be optimised, but without detracting from the character of the area.

Development Guidelines: Higher density residential development should be encouraged along the Bottelary Road, up to the Kuilsriver Golf Course. Development should allow for heights of two to three storeys. A positive interface with the said road should be established, i.e. developments should not be allowed to back onto the road.

The Botfontein smallholdings (west of Botfontein Road) should make provision for a mixture of service industrial activities, with commercial activities to be located along the interface with Botfontein Road. The exact extent of the development area should however firstly be determined, with the desired urban form and interface with the viticulture operations to the south, before any rezoning/ subdivision applications are being considered for the area.

The principle of a buffer area to be created, as interface, east of Botfontein Road, between Wallacedene and the agricultural area, is supported. However, such buffer should be of limited extent, and be motivated in detail. Land uses which may be accommodated in such buffer area, include service industrial, community facilities, and a limited scale of commercial, which should only be aimed at supporting the industrial environment.

vi) Scottsdene

Vision and Contextual analysis: To optimise opportunities for infill housing development in order to address housing needs in the area, as well as to seek opportunities to formalise backyard shelters.

Appropriate infill opportunities should be identified on which to provide affordable good quality housing which can contribute towards the integration of communities and regeneration of the area. Densification should be supported. A process of formalising backyard shelters on Council owned properties should be investigated.

The Scottsdene land use development pattern is based on the pre- 1960 planning philosophy of a self contained, self sufficient, inward orientated neighbourhood concept, comprising a centrally located CBD, containing a number of community facilities i.e. clinic, library and community centre clustered together with a range of housing opportunities, having access to higher order roads at a limited number of access points.

These development patterns are also known by the failure of their respective CBD's to attract any private sector investment because the existing limited population thresholds and buying power do not justify the allocation of extensive commercial areas.

Many vacant and under-utilized sites thus exist in and around the non-functional CBD that should be evaluated to address Scottsdale's social, economic and spatial fragmentation as well as a lack of housing.

Scottsdale suffers from overcrowding due to the historic lack of the provision of affordable housing. This has resulted in backyard shelters both as an attempt to cater for the housing shortage as well as to serve as a source of income for the land owner.

Development Guidelines: Development within Scottsdale should aim to enhance the interface with the street which in return will affect the level of surveillance while retaining and reinforcing the use and character of the street as social productive space.

Designs should include broken facades, different textures, varying roof heights and colour. The arrangement of buildings within a site and the treatment of surfaces should also be kept in mind. These elements make a visual impact and define ultimately the richness and the appropriateness of the development, at the end contributing to the quality of the living environment.

It is suggested where possible to commence with a process of formalising backyard shelters on Council owned properties through a process of subdivision and/or providing an additional storey to the existing single storey structures.

Central Park in Kleinbegin requires guidelines for the redevelopment of the open space.

vii) Bloekombos and Wallacedene

Vision and Contextual analysis: To create a sense of place and improved living conditions and access to services and infrastructure. Therefore to create a formalized structured environment where the inhabitants can feel secured and have access to the adequate amenities and employment opportunities.

Bloekombos:

The main economic activities are located along Old Paarl Road. There are three formal economic hubs which allows for formal and informal economic opportunities. The existing facilities are largely under-utilized and most of the informal activity gravitates towards the residential areas. The formal business hives (three) located along Old Paarl Road are at most times deserted while the third trading area is less formal (in the sense that a facade was provided and a container is placed on the rear of the facade). These are not functioning well in comparison to the more formal structures.

Additional housing opportunities have been saturated within Bloekombos. Unlike Wallacedene, formal residential extension opportunities are limited within the subject area (except for Portions 19 and 20 of Farm 732). The residents of Bloekombos have practiced "containment," not allowing individuals to occupy vacant land and do not have the same problems with the scale of back yard dwellers as is the case in Wallacedene. The erf sizes in Bloekombos restrict the opportunity to functionally practice densification.

The operator of the "Tygeberg Raceway Track" (Portion 20 of Farm 320) has a lease with the City of Cape Town, which will lapse in 2014. The City has served notice on the operator to this effect and will not be renewing or extending the lease. The combined areas of the aforementioned sites are approximately 54ha.

Within Bloekombos there are minimal formalized public open spaces as it has been occupied for housing purposes.

No provision has been made for public facilities within Bloekombos. No provision has been made to establish facilities such as a swimming pool, library or early childhood development centre. The nearest clinic is located in Kraaifontein. There is one community hall in Bloekombos.

Bloekombos generates a large number pedestrian traffic along Old Paarl Road to access the nearest railway station which is located in Belmont Park (until the development of the proposed railway station in Bloekombos). The public transport system is restricted to mini bus taxis which do not utilize

the existing mini bus taxi rank in Bloekombos, located at the intersection of Old Paarl Road and Sam Njokozela Road. Taxis utilise the Old Paarl Road reserve to collect/ drop off users.

Wallacedene:

There are no formal or informal facilities, hives or formal structures within Wallacedene to service the growing economic activities within the area. Wallacedene has a higher concentration and scale of trading and businesses compared to Bloekombos. Emerging businesses therefore tend to gravitate towards Wallacedene. However the lack of facilities has resulted in the dual usage of residential properties for commercial purposes. There is a need to establish economic nodes to accommodate the growing need within the community. The establishment of business hives and informal trading areas along La Boheme Road, Maroela Road and Thakudu Road should be investigated. A portion of La Boheme Road has evolved into an economic hub, characterized by informal and formal trading. This section of La Boheme Rd. carries a large amount of pedestrian traffic and is relatively busy due the presence of the taxi rank. The development of business hives within this area would be ideally located and should be investigated. Portion 33 of Farm 20 is zoned general business should be utilised for such purposes.

Wallacedene has a large number of informal housing units in the form of back- yard dwellers. There is also large scale invasion of vacant sites, especially those reserved for public open space purposes, as well as spaces such as panhandles and road reserves have been encroached upon to accommodate informal and formal residential housing. The formalization of Portion 33 of Farm 20 and surrounding informal areas should take place to ensure the delivery of basic services and infrastructure.

Within Wallacedene proper (phase 10) and phases 1 to 9 the erven are approximately 180m² in extent, which restricts the opportunities for double dwellings or other forms of. However, innovative densification methods must be researched for future housing opportunities that may arise.

All public open space sites have been occupied by dwelling units within Wallacedene. In the formalised area there is only one formal public open space (Erf 13125). Within phases 1 to 9 public open space sites have been provided, but are not developed.

Within Wallacedene three sites have been allocated for primary and secondary schools. The area accommodates a clinic and community hall. A number of early childhood development centres and church sites have also been made available in phases 1 to 9 and have been released via the City of Cape Town's tender process. A site has also been rezoned to accommodate an additional community hall (Erf 12010). There is however no facilities such as a library or a public swimming pool facility within Wallacedene.

