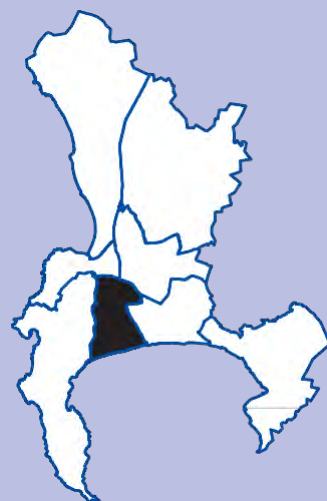


FINAL DRAFT

CAPE FLATS DISTRICT PLAN



SPATIAL DEVELOPMENT PLAN &
ENVIRONMENTAL MANAGEMENT FRAMEWORK

TECHNICAL REPORT

2012



CITY OF CAPE TOWN | ISIXEKO SASEKAPA | STAD KAAPSTAD

THIS CITY WORKS FOR YOU

**Approved as a Structure Plan in terms of section 4(10) of the Land Use
Planning Ordinance, Ordinance 15 of 1985**

27 September 2012

REFERENCE GUIDE TO CONTENTS OF THE DISTRICT PLAN:

Section	Purpose and focus
1. INTRODUCTION	Outline of background and legislative status of SDP and EMF
2. DEVELOPMENT AND POLICY CONTEXT	Planning directives and policy that inform the SDP.
3. KEY STRATEGIES: THE CONTEXT AND CENTRAL SPATIAL IDEAS	- 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	- 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	- 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	- 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	- 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	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	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	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	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	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)	Provides support mechanism (inclusive of spatial development plan: district development guidelines) in review of development applications..
5.1. Environmental Impact Management Zones (EIMZs)	- 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	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	- 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	- 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	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
• Identification of the area to which EMF applies • An indication of the conservation status of the area	• Baseline information and analysis report: Section 2.1
• A description of how information was captured;	• Baseline information and analysis report: Section 1
• Identification of information gaps	• Baseline information and analysis report: Section 1
• 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;	• Baseline information and analysis report: Section 2.1 – 2.3 • Summarised in Technical report: Section 5.2
• Development pressures and trends; opportunities and constraints	• Baseline information and analysis report: Section 2.4. (see also section 3) •
• Description of the environmental (management) priorities in the area	• Baseline information and analysis report: Section 2.4 • Summarised in Technical report: Section 5.2
• 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	• Technical report: Section 5.2
• Management proposals and guidelines	• Technical report: Section 5.2 (see also section 4 and section 6.2)
• The desired state of the environment	• Technical report: Section 4 (see also section 3)
• Revision schedule for the environmental management framework	• Technical report: Section 1.6
• A description of the public participation process including issues raised by I&APs	• Technical report: Section 1.5 • Baseline information and analysis report (annexure)

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ACRONYMS AND ABBREVIATIONS

Acronym	Abbreviation
CBA	Critical biodiversity area
CBD	Central business district
CESA	Critical ecological support area
CMA	Cape Metropolitan Area
CoCT	City of Cape Town
CTIA	Cape Town International Airport
CTSDF	Cape Town Spatial Development Framework
CTZS	Cape Town Zoning Scheme
DFA	Development Facilitation Act (No 108 of 1996)
DSDP	District Spatial Development Plan
du/ha	dwelling units per hectare
EIA	Environmental Impact Assessment
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)
MOSS	Metropolitan open space system
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	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.
Biodiversity network	The map of protected and critical biodiversity areas (including natural vegetation and wetlands) for the city based on the fine scale systematic conservation plan, in accordance with legal requirements.
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 to avoid hazards and financial risks pertaining to areas at risk of flooding
Coastal node	Concentrated development at a specific coastal location.
Commercial / business area	General business activity and mixed-use development of a medium to high intensity. Whilst the focus of development of these areas is commercial (office and retail development) a mix of uses including high and medium density residential development could be appropriate in these areas. Industrial development is generally not suitable in these areas.
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.
Densification	Increased use of space, both horizontally and vertically, within existing residential areas / properties and new developments, accompanied by an increased number of units.
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.
Development route	See section 3.1.3
District park	Park of landscaped / maintained open space with recreational facilities which serves the needs of several surrounding local communities or suburbs. Generally multifunctional, can include formal & informal recreational facilities, sports facilities including kick-about areas, playing fields & playgrounds (perhaps with play equipment). The diversity of activities caters for different age groups & may include a special interest component and/or a natural feature (e.g. river, water body or nature conservation area).
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
Ecological buffer	Strip of land adjacent to a watercourse, wetland or vlei required for the protection and enhancement of aquatic and riparian ecosystems.
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).
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	Settlement area consisting of informal structures, the occupants of which may or may not have 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 residential 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. However, for the purposes of this report 'urban development' excludes noxious industry, land for industrial purposes, and mixed use intensification areas, as they are designated separately in the spatial plan. But service trades that generate a low impact on surrounding urban uses 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.
Zoning scheme	A scheme consisting of scheme regulations and a register with (or without) a zoning map.

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 (figure 1.1) below summarises its contents.

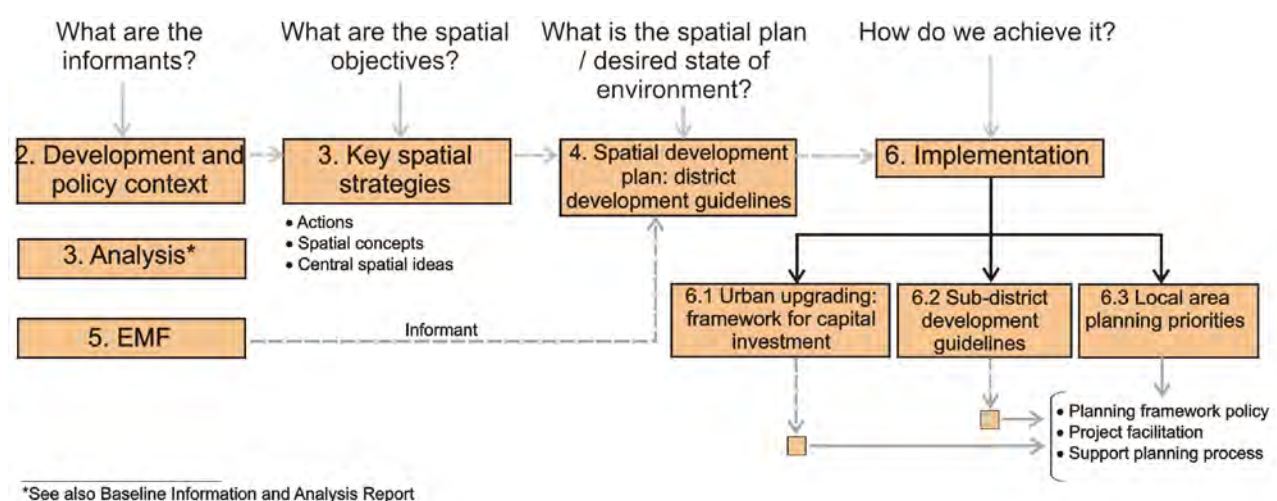


Figure 1.1: Elements of the District Plan

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 City SDF 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 planning framework comprised 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	LUPO (Section 4(6)) MSA
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 guidelines)	Will replace or complement pre-existing guidelines	Council	City's system of delegations

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. The list of plans to be withdrawn is reflected as it pertains to this district in Annexure A.

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 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 and 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 be 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 CTSDP 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 CTSDP 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 standalone 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 B.

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 new 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 sub-council 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 in Table 1.2.

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 Cape Flats District is located in the southern part of the City of Cape Town metropolitan area and covers approximately 13 200 ha (132 km²). It comprises of a significant part of the Cape Flats, and is bounded by the M5 in the west, N2 freeway to the north, Lansdowne Road and Weltevreden Road in the east and the False Bay coastline to the south.

It includes areas such as, the greater Athlone and Lansdowne areas, Gugulethu and Nyanga, Ottery, Philippi Horticultural Area, Fairways, Parkwood, Grassy Park, Lotus River, Lavender Hill, Zeekoevlei, Capricorn, Pelican Park, Strandfontein, Rondebosch East and a small portion of the south-western portion of Mitchells Plain (see figure 1.2, right).

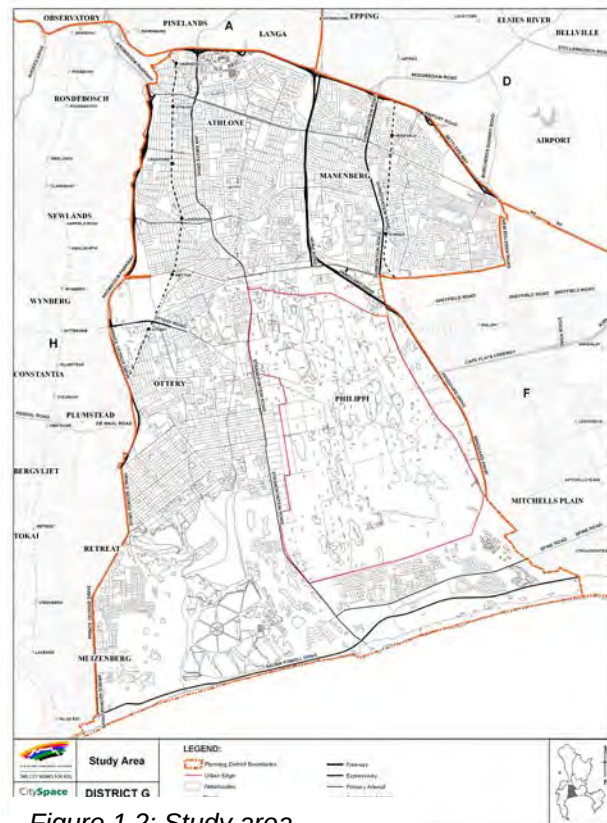


Figure 1.2: Study area

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 2.1.
- The three spatial strategies of the CTSDf – which have been detailed through the district plan reflected in table 2.1:
- The spatial development policies and guidelines for land use management as detailed in the CTSDf.

Table 2.1: 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 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.	• Promote inclusive shared economic growth and development • Address spatial economic imbalances • 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

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.	development of economic gateways, and manage land uses around the appropriately.
MANAGE URBAN GROWTH AND CREATE A BALANCE BETWEEN URBAN DEVELOPMENT AND ENVIRONMENTAL PROTECTION: 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.	• 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
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.	• 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

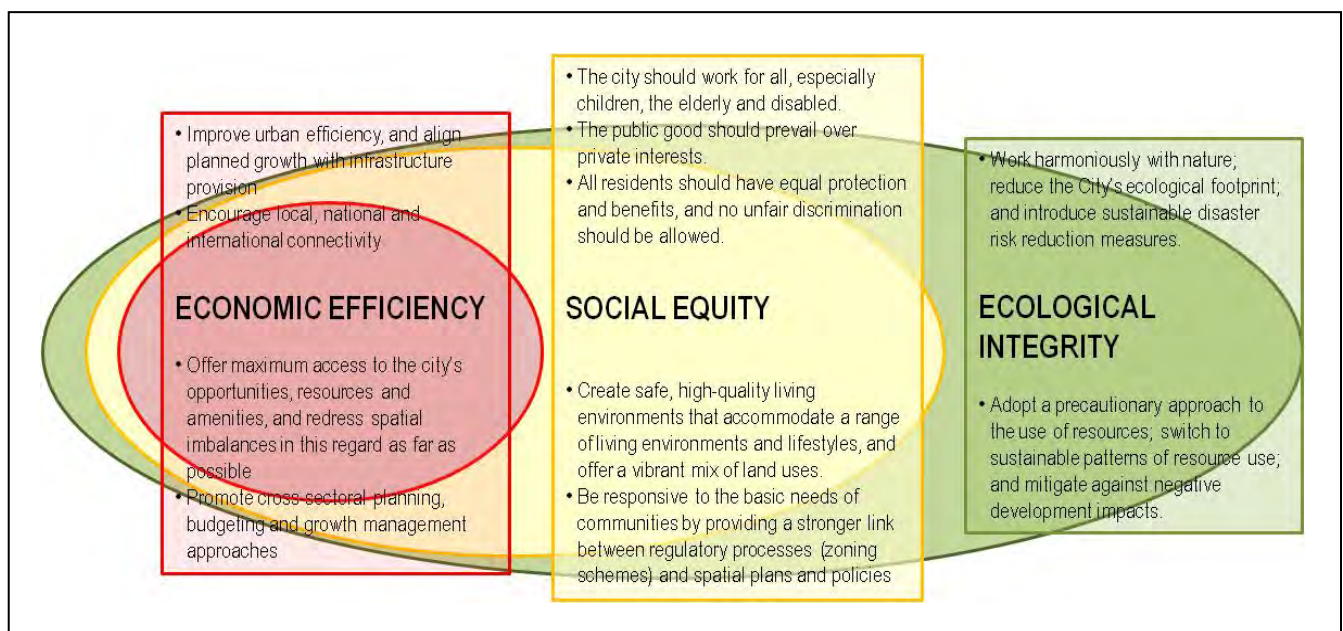


Figure 2.1: PSDF and City Spatial Development Principles

Furthermore, as part of the preparation of the District Plan for the Cape Flats, several key metropolitan and district level plans have been reviewed and served as informants, (refer to table 2.2 below).

Table 2.2: Key metropolitan and district level plans

Plan & Status		Key features	Overview and Directives
Cape Town SDF: Endorsed by Council, March 2011 Approved to Municipal Systems Act (MSA), June 2011.		- 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	Whilst the metropolitan and district level plans vary in terms of the detail of certain proposals, several themes are consistent including: - 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.
Guide plan: Approved by PGWC, 1988 <i>Due to be withdrawn with approval of CTSDF as a 4(6) plan to LUPO</i>		- Approved LUPO 4(6) plan; - Guidelines for location of major land uses	
MSDF redraft: Adopted by Council, 2001 <i>Due to be withdrawn with approval of CTSDF as a 4(6) plan to LUPO</i>		- Protect natural resources (Urban Edge) - Open space system (MOSS) - Densification at points of high accessibility (Nodes) - Densification on key public transport routes (Corridors)	
Metro South East Sub-regional Plan		- Lansdowne Road Industrial Area - Activity routes and streets - MOSS (PHA)	
Scenic drives network: Adopted by Council, 2003		- Preserve prime road based scenic & cultural landscapes - Network of identified scenic routes subject to guidelines & regulations	
Coastal Protection Zone Policy (in preparation 2010)		- Respect coastal processes - Protect natural resources & landscapes - Nodal rather than strip development - Existing urban areas as danger zones - Public good over private good	
Floodplain and River Corridor Management Policy (2009)		- Respect hydrological processes of aquatic ecosystems - Protect 50 / 100 year flood zone as required - Retain functional and ecological integrity of aquatic ecosystems - Establish buffers along rivers and around wetlands - Developments to be set back beyond the greater of the applicable flood zone or ecological buffer	

Management of Urban Stormwater Impacts Policy (2009)		• Minimise water quality and quantity impacts of stormwater from developments • Developments to achieve stormwater water quality targets • Implement the principles of Water Sensitive Urban Design (WSUD) and Sustainable Urban Drainage Systems (SUDS)	
Biodiversity Network: Draft, 2010		• Uniqueness & irreplaceability of natural environment • Minimum national protection area targets • maintenance of system through id of alternative sites or biodiversity offsets if network sites developed	

2.2.3 Local area planning 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:

- Land Use Policy for Kromboom Road, Athlone & Rondebosch East
- A Land Use Management Policy for Belgravia Road, Athlone
- Zeekoevlei Local Structure Plan
- Philippi Horticultural Area - Management Plan
- Youngsfield and Environs Development Framework
- Hanover Park & Sand Industria Local Area Spatial Development Framework
- Ottery East Local Structure Plan
- Strategic Vacant Land Study in Grassy Park, Lotus River, Parkwood, Pelican Park & Zeekoevlei
- Grassy Park Local Structure Plan
- Guguletu - Manenberg Spatial Development Framework
- Nyanga Local Area Spatial Development Plan
- Pelican Park Phase 1-3 Concept Urban Development Plan
- Lansdowne Philippi Local Structure Plan
- Lansdowne Road Industrial Area Development Framework

3. KEY STRATEGIES: THE CONTEXT AND CENTRAL SPATIAL IDEAS

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:

1. **What are the key spatial planning challenges facing the Cape Flats District Now?** Key issues are drawn from the *Cape Flats 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 Cape Flats 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** proposed by the CTSDP and district plan to contribute to addressing those challenges?
4. Associated with these spatial concepts and structuring elements, what are the **central spatial ideas** around which proposals for the future spatial development of the Cape Flats District will be built?

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

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

This strategy focuses on encouraging economic development, both formal and informal, in accessible locations in order to ensure that the opportunities they offer can be accessed by a broader range of people.

3.1.1 Cape Flats District now

This section identifies the key challenges in respect of the economic activity and employment in the Cape Flats 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 issues require consideration in respect of the Cape Flats District in relation to the City of Cape Town as a whole. These include the following:

Population:

- The district has an approximate population of 550 000. While accommodating 15% of the City's population, it has the second highest rate of unemployment (31%).
- The low percentage of economic property (3.5% - of which commercial properties equal 8.3% and industrial 11.6%) in relation to the rest of the City, means that a large percentage of those people within the district that are employed, have to travel outside the district to access employment, often at great cost.

Socio-economic issues:

- It is a district characterised by predominantly middle to lower income development, both residentially and commercially. There are a number of pockets of extremely poor communities within the district.
- Poorest communities reside in numerous informal settlements scattered across the district, as well as formal areas such as, inter alia, Nyanga, Manenberg, Hanover Park, Lavender Hill and Parkwood.

Economy and Development:

- There is concentration of established employment centres in the northern areas of the District, associated with east west movement routes. The larger and commercial areas are located along Klipfontein Road and the western portions of Lansdowne Road.
- Emerging economic centres are beginning to gain momentum in the central parts of the district, again associated with key east west movement routes such as Ottery Road and Wetton Road. However, there is a clear pattern of fewer economic activities and opportunities being present in the southern portions of the district, where east west connectivity across the district is constrained (Pelikan Park, Strandfontein).
- The agricultural economy within the Cape Flats district, largely accommodated within the Philippi Horticultural Area (PHA) is under significant threat as a result of a combination of limited land use management, systematic degradation of the rural environment and speculative land banking.
- A significant component (whist difficult to quantify) of the Cape Flats economy 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 numerous transport interchanges. 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 PHA, there are a number of conflicting economic land uses, namely agriculture and horticulture existing alongside illegal service industries such as motor mechanics, transportation companies and panel-beaters/spray-painters. As a result the core farming area is being degraded and rural economy being further undermined.
- In some areas (such as the greater Strandfontein area), there is land zoned for commercial/retail which is poorly located in terms of being off major movement routes, and having insufficient residential thresholds to support those land uses. This has resulted in poor take up of that land, as well as the failure of businesses that do locate there.
- Unrealised latent economic potential is common in parts of the district, particularly in the southern parts, where features of the natural environment with latent economic potential (eg False Bay Coastline, Zeekoevlei) are not capitalised upon. This is due to a range of factors such as poor accessibility, limited investor confidence, safety and insufficient thresholds for viable economic activities.

Movement:

- The limited employment opportunities in the district, means there are many who travel to outside the district to access employment. Whilst Jan Smuts/Strandfontein, as well as Vanguard Drive and Duinefontein Road offer reasonable north-south access between adjacent districts, east west travel, particularly in southern reaches of the district is a significant challenge. Despite reasonable east west accessibility in the northern reaches of the district via Klipfontein Road and Wetton/Lansdowne Road, east west movement is constrained by the railway line, as well as limited east west linkage across the Philippi Horticultural Area and False Bay Ecology Park.
- Many people in the district rely on the public transport system, which in particular requires development.

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:

- **Maximise nodal and corridor opportunities:** reinforce and support established concentrations of district economic activity within the Cape Flats District which hold competitive advantages, particularly along the Klipfontein Road and Jan Smuts Drive / Strandfontein where they can be accessed via key movement routes / public transport routes.
- **Facilitate better access:** improve access to economic and other opportunities in other parts of the City by facilitating efficient movement into other district's economic centres.

- **Improve public transport:** support the development of an efficient, integrated and complementary non-motorised and public transport network within and across the district.
- **Intensify development around nodes:** intensify development in proximity to the accessible existing economic centres to facilitate thresholds to support them. Also support greater social inclusion and more equitable access to economic and other (e.g., health, education, and recreation) opportunities by facilitating the development of a wider range, and greater number, of living opportunities.
- **Facilitate development of a range of economic opportunities:** encourage creation of new economic opportunities at locations with economic viability. Encourage diversity and 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 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 comprise a hierarchy of routes which provide varied, but complimentary roles in terms of accommodating a continuum of mobility and accessibility functions.

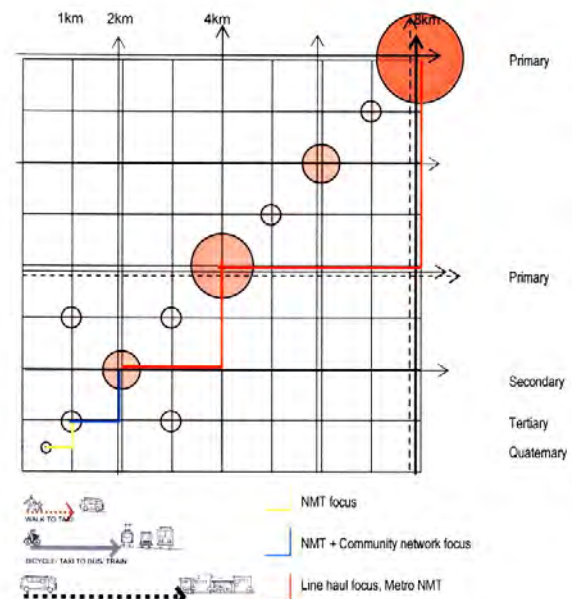


Figure 3.1: Accessibility Grid

The **primary accessibility grid** incorporates:

- **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.



Figure 3.2: Activity Route

- **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.



Figure 3.3: Development Route

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.

The hierarchical, multi-directional accessibility grid envisaged for Cape Town lays the foundation for the routing and service design of an Integrated Public Transport Network (IPTN) intended to place over 85% of the city's population within 1 km of a high-quality public transport system. The IPTN will inform a hierarchy of public transport services relating to the accessibility grid, including:

- A **rail service** that provides a high-performance, high-volume and safe public transport service, which will be the preferred mode of choice of long-distance commuters. Conceptually, this service should be provided at 8-16km intervals on a city-wide to district level - forming part of the *Primary* tier of the accessibility grid.
- A **road based trunk service**, provided by articulated and standard buses on dedicated and semi-dedicated right-of-way infrastructure that offers an 18-hour frequent and rapid service along major metropolitan and district level roads, and along development and activity routes – forming part of the *Primary* tier of the accessibility grid.

- A **community (feeder and distribution) service**, at 4-8km intervals, provided by standard buses and smaller vehicles, that feeds into the trunk bus and rail services. The community service will operate at a district to inter-suburb scale, along district-level activity routes and streets – forming the *Secondary* tier of the accessibility grid.
- **Pedestrian and cycle lanes** should be provided along public transport routes and around public transport stops, stations and interchanges to facilitate safe and convenient access to public transport services – forming the *Tertiary and Quaternary* tier of the accessibility grid.

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 E describes the relationship between the CTSD / district plan route designations and DoT, the PSDF and the City's hierarchical road classification network.

STRATEGY 1 - THE CENTRAL SPATIAL IDEAS

a) Cape Flats District: The multi-directional accessibility grid

The integration of rail and road movement network and easy accessibility to interchanges or points of access where the secondary accessibility grid (community/feeder public transport network) meets the primary grid (18hr public transport network) are central to the functioning of the district. The specific function of each of these routes should be reinforced to support the larger system, with a particular priority on good public transport, with rail as the backbone, and also including local non-motorised transport.

- In this context, the central spatial ideas in relation to the **accessibility grid** highlighted in the district spatial concept include: **The Wetton/Lansdowne Road Corridor:** The movement and access roles of the Wetton Lansdowne Road corridor are central to the functioning of the district. The corridor reflects the primary means of east west movement within and across the district, supporting and providing access to employment and social opportunities. It's role should be reinforced and emphasis placed on strengthening it's public transport function, intensifying land uses along it and improving the quality of the public environment (road-based public transport and NMT improvements, public space upgrading)
- **The Network of Development Routes:** a network of development routes is a system of arteries in the district and supports the primary east west corridor, further supporting and providing access to employment and social opportunities. It's role should be reinforced and emphasis placed on strengthening it's public transport function, intensifying land uses at key intersections and improving the quality of the public environment (road-based public transport and NMT improvements, public space upgrading). This system is further supported by a number of activity streets, offering access to local level economic and social opportunities.
- **Developing the East West Mobility Link:** Improving east west mobility linkage, particularly between the district and areas to the east and west is critical. This is achieved by the completion of the R300 extension. This includes access to the Southern District in particular. This will facilitate access to the economic and social opportunities offered by that district. In addition to the above, reinforcing the development of a **"secondary accessibility grid"** feeding local movement generators and the primary grid including:
 - o A system of local activity streets within the area.
 - o A range of other structuring routes which contribute to the completing the secondary accessibility grid;
 - o 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).

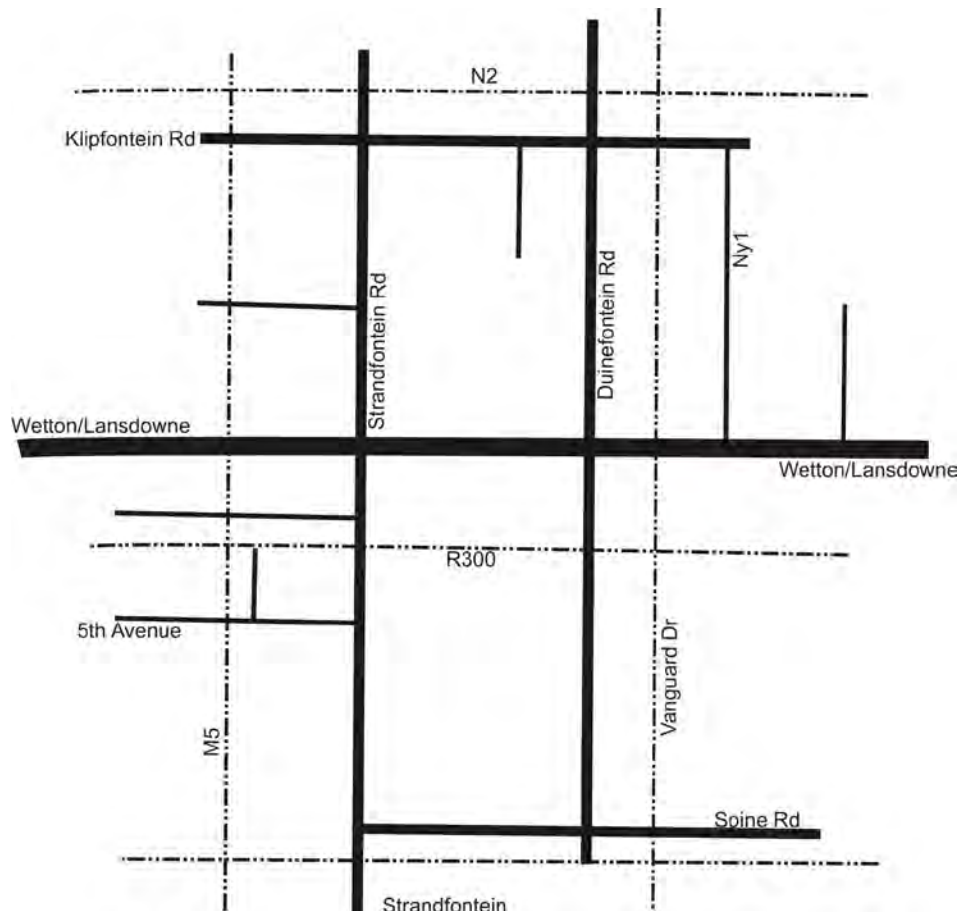


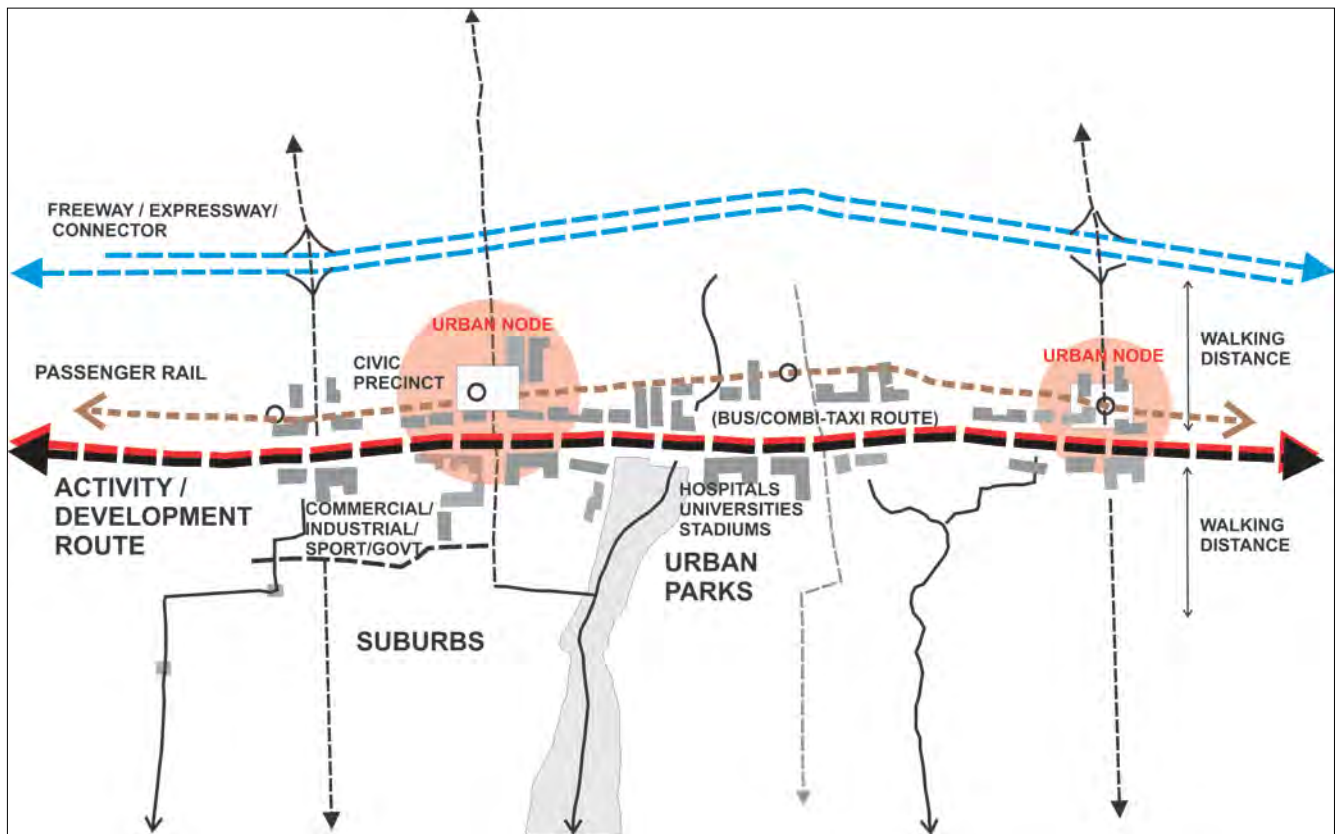
Figure 3.4: Conceptual accessibility grid for the Cape Flats District

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, especially 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 reinforced 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 3.5 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.

Figure. 3.5: Development Corridor concept



- 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 3.1). 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.

Table 3.1: Alignment and hierarchy of the accessibility grid and areas of intensification

Accessibility grid	Span	Associated development	nodal	Scale of operation	Areas of land use intensification
Primary	8–16 km	Metropolitan node		Citywide	Corridor/strip development/urban nodes
Primary	4–8 km	Sub-metropolitan 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 nodes		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 development routes and activity routes / streets. 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 others 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);
- areas associated with **transit stations (system of rail stations and the IRT trunk stations)** especially those which are a component of identified urban nodes. With regard to these areas, a typology of opportunities is proposed which considers the transport and land use role of the transit stations (rail and IRT trunk stations) and associated areas (comfortable walking distance from the station) in the broader urban system (see table below). Transit station areas that are associated with urban nodes as well as associated significant foot movement (based on their role in the transit system) are generally more likely to support more intense mixed use environments.

Table 3.2: Transit (Rail and IRT trunk) station precinct typology

Transit station area typology	Land use character / role	Intermodal connectivity	Structural urban position	Example station
Metropolitan station	High intensity land use mix (office, residential, commercial, civic and government)	Major intermodal connectivity and destinations	Generally associated with metropolitan urban node	Cape Town Station
Major urban station	Mix of office, retail, residential, commercial and public uses	Major intermodal connectivity	Generally associated with sub-metropolitan / district urban node	Wynberg Station
Employment station	Specific industrial / commercial uses and destination	Limited intermodal connectivity	Generally associated with industrial area.	Blackheath Station
Urban neighbourhood station	Local centre of activity, live, work, shop	Transit feeder station with parking	Generally associated with local urban node	Rondebosch station
Neighbourhood station	Primarily residential function.	Local transit feeder station with limited parking	Likely to reflect embedded position in urban fabric.	Harfield Station
Coastal station	Coastal amenity with surrounding residential / tourism / restaurant orientation.	Limited intermodal connectivity	Generally outlying areas with minor urban catchments.	St James Station

STRATEGY 1 - THE CENTRAL SPATIAL IDEAS

b) Cape Flats District: Areas of Land Use Intensification

The plan identifies the following as areas for intensification.

- **The Wetton/Lansdowne Road corridor as the primary area for intensification:** The Wetton/Lansdowne Road corridor should be the primary focus for intensification of land uses in the district. This will support public transport in the corridor and build on existing positive patterns of development.
- **A system of urban nodes and intensification along the accessibility grid:** it is proposed that the system of nodes be **strengthened along the accessibility grid**. This includes the most significant sub-metropolitan nodes, which are associated with particularly high levels of accessibility and exposure such as Athlone and Ottery, as well as lower order nodes such as Gatesville, Busy Corner, Gugulethu urban node and Strandfontein. In addition, the nodes and accessibility grid are further supported by mixed use intensification associated with the accessibility grid, including the consolidation of strip development areas (e.g. Lansdowne Road. Schaapkraal. Strandfontein south) and around rail stations.
- **Urban infill and urban renewal/upgrading:** Areas for new settlement growth include infill sites within the district and upgrade of informal settlements that are located on land suitable to urban development.
- **Local urban nodes in a “pedestrianized context”:** The establishment of a hierarchy of urban civic precincts/nodes of a district and local scale associated with the accessibility grid, rail stations and public transport interchanges hold potential for local economic development. In general these nodes should be promoted as areas for intensification local mixed use / commercial development. A priority is also placed on supporting the informal sector through appropriate upgrading interventions associated with structuring routes.

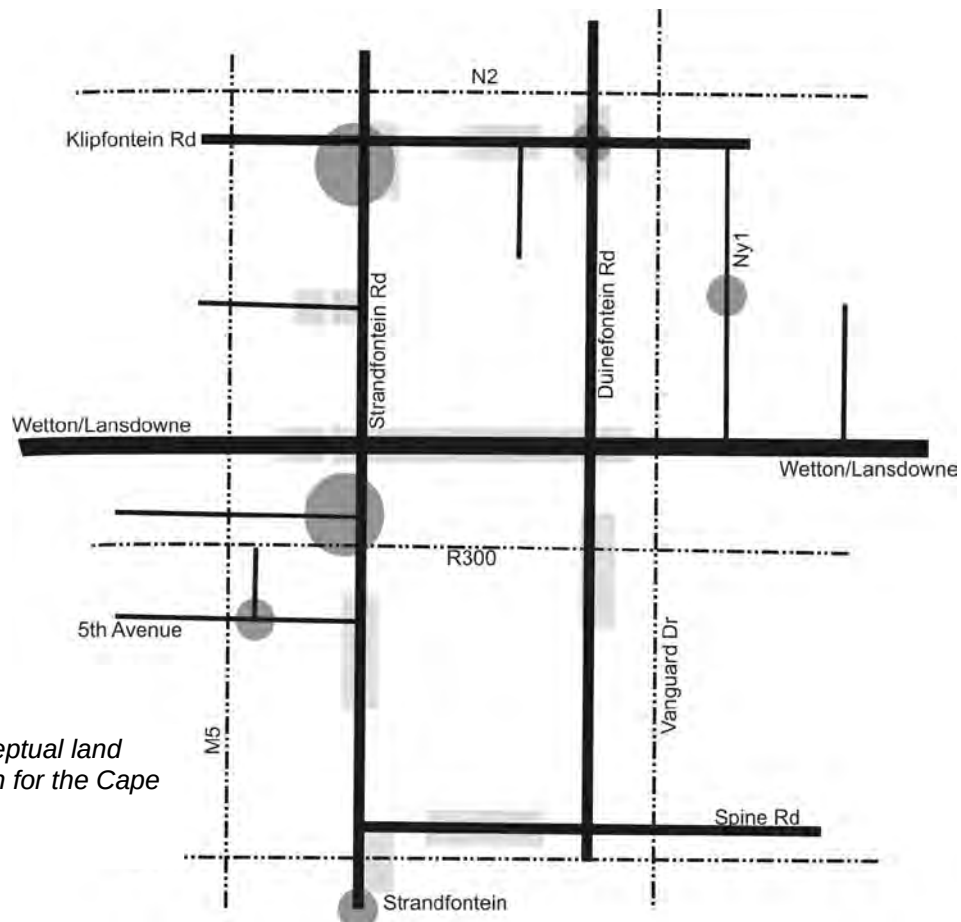


Figure 3.6: Conceptual land use intensification for the Cape Flats District

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

This strategy focuses on managing the pressures of urbanisation in a deliberate and coordinated manner and one that is environmentally sustainable.

3.2.1 Cape Flats now

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

Development:

- Significant demand for housing opportunities, as well as upgrading informal settlements.
- Development pressure on environmentally sensitive areas (eg False Bay coastline).
- Development pressure on valuable agricultural land (eg Philippi Horticultural Area).
- Areas such as Nyanga, Gugulethu and Lavender Hill present particular challenges in respect of the needs for urban development, including housing and a range of social/public facilities.

Environment

- Generally poor quality public open spaces, offering few opportunities for people to engage in passive recreational activities close to where they live, despite the district being endowed with a number of vleis and open space areas that could be potential sites for such activity.
- Pollution of aquatic systems, including rivers (most of which are canalised) and vleis, as well as the Cape Flats aquifer.
- 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 (Athlone, Pelikan Park, Manenberg, Strandfontein).
- The south eastern areas (vleis and wetlands), as well as the southern edge of the district (coastline) are characterised by natural environmental features that hold significant opportunity for development of recreational areas associated with them, yet suffer from severe underdevelopment of those areas of potential.
- Illegal dumping on open spaces in the district places further degrades open spaces within specific parts of the district (PHA; Nyanga/Gugulethu)
- In specific communities the combination of poor residents, high density urban settlement and lack of open space exists (eg Nyanga/Gugulethu, Lavender Hill, Manenberg). Informal settlement on public open space is also common in these areas, exacerbating the lack of active and passive recreational spaces in these areas.

3.2.2 What action is needed?

The following spatial objectives are aimed at addressing key spatial challenges relevant at a city scale in relation to proactively managing the natural and rural environment and urban growth. They include:

- Encourage urban development in appropriate locations and in areas of greatest need within the district.
- Protect the key resources of environmental and economic value by effectively managing and guiding urban development towards appropriate areas.
- Capitalise on areas where latent potential exists and support and enhance the natural environment and open spaces in these areas.

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 the proactively managing the natural and rural environment and urban growth:

- Encourage development of specific portions of the undeveloped land/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 Nyanga/Gugulethu).
- 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.
- Discourage/manage the use of open spaces as a dumping ground (Philippi Horticultural Area, Strandfontein, Pelican Park, Nyanga, Gugulethu).

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 CTSDf 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) and also the Cape Town Spatial Development Framework (CTSDf). 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). (see section 3.3.3)

STRATEGY 2 - THE CENTRAL SPATIAL IDEAS

a) Cape Flats District: Natural Assets

- **Protecting the False Bay Ecology Park and coastline as the major green anchor:** The False Bay Ecology Park and coastline represents the single biggest conservation and tourism opportunity in the district. The False Bay Ecology Park now formally protects a significant portion of this. However, the coastline needs to be assured of appropriate nature area management over the long term. It needs to be clearly reserved as both a recreational asset and as a danger zone buffer. Public access to and along the coastline should not be unduly compromised, and any development should be sufficiently set-back so as not to be subject to sea storm or flooding damage.
- **The Philippi Horticultural Area:** This forms a major green lung, centrally located within the City. It is also a significant productive horticultural area and holds pockets of biodiversity value. This area requires protection from urbanisation, and careful management of the land uses and activities thereon and also of their interfaces with urban areas.
- **The rivers or “blue-ways” and urban parks:** The conservation, enhancement, and sound management of the rivers (Big and Little Lotus, Vygiekraal) are critical to the sustainable functionality of the water system. It is also important to the overall interconnectedness and functionality of the district’s open space system, including associated urban parks/recreational activities (Cape Flats Urban Park, Nantes).



Figure 3.7: Natural Assets concept for the Cape Flats District

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.

Two types of development edges will be used to manage urban development: the urban edge and coastal edge.

- The **urban edge line**: 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.
- The **coastal edge line**: established to protect coastal resources, and to avoid hazards and financial risks pertaining to areas at risk of flooding.