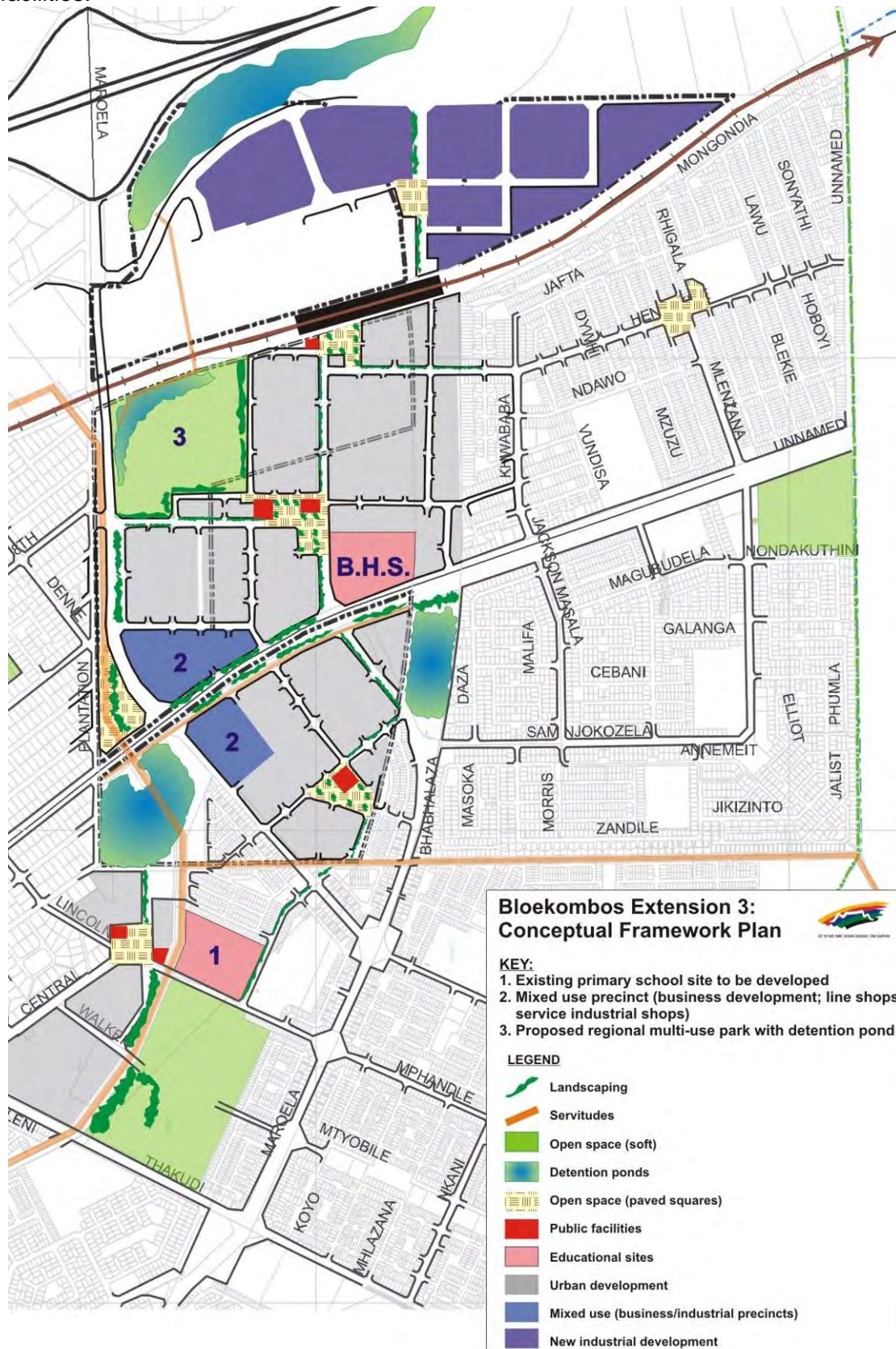
The road system does not cater for pedestrian movement. The existing taxi rank along Maroela Road is not utilized as taxis utilise La Boheme Avenue and Botfontein Road (erf 13080) for their operation. The latter location (erf 13080) should rather be formalized as a taxi facility.

La Boheme Avenue needs to provide for pedestrian movement and an effort should be made to upgrade the said road and introduce traffic calming measures. Due to the lack of public open spaces, the roads within Wallacedene are also utilised for recreational purposes, e.g. it acts as kick-about for the youth.

Development Guidelines: From the above discussion it is clear that the areas lack public amenities, as well as space to address the housing need in the area. The only vacant land available in the area to address these needs, is Bloekombos Extension 3 (Portions 19, 20 of Farm 732 and Portion 20 of Farm 320), which totals approximately 54 ha. A draft spatial framework plan has been drafted for the area (see framework below) and the Bloekombos Extension 3 Conceptual Framework should be utilised as the guiding document for the future development of the said vacant land.

It is anticipated that approximately 2500 housing units (calculated at 40- 50 units/ha gross density) can be accommodated on the vacant land parcel. Provision has also made in the framework plan for public facility precincts, which should be highly accessible from both Bloekombos as well as

Wallacedene. The plan also addresses the station precinct which should also provide for informal trading facilities.



The land use guidelines hereunder are more area specific:

Bloekombos:

The two formal business sites located on the corner of Old Paarl Road and Mlenzana Road should be handed back to the City of Cape Town's Housing Department for disposal and alternatives uses need to be investigated.

The same should be done for the deserted taxi rank located on the corner of Old Paarl Road and Sam Njokozela Road. An immense amount of infrastructure was invested in the aforementioned that is not utilized. These sites should be re-cycled and can offer the community much needed social facilities and infrastructure.

The City of Cape Town needs to investigate the acquisition of the de-proclaimed N7 road reserve (SANRAL) and a portion of the Bloekombos high school (Department of Public Works), to accommodate additional housing opportunities.

The athletics track/ informal soccer fields, which is 36 132m² in extent, located at the intersection of Old Paarl Road and Sam Njokozela Road (erf 15428) should be further upgraded or formal sports facilities be accommodated in Bloekombos Extension 3, which will provide a more central location to serve a wider community.



Wallacedene:

The establishment of business hives and informal trading areas along La Boheme Avenue, Maroela Road and Thakudu Road should be investigated. Portion 33 of Farm 20 is zoned general business and should be reserved for such purposes.

Erven 4000, 4001 and Portion 2 of Farm 20 located adjacent to Belmont Park and borders Thakudi Road will accommodate a mixed use development. A commercial node fronting onto Thakudi Road is also proposed. This is an important link with Old Paarl and Station Road and will encourage the integration of Wallacedene and Belmont Park.



Future work required for Bloekombos and Wallacedene areas:

An urban renewal plan is required, addressing the following;

- Investigate alternative housing options to address densification;
- Identify alternative land uses, or alternatives for existing business hives not been utilised;
- Investigate the acquisition of deproclaimed N7 road reserve (SANRAL) as well as land registered in name of the Provincial Government, Western Cape (Bloekombos High School), which can be utilised for housing purposes;
- Develop a landscaping plan for Old Paarl Road and environs;
- An audit of public/ social facilities must be conducted;
- Identify roads that where provision should be made for pedestrian movement;
- Traffic calming measures need to be identified at key intersections and along major roads (e.g. Maroela and Old Paarl Road intersection);
- Basic services upgrades where required.

viii) Belmont Park

Vision and Contextual analysis: To seek opportunities for redevelopment and intensification to address needs in the community.

Belmont Park is characterized by single residential properties which are mainly 496m² in extent. Station road is characterized by mixed use activities of businesses, single residential and double storey apartment blocks. Densification should take place along Station Road in the form of apartment blocks (maximum three stories) and possibly a business/commercial component on the ground floor.

The internal residential areas should be allowed to densify through the development of second dwelling units, double dwellings (semi-detached) and where two or more erven are consolidated, a rezoning should be considered for residential purposes. Around Kraaifontein station development should be encouraged. Consolidation of sites to accommodate high density development should be encouraged especially around the Kraaifontein station.



Station Road and Old Paarl Road should however form the structuring backbones around this area. Station Road is an important pedestrian mobility route towards the Kraaifontein Station. Station Road is mainly residential in nature which is encouraged. Station Road does not have the capacity to support commercial related activities. These are better suited for Old Paarl Road which is a high intensity mixed use mobility route.

Old Paarl Road is characterized by low density mixed use activities and mainly small and professional businesses being operated from residential properties. Temporary departures have been granted for properties, and 'rezonings' are encouraged where two or three properties are consolidated. Residential developments along Old Paarl Road should take the form of high density apartment blocks, a maximum of three storeys in height with a commercial component on the ground floor, which can be utilised for offices and commercial use.

Around the intersection of Van Riebeeck Road with Old Paarl Road are large formalized commercial activities with large scale informal trading areas. The formalization of the existing informal trading area is encouraged and the creation of additional informal trading areas within the business district should also be considered.

Old Paarl Road is also characterized by dilapidated buildings. A level of urban decay is prevalent in the area, and many of the businesses that operate from residential properties have retained the existing residential interface. The introduction of an urban renewal plan which should include landscaping proposals and the development of the built environment by introducing structuring elements which improves the current built form, must be implemented. The aim is to introduce an environment that functions as a business area but also have the visual appearance of a business area.

The approval of temporary departures for business purposes should include the introduction of landscaping elements as well as changes to building facades, as condition of approval, in order to soften the built form and public road interface. Temporary departure renewals/ extensions should be discouraged. Consolidation of properties should be encouraged, for which rezoning approval should then be considered.

Development of various scales and intensities should be encouraged within the area. However, cognisance should be taken of the fact that sewerage capacity in the area is limited.

Development Guidelines: As per the aforementioned, the proposals for the area is summarised as follow:

- The internal residential areas should be allowed to densify through the development of second dwelling units and double dwellings;
- Block developments will be considered where adequate erven have been consolidated;
- Around Kraaifontein station where urban decay has set in, redevelopment is encouraged. Consolidation of sites to accommodate high density development should be encouraged around the Kraaifontein station;
- An intensive greening and landscaping plan for the Old Paarl Road precinct, which includes the road reserve, must form part of the development proposals;
- Cognizance needs to be taken regarding the desired urban form, massing and qualities of the surrounding environment.
- Design guidelines and finishes must form a part of a development proposal.

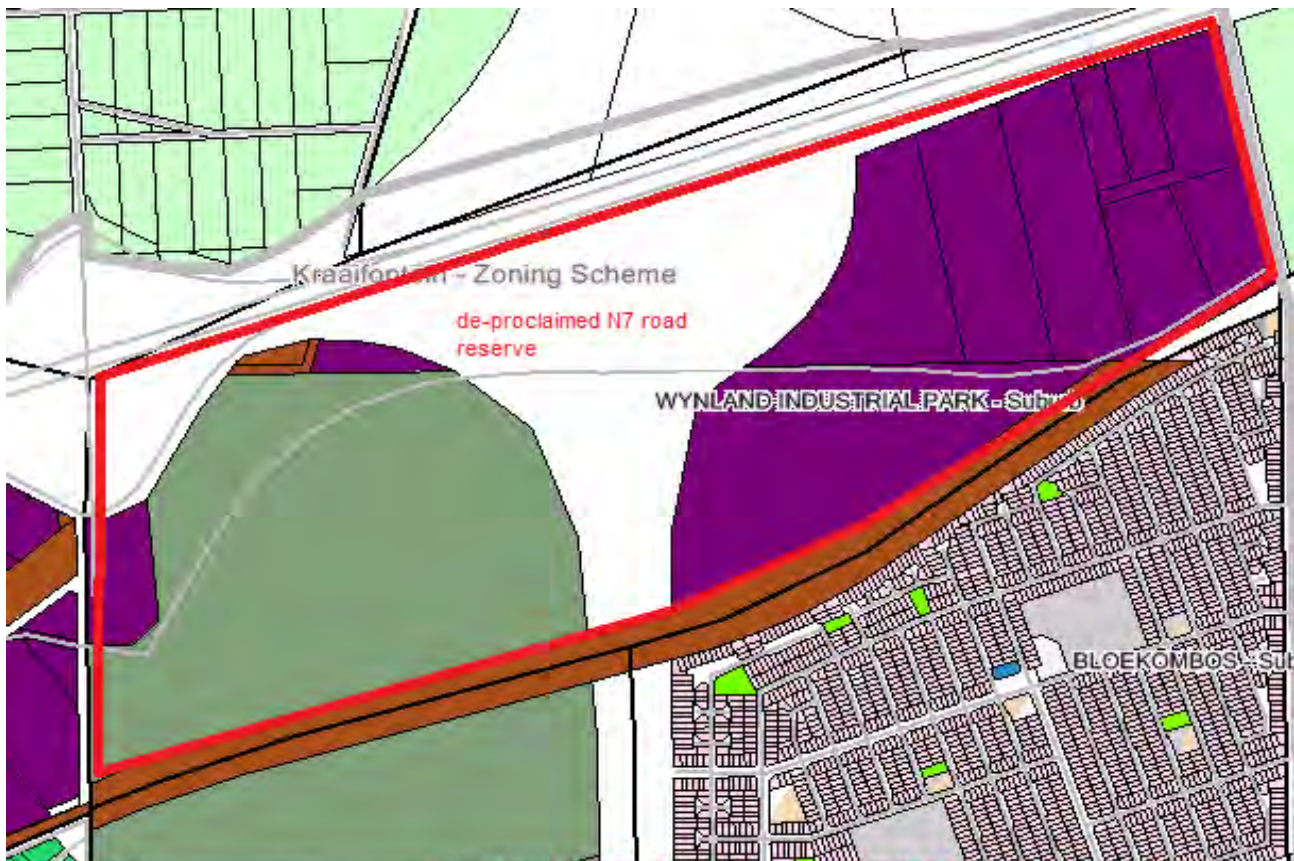
ix) Kraaifontein Industrial Area

Vision and Contextual analysis: To create an extension to the existing Kraaifontein Industrial for service industry.

The area located to the east of Maroela Road is reserved for the extension of the existing Kraaifontein Industrial Area, which is almost fully developed. The area closest to Maroela Road accommodates the refuge transfer station. Within this area is a section of the deproclaimed N7 road reserve which has been tendered off to a developer and to the west is a Council property zoned for industrial purposes. The remainder of the erven are all and privately owned.

Development Guidelines: The identified area is earmarked for industrial related activities and no noxious or heavy industrial related activities should be accommodated within this area. Access to the area is to be taken off Sandringham Road.

Pedestrian access to the future Bloekombos Station, should be addressed in any development application to be considered.