Figure 3.8: Urban Edge concept

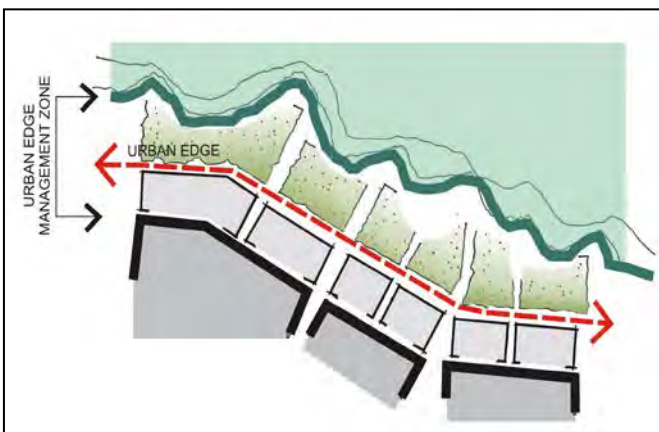
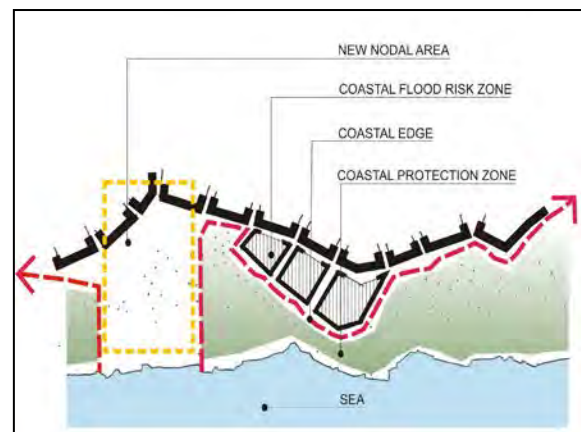


Figure 3.9 : Coastal Edge concept



STRATEGY 2 - THE CENTRAL SPATIAL IDEAS

b) Cape Flats District: urban and coastal edges

- **Urban and coastal edge – protection of natural assets**: The designation of edge lines is vital to the protection of natural resource areas (False Bay coastline, PHA) but also human habitation and activities (re- sea storms, sea and riverine flooding, and veldfires). An essential component of this is appropriate treatment of the urban interface areas.



Figure 3.10: Philippi Horticultural Area

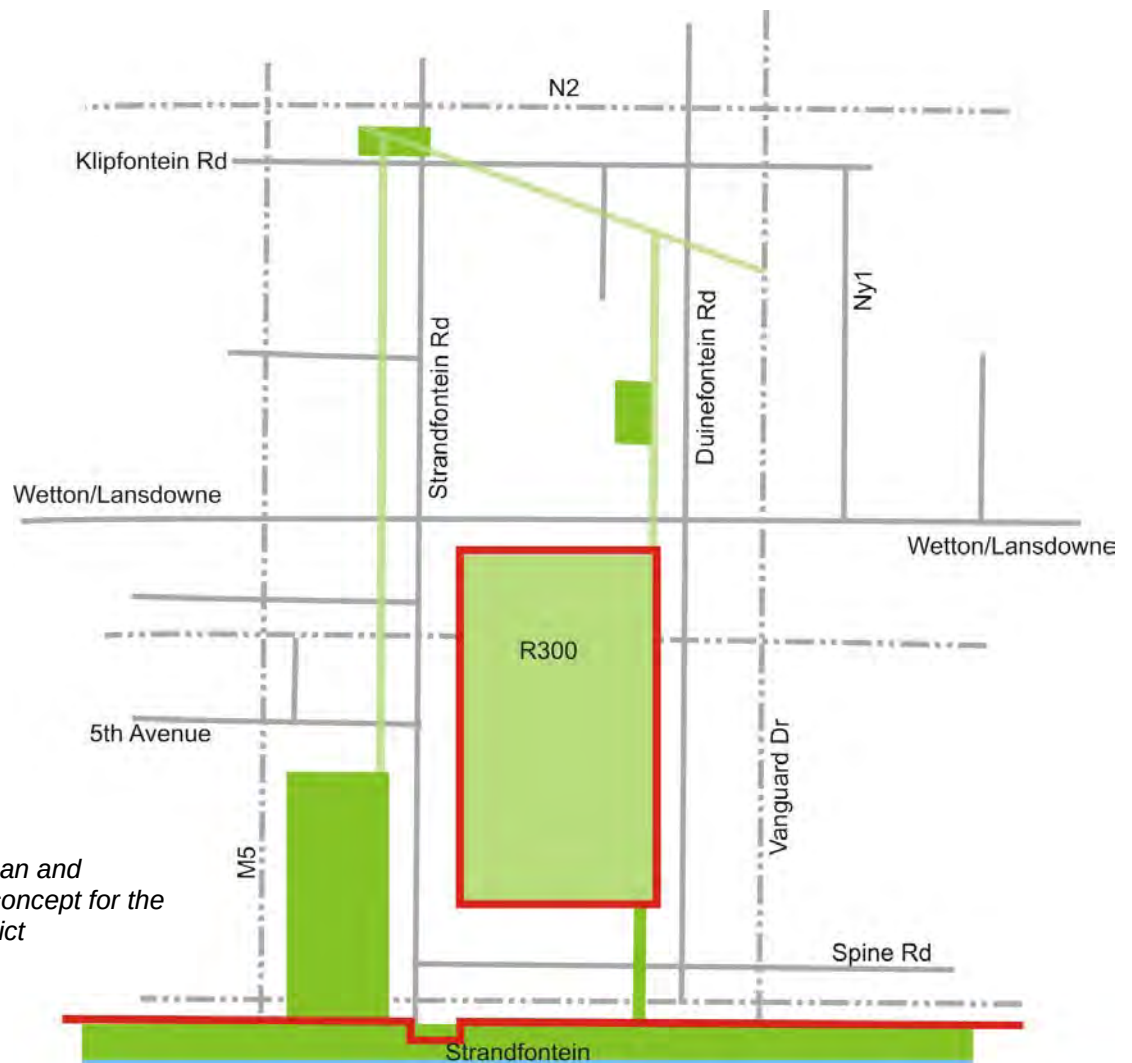


Figure 3.11: Urban and Coastal Edges concept for the Cape Flats District

c) Future urban growth areas:

Urban development should be directed away from significant natural asset resource areas (e.g. nature and agricultural areas, aquifer) 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).

STRATEGY 2 - THE CENTRAL SPATIAL IDEAS

c) Cape Flats District: future urban growth areas

- **New Development/infill areas as the focus:** Despite limited undeveloped land in this district compared with other growth areas in the City, the district offers well located new urban development opportunities in proximity to the accessibility grid (good public transport and access to work and social opportunities) in areas such as Ottery, Pelican Park and Strandfontein.

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

3.3.1 Cape Flats now

A number of challenges present themselves in respect of social facilities and services when considering the Cape Flats District in relation to the City of Cape Town as a whole, and include:

Low income residential development:

- The district faces a number of social challenges, ranging from levels of health and wellness which are the second worst of all districts within the City, to high crime levels including the second highest percentage of murders in the City.
- The district suffers from historic marginalisation in respect of investment in public facilities and services, which has tended to be perpetuated in the poorest residential areas in the district, particularly in the north eastern (Nyanga, Gugulethu, Heideveld, Manenberg) and south western (e.g. Lavender Hill, Vrygrond) quadrants of the district.

Amenity and Facilities:

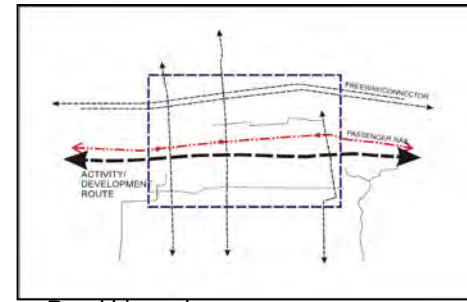
- There are limited opportunities for passive recreation in particular and often the poorest people live in areas which are densely developed with limited purpose developed places of recreation.
- There is a major gap in respect of public facilities/services, as well as areas for recreation in Nyanga/Gugulethu and Lavender Hill/Vrygrond.
- There is significant untapped potential for recreational facilities along the False Bay coastline and within the existing (underdeveloped) open space network. In particular, the edges of large water bodies (vlei and ocean), which offer significant opportunity, have received little attention in terms of facilitating public access and shaping them as places people can visit and enjoy (e.g. Zeekoevlei, Strandfontein coastline).
- Portions of undeveloped land and underutilised open space, ranging in size, not only amount to a waste of a valuable resource in a land scarce City, they also serve to fragment

the urban fabric, severing movement and creating isolated and unsafe pockets of land within the urban fabric (e.g. Ottery, Strandfontein, Pelikan Park).

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 (see also figure 3.12, right). 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 along the coastline and adjacent to large water bodies and within areas of unique natural value and character.
- Encourage focussed facilities provision in the area of greatest need, namely the north eastern and south western areas of the district, including Nyanga / Gugulethu.
- Consolidate and reinforce clustering of existing facilities in accessible locations.



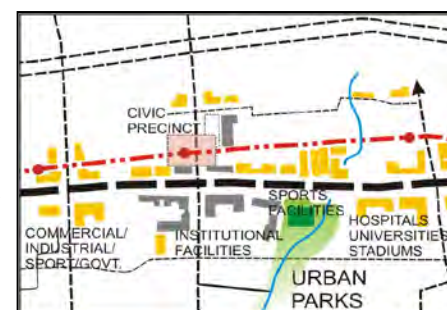
Road hierarchy



Interchange



Public investment



Private response

Figure 3.12. Building inclusive, integrated and vibrant living environments

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 (see Table 3.1). The civic precincts that are of citywide significance will by and large be located at the intersection of the primary grid, such as Bellville and Wynberg. 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.

STRATEGY 3 - THE CENTRAL SPATIAL IDEAS

a) Cape Flats District: Civic precincts

- **Reinforcing Athlone as the civic heart (higher order):** A key area of intervention in the district should be in Athlone, an area in decline for many years, but where arguably the greatest cluster of public facilities in the district is located. A focus on public area improvements in key areas, and links to the station and Klipfontein Road, should result in private sector response in regeneration of this area into the major urban node in the district.
- **Building on local civic precincts to support the pockets of need:** Civic precinct clusters should locate at identified nodes along the accessibility grid (e.g. Gatesville, Gugulethu, Hanover Park etc) guiding where any future public facilities should locate. Public area improvements in these precincts should result in attractive areas that direct private sector investment and activity in the district. Attention should also be given to civic precincts, such as at Nyanga and Lavender Hill that meet local area needs within walking distance for an increasing proportion of the district's communities.
- **New development areas** must accommodate new public facilities as part of their planning and implementation depending on the shortfalls experienced in that particular area.

b) Destination places

A destination place is a node, landmark or location that forms a significant point or area of attraction, and is part of the identity of Cape Town and the district. 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.

Table 3.3: Types of destination places

Destination place	Examples
Nature-based	False Bay Ecology Park, Nantes
Coastal-based	Strandfontein
Special / horticultural landscape	Philippi Horticultural Area

STRATEGY 3 - THE CENTRAL SPATIAL IDEAS

b) Cape Flats District: Destination places

- **The coastal jewel - Strandfontein:** This is an area with potential to accommodate large numbers of people and needs to be supported. It represents a beach and other recreational facilities which is highly accessible via public transport. Development on the sea side of the coastal edge line should focus only on recreational activities, which offers potential for private sector intensification responses in adjacent urban areas.
- **Nature area attractions:** Potential exists for considerable upgrade to facilities associated with other areas identified as natural assets in support of recreation and tourism for district and wider Cape Town communities (eg False Bay Ecology Park and Nantes). Within the natural areas themselves attention should focus on environmental enhancement and improved facilities, whilst urban development should focus on the adjacent urban interface areas.
- **Special places of cultural/heritage significance:** Places of cultural and historic significance that require conservation and enhancement within the district include primarily those in and around the Philippi Horticultural Area (PHA). Apart from its high agricultural production to the city, the PHA, and most importantly its urban interface areas, should become a local, district, and a metropolitan-wide attraction.



Figure 3.13:
Destination Places
concept for the
Cape Flats District

c) The 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 more intense urban environment.

Critical public links are identified as a component of the broader non-motorised transport network linking through these open spaces to significant destinations.

STRATEGY 3 - THE CENTRAL SPATIAL IDEAS

c) Cape Flats District: Structuring open space system and critical public links

- **District structuring open space:** In addition to the district's major natural asset areas such as the False Bay Ecology Park, coastline, rivers, vleis and wetlands, are district significant parks, sports facilities, school grounds and cemeteries. These are attractions to communities within the district and beyond. Their specific functions of each, as well as minor open space linkages between them, should be reinforced to support the greater open space system. Similarly, their role as areas of open space relief within the urban area should be exploited with intensified urban development and improved urban interfaces around them.
- **Critical Public Links:** Key open space public linkages should be developed to maximise public benefit from the extraordinary natural assets and other open spaces within the district. Continuous public footpath access should be realised along the coastline, and more especially between Muizenberg and Mrandi. Foot and cycle access within urban areas should be comprehensively developed across the district as part of the NMT plan and roll-out.

d) Integrated human settlement patterns

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 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.

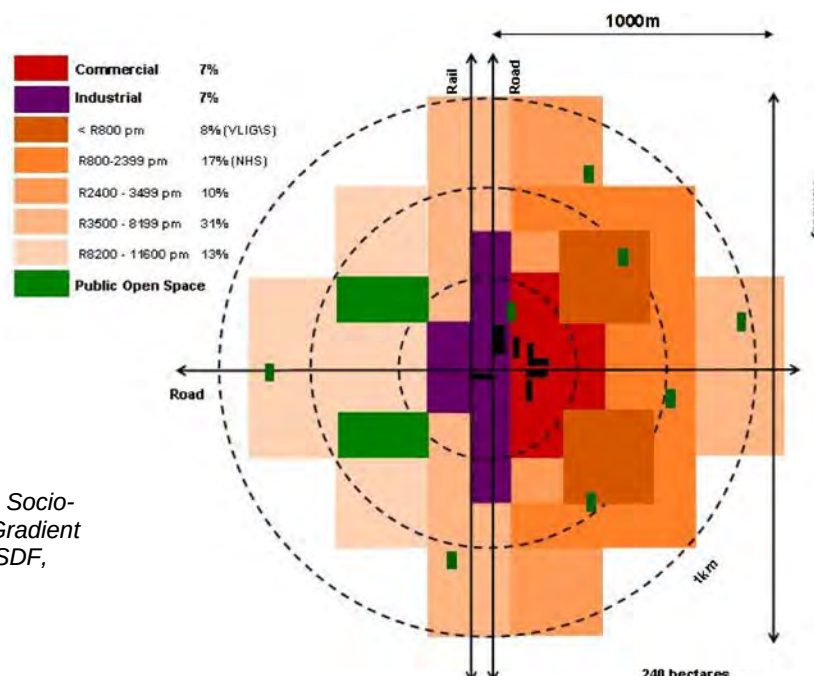


Figure 3.14 Socio-economic Gradient concept (PSDF, 2010).

STRATEGY 3 - THE CENTRAL SPATIAL IDEAS

d) Cape Flats District: Integrated settlement patterns

- **The infill pockets:** Those undeveloped areas within the urban edge which are suitable for urban development should be identified for such. These should in general be developed at slightly higher densities than their surrounding areas in support of a more compact city, but not to the detriment of the local area. Attention should be given to their potential role in addressing the imbalances in access to housing opportunities close to amenity and other opportunities. Public housing provision is most possible on state owned, and most particularly city-owned land, subject to access to public transport, work opportunities, and social facilities. In certain areas, on the other hand, it may therefore be more appropriate to focus less on on-site public housing and more on maximising financial contributions towards meeting public housing provision elsewhere (e.g. land banking).
- **Undeveloped areas within the district urban edge** which are suitable for urban development should be identified for such. These should in general be developed at slightly higher densities than their surrounding areas in support of a more compact city, but not to the detriment of the local area. Attention should be given to their potential role in addressing the imbalances in access to housing opportunities close to amenity and other opportunities. Public housing provision is most possible on state owned and most particularly city-owned land, subject to access to public transport and work opportunities
- **Promoting publicly assisted housing opportunities** in a manner that enables social and economic integration should be promoted on an on-going basis through social and inclusionary housing opportunities.

3.4 Synthesis: the Cape Flats District spatial concept and vision

The spatial concept for the Cape Flats district synthesises the central spatial ideas for the area. The key elements include:

- The Wetton/Lansdowne Road corridor and specifically the set of public transport oriented urban nodes along the accessibility grid as the primary areas for intensification of land use and access to higher civic precincts;
- The set of development route and activity street connections reinforcing these nodes, as well as the east west mobility link and strengthening access to the west and east;
- The green anchors incorporating the FBEP and PHA and defined by the urban edge, the urban parks and the linear river systems as “blue-ways”.
- The scenic network of coastal and natural destination places,

These elements have contributed to the spatial vision for the district which reflects the desired spatial outcome for the area in the context of the broader City spatial development vision. It is an idea that is specific to this district, and a response to the particular development issues faced in the area. It has been informed by a number of vision elements and principles which are a result of the consultation process as well as processes related to formulation of the SDP.

The Cape Flats district is a strategic part of the City as it has grown to be well located in terms of proximity to various economic opportunities and facilities in the City (eg. the coast, the mountain and rail line to the west). As such this area, despite its relatively limited areas of undeveloped land, it is an area where infill, densification and the associated upgrading of infrastructure should be prioritised to support this growth.

The district is also home to certain critical though unrealised assets of metropolitan importance including the Philippi Horticultural Area, the False Bay Ecology Park and the potential Cape Flats

metropolitan park. The future safeguarding and enhancement of these assets is crucial to the future role of the district in the City. The district also presents a set of developmental challenges, with a number of areas suffering from a lack of investment and access to social opportunities.

The following identifies both the **strategic role** of the district in relation to the broader metropolitan area as well as what the principal **risk factors** are that could potentially have major negative impacts in the district and which planning in the district must take into consideration:

Table 3.4. Strategic Roles and Risk Factors

CTSDF Strategies	Strategic role of the Cape Flats District	Principal risk factors in the Cape Flats District
Plan for employment and improve access to economic opportunities.	• Maximise corridor opportunities: maximise work, living, and public transport opportunities within the Main Road corridor and improve east-west accessibility linkages into it. • Develop tourism opportunities: support development of the massive local, national and international visitorship economic opportunities.	• Inadequate infrastructure: Urban growth and densification associated with inadequate public transport and limited road space is resulting in steadily increasing road congestion. Also, inadequate waste water management and treatment has the potential for major environmental collapse and health hazards.
Manage urban growth and create a balance between urban development and environmental protection.	• Enhance special natural and cultural environments: protect and enhance the globally unique scenic, biodiversity, and urban character assets.	• Sea level rise: Certain areas are already at risk and significant further areas are predicted to be at risk. These are mainly low lying urban areas on the False Bay coastline. • Veldfires: These are closely associated with the life-cycles of fynbos vegetation and their propensity (and necessity) to burn regularly.
Build an inclusive, integrated and vibrant city	• Increase access to quality living environments: facilitate wider access into high amenity residential areas on the basis of sustainable development principles.	• Land invasion: Many large natural and open space areas relatively close to employment opportunities means the risk of land invasion is high.

Acknowledging the role of this district in the metropolitan context and how it needs to contribute to broader, city-wide planning objectives is vital. Its strategic role is to focus primarily on the following:

- **Maximise corridor opportunities:** maximise work, living, and public transport opportunities within the Wetton/Lansdowne Road corridor and improve east-west accessibility linkages into it.
- **Facilitate east west mobility:** support the further development of east west mobility linkage to ensure efficient intra and inter district accessibility.
- **Development opportunities:** support development of the valuable urban development opportunities which are located close to social and economic opportunities.
- **Enhance special natural and cultural environments:** protect and enhance the unique scenic and biodiversity assets.
- **Increase access to quality living environments:** facilitate the enhancement of underdeveloped residential areas on the basis of sustainable development principles.

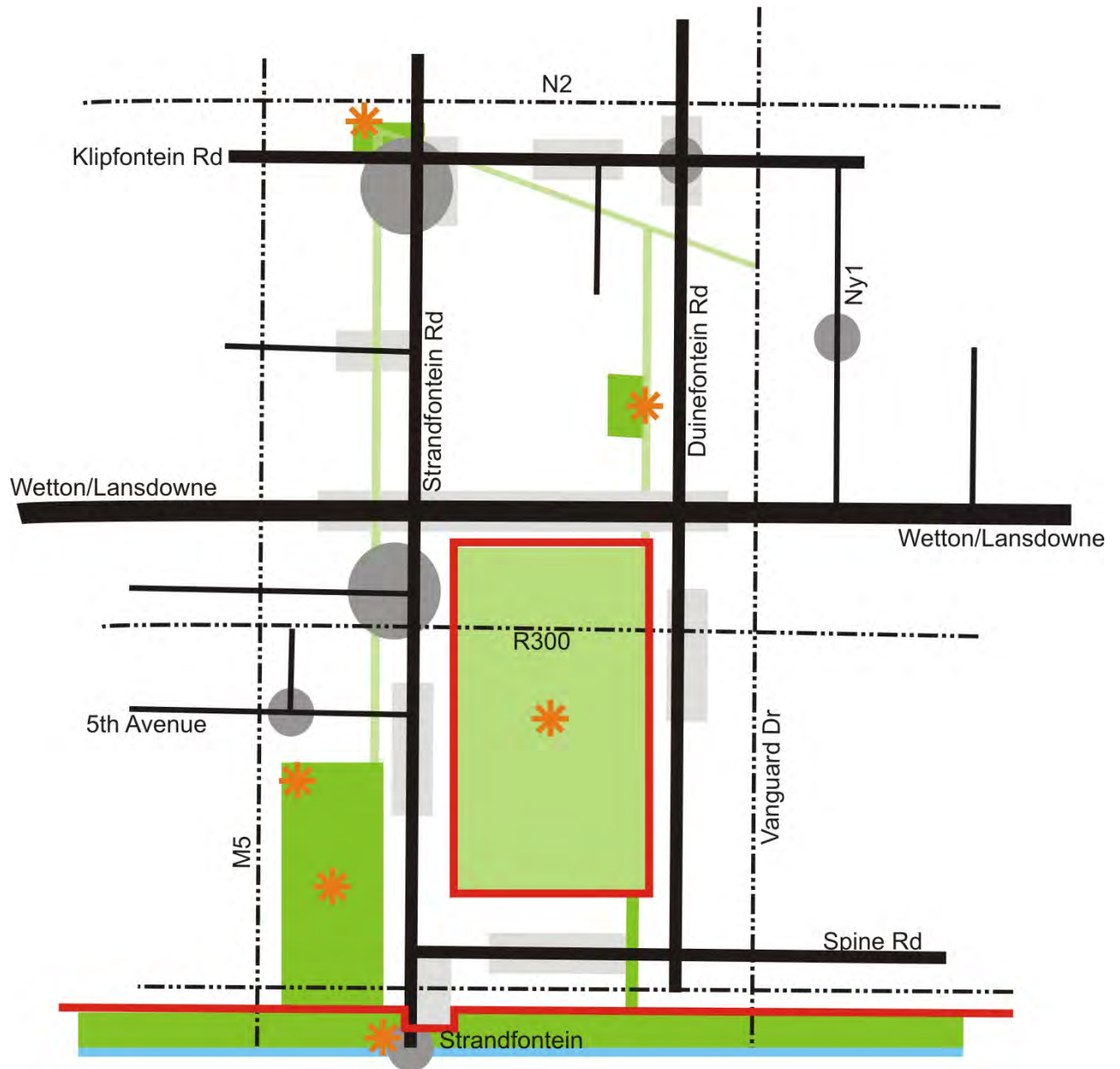


Figure 3.15: Spatial concept for the Cape Flats District

4. SPATIAL DEVELOPMENT PLAN

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 Cape Flats 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 composite plan is the application of the conceptual framework and structuring elements to the Cape Flats district at a greater level of detail.