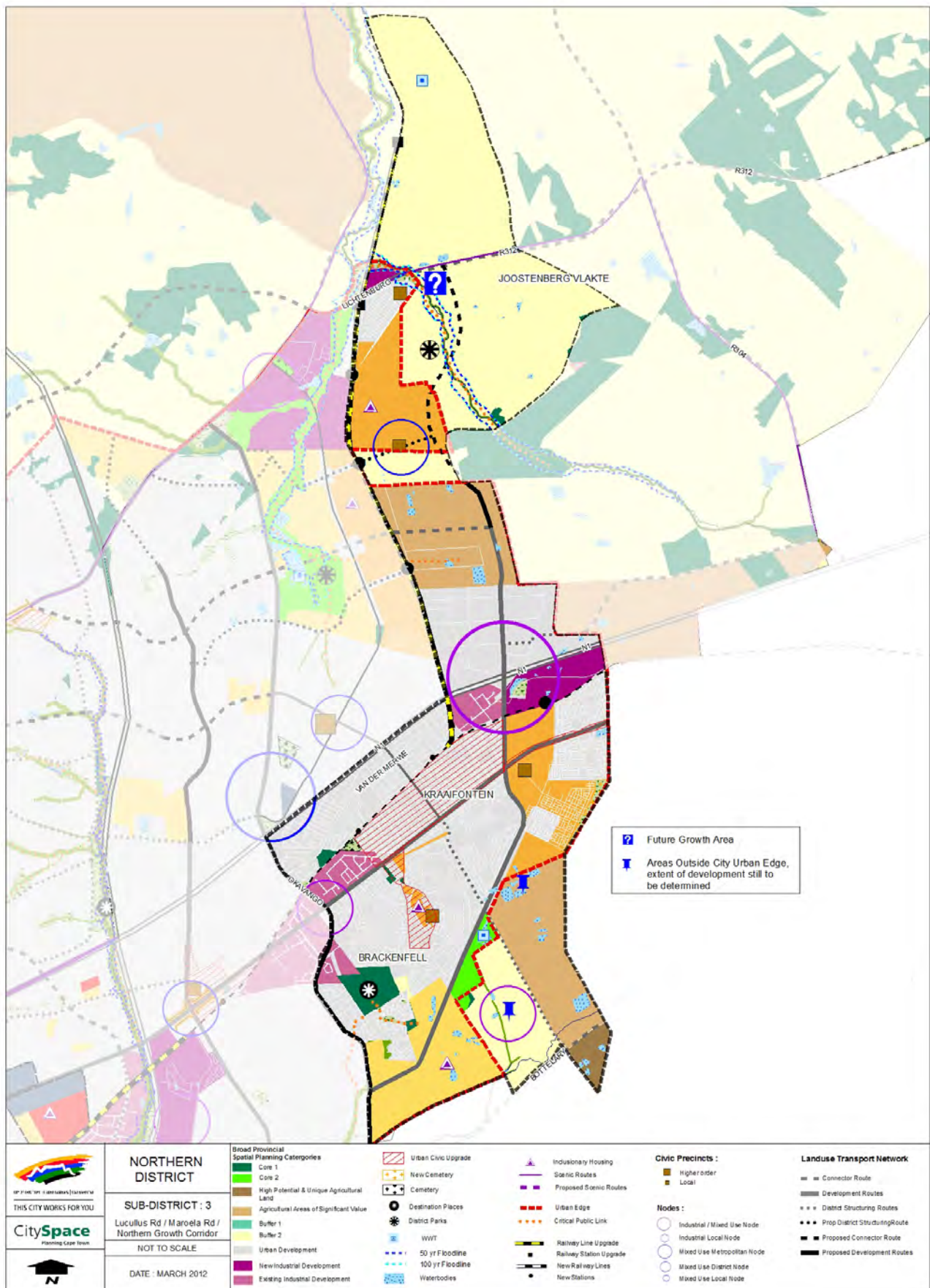


Figure 16: Sub-district 3

6.2.4 Sub- district 4: The Agricultural/ Rural Hinterland Corridor

This Sub- Area includes the agricultural/ rural hinterland primarily located outside of the urban edge, where the western boundary is formed by the N7, the northern boundary is the jurisdictional boundary of the City, and the southern and eastern boundaries are the Bottelary Road and jurisdictional boundaries respectively. This corridor therefore includes settlements such as Mikipunt, Klipheuwel, Philadelphia, Westerdale smallholdings, the area demarcated for the exploitation of construction materials and minerals.

The section that follows deal with the following areas:

- i) The Durbanville Winelands
- ii) The Extraction of Construction Materials and Minerals Zone
- iii) Rural Settlements and Smallholdings
- iv) Other Land Uses

Vision: The strength of the Durbanville Rural Hinterland lies in its diversity and rich history. The challenge lies in protecting these strong points in an accommodating manner that still allows development whether it be related to tourism or other employment generating activities.

Contextual Analysis: There are five land use themes in the rural landscape of Durbanville:

- The wine valleys;
- The productive grain farming;
- Agri-industrial/Industrial band along Wellington/Klipheuwel Road;
- Industrial & Mineral Extraction activities around Contermanskloof/Tygerberg Valley Road;
- The new development areas on Farms Mellish and Leliefontein, Contermanskloof.

The significance of the rural hinterland is summarised as follows⁴:

- It is an area of employment generation through the agricultural and mining employment;
- It offers leisure, recreation and tourist attractions;
- It is a resource base in terms of food production, export products and construction materials;
- It houses bulk infrastructure like the new Wastewater Treatment Works at Fisantekraal and the Fisantekraal Airfield;
- The smallholdings at Westerdale and Klipheuwel offer rural living in close proximity to the City;
- Its natural and cultural landscapes is a gateway to both the City of Cape Town and Durbanville;
- The natural resources i.e. wetlands, ecological corridors fulfil a vital ecological role in terms of biodiversity conservation.

The following principles are deemed important to protect the character within the rural context:

- Scenic-drives and landscapes should be protected. These rural landscapes are the result of a combination of topographic elements, land uses (viticulture, grain farming, mixed farming), cultural heritage (historic farms/towns) and built form (wineries, farmsteads) as well as environmental features such as indigenous vegetation and tree-lined avenues⁵.
- Links of sensitive environmental landscapes i.e. Renosterveld; river systems should be re-established;
- Areas with mineral deposits should generally be safeguarded against development or other uses that might jeopardize /inhibit exploitation;

⁴ Setplan (2001) Draft North Spatial Development Framework Phase II: Rural Hinterland, p.4

⁵ Setplan (2001). Draft North Spatial Development Framework Phase II: Rural Hinterland, p. 24

- Where development takes place, the ‘werf’ concept i.e. clustering of buildings around a central area, should be promoted. This would include acknowledging the site/region specific architecture with sensitivity towards scenic landscapes/drives/views;
- Fragmentation of viable agricultural land is not supported. The protection of agricultural land is of the utmost important to ensure food security;
- Protection of significant farmsteads i.e. Bloemendal, Diemersdal, Meerendal, Altydgedacht, Groot Phesantekraal, Vissershok as identified by SAHRA;
- Establishing the Malanshoogte Road as a scenic route;
- Permitting land uses as auxiliary uses to complement bona-fide farming activities. Such value-adding activities can be one of the following:
 - Directly associated with the primary use;
 - Activities reconcilable with main agricultural activity (poultry farming, feedlots);
 - Agro-tourism including rural restaurants, guest accommodation, game lodges;
 - Urban activities such as function venues and restaurants;
 - Tourist-related and adventure activities i.e. mountain biking, hiking, horse riding trails, etc. should be encouraged in support of agricultural activities.

i) The Durbanville Winelands

The Durbanville Wine Valley generally includes wine farms adjacent to Vissershok (M48), Tyger Valley Road (M13) and a portion of Adderley Road (M58). Many of these farms not only have some of the most fertile soils for wine farming, but also have historical value. On most of the farms, auxiliary uses like restaurants have been active for a number of years. The pressure to expand these facilities to include boutique hotels and additional residential units are growing. The principle of allowing tourist related uses is not debated. The scale, form and impact of such developments should however be weighed against the reduction in valuable and viable agricultural land as well as the visual impact. Subdivision to allow residential units on single title plots are not supported as this is just another form of urban growth leap-frogging into the agricultural hinterland.

An effort should be made to compile a rural design guideline specifically for the Tygerberg Valley Road where pressure is felt most for redevelopment/expansion of the existing wineries and function venues. There is no point in losing the exact reason a destination is attractive with the effort to improve existing facilities.

Note that the availability of bulk services is limited in the rural areas. Therefore, should development of whatever nature be considered, the applicant will need to pay Development Contributions to enable such development.

ii) The Extraction of Construction Materials and Minerals Zone (MCEZ):

The 2012 CTSDf indicates a MCEZ in the western portion of the rural hinterland with a concentration of quarries in the area between the N7, Vissershok Road and Tyger Valley Road. The quarrying entails the extraction of building stone. Recently there have also been reports of illegal sand mining in the far north-eastern quadrant of the district.

The visual impact of the quarries/mines usually attracts the most attention. This land use is however extremely important in supporting the construction industry in the Western Cape. A concerted effort is to be made to accommodate these industries because there are only a limited number of locations that it can actually operate i.e. the occurrence of mineral deposits are scarce.

In the same breath and given that the Cape Divisional Council Zoning Scheme Regulations require that mining activities be approved as conditional uses, the combined efforts of the professionals within the municipal set-up is required to ensure that the impacts are mitigated through appropriate conditions of approval and subsequent compliance with such conditions.

Urban development should not be considered in the MCEZ zone. Subdivision will result in additional development rights being granted which will most likely lead to increase built density and could compromise mining activities in the area.

Where quarries/mines reach the end of its lifespan, the rehabilitation of such landscapes are extremely important. Rehabilitation should not only entail the environmental side, but alternative uses such as tourist/adventure related activities should be investigated.

iii) Rural settlements and smallholdings:

- **Westerdale Smallholdings**

The approved Westerdale Smallholding Development Framework Policy (approved on 20 September 2002) applies and discourages further subdivision. There is currently no waterborne sewer system to support the area and only one small water supply line in Westerdale Road. The water supply line was installed by the landowners and the local authority catering only for potable water needs of a single family per smallholding. The holdings have an average dominant size between 4 and 5 hectares. There is no one central land use and additional uses included equestrian, horticultural and agri-associated activities.

The fact that the area in the summer times is reliant on Council to truck water is also cause for concern. Any additional land units will only increase the pressure on the environment. In future, should sufficient services infrastructure upgrading take place, one will be able to reconsider minor densification. Until such time, however *ad hoc* subdivisions cannot be supported. The argument that directly abutting farms should be considered for subdivision is not supported. The fact that the smallholdings and the inherent character is sought after is not an argument to support the further subdivision or development of adjacent farms in similar fashion.

With regard to future applications for changes in land use, consideration can be given to tourist related facilities (guest accommodation). All of the above will however be dependent on service capacity. The principle however, of permitting such uses in the rural area (with emphasis on an appropriate scale) is supported. Further subdivisions, to a minimum extent of 2ha can be considered, dependant on the availability of services. The area will however be protected as an agricultural estate area, and no applications for urban development of any nature will be considered.