Figure 4.1 Application of Conceptual Framework to Spatial Plan

The District plan comprises 5 broad types of categories:

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

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 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 Cape Flats 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. Additional categories, commensurate with the greater level of planning detail, are included (e.g. other structuring open space, mixed use intensification, and cemeteries). The SPCs specify the inherent land use suitability of the city's environmental, cultural, and urban landscapes.

Table 4.1: Spatial Planning Categories (SPCs)

Spatial planning category	District elements	District development guidelines	Relevant CTSDF policies
a. Core 1	Core 1 areas comprise the majority of the 'green' areas in the southern areas of the district, incorporating the coastline, major wetlands, as well as the south eastern reaches of the Philippi Horticultural Area (PHA). This includes: - False Bay Ecology Park (Rondevlei Nature Reserve & Zeekoevlei Nature Reserve), & Edith Stevens Wetland Park - False Bay coastline biodiversity areas, south eastern corner of PHA - South eastern portions of the PHA.	- Activities in these areas should focus on conservation use with conservation management activities (e.g. alien clearing, research) encouraged. - In general, low impact activities such as passive recreation (e.g. 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). - Where possible, all new utility infrastructure, services and structures should be located outside of these areas. - Formalised reserves and sites (e.g. False Bay Ecology Park, including Rondevlei Nature Reserve & Zeekoevlei Nature Reserve, and Edith Stevens Wetland Park) should be regarded as 'no-go' areas and no further development of any kind should be permitted without a detailed assessment of the impacts. - Further subdivision of these areas should generally be discouraged and consolidation encouraged. - 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. - New development inside the urban edge (line) that potentially impacts on areas of high biodiversity importance should only be considered under exceptional circumstances, or where social and economic imperatives merit consideration of development in parts. Such development should then be sensitive to biodiversity considerations affecting these areas. - Where biodiversity corridors are located within proposed urban areas the extent of the biodiversity corridor is indicative and precise configuration should be determined through relevant land use and statutory processes including, but not limited to a local development framework as part of future land use applications	Policies 1 and 25-27 Actions: Conserve remnants of sensitive and threatened vegetation types, such as Cape Flats Sand Fynbos, Cape Lowland Freshwater Wetland, Cape Flats Dune Strandveld and establish green corridors along the coast, connecting the Cape Flats District to the high biodiversity areas of the Southern District.
b. Core 2	Core 2 areas comprise a relatively small part of the 'green' area in the district. They incorporate all rivers and vleis and include: - Little Lotus River - Big Lotus River - Kromboom, Blomvlei and Vygekraal streams.	- Activities in these areas should focus on conservation use with conservation management activities (e.g. alien clearing, research) encouraged. - In general, low impact activities such as passive recreation (e.g. 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). - Establish and maintain appropriate river and wetland buffers and prevent inappropriate land uses in these areas. - Encouraging positive interfaces (e.g. through building orientation, permeable fencing) between abutting development and open space systems. - Where possible, all new utility infrastructure,	Policies 1, and 25-27 Actions: Maintain and enhance ecological linkages, especially along river courses (such as the Little and Big Lotus Rivers as well as the Kromboom, Blomvlei and Vygekraal streams). This should include efforts to improve amenity value of

		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. flood-prone 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. 8. Where biodiversity corridors are located within proposed urban areas the extent of the biodiversity corridor is indicative and precise configuration should be determined through relevant land use and statutory processes including, but not limited to a local development framework as part of future land use applications	these areas (rehabilitation of riparian system, positive interfaces, open/public space upgrading).
c. Buffer 1	There are few Buffer 1 areas identified and they are concentrated in the southern parts of the District. These include: • Southern parts of the Philippi Horticultural Area • Small areas adjacent to the southern edge of the Philippi Horticultural Area (Strandfontein), as well as adjacent to eastern edge of the Mitchells Plain WWTW.	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.	Policies 24-27, 32, and 33
d. Buffer 2	There are very few (and very small) Buffer 2 areas identified within the District. These include: • False Bay Landfill Site • Existing coastal resort footprints (Strandfontein Coastal Resort, Bluewaters Coastal Resort) • Portions of Mitchells Plain WWTW	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.	Policies 25-27
e. Intensive agriculture High potential and unique agricultural land Agricultural areas of significant value	Intensive agriculture areas: high potential and unique agricultural land: This comprises a significant area in the district and includes the historic and valuable farming lands of the Philippi Horticultural Area. <i>Note: in 2012 a study is being undertaken to determine a detailed urban edge line in the</i>	1. Preserve and utilise the high potential agricultural land in the Philippi Horticultural Area. 2. Adhere to identified urban edges around the periphery of high-value agricultural areas to prevent urban intrusion 3. Encourage activities that reinforce primary agricultural use of these areas. 4. 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.	Policies 25, 28, and 31-33 Actions: • Determine a clear urban edge and urban-rural interfaces around the PHA • Discourage land uses that would threaten

	<i>Schaapkraal Smallholdings and Environs, as well as prepare development guidelines for areas on either side of that urban edge. Part of the outcome of this study will include advertising for amendment of the CTSDf.</i>	5. Limit (residential) development to existing zoning rights for agricultural land in these areas. 6. Discourage further sub-division of agricultural land. 7. 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.	the viability and quality of the Cape Flats Aquifer. • Where feasible and sustainable, extract mineral resources (sand) prior to development • Investigate a better mechanism (than a structure plan into LUPO) to protect the PHA
f. Other structuring open space	District wide network of other structuring open space	1. In general, avoid development of these areas in a manner that would compromise open space linkage. 2. Encourage development to respond to and promote opportunities for linkage between identified structuring open spaces in developed areas. 3. 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. 4. Subject to contextual informants, medium density development (e.g. 2/3 storey development) along open space interfaces could be considered to improve passive surveillance. 5. Safety and security should be considered in the upgrading, landscaping or development of public open spaces. 6. Where contextually appropriate, consider commercial activities such as small cafes, kiosks and restaurants that will enhance the open space. 7. 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.	Policy 41
g. Urban development	General (all areas)	1. These areas should be considered for a wide variety of urban uses such as housing development, public open spaces, community facilities, mixed use / business development (where appropriate), but should not include noxious industrial uses. 2. Sites indicated for urban development, but which also fall within identified precautionary areas should take into account associated district development guidelines. 3. Sites indicated for urban development, but where potential impact may occur with natural ecosystems (e.g. critical biodiversity areas) should be subject to EIA processes which take into account principles for dealing with development proposals in these areas of potential impact (see annexure B). In the Cape Flats District these include: • Youngsfield • Strandfontein Coastal Node • Strandfontein East • Capricorn Extension	Policies 1-50
	Existing developed urban areas	4. Support the incremental densification of urban areas over time (where appropriate). This should be guided by available infrastructure capacity, neighbourhood density and character, proximity to job opportunities and social facilities, and access to public transport. 5. Consider the existing character and heritage value of areas of significance (as may be reflected in detailed policies) as an informant to development	Policies 1-50, 41, and 45

	and redevelopment proposals. New development areas / new urban infill: • Youngsfield • Lansdowne Road Industrial Area • Ottery Road • Pelican Park Phases 1 & 2 • Pelican Heights • Strandfontein East • Prince George Drive • Capricorn Extension • Strandfontein Coastal Node • Rondebosch east • Erf 8448 & Mau Mau	6. Acknowledge and respect the surrounding urban environment and develop accordingly. This includes considerations relating to neighbourhood density and character, and access to public transport, job opportunities and social facilities. 7. In general, support the development of new development areas at higher densities than those which exist in these locations, but with due regard for appropriate transition to surrounding areas. 8. Develop utilising the principle of socio-economic gradient. 9. Particular design attention should be given in applications to interface areas between existing development and new development areas, especially where urban character may be impacted or where the socio-economic gradient is steep. 10. Support the appropriate development of identified new development areas subject to infrastructure availability and in line with requirements for provision of associated social facilities and recreational spaces.	Policies 39-42 Actions: • Pursue liaison with SANDF on the future of Youngsfield (or parts thereof).
	Informal Settlements	11. Support incremental upgrading and formalisation of existing formal settlements that are identified as appropriate to remain as urban areas according to the criteria for categorisation of informal settlements (see section 6.1). 12. Support for incremental upgrading and formalisation should also apply to areas where backyard shacks are widely prevalent. 13. Limit expansion of informal settlements into identified precautionary areas (e.g. flood prone and veldfire risk areas), sensitive environmental areas such as high visual impact areas or biodiversity network areas (usually identified by the urban edge in this district), or high value agricultural areas.	Policy 36
h. Mixed use intensification	• All business areas associated with identified urban nodes • Business strip areas, including along Klipfontein Road, Jan Smuts Drive / Strandfontein Road, Duinefontein Road (between the N2 and Lansdowne Road), Spine Road, Wetton / Lansdowne Road, 5th Avenue Grassy Park, Lansdowne Road, Victoria Road, Belgravia Road, NY1, Emms Drive • Business complexes	1. Generally, support mixed use intensification as indicated, subject to any local guidelines and bulk service and transport infrastructure availability. 2. Promote an appropriate interface between these mixed use areas and adjacent residential areas through the use of sensitive design and informed by local level guidance and plans where applicable.	Policies 11-16, 20, 22 and 39-42
i. Industrial development	• Lansdowne Road Industrial Area • Capricorn Park Industrial Area • Nerrisa Estate • Ottery Gardens • Athlone Industria • Primrose Park • Sand Industria • Hanover Park Industria • Ottery East	1. General industrial uses should generally be supported in these areas. 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 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. . 4. Industrial development is generally limited in the district and should be protected against (further) commercial or residential creep or intrusion. 5. Given the relatively small industrial areas and fine grain of those in the district, encourage the	Policies 4, 5, 7, 8, and 16,

		development of specialised high value small and medium-scale light industrial activities within the existing industrial areas. 6. Where proposed new industrial areas are surrounded by dense residential development, consideration has to be given to the social, health and safety impacts of proposed industries.	
j. Cemeteries	• Gugulethu • Ottery • Muizenberg • Klip cemeteries • Vygekraal • Pooke Road • Gloria Memorial Park	1. Support continued use of cemeteries for this purpose. 2. Support the utilisation of parts of older cemeteries (such as Muizenberg, Gugulethu) for other social and recreational activities (e.g. memorial gardens, public parks) subject to further exploration.	Policies 41 and 47

* list is not exhaustive

4.2 Transport infrastructure and route designation

Transport infrastructure is reflected indicating selected elements of the district-wide movement system. In alignment with the CTSDf, the Cape Flats 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 / district plan route designations and DoT, the PSDf and the City's hierarchical road classification network.

Table 4.2: Transport infrastructure and route designation

Transport infrastructure and route designations	District elements	District development guidelines	Relevant CTSDf policies
a. Activity routes	• Wetton / Lansdowne Road (between Nyanga and Ottery)	1. Support the functioning of Wetton / Lansdowne Road as an activity route through encouraging its public transport role. 2. In general, intensification of land use along most sections of Wetton/Lansdowne Road is appropriate in close proximity to the route and subject to sub-district and local area policy guidelines where relevant. 3. Greater intensification of land use, including mixed use development, is proposed along highly accessible sections of this route. 4. The process of land use intensification along the route must consider the nature of access roads, additional traffic impacts, and parking requirements. 5. In general, development should front onto the activity route, active street interfaces should be encouraged and large extents of blank walls should be avoided. 6. Civic upgrades, landscaping and NMT provision should be made as and where appropriate to ensure quality streetscapes. 7. A wide range of facilities and services that are supported and shared by communities should be encouraged. 8. Where open spaces intersect with the corridor, the	Policies 3-4, 10-11, 13-16, 35 and 39

		former should be retained and enhanced in order to develop the 'green' network, and also contribute to a variety of uses along the corridor.	
b. Activity streets	• Lansdowne Road (between Wetton and M5) • 5th Avenue (Grassy Park/Lotus River) • Victoria Road • Belgravia Road • NY1 • Emms Drive	1. Support the functioning of these routes as activity streets through encouraging their role as community service public transport routes, 2. Whilst these routes are not likely to reflect the same level of intensity of land use as activity routes, higher intensity land uses, including mixed use development should be supported at high accessibility areas. 3. The process of land use intensification along these streets must consider the nature of access roads, additional traffic impacts, and parking requirements. 4. In general, development should front onto the activity street, active street interfaces should be encouraged and large extents of blank wall should be avoided. 5. Direct access onto these streets from abutting properties is generally supported, but should be consolidated where possible. 6. Civic upgrades, landscaping and NMT provision should be made as and where appropriate to ensure quality streetscapes. 7. A wide range of facilities and services that are supported and shared by communities should be encouraged. 8. Where open spaces intersect with the street, the former should be retained and enhanced in order to develop the 'green' network, and also contribute to a variety of uses along the street.	Policies 3-4, 10-11, 13-16, 35 and 39
c. Development routes	• Klipfontein Road • Jan Smuts Drive / Strandfontein Road • Spine Road • Duinefontein Road (between the N2 and Lansdowne Road)	1. These routes should continue to perform a primarily mobility function. Their role as structuring routes providing improved access and movement continuity between districts and between distant work and living areas should be reinforced. 2. In general, intensification of development should be promoted to support line haul public transport, but this should be concentrated at identified nodal points. 3. The process of land use intensification along these routes must consider the nature of access roads, additional traffic impacts, and parking requirements. 4. Direct access onto these routes from abutting properties is not supported. Instead, limited access, with a focus on high access nodal points, should be permitted, and where necessary service roads should be developed. 5. Mitigation of the impact of the road's dominant mobility function (including design efforts to slow traffic) may be appropriate at high intensity nodal areas. The route between these nodes should remain primarily mobility orientated through residential areas, with appropriate landscaping and adherence to the boundary walls policy. 6. Civic upgrades, landscaping and NMT provision should be made as and where appropriate to ensure quality streetscapes.	Policies 3-4, 10-11, 13-16, 35 and 39
d. Urban freeways	• M5 • Vanguard Drive • N2 • R300	1. In general, the mobility role of these routes should not be compromised.	Policies 6, 10 and 14-16
e. Connector routes	• Baden Powell Drive • Sheffield Road • Strandfontein arterial • Cape Flats expressway • Military Road extension	1. In general, support the dominant mobility role of these routes. 2. Development along connector routes which are also indicated as scenic routes should take related guidelines into account (see below).	Policies 10 and 14-16
f. Other structuring routes	• Kromboom Road/College Road • Calendula/Cornflower	1. The characteristic mix of predominantly residential function and character but interspersed with small mixed use areas, as well as mix of mobility and	Policies 10 and 13

	/Blossom Road • Petunia/Bosduif Road • Racecourse/Turfhall Road • Terminus Road • NY78/Moeli Road • Hanover Park Avenue • The Downs/Lonston Road • Plantation Road • De Wet Road • Hyde/Acacia/Lake Road • Klip Road • Dennegeur Avenue	activity functions should remain and generally be contained in their current forms. 2. The role of these routes as (in many cases future) significant community service public transport routes should be reinforced. 3. 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. 4. Civic upgrades, landscaping and NMT provision should be made as and where appropriate to ensure quality streetscapes.	
g. Railway infrastructure	• Cape Flats line • Portion of the Mitchells Plain line • Link between the Cape Flats and Mitchells Plain lines (between Philippi and Ottery (east west) conceptual alignment)	1. Retain existing passenger rail lines for public transport right of way. 2. Adopt a precautionary approach to alienation of land associated with freight rail. 3. Retain the opportunity for new public transport right of way links associated with proposed rail corridors.	Policies 9-18
h. Integrated Rapid Transport (IRT) trunk routes	(None identified as yet).	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). 2. Ensure public transport infrastructure is complimentary to the identified land use and development role of the route. 3. Any future redevelopment of these roads (designated Activity Routes, Development Routes, and Activity Streets), 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.	Policies 9-18
i. Scenic routes	SR 1 routes: • Baden Powell Drive SR 2 routes: • None identified	1. In general, development along scenic drives and routes should seek to retain views from the route and avoid negatively affecting the character of the landscape through which it passes. 2. Any redevelopment along scenic drives and routes should focus on landscaping improvements to the (public and private) areas abutting the road. 3. Land use management decisions should be guided by the Scenic Drive Network Management Plan (Vol 3, 2003) or subsequently approved management plans.	Policy 48

* 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. Land use and form implications may be detailed through local area plans.

Table 4.3: Conceptual Designations

Conceptual designations	District elements	District development guidelines	Relevant CTSDf policies
a. Urban	Sub-metropolitan urban	1. In general, support high intensity mixed use	Policies 3-4, 10, 16 and

nodes	nodes: • Athlone CBD • Ottery	development (e.g. office, retail, residential), the extent of which should be guided by relevant city/district and local area policy guidelines. 2. In general, support residential densification in line with the provisions of the City's densification policy (2012) and sub-district / relevant local area development guidelines. 3. Support a more flexible position to parking provision and related departures in these nodes, where well served by public transport.	22
	District urban nodes: • Gatesville CBD • Vangate • Gugulethu • Strandfontein Coastal Node • Busy corner	1. 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. 2. In general, support residential densification in line with the provision of the City's densification policy (2012) and sub-district / relevant local area development guidelines. 3. Support a more flexible position to parking provision and related departures in these nodes, where well served by public transport.	Policies 3-4, 10, 16 and 22
	Local urban nodes: • Kromboom • Heideveld • Hanover Park • Manenberg • Nyanga • Lotus River • Strandfontein	1. In general, support locally appropriate mixed use development. 2. In general, support locally appropriate residential densification in line with the provision of the City's densification policy (2012) and sub-district / relevant local area development guidelines. 3. Support a more flexible position to parking provision and related departures in these nodes, where well served by public transport.	Policies 10, 16 and 22
b. New coastal nodes	• Strandfontein	1. Support a mix of urban development within the identified coastal urban edge line. This is an area with potential to accommodate large numbers of people, but is a constrained development area. Thus reasonably high intensity development should be promoted. 2. Development on the sea side of the coastal edge line should focus only on recreational activities, but this must be sensitive to coastal processes, including sea level rise and wind-blown sand, as well as biodiversity concerns (particularly for biodiversity corridor linkage). 3. Private sector intensification responses should be focussed on adjacent urban areas. 4. Particular attention should be given to the urban – natural interface area.	Policies 1, 7, 23, 27, 48 and 50
c. Transit station areas	Metropolitan station	1. See metropolitan nodes	Policy 10 Actions: • Explore where significant park and ride opportunities exist across the district to support greater rail patronage and decreased reliance on cars.
	• None		
	Major urban station:	2. See sub-metropolitan or district urban nodes as relevant.	
	• Athlone		
	Employment station	3. Promote intense development focussing on employment (e.g. industrial uses) and where contextually appropriate local mixed use development.	
	• Ottery		
	• Wetton		
	Urban neighbourhood station	4. Promote appropriate mixed use development (e.g. including local retail development) and densification in line with guidelines for the associated urban nodes and areas for mixed use intensification.	
	• Nyanga	5. Retain opportunities for park and ride (including shared parking opportunities), subject to local assessments and transport planning.	
	Neighbourhood station	6. Allow for moderately scaled densification where appropriate in a manner that is sensitive to existing preservation worthy character and subject to infrastructure availability.	
	• Heideveld	7. Retain opportunities for park and ride, subject to local assessments and transport planning.	
	• Lansdowne		
	• Crawford		
	• Hazendal		
	Coastal station	8. Support appropriate local mixed development that compliments the coastal role of the station, particularly those that are tourism gateways.	
	• None	9. Adopt a precautionary approach to enhancement	

		of development rights in station areas that are subject to the impacts of sea level rise.	
d. Civic precincts	Higher order civic precincts: Generally associated with metropolitan and sub-metropolitan urban nodes including Athlone Business District, Gatesville Business District, Gugulethu urban node and Ottery urban node.	- Support the development and improvement / upgrade of higher order public facilities / facility clusters and public spaces at the identified higher order civic precincts. - Where feasible, link the development of civic precincts to the redevelopment of business districts through public-private partnerships.	Policies 41, 47 and P50
	Local civic precincts: Generally associated with district and local nodes.	Support the development and improvement / upgrade of local public facilities / facility clusters and public spaces at the identified local civic precincts.	
e. Destination places	Coastal-based: - Strandfontein pavillion Nature-based: - False Bay Ecology Park - Nantes Precinct - Rondevlei - Cape Flats urban park - Philippi Horticultural Area	- Promote greater recreational and tourism opportunities at destination places, particularly where potential exists for significant improvement, as at Strandfontein and Nantes. - Appropriate development opportunities in the adjacent urban areas should be associated with these improvements. - Support the retention and improvement of public access and recreational opportunities associated with further development of destination places. - Support the maintenance and enhancement of the character of natural, recreational, and / or heritage aspects of recreational and tourism nodes.	Policies 1 and 50
f. Critical public links	See section 6.1.1 (C)	- Any development should ensure that critical public links are maintained. - Uninterrupted public access along river corridors and green belts are essential. - Informal pedestrian links should be formalised/upgraded wherever possible to provide for safer and better quality pedestrian environments.	Policy: 13

* list is not exhaustive

4.4 Development edges

Development edges are lines defining the outer limits of urban development for a determined period of time. In the Cape Flats District these are usually resource or hazard protection lines that should be maintained in the long term.

Table 4.4: Development Edges

Development edges	District elements	District Development Guidelines	Relevant CTSDF policies
a. Urban edge	Philippi Horticultural Area urban edge	- Land beyond the urban edge line should not be used for urban development. - Promote development form which supports positive urban edge conditions with due regard for local considerations (e.g. fire risk, visual impact). - The urban edge in Cape Flats District is considered a long-term edge line, where the line has been delineated in a position to protect natural resources.	Policies 22, 23, 25, 26, 28 and P33
b. Coastal edge	False Bay coastal edge	- Land on the seaward side of the coastal edge line should not be used for urban development. - At identified destination places, such as at Strandfontein coastal node, amenity opportunities on the seaward side of the coastal edge line could be considered to enhance its tourism and recreation role. This should not negatively affect the coastal	Policies 22, 23 and 25-27

		environment and processes. 3. Outside of destination places, only low impact activities are appropriate within the coastal protection zone (i.e. seaward side of the coastal edge line), for example conservation and restoration activities, passive recreation and tourism, essential coastal environmental management activities, as well as sustainable harvesting of natural resources. 4. Encourage development form which reflects a positive urban interface with the coastal protection zone. 5. Reference should be made to the EMF's coastal and dune zone for further guidance around the desirability of specific activities.	
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* list is not exhaustive

4.5 Precautionary areas and utility service infrastructure installations 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 (e.g. urban development) as depicted by the risks related to the identified precautionary areas may place certain restrictions on development (e.g. in terms of use, density, form).

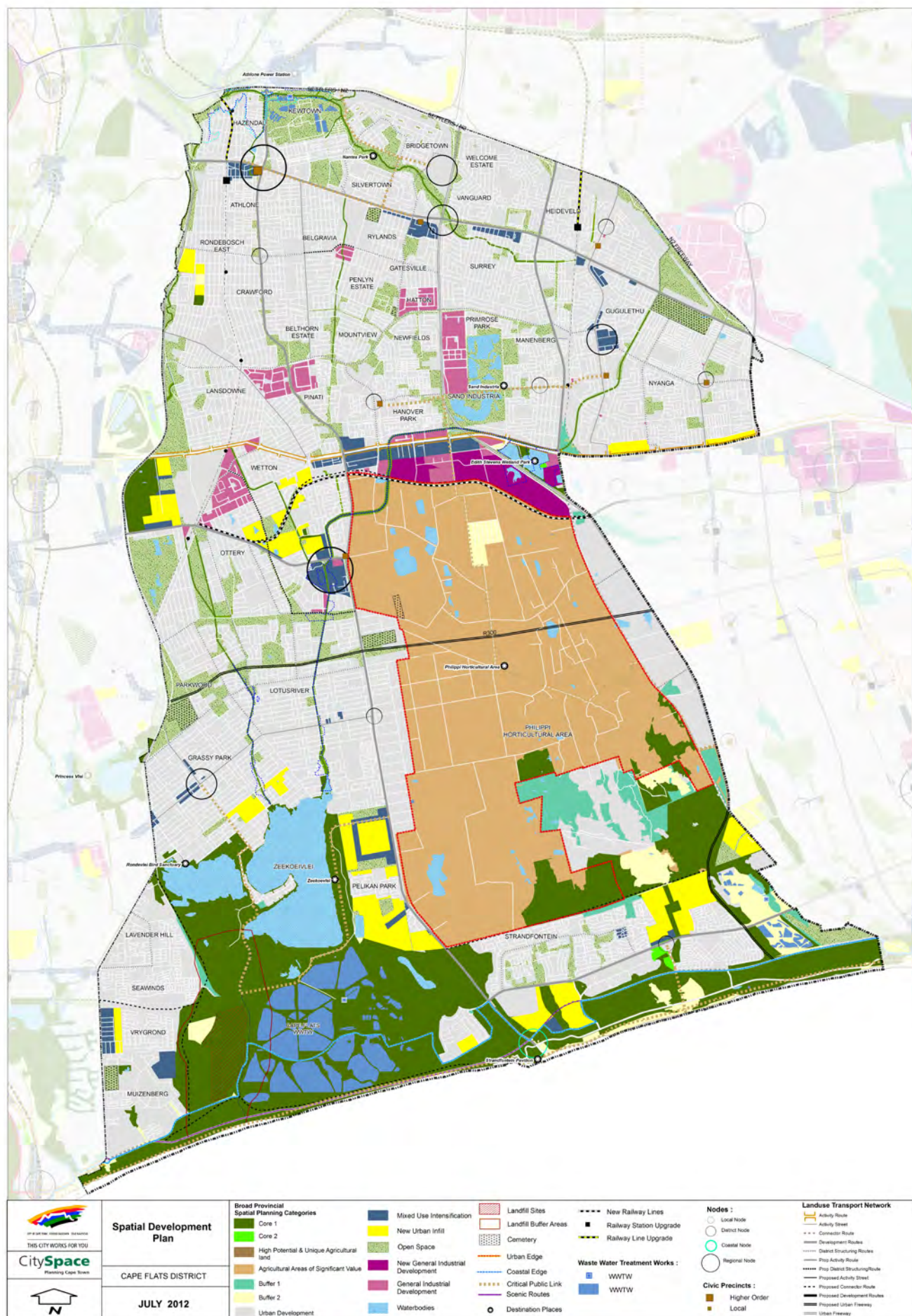
Table 4.5: Precautionary areas and utility service infrastructure installations and networks

Precautionary areas and utility service infrastructure installations	District elements	District development guidelines	Relevant CTSDF policies
a. Flood-prone areas	• Bokmakierie • Edith Stephens	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	Policy 24

		pollution.	
b. Coastal flood risk areas	• Muizenberg East as identified in the Coastal and Dune EIM Zone	1. Where possible, avoid major new urban development infrastructure and bulk services investment in coastal areas that are vulnerable to coastal storm events and inundation. 2. Appropriate emergency planning must be formulated for any development within coastal flood risk areas, including flood warnings, evacuation procedures and routes. 3. Where development proposed in these areas requires new or amended land use rights, the desirability of which is guided by this district plan and relevant policy, such development should reflect consideration of potential flood risks and include mitigation measures as may be deemed necessary by the relevant decision maker.	Policy 27
c. Landfill buffer zones	• Cape Flats landfill site	1. Environmental conditions in these areas should be monitored to maintain the appropriate buffer area around the landfill site.	Policy 24
d. Utility service infrastructure installations and networks	• Cape Flats WWTW • Athlone WWTW • Electricity transmission / powerline and utility / bulk services servitudes • Other bulk infrastructure	1. Where possible, all new infrastructure, services and structures should be located outside of patches of vegetation that have been identified as Core 1 and 2 areas. 2. In general, and in addition to the upgrade of existing installations, land within the structure plan 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, wind turbine infrastructure and for telecommunications purposes, subject to any necessary environmental authorisations. 3. 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 authorisations and taking visual impact into account. 4. Where feasible, new electrical power lines should be located or planned for underground through existing urban areas or new development areas. This infrastructure should avoid or at worst be sensitively located in relation to areas of scenic or visual significance (e.g. associated with scenic drives / routes). 5. In general, support the use of bulk service servitudes for uses such as public open space, and urban agriculture.	Policy 24
e. Landfill sites	• False Bay landfill site and associated buffer zone	1. Residential development is not permitted within the False Bay landfill buffer zone. 2. Ensure development in the False Bay landfill buffer zone is compliant with the operational licensing requirements of the landfill site.	

* list is not exhaustive

Figure 4.2: Spatial Development Plan



5. ENVIRONMENTAL MANAGEMENT FRAMEWORK

5.1 Introduction

The following section describes the Environmental Impact Management Zones (EIMZ), which must be considered in planning, development, 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 includes 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 contain 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 environmental impact management tables should be read together with the accompanying EIM Zone maps¹. 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). 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 and the NEM: Air Quality Management Act. Reference should also be made to section 38 of the National Heritage Resources Act.

¹ The District Planning Office must be contacted for finer scale maps that enable the placement of individual properties relative to the EIM zones.

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 in a number of EIM Zone maps as shown in figures 5.1 – 5.6 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.

Please turn the document around (landscape) to facilitate reading of the following section.

Table 5.0: Cape Flats District: Overview of EIM Zone Maps

ZONE MAP NUMBER	Figure 5.1	Figure 5.2	Figure 5.3	Figure 5.4	Figures 5.5a) and b)	Figure 5.6
ZONE MAP NAME	<i>Hydrological Zone</i>	<i>Coastal and Dune 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 • Flood Risk Area 1 (1:50 flood line) • Flood Risk Area 2 (1:100 flood line) • Flood Risk Area 3 Rivers, Estuaries and Wetlands • Rivers and associated buffers • Wetlands and associated buffers Aquifers • Highly productive aquifers • Moderately productive aquifers • Important groundwater recharge areas	Coastal Protection Areas • Coastal Protection Zone Dune Areas • Sensitive dune fields	Conservation and Biodiversity Areas • 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 • Cultural landscapes • Existing proposed urban heritage / conservation areas • Potential archaeological sites • Scenic Routes Public Open Spaces • Structuring Open Spaces	High Potential Agricultural Areas • Agricultural area of significant value given existing use • Agricultural area of significant value given potential and emerging use • Smallholdings and agricultural areas Mineral Extraction Areas • Priority mineral resources	Industrial and Commercial Areas • Industrial areas • Commercial areas Infrastructure and Utilities Areas • Infrastructure servitudes, including WWTWs

5.2.1 Hydrological Zone

SUMMARY OF STATUS

The pollution and degradation of rivers, wetlands and groundwater systems within the Cape Flats District, and the Western Cape in general, are critical issues. All of the rivers in the Cape Flats District, but particularly the Big and Little Lotus Rivers, have lost most of their natural riparian habitat and their environmental functioning has been seriously compromised (see Pollution and Waste Management in Volume 1). Rivers have been degraded by pollution from agricultural and urban stormwater run-off, treated effluent from WWTWs and new industrial areas, extensive canalisation as well as infestation by invasive alien fish and vegetation. The two major wetlands in this District, Rondevlei and Zeekoevlei, are also degraded, as they receive the polluted runoff carried by the Big and Little Lotus Rivers. The quality of the groundwater contained in the Cape Flats Aquifer is also not pristine.

ENVIRONMENTAL MANAGEMENT PRIORITIES

Management Priority	Priority area of focus
1. Enhance and restore	Improve river systems (particularly the Little and Big Lotus Rivers as well as the Kromboom, Blomvlei and Vygekraal streams by providing further detention pond facilities, de-canalising the rivers and introducing natural vegetation where possible (to filter contaminants).
2. Retain and protect	River corridors, vleis, wetlands and the services provided by them (water purification, assimilation of contaminants, conveyance of stormwater and flood attenuation)
3. EIA requirements	- 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. - Activities abstracting large volumes of water from major aquifers must demonstrate that such abstraction is sustainable. - 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.
4. Monitor and manage impacts	- Complete and regularly update mapping of flood prone areas. - Implement measures to prevent E.Coli contamination of rivers and wetlands (Zeekoevlei, Big Lotus River). - Implement the rehabilitation programme proposed for Zeekoevlei and Rondevlei, - Regularly monitor water quality in Zeekoevlei and Rondevlei as well as at the WWTWs (Athlone & Cape Flats) - Control illegal dumping – particularly where runoff will affect water systems - Control groundwater abstraction rates to prevent intrusion of saline waters - Manage reed growth where it becomes problematic - Remove alien vegetation (Zeekoevlei, the Little and Big Lotus Rivers). Restore indigenous riparian vegetation - Develop an action plan to obtain further information on the state of the Cape Flats Aquifer and means to protect it.
5. Research and Educate	Maximise use of rivers, wetlands and vleis for appropriate recreational and educational purposes

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: HYDROLOGICAL ZONE. Refer to Figure 5.1.

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 5.1 a): 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.....</i> NOTE: ALL ACTIVITIES LISTED AS UNDESIRABLE ARE PROHIBITED IN TERMS OF THE FLOODPLAIN AND RIVER CORRIDOR MANAGEMENT POLICY (2009).	- 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 exchanges 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 e.g. prisons, military bases, police stations, fire stations, hospitals, old age homes. - Informal residential area. - Railway stations, modal interchanges 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. - Industrial activities. - Service stations.	- 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.	- 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, estuary or stream or cause erosion)	- City of Cape Town's Floodplain and River Corridor Management Policy (2009) - City of Cape Town's Policy on Minimising the Impact of Stormwater from Urban Development on Receiving Waters (2008) - City of Cape Town's Policy for Development Control near Water (2002)

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 Areas 2 <i>These constitute areas within the 1:100 flood line, i.e. where 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).	• Bulk infrastructure, including WWTWs, pump stations and power generation, electrical substations. • 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	• Conservation related facilities or infrastructure. • All excavation and mining related activities. • Roads and railways. • Transmission towers • Formal 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, infilling) • 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. • Agri-industrial activities. • Resorts • Parking areas	• 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). • • Agricultural activities. • Sustainable harvesting of natural resources.	
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, collection of stormwater or runoff in low lying areas.</i>	• Activities can be considered in conjunction with the implementation of appropriate engineering solutions to localised potential flooding.	• Activities can be considered in conjunction with the implementation of appropriate engineering solutions to localised potential flooding.	• Activities can be considered in conjunction with the implementation of appropriate engineering solutions to localised potential flooding.	

Table 5.1 b): Rivers, Wetlands and Estuaries: Buffer Areas

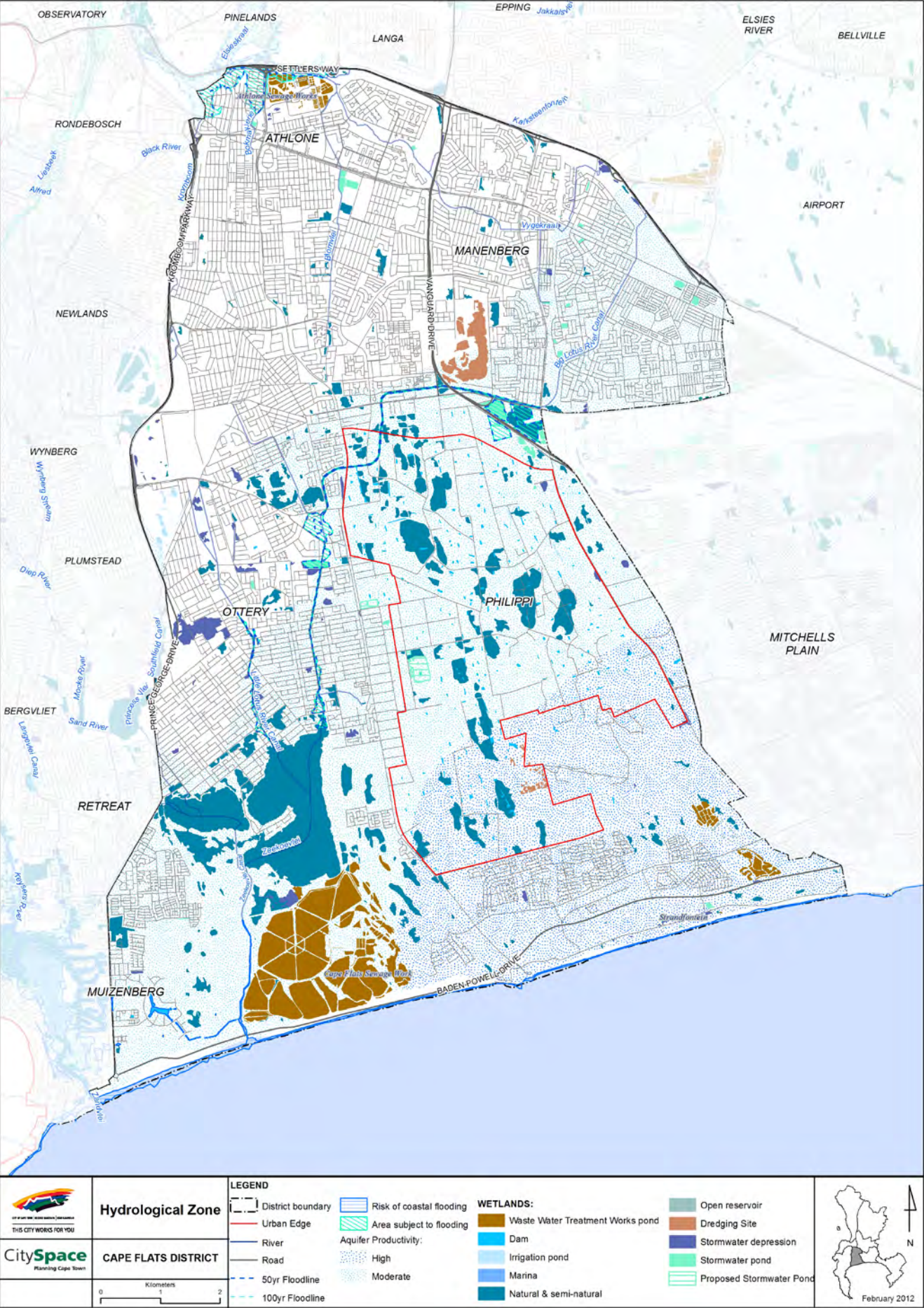
Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Rivers and Wetlands and their 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, 2009). River buffer widths range from 10 – 40m 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>	- Any land use or activity that will have an impact on the vegetation cover or hydrological functioning of the buffer area, including: - Industrial development; - Mining activities; - Business development; - Residential development; - Community and public facilities; - Utilities and infrastructure; - Agricultural activities; and - Transport systems and - Infilling / reclamation.	- 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.	- Conservation activities. - Public open space areas with appropriate low-impact recreation activities. - Where applicable, appropriate boating activities	- City of Cape Town's Floodplain and River Corridor Management Policy (2009) - City of Cape Town's Policy on Minimising the Impact of Stormwater from Urban Development on Receiving Waters (2008) - City of Cape Town: Prioritization of City Wetlands (2009) - City of Cape Town Biodiversity Strategy
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Table 5.1 c): Aquifers

Environmental attributes	Undesirable types of activities	Types of activities that may have a significant impact	Types of 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>	- 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.	- Water abstraction. - Industrial activities. - Mining related activities and infrastructure. - Establishment of cemeteries. - Agricultural activities - Stormwater management by means of infiltration	- 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	- Department of Water and Environmental Affairs (DWEAs)'s Guideline for the Assessment, Planning and Management of Groundwater Resources in South Africa (2008) - DWEA Groundwater

Environmental attributes	Undesirable types of activities	Types of activities that may have a significant impact	Types of activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
			educational facilities). • Transmission towers and rooftop base stations. • Sustainable harvesting of natural resources.	Resource Directed Measures (2006) • DEAD&DP's Guideline for Involving Hydrogeologist Specialists in EIA Processes (2005) • City of Cape Town's Management of Urban Stormwater Impacts Policy (2009)
Moderately productive aquifers <i>This zone includes moderately productive intergranular, fractured and intergranular-and-fractured aquifers and is indicated on Zone Figure</i>	• N/A	• All activities can be considered in this zone, however the following activities may have a significant impact: – Manufacturing, storage, treatment, transportation or handling of hazardous substances. – Solid and liquid waste disposal. – WWTWs. – Mining activities. – Establishment of cemeteries. – Water abstraction. – Industrial activities. – Agricultural activities – Stormwater management by means of infiltration.	• 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. • Light industrial activities. • Roads, rail, pipelines and cables. • Transmission towers and rooftop base stations. • Sustainable harvesting of natural resources.	
Important groundwater recharge areas <i>This zone includes areas that are important in terms of high transmissivity and for recharge of the Cape Flats Aquifer.</i>	• Manufacturing, storage, treatment, transportation or handling of hazardous substances. • Heavy industrial activities. • Solid and unregulated liquid waste disposal. • WWTWs. • Any activity that can cause groundwater pollution or prevent the abstraction of water. • Agricultural activities that make heavy use of agro-chemicals and groundwater for irrigation. • Overabstraction of groundwater.	• Sustainable water abstraction. • Residential development • Commercial development	• Conservation activities. • Conservation related facilities or infrastructure. • Public open space areas with appropriate recreation activities. • Sustainable harvesting of natural resources.	