- **Philadelphia:**

This town was established in the 1800s and thus brings a tremendous history to the table. The town has moved from being a well-kept secret to a tourist attraction with its quaint character. There is an effort from the Environment & Heritage Resource Management Department to have Philadelphia declared as an Urban Conservation Area. The following is deemed important to bear in mind in this specific context:

- Philadelphia should not physically be extended. There is limited infrastructural capacity (water & sewerage). This however is not to say that appropriate infill development cannot take place as there are still a number of properties within the old part of Philadelphia that are vacant. New developments will however need to adhere to strict design guidelines.
- There is a need for additional housing for the existing low income residents in the northern section of the town. Taking into account the services constraints, only the existing residents should be accommodated. At this stage there are approximately 9 or 10 temporary shelters (shacks) in Philadelphia. According to residents these shacks have been there for more than two years. As they are currently occupying the Dutch Reformed

Church's land, the landowner was informed that they should take responsibility. Council will in any event not be able to provide services given the private ownership of the land. In the event of the residents having to relocate, the economical/social/employment implications such a move will have on these individuals/families should be mitigated.

- Employment for residents (with specific reference to lower-income earners) is a challenge. For this reason, tourism-related developments within the town border should be encouraged.
- Land use applications to regularise current non-conforming uses need to be sensitive to the heritage of the town. A prime example is the standard conditions imposed in terms of parking provision which is just not reconcilable in this setting. The commonage bordered by the church, town hall and farmers' association hall is deemed sufficient to cater for overflow parking.
- The centuries of history of the old part of Philadelphia makes it an important tourist attraction and underscores its character. The redevelopment of some of the existing business sites for tourist/entertainment related purposes i.e. restaurants, theatres, etc. is supported. Scale and design will however be deciding factors.
- The architecture of new houses on the vacant plots within the old part of town should ideally be complementary to the existing context.
- The draft *Philadelphia Structure Plan* as well as the *Philadelphia Conservation Guidelines* (1993) compiled by Calitz & Van Wyk Architects contains important information. Future developments within the town boundaries should be sensitive and supportive of its uniqueness to avoid a repeat of the disregard for context-driven design that the development south of the old town presents. These documents however need to be combined and updated.
- An updated inventory of the heritage resources in the settlement is required.

- **Klipheuwel and Environment:**

Klipheuwel developed around the Klipheuwel Foundry which used to produce drain covers and castings. The old post office, located behind the grain silos, has since been converted to a bottle and cash store. Other agri-industrial activities are located behind the old post office. Klipheuwel consisted largely of informal dwellings until 1999. Winelands District Municipality provided 131 houses on land purchased from Telkom and Eskom⁶. There are also a number of old railway houses. Church groups have started a very successful crèche for the children from the community. Questions have been asked around the potential for providing more social infrastructure i.e. primary/secondary schools and a community hall. Given the geographic isolation of Klipheuwel, consideration will have to be given to facilities that will support the existing community (which includes Mikipunt and the surrounding farms). The position of these facilities will be considered upon submission of more detailed information on the scale of what is required.

Informal Settlement: Although the houses provided by Winelands District Municipality addressed the immediate need, more people located in Klipheuwel adjacent to the river. The newcomers started squatting on private land and service provision is thus a problem. Given the investment that would be required to extend services all the way out to Klipheuwel (approximately 14km from Durbanville), it is not foreseen that formalisation of the existing squatter settlement at Klipheuwel will take place. Such cost, if ever considered, must be weighed against the future infrastructure investments that will take place around Fisantekraal and with the imminent subsidised housing development on a portion of land adjacent to the Fisantekraal community on land purchased by the City of Cape Town.

Klipheuwel Industrial/Agri-industries: Currently there are various industrial and agri-industrial activities dotted around the grain silos. Many of the uses can be termed 'non-conforming' in terms of the Cape Divisional Council Zoning Scheme regulations as they were established prior to the said Scheme coming into being. The transport business on Portion 20 of Farm Vryheid No 55 and Portion

⁶ MCA Urban & Environmental Planners (2001). Klipheuwel Spatial Development Framework [Draft], p.1.

11 of Farm Klipheuwel No 52 to the south of the silos is in the process of obtaining rights to regularise the activities

The improvement of the existing industrial/agri-industrial activities are supported as it does provide employment opportunities for the Klipheuwel community. Future non-agricultural land uses can be considered, but infrastructural constraints will play a major role.

Mikpunt Smallholdings: Due to infrastructural constraints, the physical expansion of the Mikpunt smallholdings is not supported. Subdivisions of the 8 000 m² properties bisected by the river to 4 000 m² can be supported where the limited infrastructure capacity allows for such minor densification.



Primary School: The Klipheuwel Primary School is located in Mikpunt. The school building is in need of repair. Should the opportunity arise to provide a new facility, the location will need to be more appropriate given that the school caters for the most part for the children from Klipheuwel and the surrounding farms. Currently, the school is located in Mikpunt approximately 2,5 km from the intersection of the turnoff to Mikpunt and Klipheuwel Road. There is also a problem in winter when the only bridge that provides access to Mikpunt is flooded.

Telkom Radio Station Site: The Telkom Radio Station was developed in the 1920s when radio communication was introduced at sea. Development of the Radio Station commenced in 1928 and one existing building dates from 1931⁷. The site is thus of important historical value. A further feature in the landscape is the tree-lined historical road link between the Telkom site and the railway line in Klipheuwel. This link was severed with the realignment of the R304. The draft Klipheuwel

⁷ MCA Urban & Environmental Planners (2001). Klipheuwel Spatial Development Framework [Draft], p.5.

Spatial Framework prepared by MCA Planners in 2001 provides an artist's impression of the re-establishment of this link. Although all the proposals made are not supported, the opinion is held that historic linkages should be acknowledged and reinforced where possible.

Telkom still uses a number of buildings on-site and others are occupied by workers. The site is fully serviced with water and electricity. Waterborne sewerage is however a problem and the area is still serviced by septic tanks.

Enquiries have been made to establish a children's home or a home for the disabled. Such uses are deemed essential in support of the broader Cape Town region and hence is supported in principle.

Stone Quarry (Farm 1419): The quarry northwest of the grain silos was used to provide material for the building of the quay at Table Bay Harbour. It is currently used as a local dumping site. The rehabilitation and conversion of this site for tourist-related activities can be considered.

Apollo Bricks/Corobrick & adjacent farms along Klipheuwel Road: A number of agri-industries are located along Klipheuwel Road with special reference to those opposite the Durbanville Memorial Park/Business Park. These industries include mushroom and chicken farming as well as brick manufacturing. Apollo Bricks (Farm 168/42) on the Spes Bona Road has been decommissioned and rehabilitation is underway. The land will not be suitable for agricultural purposes and hence the opinion is held that industrial type of activities should be explored on the band of properties between the Corobrick site (Farm 1385) and the old Apollo Brick site.

The Goedverwacht Transmitter Radio Station: This station is located just to the north of Klipheuwel Road alongside Corobrick and the Denny Mushroom Farm. It is operated by the SA National Defence Force and is fully functional. The decommissioning of this site is not expected in the near future. This is further motivation to consider, along with the existence with the mushroom farm and Corobrick, permitting more industrial-like activities in the medium to long-term. The time frame will however be important in order to prevent undermining the current establishment of the Durbanville Industrial Park to the south of Klipheuwel Road, hence the call for it only being considered in the medium/long term.

iv) Other land uses:

Fisantekraal airfield: The Fisantekraal Airfield operates under private management. The land use rights for the airfield to operate has however lapsed. It is expected that with the City's growth corridor extending in the direction of the airfield, that provision needs to be made elsewhere for such a facility.

Cape Farms 957 & 1180, Durbanville & Malmesbury Farm 935/2: Farm Vissershok No 957, Farm De Goede Ontmoeting No 1180 and Farm 935 Portion 2 on the Slent Road is currently being used for processing of sludge, garden refuse and composting. Farm 935/2 has no rights in terms of the Land Use Planning Ordinance.