Figure 5.1: Hydrological Zone



5.2.2 Coastal and Dune Zone

SUMMARY OF STATUS

The coastline of the Cape Flats District is predominantly sandy and hence particularly vulnerable to erosion. It is estimated that a sea level rise, of between 20 cm to 40 cm above current levels, may lead to (horizontal) erosion of the northern False Bay shoreline by 18 m to 35 m (Midgley *et al.*, 2005). A major dune system, with very sensitive habitats, is situated along this District's coastline. These dunes have been impacted on by a range of activities, including recreational use, road infrastructure, urban development and illegal settlements, sand mining and agriculture as well as invasive alien plants.

ENVIRONMENTAL MANAGEMENT PRIORITIES

Management Priority	Priority area of focus
1. Enhance and Restore	• Rehabilitate primary coastal dunes to act as a barrier against coastal inundation and storm damage
2. Retain and Protect	• Primary dune systems to act as a barrier against coastal inundation and storm damage. • Coastal Protection Zone
3. EIA requirements	• 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. • Development of coastal nodes must consider the functioning of the coastal ecological corridor in the EIA and implement measures to retain this functioning.
4. Monitor and manage impacts	• Prevent illegal sand mining • Monitor coastal erosion and dynamics, particularly along Baden Powell Drive • Remove alien vegetation and replace with indigenous vegetation where needed (particularly near Rondevlei and south of the Philippi Horticultural Area) • Baden Powell Drive lies within the coastal risk area below the coastal edge of the Cape Flats District and experiences problems such as sand blowing onto the road, especially south of the Cape Flats WWTW. Appropriate management or possible relocation of this road must be considered.
5. Research and Educate	• Establish clear coastal management responsibilities and increase skills & capacity within the CoCT to ensure effective management of the coast • Resolve issues of liability relating to development within the CPZ and communicate the findings to relevant staff and stakeholders • Maximise use of the coast for environmental education and recreation purposes

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: COASTAL AND DUNE ZONE: Refer to Figure 5.2

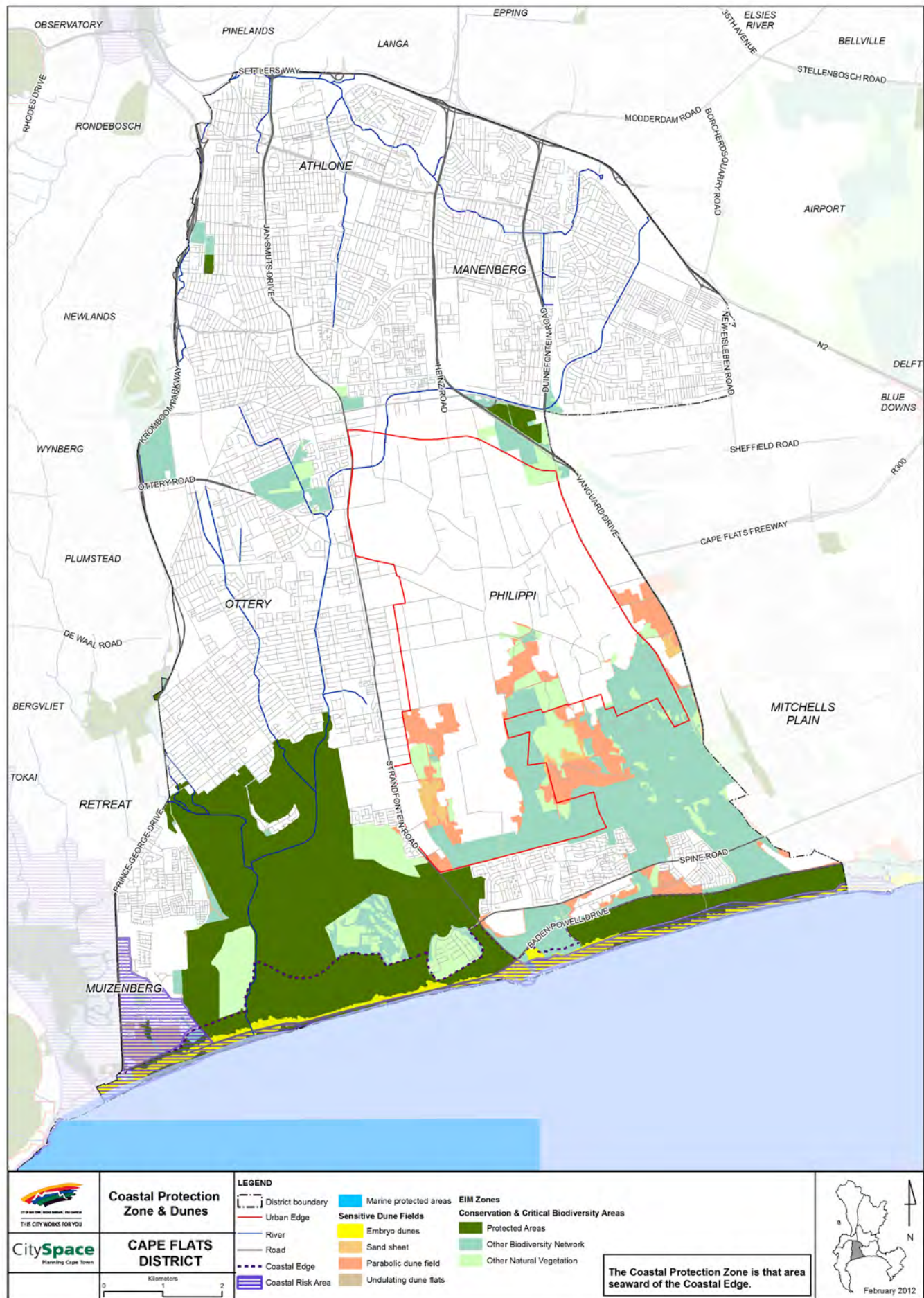
Table 5.2 a): Coastal Protection Area

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
Coastal Protection Zone <i>The coastal protection zone is delineated by the coastal urban edge line. It has been determined by the CoCT, using a number of parameters, including sea level rise, storm surge events, biodiversity, coastal access and other dynamic coastal processes.</i>	- Any activity which will impact on the coastal environment and natural coastal processes; including: - Bulk infrastructure, including WWTWs and power generation; - Manufacturing, storage, treatment, transportation or handling of hazardous substances; - Any permanent structure with foundations, including residential and tourism uses as well as canals, weirs and dams; - All excavation and mining related activities and infrastructure; - Transmission towers and rooftop base stations; - Cemeteries; - Agricultural activities; and - Outdoor advertising. - Any other activity entailing clearance of indigenous vegetation within 100 m of the high water mark.	- Tidal pools; embankments; stabilizing walls. - Infrastructure associated with marine and safety uses (e.g. lifesaving). - Essential engineering and utility services (outfalls). - Pedestrian walkways and trails. - Landscaping. - Environmental educational facilities. - Tourism facilities at identified nodes. - Renewable energy.	- Conservation activities. - Public open spaces with appropriate low impact recreation activities. - Essential activities required for the environmental management of the coastal area. - Sustainable harvesting of natural resources. - Where applicable, appropriate boating activities.	- DEA&DPs Coastal Zone Policy - Draft Delineation of the Proposed Coastal Protection Zone for the City of Cape Town: Draft Report (2009) - City of Cape Town Coastal Protection Zone Policy (in preparation 2010). - City of Cape Town Coastal Development Guidance for Cape Town Coastline into the Future (2007) - City of Cape Town's Management of Urban Stormwater Impacts Policy (2009) - City of Cape Town Biodiversity Strategy - National Policy for Sustainable Coastal Development in South Africa - Draft Coastal Zone Policy for the Western Cape
Coastal Risk Areas	These are areas that have been developed in the past, but which have been identified as being vulnerable to flooding. In most cases, they are located outside (inland) of the coastal edge. However, there are some pockets of developed or semi-developed land on the seaward side of the coastal edge which would also qualify as coastal risk areas. The City Of Cape Town will be developing a policy for the management of coastal risk areas. In all cases, a precautionary approach must be adopted and emergency planning for flood and storm events undertaken.			- City of Cape Town Energy and Climate Change Strategy - A Climate Change Strategy and Action Plan for the Western Cape, South Africa (2008)

Table 5.2 b): Dune 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
Sensitive dune fields <i>This zone constitutes sensitive dune fields, including embryo, linear, parabolic, sand sheet and transverse dunes.</i>	- Activities involving excavation and mining. - Activities restricting the natural movement of sand. - Activities which harden the surface and stabilise the dunes. - Activities which result in high traffic (pedestrian and vehicular) activity. - Any other activity entailing clearance of indigenous vegetation within 100m of the high water mark.	- Pedestrian walkways. - Landscaping associated with coastal and dune management.	- Conservation activities. - Public open spaces with appropriate low impact recreation activities. - Essential activities required for the environmental management of the coastal and dune areas.	- D:EA&DPs Coastal Zone Policy - City of Cape Town Coastal Zone Policy - City of Cape Town Coastal Development Guidance for Cape Town Coastline into the Future. - City of Cape Town's Management of Urban Stormwater Impacts Policy (2009) - City of Cape Town Biodiversity StrategyNational Policy for Sustainable Coastal Development in South Africa - Draft Coastal Zone Policy for the Western Cape.

Figure 5.2: Coastal Protection Zone and Dunes



5.2.3 Conservation and Biodiversity Priority Zone

SUMMARY OF STATUS

The City of Cape Town falls within the Cape Floral Region, one of the smallest but richest plant kingdoms of the world. Large parts of the Cape Flats District have been modified by urban development and agriculture. However, the district does contain remaining tracts of two Critically Endangered and one Endangered vegetation type, namely Cape Flats Sand Fynbos (one of South Africa's rarest vegetation types and exceptionally high in species diversity), Cape Lowland Freshwater Wetland and Cape Flats Dune Strandveld. These occur in vacant open spaces within the district, at Zeekoevlei and in the coastal dune area. The False Bay Ecology Park also accommodates a large number of resident and migrant birds and has been proclaimed an Important Bird Area. The Critically Endangered Barber's Cape Flats Ranger butterfly (*Kedestes barbeae bunta*) is found in an area near Strandfontein and is endemic to this District, with very few specimens left. Biodiversity in the Cape Flats is under threat from sand mining, continuing urban development, the expansion of agricultural areas, increasing fire frequency and infestation by invasive alien plant species.

ENVIRONMENTAL MANAGEMENT PRIORITIES

Management Priority	Priority area of focus
1. Enhance and Restore	Remnants of threatened vegetation types that are degraded but restorable
2. Retain and Protect	- Critical biodiversity areas and the associated wetlands and fauna - Habitat necessary to support the Critically Endangered Barber's Cape Flats Ranger butterfly (<i>Kedestes barbeae bunta</i>) near Strandfontein.
3. Monitor and manage impacts	- Control and remove alien vegetation, particularly in and near to the False Bay Ecology Park, and the dune fields near Muizenberg and Strandfontein as well as other areas in or near to priority biodiversity areas - Implement effective veldfire management strategies in line with the CoCT's Veldfire Management Guidelines - Control and prevent illegal dumping, particularly in and adjacent to biodiversity areas - Prevent the illegal removal of terrestrial and marine species - Control illegal sand mining, particularly in the coastal area and close to sensitive biodiversity areas.
4. EIA requirements	- New development inside the urban edge that potentially impacts on areas of high biodiversity importance should only be considered under exceptional circumstances, subject to compelling motivation and in consultation with the City of Cape Town's Biodiversity Branch - Specialist botanical input must be obtained for proposed new development inside the urban edge that potentially impacts on areas of high biodiversity importance. - 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. - 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. Best Practice - 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. • Note that unless the Biodiversity Network is secured elsewhere, other natural vegetation areas may become important if required as biodiversity offsets. • Note that the Cape Flats WWTW forms part of the False Bay Ecology Park and is an Important Bird Area.
5. Research and Educate	• Maximise opportunities for environmental education at False Bay Ecology Park, Edith Stephens Wetlands Park, Rondevlei as well as in biodiversity corridors that are proximate to residential areas and schools • Investigate potential for sustainable harvesting of medicinal and flowering plant species.

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: BIODIVERSITY: Refer to Figure 5.3

Table 5.3 a): Conservation and Biodiversity Areas

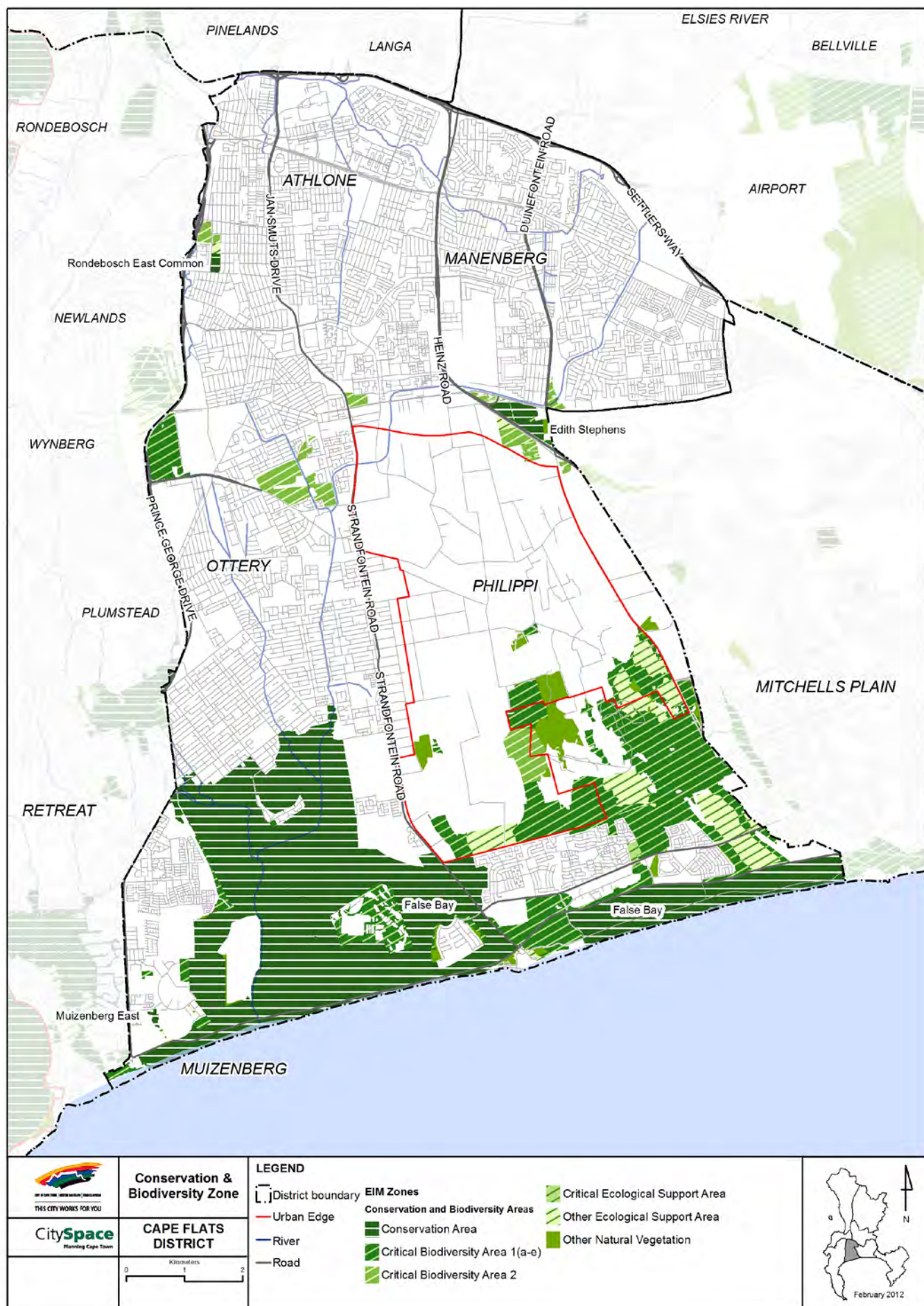
Environmental attributes	Kinds of developments, land uses or activities that would be undesirable.	Kinds of developments, land uses or activities that may have a significant impact	Kinds of development, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Protected Areas <i>This zone includes protected and managed biodiversity areas.</i>	• Any land use or activity that will have an impact on the vegetation cover or ecological functioning of the area, including: – 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.	• 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 3 hectares or more of indigenous vegetation.	• Conservation activities. • Activities necessary for the management of the conservation area/ reserve. • Hiking trails and walks. • Viewpoints for e.g. bird and whale watching.	• The Identification and Prioritisation of a Biodiversity Network for the City of Cape Town. • Biodiversity Strategy for City Of Cape Town • Reserve Sensitivity and Zonation Plans (June 2010) • City of Cape Town's Natural Interface Study: Veldfire Planning Guidelines (2004) • DEAD&DP's Guideline for Involving Biodiversity Specialists in EIA Processes (2005) • The Fynbos Forum's Guidelines for Environmental Assessment in the Western Cape (2005)
Critical Biodiversity Areas 1 <i>This zone encompasses</i>	• Any land use or activity that will have an impact on the vegetation cover or ecological functioning of the area,	• Conservation related facilities or infrastructure. • Essential roads, rail, pipelines and	• Conservation activities • Urban open space areas with appropriate low-impact recreation	• City of Cape Town

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 development, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
critical irreplaceable, minimum selection, consolidation and connectivity biodiversity sites i.e. Bionet categories CBA 1a–e.....	including: – Manufacturing, storage, treatment, transportation or handling of hazardous substances. – 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.	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 urban edge).	activities.	Biodiversity Network: C-plan and Marxan Analysis: 2009 Methods and Results Western Cape Provincial Spatial Development Framework: Statutory Report • A Climate Change Strategy and Action Plan for the Western Cape, South Africa (2008) • City of Cape Town's Management of Urban Stormwater Impacts Policy (2009)
Critical Biodiversity Areas 2 (Restorable Irreplaceable Sites) <i>This zone encompasses the irreplaceable restorable biodiversity sites i.e. Bionet category CBA 2</i>	• Any land use or activity that will have an impact on the vegetation cover or ecological functioning of the area, including: – 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 related activities. – Establishment of Cemeteries. – Abattoirs.	• 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 urban edge).	• 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 development, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Critical Ecological Support Areas (CESAs) <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> <u>Other Ecological Support Areas (OESAs)</u> <u>Transformed (e.g. extensive agriculture) sites with conservation importance</u> These sites are essential for management consolidation, connectivity and viability of biodiversity elements in CBA1, CBA 2 and Protected sites.	– Outdoor advertising. • Any land use or activity that will change the existing land use and /or harden the surface of the site, including: – 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.	• 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.	• Conservation and restoration activities. • Urban open space areas with appropriate low-impact recreation activities. • Pedestrian walkways and trails.	
Other Natural Vegetation <i>This zone encompasses other natural vegetation sites that do not fall into the categories discussed above..</i>	• Manufacturing, storage, treatment, transportation or handling of hazardous substances. • Industrial activities. • Mining related activities.	• Conservation related facilities or infrastructure. • Essential road, rail, pipelines and cables. • Essential engineering services relating to tourism facilities. • Pedestrian walkways and trails • Tourism facilities. • Institutional activities. • Residential and commercial development.	• 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 development, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
		• 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 5.3: Conservation and Biodiversity Zone



5.2.4 Cultural and Recreational Resources Zone

SUMMARY OF STATUS

German immigrants first settled in the area from the 1840s onwards and established a flourishing market garden enterprise, in which the Philippi Horticultural Area has its roots. The district also has historical attributes in that it typifies apartheid town planning. The area developed through the formation of racially segregated residential schemes, beginning in the 1930s and accelerating after the declaration of the Group Areas Act in 1950. Many of the people affected by forced removals were re-located to the area (Athlone, Parkwood Estates, Kew Town, Heideveld, Bonteheuvel, Gugulethu, Nyanga, Rylands, Belhar and Hanover Park that were reserved for 'coloured' and 'African' residents). The historical landscape of this district is changing due to development of new residential, industrial and commercial areas and the upgrading of existing areas. This new development serves to better integrate the spatially segregated townscape and to create opportunities for social and economic upliftment.

ENVIRONMENTAL MANAGEMENT PRIORITIES

Management Priority	Priority area of focus
1. Enhance and Restore	Replant tree avenues in the Philippi Horticultural Area
2. Retain and Protect	- Preserve structures representative of the Athlone wood and iron houses - Strengthen and promote farming in the Philippi Horticultural Area, in conjunction with the conservation of the historical agricultural setting - Protect and optimise natural open space resources and promote natural service systems over engineering solutions to provide urban ecosystem services such as stormwater management.
3. EIA requirements	- Authorisation of the activities must be in compliance with the requirements in the National Heritage Resources Act 25 of 1999 including impact assessment and for heritage resources. (Heritage Protections: S27 - provincial and national heritage sites, S28 – protected areas, S29 – provisionally protected areas, S30 – heritage register, S31 – heritage areas, S34 – structures over 60 years old, S35 archaeology, palaeontology and meteorite sites, S36 – burial grounds and graves, S37 – public monuments and memorials, S38 – development triggers for impact assessment) - A Heritage Overlay is being developed and will become part of the new Cape Town Zoning Scheme. Compliance to the CTZS will be required when it is in place. - Investigate heritage protections and heritage triggers applicable in terms of the National Heritage Resources Act. - Confirm the heritage processes required with the relevant heritage authorities and the City of Cape Town's district Heritage Resources Section office. - Investigate if any heritage surveys have taken place and whether there any heritage policies or guidelines for the area of the proposed development or the type of proposed development. - Consult relevant heritage brochures and guidelines for the area and type of work proposed. - Investigate whether the site has been identified on the City's inventory of heritage resources. - Undertaking of an appropriate level of heritage assessment is recommended for proposed developments, and in some cases may be a requirement of the relevant authority.