Various environmental concerns are on the table for the reason that both Farm Vissershok and Farm De Goede Ontmoeting are located adjacent to rivers. Complaints have also been received from neighbouring farms regarding the stench and fly problems. Both these farms, although having received restricted rights in terms of the Land Use Planning Ordinance (No 15 of 1985), are currently operating either outside of their rights in terms of the National Environmental Management Act or completely without environmental authorisation.

The question remains where such uses should be accommodated if not in the rural hinterland. A possibility that needs to be explored is to encourage relocation to either old mining sites or to the area described in the paragraphs above next to the Goedverwacht Radio Transmitter Site.

Cape Farms Leliefontein no 202 and Mellish no 205: These farms are the subject of a major urban development application (also known as Welbeloond) currently being assessed. The development will link with the approved Annandale development to the west and De Grendel to the south. The application presents a portion of industrial land that will complement and round off the existing Atlas

Gardens Development. The design guidelines that have been enforced in Atlas Gardens are deemed to be a success in terms of integrating industrial structures into the rural hinterland. It is thus envisaged that the new development will need to architecturally conform to the existing Industrial Park.

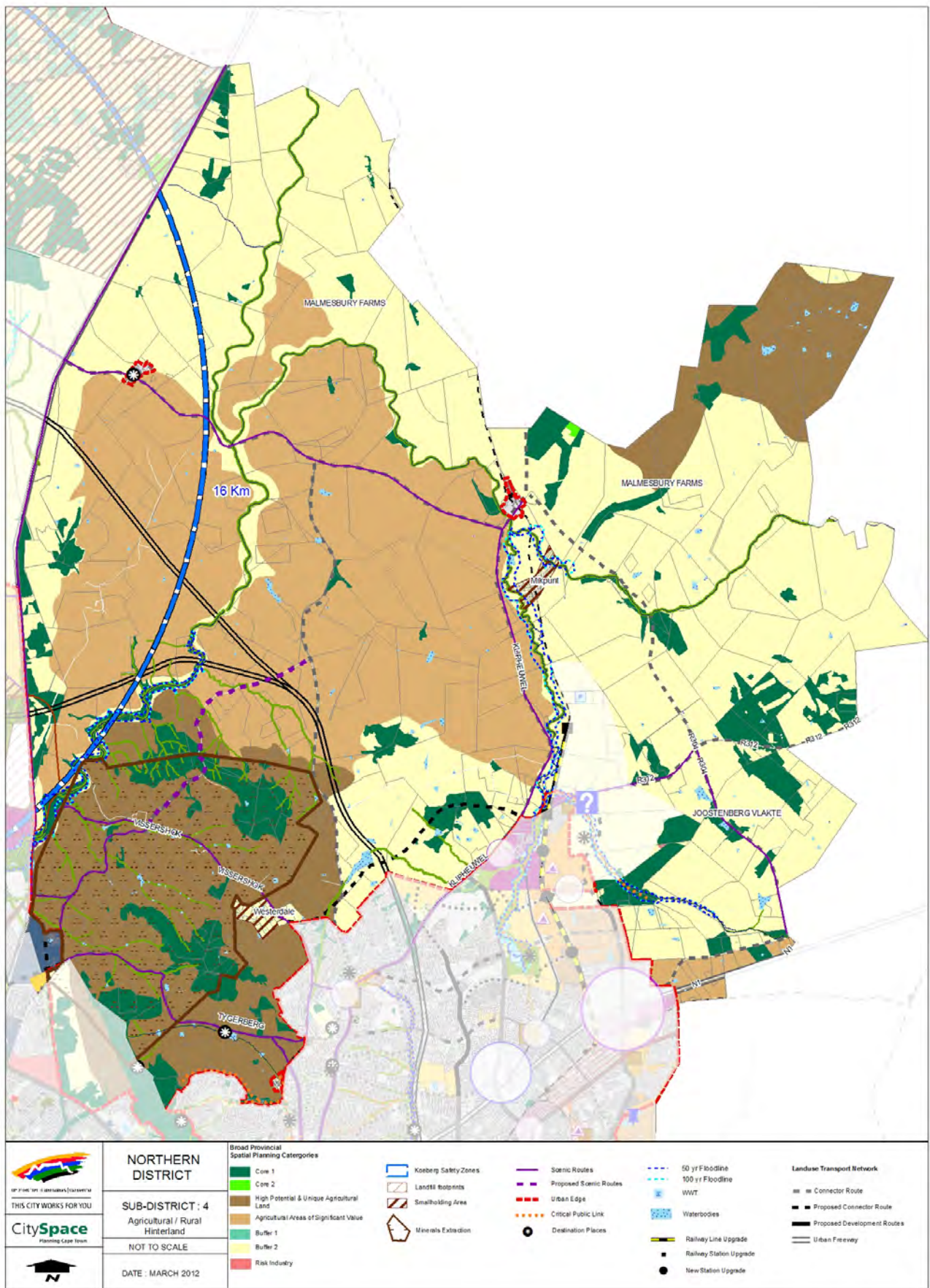


Figure 17: Sub-district 4

6.3 Local area planning priorities

Several priority local planning and investment areas are identified in order to implement the plan. Input from public engagement is an essential part of this process. These inputs will be balanced with the need to be strategic in focussing on projects with maximum impact and highest alignment with the spatial strategies of the City SDF and District SDP and programmed with due regard for resources available to undertake projects.

Based on technical review and inputs to date, several planning and investment focus areas have been identified including:

- Preliminary local planning areas where further planning is required to guide local land use change or define capital investment interventions.
- Capital investment action areas both in the short, medium and longer term.

These are included in Annexure C and will be amended, prioritised and programmed with inputs from the engagement process on the draft SDP.

It should be noted that capital investment will occur across the district on a range of public facilities, infrastructure and services (roads, bulk services etc). The focus on action areas is thus not comprehensive, but strategic, focusing on areas where multi-sectoral intervention is needed to ensure high impact restructuring and upgrading within the district.

6.3.1 Development facilitation: Local area policy work to be conducted

Future policy work to be conducted within the Tyger Valley/ Durban Road Corridor:

- Assess pedestrian movement along the Elsieskraal Open Space System and linkages to the parts of the commercial node.
- Investigate partial relocation of PP Smit Sports grounds to US Business School site.
- Compile Spatial Precinct Plan for Upper Oakdale area to determine future use.
- Compile Conceptual Spatial Framework for redevelopment of SANRAL/ City owned land located between Mispel Street, Durban Road, N1 and Willie van Schoor Drive to guide future land uses.
- Compile Urban Design Framework for Tyger Valley Node.
- Update of the Durbanville CBD Urban Design Guidelines, and formalise same as policy.
- Develop design guidelines for sites/ areas identified for intensification/ densification.
- Prepare urban design guidelines for redevelopment along De Bron Avenue, Kenridge.

Future policy work to be conducted within the Cape Gate/ Okavango Road Corridor:

- Precinct plan for Tanner Street Triangle, to address access management, land use, interfaces, street building lines, etc
- Precinct Plan for Darwin/ Malborough activity streets south of Brighton Road.
- Precinct Plan for Brackenfell CBD, inclusive of Springbok Park and areas abutting the Brackenfell Station.

Future policy work to be conducted within the Lucullus Road/ Maroela Road/ North Eastern Growth Corridor:

- Conceptual Framework for the Joostenberg Smallholdings to address future form and structure, access, land use, interfaces with surrounding urban/ rural fabric.
- Conceptual Framework for the Botfontein Smallholdings, to determine future extent of land use change, interface with the rural area, access, land use guidelines, etc.
- Precinct Plan for La Boheme Road, Maroela Rd. and Thakudu Road in Wallacedene to address issue of informal trading, business hives.

- Audit of social/ public facilities and opportunities in Wallacedene and Bloekombos.
- Investigation into opportunities for land use intensification, informal trading in Belmont Park.

Future policy work to be conducted within the Agricultural/ Rural Hinterland Corridor:

- Design Guidelines for the Tyger Valley Road to address tourism development, opportunities and redevelopment/ expansion of existing uses.