4. Monitor and manage impacts	Ensure that construction activities in special heritage areas comply with guidelines and regulations (e.g. the Springfield Road and Otter Road Precincts).
5. Research and Educate	- Investigate and map the location and significance of historical struggle sites within the district - Conduct more research into the location of heritage sites with respect to initiation sites, struggle sites etc

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: HERITAGE: Refer to Figure 5.4

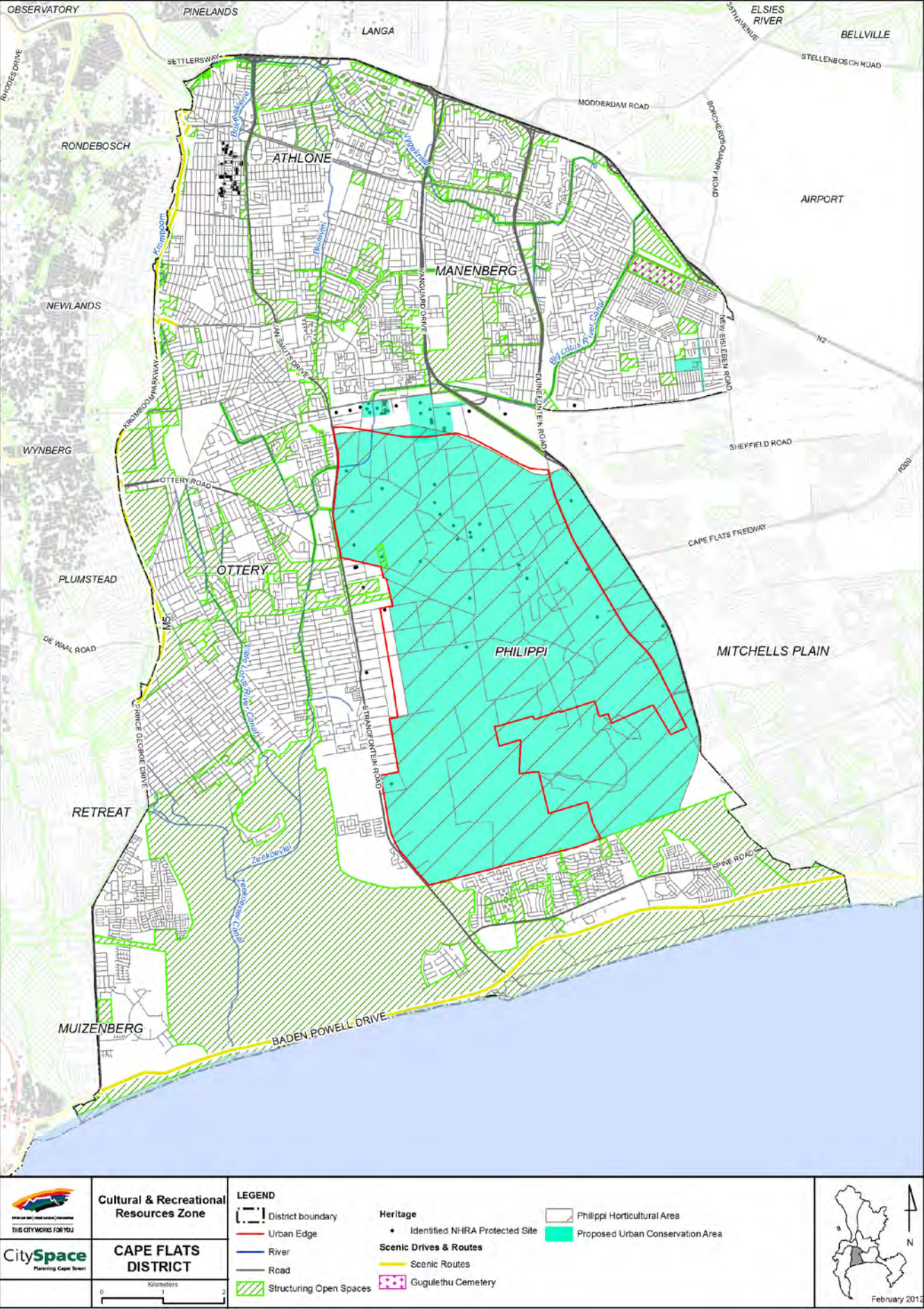
Table 5.4 a): Cultural and Heritage Areas

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
PHA Cultural Landscape <i>This is characterised by vegetable farming, a sparse distribution of old farm houses and tree-lined avenues and windbreaks</i>	- Mining related activities and infrastructure. - Industrial activities. - Sub-division and densification. - High density residential or commercial development. - Any alterations, additions or new structures unsympathetic to protected buildings or the general character of area.	- Agri-tourism (such as farm shops/stalls). - Institutional activities (e.g. agricultural schools). - Riding stables. - Transmission towers and base stations.	Agricultural activities Residential units as permitted in terms of the applicable zoning scheme and agricultural legislation.	- 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)
Existing proposed urban heritage / conservation areas <i>This zone includes the Springfield Road. precinct, Ottery Road. precinct, Strandfontein smallholdings and German/Lutheran Church precinct..</i>	- Any alterations, additions or new structures unsympathetic to protected buildings or the general character of area. - Mining related activities and infrastructure.	- Dependent on specific area. Suitable activities should be congruent and sympathetic to landscape / townscape. - Transmission towers and base stations. - Tourism and hospitality facilities.	- Residential and commercial activities that are in keeping with the character of the area. - Sub-division and densification that is not materially changing the character of the area. - Institutional facilities (education, museums). - Engineering and utility services. - Essential road, rail, pipelines and cables. - Restoration and conservation of historical buildings and infrastructure. - Public open space.	- City Of Cape Town Scenic Routes Management Plan - City Of Cape Town Heritage Resources Strategy - City of Cape Town Heritage Resources Section series of guidelines for development
Potential archaeological sites	All excavation and mining related activities and infrastructure.	Essential engineering services and infrastructure.	- Conservation activities. - Public open space.	Scenic Drive Network

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
<i>This zone includes areas of archaeological and palaeontological value. These have not yet been mapped.</i>	- Off-road vehicle trails. - Any development outside the urban edge.	- Tourism and hospitality facilities. - Institutional and educational facilities. - Special coastal node development. - Sustainable harvesting of natural resources. - Bulk infrastructure and energy generation (including renewable energy).	Viewing sites	Plan
Scenic Routes <i>This includes Baden Powell Drive</i>	- Activities which compromise or restrict views. - Activities inconsistent with the landscape / townscape. - Outdoor advertising.	- Dependent on section of road. Suitable activities should be congruent and sympathetic to landscape / townscape. - Service Stations	N/A	
Structuring Open Spaces <i>This zone includes structuring public open spaces (which are significant at a district scale and play a role in structuring the area).</i>	- Waste disposal activities (including WWTW). - Mining activities. - Industrial activities. - Residential development.	- 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.	- 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.	- City of Cape Town's draft 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 5.4: Cultural and Recreational Resources Zone



5.2.5 Natural Economic Resources Zone

SUMMARY OF STATUS

The designated Philippi Horticultural Area, covering about 3400ha, is a highly productive vegetable area. Although only about half the area is currently farmed, this extends across almost the entire area, and potential exists for more intensive farming. However, it is being jeopardised by the encroachment of non-agricultural uses.

Sand is used for building material and is considered a limited economic resource. There are concerns regarding the limited availability of unexploited sand resources and this creates conflict between demands to exploit remaining resources and maintaining the integrity of the receiving environment in which these resources occur. In particular, silica sand is of significant concern. A large deposit of high-grade silica sand occurs beneath the remaining open land of the Philippi Horticultural Area (see figure 5.5b below) and is considered to be the highest quality silica in South Africa. A small portion of the sand has already been mined, primarily for glass manufacture, since 1925 (in the northern part of the area), however, a large sum remains untouched. The PHA is the only viable area available for the mining of silica sand in the Western Cape. The main issues with regards to mineral extraction in this district are the sterilization of economic mineral resources by urban development as well as illegal sand mining.

ENVIRONMENTAL MANAGEMENT PRIORITIES

Management Priority	Priority area of focus
1. Enhance and Restore	• Philippi Horticultural Area (PHA) • Cape Flats Aquifer
2. Retain and Protect	• The PHA given its potential for horticultural use subsequent to sand mining. • Silica sand resources in the PHA.
3. EIA requirements	• Mining activities should not be authorised without the required EMPs and rehabilitation plans. • 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 to stock-pile and return top-soil. In addition, the depth of mining should not exceed a minimum level above the water table ($\pm 500\text{mm}$). • Sand mining of dunes can only be considered outside of the Coastal Protection Zone, and subject to specialist input

	and the implementation of appropriate mitigation measures. Mineral resources 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	- Restrict intrusion into the PHA by fixing and managing the urban edge along its borders - Prevent illegal and/or unmonitored sand mining, particularly in the southern part of the PHA - Ensure mine operators adhere to permit conditions to enable post mining land use potential for agriculture to be retained - Address social issues relating to crime and unemployment in the areas close to the PHA – to alleviate pressure on this area - Monitor abstraction rates from the aquifer as well as water quality. - Sand mining in the PHA should typically remove sand not below 1 m above groundwater level to retain the area's potential for subsequent agricultural use.
4. Research and Educate	- Explore potential for land reform opportunities and increased food security - Explore opportunities for value added and/or complementary activities associated with the PHA e.g. tourism, education and energy production (biogas and wind)

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: ECONOMIC RESOURCES: Refer to Figures 5.5 a) and 5.5b)

Table 5.5 a) 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
Agricultural land of significant value <i>These areas have significant value given their existing or potential and emerging use.</i>	- 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.	- Dams and weirs. - Water abstraction. - Road, rail, pipelines and cables. - Engineering and utility services and infrastructure. - Agri-tourism (such as farm shops/stalls). - Institutional activities (e.g. agricultural schools). - Animal care facilities. - Sustainable harvesting of natural resources. - Transmission towers and rooftop base stations.	- Agriculture (excluding abattoirs and feedlots). - Horticultural activities. - Handling and storage of agricultural product. - Hiking trails and paths. - Residential units (as allowed in zoning schemes).	- 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

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
		- Riding stables. - Retail and commercial activity related to marketing of the area's produce.		Economists in EIA Processes (2005) Urban Agricultural Policy for the City of Cape Town (2007)
Smallholdings and agricultural areas <i>This constitutes areas currently being used for agricultural purposes, regardless of soil potential.</i>	- Urban development. - Industrial activities. - Storage of hazardous substances. - Activities that can pollute water and soil resources (which are required for agricultural activities).	- 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	- 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 5.5 b) 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>	- Mining activities extending below the water table. - Mining activities that do not effectively implement the required EMP and rehabilitation plans.	- Urban and infrastructure development prior to mineral extraction. - Mining activities which have the relevant approved environmental procedures and documents. - Related infrastructure and facilities.	Post mining and rehabilitation land uses.	The Mineral Resources Structure Plan 2002.

Figure 5.5 a): Natural Economic Resources Zone: Agriculture

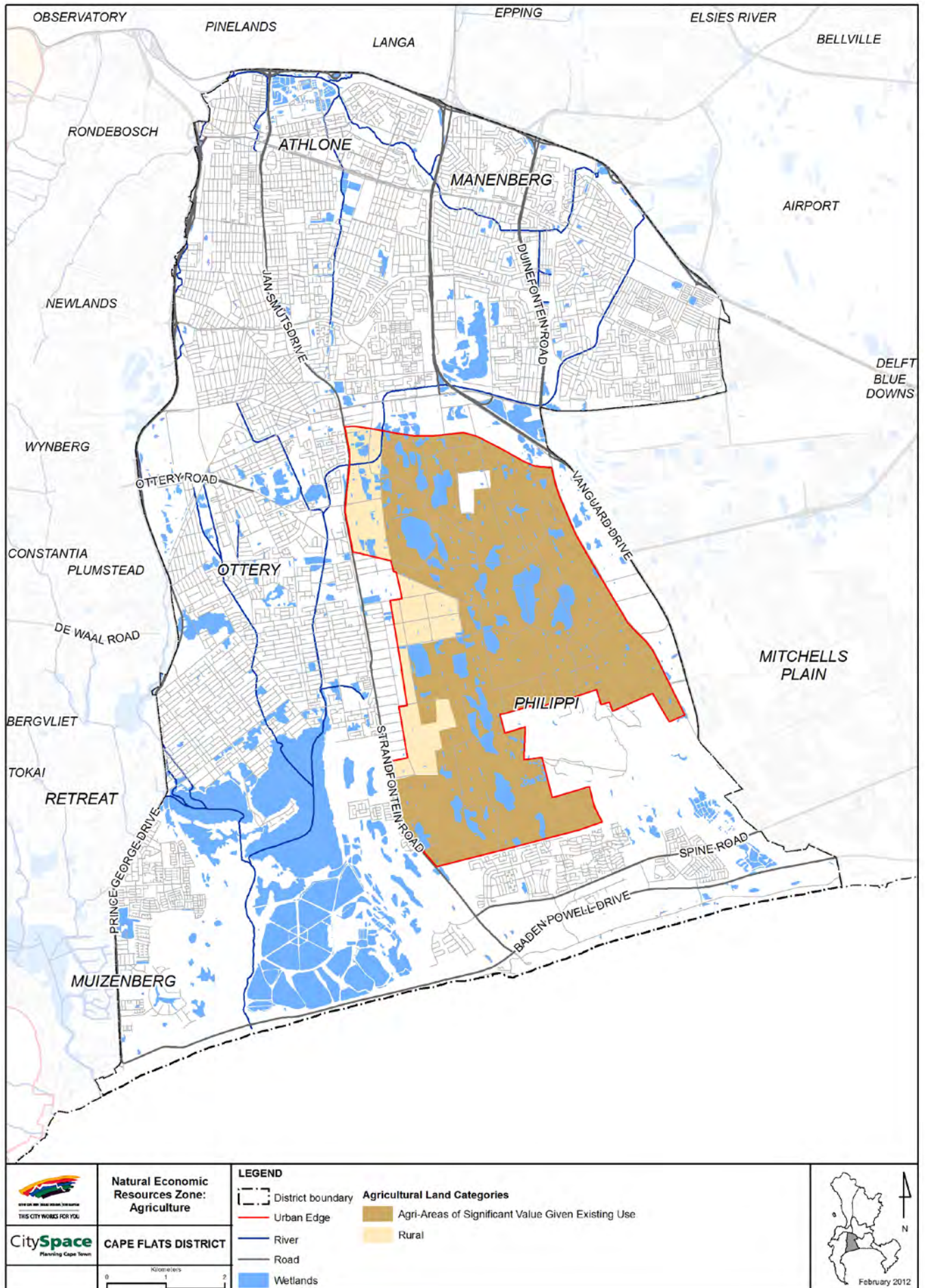
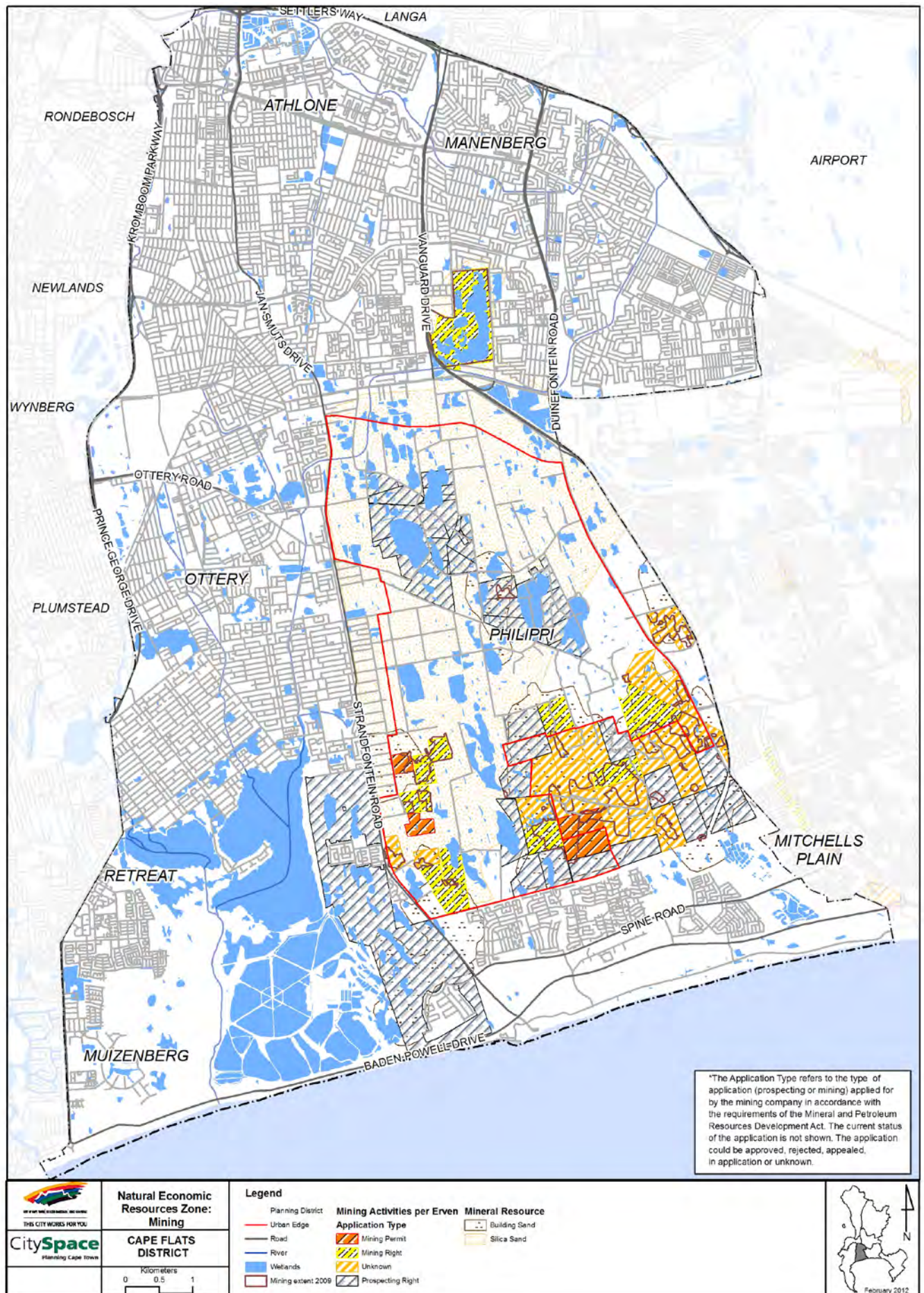


Figure 5.5 b) Natural Economic Resources Zone: Mining



5.2.6 Urban Uses and Utilities Zone

SUMMARY OF STATUS

The Cape Flats District has many areas with very high population densities, particularly in the north of the district, and some of the largest informal settlements within the CoCT are found here (particularly at Crossroads and Nyanga). The largest agricultural area within the urban fabric of the CoCT is also located within the district at Philippi (i.e. the PHA). Many areas of the district have degraded living environments and public open spaces and experience intense social pressures such as crime, unemployment and drug abuse. Other areas, particularly in the central and southern part of the district, experience development pressure, often encroaching on environmentally sensitive and agriculturally valuable land.

The CoCT is rapidly running out of space for solid waste disposal. A new site has been proposed but the City will face an environmental and public health crisis without further interventions to minimise and recycle waste. One of the City's three currently operational landfills, Coastal Park, is located in this district, east of Zeekoevlei. It is 55 ha in size and has remaining airspace of 9.4 million m³. The site is expected to reach capacity by 2022.

Sewage from the Cape Flats District is routed to two WWTWs (Cape Flats and Athlone WWTWs). Upgrades are currently being (or have recently been implemented) at both WWTWs. Pollution and degradation of rivers and wetlands in this district is a critical issue, as many of the rivers have lost much of their natural riparian habitat and their environmental functioning has been seriously compromised. Zeekoevlei, in particular, as well as the Lotus River, are highly polluted. Air pollution is not a significant problem in the district at this time.

ENVIRONMENTAL MANAGEMENT PRIORITIES:

This SDP sets out a wide variety of strategies to address the socio-economic and infrastructural needs of the district relating to settlements, transport, open space, and upgrading of urban areas. They are not repeated here. The priorities noted below are related largely to management of waste and pollution.

Management Priority	Priority area of focus
1. EIA requirements	• An 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. • 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.
2. Manage land use and form	• Consider the capacity of natural environments to receive waste before expanding (e.g. WWTWs)
3. Monitor and manage impacts	• Improve effluent quality from WWTWs • Implement waste management and recycling initiatives (as per the CoCT Integrated Waste Management Policy) • Ensure effluent is not discharged into the stormwater system, rivers or wetlands • Monitor and enforce industry's compliance with air pollution standards

	- Control illegal dumping and monitor and enforce landfill site's compliance with relevant environmental requirements - Control agricultural runoff and pollutants and encourage use of organic agricultural practices and more efficient irrigation systems - Do not permit groundwater abstraction in landfill buffer zones, or any other activities where people are required to remain permanently on site.
4. Research and Educate	Maximise job opportunities through recycling or other waste management activities

ENVIRONMENTAL IMPACT MANAGEMENT TABLE: URBAN USES AND UTILITIES: Refer to Figure 5.6

Table 5.6 a) 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
Landfill sites and buffer zones <i>This includes landfill sites and the buffer areas around existing and proposed landfill sites.</i>	- Residential development. - Educational facilities. - Health and social facilities. - Groundwater abstraction.	- Commercial activities. - Industrial activities.	Other activities, subject to conditions and approvals of the relevant authorities and specifications of the relevant closure plans.	- DWAF, Second Edition, 1998 Waste Management Series. - DWAF, <i>Draft</i> Third Edition, 2005 Draft Waste Management Series.