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8. Annexures

ANNEXURE A: PRINCIPLES FOR ASSESSING DEVELOPMENT PROPOSALS IN “AREAS OF POTENTIAL IMPACT” ON SELECTED NATURAL ENVIRONMENT ATTRIBUTES

1. *Areas of potential impact should be addressed as soon as possible in the planning process and before significant resources have been allocated to a project.* This requires a cooperative and transparent approach to these areas. Consultation with key role players should be initiated and include the City's Environment & Heritage Management Branch, Biodiversity Management Branch, Spatial Planning, Catchment Stormwater and River Management Branch, and other key stakeholders such as Cape Nature.
2. *Proactively and timeously search for the best practicable alternative:* The application of this principle is dependent on the significance of the potential impact when viewed in the context of the broader strategic intent of the district plan. In many instances, trade-offs are required and the SDP has sought to inform where these might be appropriate. However, development in highly sensitive or significant natural environments is generally undesirable, and has, where possible, been avoided in the district plan. In the limited instances where this has not occurred, balance has been sought by, for instance, the planning of biodiversity corridors where highly sensitive natural environments are likely to be impacted. More detailed planning of these areas should consider alternatives and detailed design intervention to prevent or minimise potential impact (as per 3 and 4 below). The Biodiversity Management Branch in the Environmental Resource Management Department and/or the Catchment Stormwater and River Management Branch of the Roads and Stormwater Department, where relevant, should be consulted to provide advice.
3. *If an environmentally sensitive area has to be developed or transformed, investigate means to:*
 - *Maximise the retention of intact natural habitat and ecosystem connectivity*
 - *Avoid fragmentation of natural habitat and aim to maintain spatial components of ecological processes (e.g. ecological corridors and vegetation boundaries)*
 - *Minimise unavoidable impacts by reducing the project footprint and determining the least damaging layouts of the proposed development and its accompanying infrastructure (e.g. by concentrating disturbance in degraded areas)*
 - *Remedy habitat degradation and fragmentation through rehabilitation.* ⁸
4. *In key areas (particularly where on site mitigation is limited or not possible) investigate the use of biodiversity offsets⁹ as a mitigation measure.* This may involve making resources available to secure and manage an alternative piece of land of the same ecosystem type or

⁸ More information on the above may be obtained from the Fynbos Forum Ecosystem Guidelines for Environmental Assessment in the Western Cape – from which the above points were extracted. Other useful sources of information include the principles included in the National Environmental Management Act and the National Environmental Management: Biodiversity Act, the Provincial Spatial Development Framework (promoting densification), the Coastal Edge Policy, the Catchment Management policies on river buffers and developments in flood prone areas and the Department of Environmental Affairs and Development Planning's (DEADP) offset guideline. The DEADP guideline for involving biodiversity specialists in EA processes also provides useful information.

⁹ Provincial Guideline on Biodiversity Offsets (revised draft, March 2007). Department of Environmental Affairs and Development Planning, Provincial Government of the Western Cape

conservation of a proportion of the property *in situ*. The Biodiversity Management Branch may provide advice in this regard, but DEA&DP are the decision-making authority.

5. *Areas of potential impact may be identified in the district plan which already have environmental authorisation in terms of applicable legislation. The identification of these areas is not intended to form grounds for review of such approvals.*

Although most areas of potential impact on natural resources occur due to the presence of critical biodiversity areas and listed ecosystems which require conservation measures in terms of national legislation, consideration also has to be given to the potential loss or sterilisation of natural resources which currently – or in future – will have value as economic resources (e.g. strategic mineral resources or aquifer water to supplement the City's supply), or which provide an ecosystem service (e.g. water filtration and flood attenuation).

The principle to apply is that where there are potential impacts of development/land use proposals on key resources – efficiency, equity and sustainability criteria must be used to determine the best use for the greater good of the City's people and the environment. The assessment of impacts in terms of these criteria should include assessment of cumulative impacts at local, regional and national scales.

ANNEXURE B: RELEVANT LEGISLATION AND POLICIES PER ENVIRONMENTAL IMPACT MANAGEMENT (EIM) ZONE

EIM ZONE	ENVIRONMENTAL ATTRIBUTES	POTENTIALLY APPLICABLE LEGISLATION / POLCY (note: list not exhaustive and should not preclude review)
<i>Hydrological Zone</i>	Flood Risk Areas <ul style="list-style-type: none"> Flood risk area 1 (1:50 flood line) Flood risk area 2 (1:100 flood line) Flood risk area 3 Rivers, Estuaries and Wetlands <ul style="list-style-type: none"> Rivers, wetlands and associated buffers Aquifers <ul style="list-style-type: none"> Highly productive aquifers Moderately productive aquifers 	<ul style="list-style-type: none"> National Water Act 36 of 1998. CoCT's Floodplain and River Corridor Management Policy (May 2009). Agricultural activities close to water bodies: conditions contained within the Care of Agricultural Resources Act 43 of 1983 pertaining to rivers and wetlands. Rivers, wetlands and within estuaries: Chapter 4 of the National Environmental Management Integrated Coastal Management Act 24 of 2008 and the associated National Estuarine Management Protocol and Estuarine Management Plans.
<i>Coastal Protection and Dune Zone</i>	Coastal Protection Areas <ul style="list-style-type: none"> Coastal Protection Zone Coastal risk areas Dune Areas <ul style="list-style-type: none"> Sensitive dune fields 	<ul style="list-style-type: none"> National Environmental Management: Integrated Coastal Management Act 24 of 2008. Draft Integrated Coastal Management Bill, or Act as promulgated Draft Delineation of the Proposed Coastal Protection Zone for the City of Cape Town: Draft Report 2009 City of Cape Town Coastal Protection Zone Bylaw (in preparation 2010).
<i>Conservation and Biodiversity Priority Zone</i>	Conservation and Biodiversity Areas <ul style="list-style-type: none"> Protected areas Critical Biodiversity Area 1 Critical Biodiversity Area 2 Critical Ecological Support Areas Other Ecological Support Areas Other Natural Vegetation 	<ul style="list-style-type: none"> National Environmental Management Protected Areas Act 57 of 2003. National Environmental Management Act 107 of 1998.
<i>Cultural and Recreational Resources Zone</i>	Cultural and Heritage Areas <ul style="list-style-type: none"> Cultural landscapes Potential archaeological sites Other significant heritage resource areas 	<ul style="list-style-type: none"> National Heritage Resources Act 25 of 1999. A Heritage Overlay is being developed and will become part of the Integrated Zoning Scheme. Reference to the zoning schemes / CTZS is required. Public open spaces: <ul style="list-style-type: none"> Outdoor Advertising and Signage By-Law, 2001.

EIM ZONE	ENVIRONMENTAL ATTRIBUTES	POTENTIALLY APPLICABLE LEGISLATION / POLCY (note: list not exhaustive and should not preclude review)
	<ul style="list-style-type: none"> • Grade 3 heritage sites • Scenic Routes Public Open Spaces <ul style="list-style-type: none"> • Structuring Open Spaces 	<ul style="list-style-type: none"> • Authorisation of the activities in these zones must be in compliance with the City of Cape Town By-Law Related to Streets, Public Places and the Prevention of Nuisances, 2004
<i>Natural Economic Resources Zone</i>	High Potential Agricultural Areas <ul style="list-style-type: none"> • High potential and unique agricultural land worthy of statutory and long-term protection • Agricultural area of significant value given existing, potential and emerging use • Other Agricultural areas • Smallholdings and agricultural areas Mineral Extraction Areas <ul style="list-style-type: none"> • Priority mineral resources 	High Potential Agricultural Areas <ul style="list-style-type: none"> • Care of Agricultural Resources Act 43 of 1983. • Subdivision of Agricultural Land Act 70 of 1970. • Draft Sustainable Utilisation of Agricultural Resources Bill, 2003. Mineral extraction areas <ul style="list-style-type: none"> • Mineral and Petroleum Resources Development Act 28 of 2002. • Land Use Planning Ordinance (LUPO).
<i>Urban Uses and Utilities Zone</i>	Nuclear and Landfill Exclusion Areas <ul style="list-style-type: none"> • Nuclear Exclusion zones • Landfill sites and buffer zones Industrial and Commercial Areas <ul style="list-style-type: none"> • Industrial areas • Commercial areas Infrastructure and Utilities Areas <ul style="list-style-type: none"> • Infrastructure servitudes, including WWTWs 	<ul style="list-style-type: none"> • Relevant air pollution guidelines, including the City of Cape Town's Air Pollution Control By-Law (2001). • National Environmental Management Air Quality Act 39 of 2004. • CCT Zoning Scheme Regulations

ANNEXURE C: RELATIONSHIP BETWEEN CTSDF & DISTRICT PLAN SPATIAL PLANNING CATEGORIES AND THE BIODIVERSITY NETWORK CLASSIFICATION

<div> <div>Biodiversity network: critical biodiversity area mapping categories</div> <div>CTSDF / District Plan Spatial Planning Category</div> </div>	Formal protected	Critical biodiversity areas (CBA 1 a-e and CBA 2)	CESA	Other natural vegetation	OESA
	■	■			
			■		
				■	
					■
Core 1	■	■			
Core 2			■		
Buffer 1				■	
Buffer 2					■

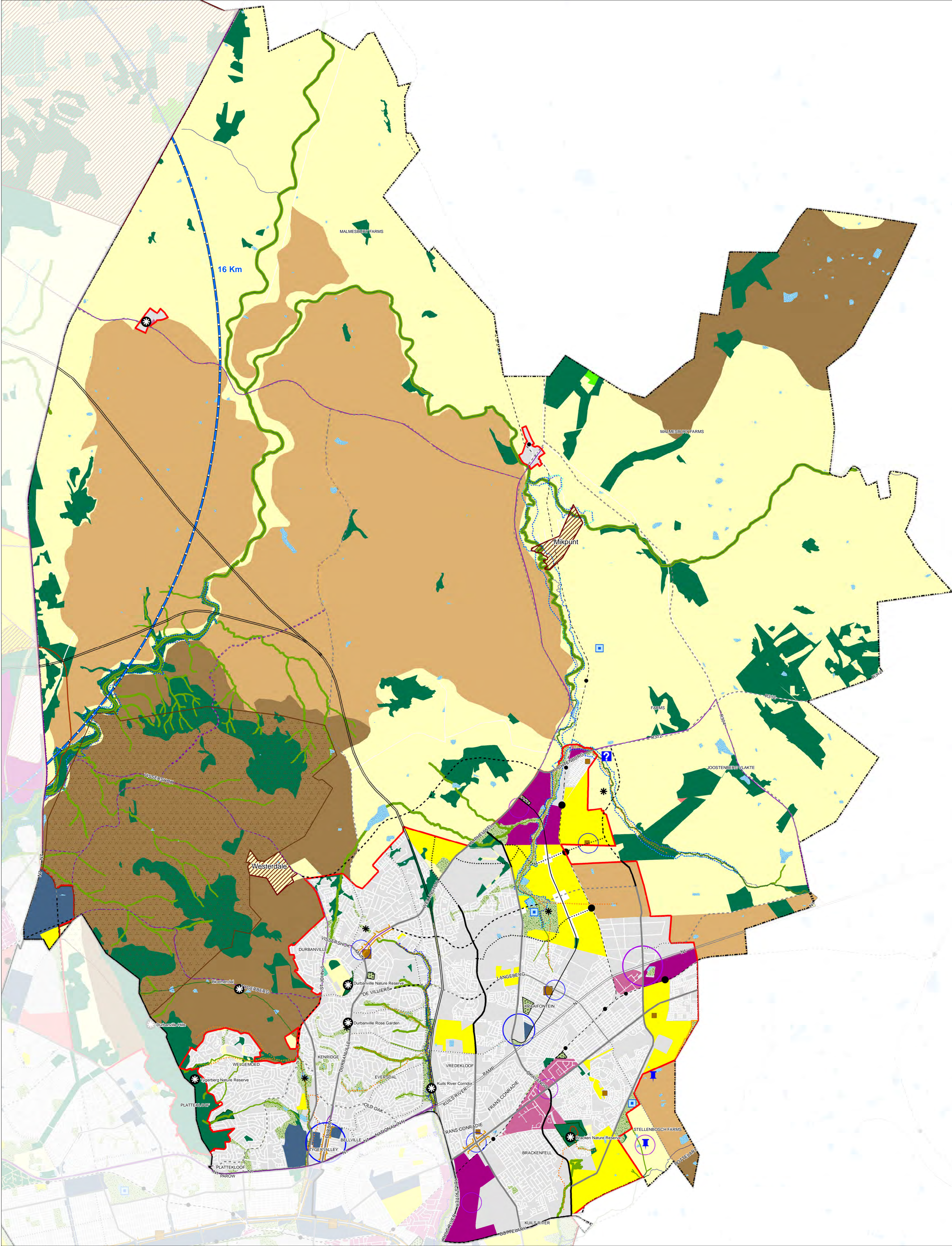
ANNEXURE D: RELATIONSHIP BETWEEN THE CTSDF AND DISTRICT PLAN ROUTE DESIGNATION, PSDF AND CITY ROAD NETWORK HIERARCHICAL CLASSIFICATION SYSTEM


ROUTE DESIGNATION	ROAD CLASSIFICATION		
	South African National Roads Agency Ltd.	Provincial Spatial Development Framework (2009)	City of Cape Town Road Network Hierarchical Classification System
ACTIVITY ROUTE	Class 2 – 4 Transport Route	Main Road	Secondary arterial
DEVELOPMENT ROUTE	Class 2/3 Transport Route	Trunk Road	Primary Arterial /Secondary Arterial
URBAN FREEWAY	Class 1 Transport Route	National Road	Freeway
CONNECTOR ROUTE	Class 2 - 4 Transport Route	National Road, Divisional Road,	Expressways, primary and secondary arterials

The relationship between the CTSDF (and District Plan) route designation, PSDF Spatial Planning Categories and City Road Network Hierarchical Classification System is indicated above. Whilst the alignment between the various systems of road classification is not seamless, it does provide an indication of the types of relationships existing between road classification systems and land use functionality.

The route designation provided by the CTSDF (and District Plan) is not intended for use as a classification system. Instead, the route designation provided by the CTSDF (and District Plan) creates an opportunity to reinforce desirable route functionality by encouraging / facilitating an appropriate land use response. It is anticipated that route designation indicating land use functionality will encourage an appropriate level of development and more intense mixed land uses to locate on the grid. The intensification of land uses along the multidirectional accessibility grid will contribute towards establish the thresholds required for sustainable and cost effective public transport.

The City's Road Network Hierarchical Classification system will continue to guide road network planning, classification and the mobility / accessibility function. Land use intensification along designated routes must consider the nature of access roads, additional traffic impacts and parking requirements.





CITY OF CAPE TOWN | ISIXENKO SASEKAPA | STAD KAAPSTAD

Spatial Development Plan

NORTHERN DISTRICT

JULY 2012

Broad Provincial Spatial Planning Categories

- Core 1
- Core 2
- High Potential & Unique Agricultural land
- Agricultural Areas of Significant Value
- Buffer 1
- Buffer 2
- Urban Development

- New Urban Infill
- Mixed Use Intensification
- New General Industrial Development
- Existing Industrial Development
- Risk Industry
- Open Space
- Future Growth Area
- Areas outside city urban edge, extent of development still to be determined

Civic Precincts :

- Higher order
- Local
- Destination Places
- District Parks
- Wastewater Treatment

- Smallholding Area
- Landfill Sites
- New Cemetery
- Cemetery

- Urban Edge
- Minerals Extraction
- Koeberg Safety Zones
- Critical Public Link
- New Rail Stations
- Waterbodies
- 50 yr Floodline
- 100 yr Floodline
- Scenic Routes
- Proposed Scenic Routes

Nodes :

- Industrial / Mixed Use Node
- Industrial Local Node
- Mixed Use Metropolitan Node
- Mixed Use District Node
- Mixed Use Local Node

Landuse Transport Network :

- Activity Route
- Activity Street
- Connector Route
- Development Routes
- District Structuring Routes
- Urban Freeway
- Prop District Structuring Route
- Proposed Activity Street
- Proposed Connector Route
- Proposed Development Routes
- Proposed Urban Freeway