Table 5.6 b): Industrial and Commercial Areas

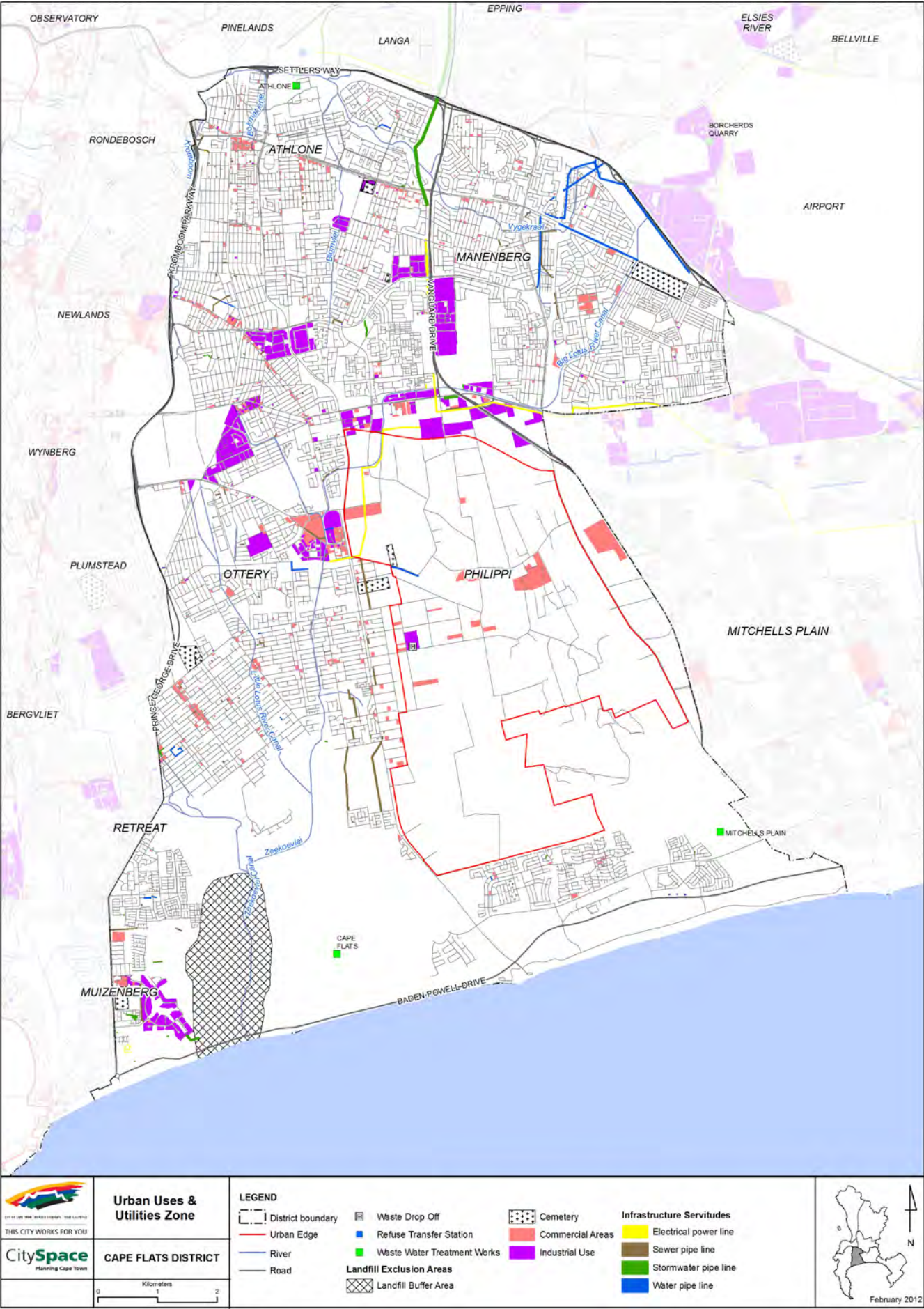
Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Industrial areas <i>This includes areas currently zoned for industrial use.</i>	Any upgrades or additional industrial activities which exceed air emission standards or will contribute to ambient pollution exceedences.	- Heavy (Scheduled) Industrial activities. - Incinerators. - Major roads. - Air fields.	- Light industrial. - Commercial. - Infill development. - Engineering and utility services and infrastructure. - Sub-stations and electrical infrastructure.	- A Guide to Reporting and Estimating Emissions for the Integrated Pollutant and Waste Information System (IPWIS) 2005. - City of Cape Town's Air Pollution Control By-Law (2001). - Air Quality Management Plan for the City of Cape

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
Commercial areas <i>This includes areas currently zoned for commercial use.</i>	Heavy (scheduled) industrial activity.	- Light industrial - Incinerators. - Major roads. - Air fields.	- Commercial. - Infill development. - Engineering and utility services and infrastructure. - Sub-stations and electrical infrastructure.	Town (Sept, 2005). City of Cape Town's Managemnt of Urban Stormwater Impacts Policy (2009)

Table 5.6 c): 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>	Permanent structures and buildings other than those related to service provision.	- Roads and rail. - Transmission towers and rooftop base stations. - Agricultural activities (including urban agriculture).	- 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	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 5.6: Urban Uses and Utilities Zone



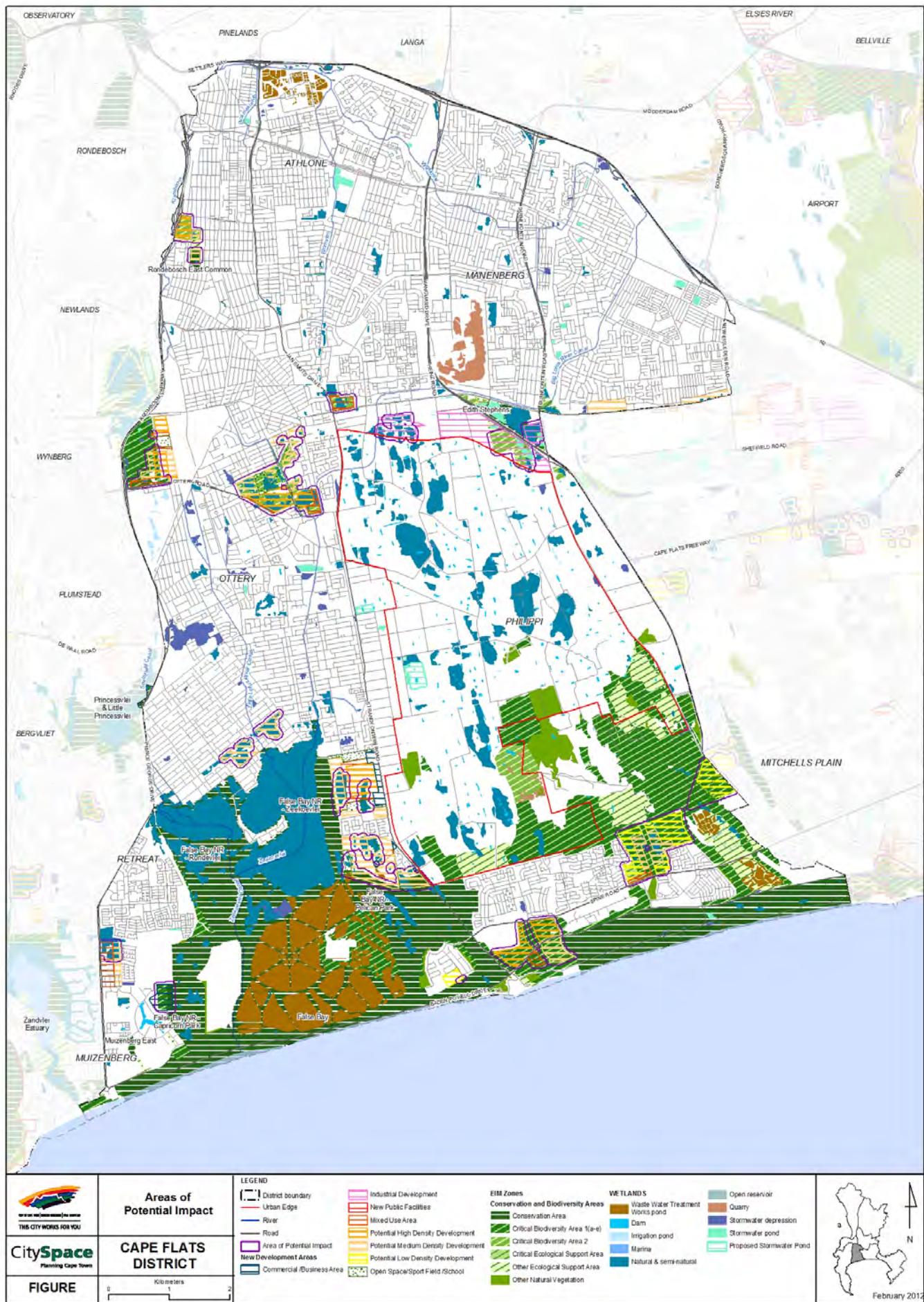
5.3 Areas of potential impact on selected natural environmental attributes

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 have 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 5.7 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.

Figure 5.7: 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 DEVELOPMENT 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 (see figure 6.1):

- 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

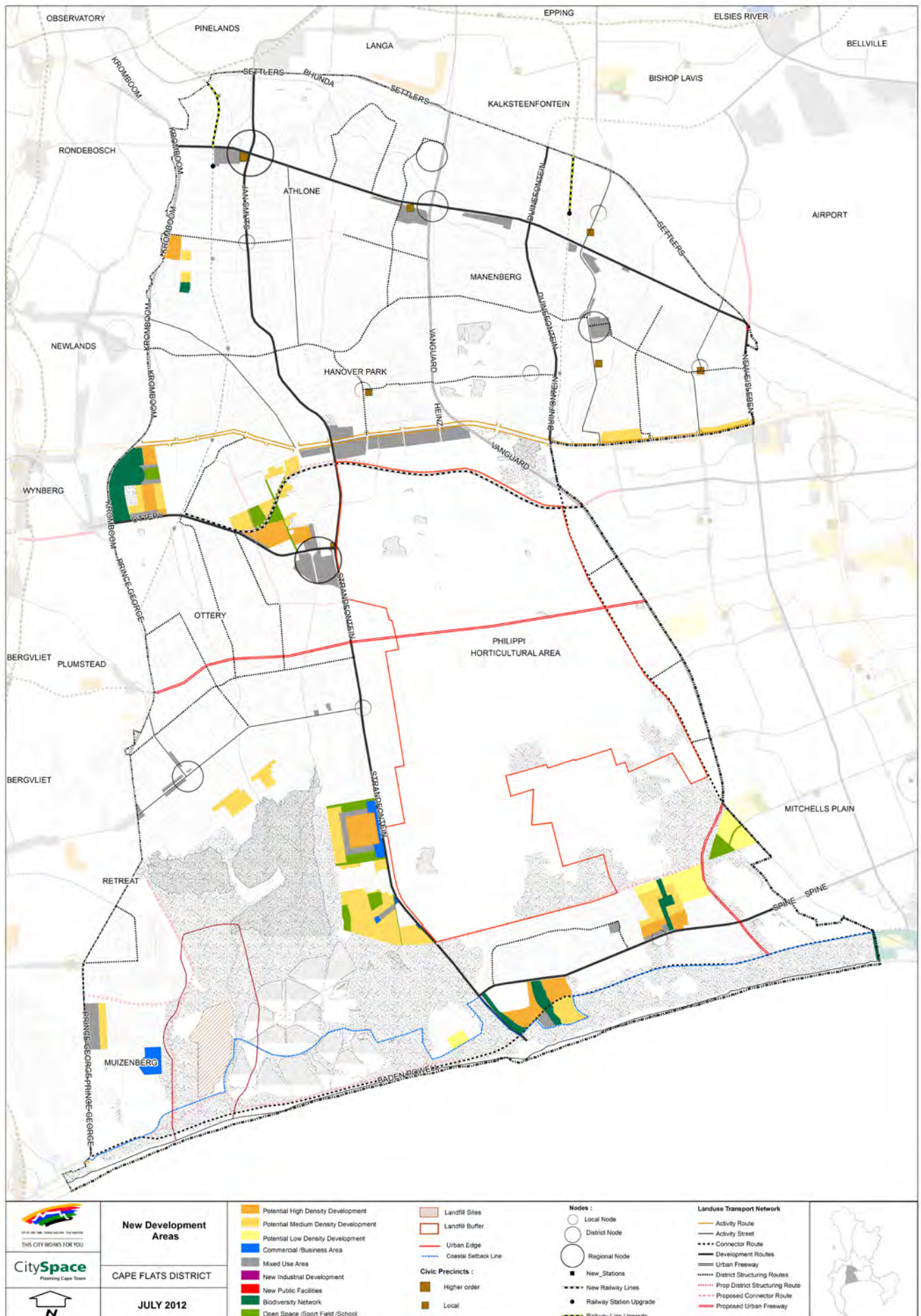
This planning approach will be supplemented by more detailed modelling exercises conducted on a sectoral basis.

New development area	Likely land uses	Possible yield (approx. dwelling units)
1. Youngsfield	Mixed use, residential (medium & high), sports complex	2000
2. Lansdowne Rd Industrial Area	Industrial, mixed use	77 600 GLA
3. Ottery	High, medium & low density residential, mixed use commercial	1600
4. Rondebosch east	Mixed use, residential	650
5. Pelican Park (phase 1 & 2)	Mixed use, medium & high density residential, commercial	5000
6. Strandfontein east	Mixed use, medium density, low density residential	1300
7. Strandfontein coastal node	Mixed use, medium and high density residential	1700
8. Vanguard extension	Low density residential	300
9. Prince George	Mixed use, med density residential.	300
10. Capricorn	Commercial, light industrial	50 000m ² GLA
11. Pelican Heights	Low density residential	200
12. Erf 8448 & Mau Mau	Medium density residential	1000
13. Grassy Park	Medium density residential	800

Major intensification areas:

- o Strandfontein south (erf 1212) (approx 55 ha)
- o PHA Weltevreden Road 'wedge' (approx 200 ha)
- o Schaapkraal Smallholdings area (approx 160 ha)

Figure 6.1: New Development Areas



6.1.1 Transport infrastructure

The prioritisation of interventions in relation to transport infrastructure requires a fundamental shift from the historical approach to movement infrastructure development in this district. Key principles informing intervention around transport infrastructure include:

- Prioritisation of public transport over private mobility;
- Prioritisation of interventions to support non-motorised transport above mobility;
- Prioritising interventions that will release economic development associated with the accessibility and opportunity grid.

a) New Road links

Several route connections are necessary to promote more efficient movement within and through the district. Proposals include:

- **R300 extension** to facilitate east west linkage and to address the significant east west movement challenges currently faced in the district and also at a City wide level.
- **Sheffield Road extension** to the west onto Ottery Road to facilitate east west movement across the district which is currently a key challenge. The implementation of this route, should be prioritised over the implementation of the R300 extension as a result of a number of practical and operational benefits that would result. From a land use perspective, these include;
 - o improved functioning of Lansdowne Road as an activity corridor given the release of mobility pressure on this route,
 - o clear and defensible boundary between the PHA and the Lansdowne Road Industrial Area,
 - o the significantly higher cost associated with the implementation of the R300 extension.
- **Princessvlei parkway:** a mobility connection between the M5 (Grassy Park) and Baden Powell Drive which is proposed between the Capricorn Park extension and the False Bay landfill site.
- **Zandvlei expressway:** a mobility connection between the M5 (Steenberg/Lavender Hill) and the proposed Princessvlei Parkway.
- **Baden Powell extension / re-alignment:** and east west mobility route (re-alignment of the existing Baden Powell Drive) further north in order to position it north (behind) frontal dune system.
- **Strandfontein arterial:** an east west mobility connection between Mitchells Plain (proposed Vanguard extension) and Pelikan Park.
- **Vanguard extension:** a mobility connection between the southern-most point of Vanguard Drive and Baden Powell Drive, to facilitate uninterrupted mobility to the southern areas of the Cape Flats District.
- **De Wet Road extension:** including a north south connection between an existing portion of De Wet Road (Ottery) and Plantation Road, as well as an east west connection onto Strandfontein Road.
- **College Road:** an east west route connection between Kromboom Road (at the intersection with Belgravia Road) to meet College Road to facilitate better east west movement between Athlone / Crawford / Belgravia and Rylands / Gatesville.

b) Public transport infrastructure

Proposed priority station upgrades to support the heightened role of these places within the area include:

- Athlone
- Heideveld

c) Non-Motorised Transport infrastructure (NMT)

Investment in NMT infrastructure is a priority in this district. Intervention should occur as part of a programme to develop a broader NMT network in a similar manner to that which is currently being implemented on routes such as NY1. In the Cape Flats District, interventions should focus on:

- Main movement generators (including public transport interchange / station areas);
- The system of structuring routes proposed as part of the SDP – the dominant mobility function of most higher order routes can no longer prevail and the prioritisation of NMT within the cross section of existing routes is critical (see section d);
- Critical public links which connect destination places and movement generators;
- Linked internal open space system.

The plan promotes an integrated network of NMT routes. As part of this network, a number of public links are highlighted for upgrading and development, with a particular focus on access to destination/special places.

The links identified as critical public links include:

- False Bay Coastline
- Victoria Road Grassy Park-False Bay Ecology Park visitors centre – Pelican Park
- Klipfontein Road – Nantes
- Nyanga Junction – Hanover Park CBD
- Proposed Cape Flats Urban Park- PHA – Mitchells Plain
- Spine Road civic precinct to False Bay Coastline

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) Athlone stadium and Nantes precinct

- The Athlone stadium precinct (including the Vygekraal sports ground and Nantes) should form a focus of district level sport, recreation and open space in the district. The area presents an opportunity for a **range of district level sports and recreation (active and passive) facilities** in a highly accessible location. Its current sports focussed role should be reinforced (Athlone Stadium and Vygekraal). Multifunctional use of the sports complex through the location of complimentary uses (e.g. institutional uses) is encouraged.
- A **high quality passive recreation facility** should be created in the Nantes area and along the course of the Vygekraal River. This type of quality passive recreation facility is much needed in the northern portions of the district particular. This should include the development of a new district park at Nantes.

b) Kanana Sports and Recreation Precinct

The land on which this sport and recreation precinct is proposed presents an opportunity for what a land use which is short supply and is much needed in this area. The land is currently informally settled. A recent investigation into development alternatives in the area, proposed that this portion of the Kanana area is developed as a sport and recreation precinct due to the unsuitability of the land for urban development as a result of geotechnical conditions and the significant costs that would be incurred if the land were to be rehabilitated and used for urban development.

In Gugulethu / Nyanga, detention ponds and other open space are some of the last remaining opportunities for functional open spaces and should be optimised for that purpose. Their multi-

functional use including for recreational activity is promoted. These spaces should be prioritised for investigation into the provision of a new district / community parks.

c) Cape Flats Urban Park

New Metropolitan Park: A new metropolitan park is proposed on the Silica Sands land. The purpose of the park should be to integrate neighbouring communities and promote urban renewal. The park should include a diverse range of activities including opportunity for waterfront entertainment and businesses, residential development, urban agriculture, cultural activities such as initiation sites, sports facilities, environmental and tourism education and passive recreation linked also to the proposed central conservation area.

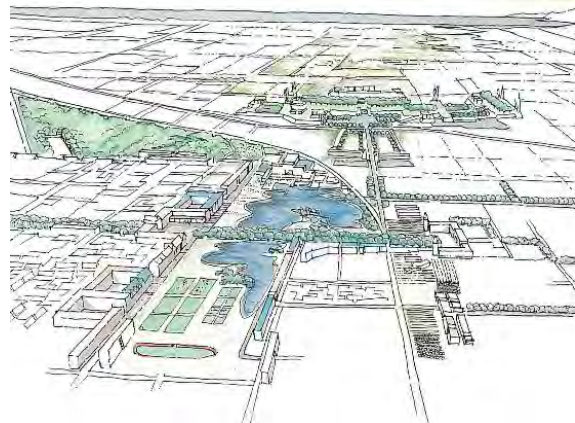


Figure 6.2. New urban park at Silica Sands site

Local initiatives are currently underway between the local community and the Silica Sands landowner on peripheral portions of the identified land. These initiatives should work towards this long term vision and should be planned and designed in a manner that will reinforce the vision for a metropolitan urban park in the area.

d) False Bay Ecology Park

The False Bay Ecology Park is the most significant natural asset in the district and as such, public experience of the False Bay Ecology Park should be prioritised through the development of facilities which will showcase this asset. On-going protection and management of this unique natural asset should be prioritised.

e) Biodiversity network

The following areas should be prioritised in terms of formalising management status:

- False Bay Ecology Park (including Rondevlei, Zeekoevlei, False Bay sewage treatment works; Pelican Park)
- Portions of the False Bay coastal/dune zone areas (outside of the coastal nodes identified for development) east of the Strandfontein Pavillion and Mnandi / Kapteinsklip in order to secure the coastal conservation corridor.
- Portion of the southern areas of the Philippi Horticultural Area that have been identified as having significant biodiversity value (exact portions to be identified through more detailed biodiversity study).
- Critical biodiversity linkages - including river corridors (canal rehabilitation), Pelican Park to PHA, coast to PHA (Strandfontein East).

f) New district parks:

It is proposed that several new district parks are developed within the Cape Flats District. It is proposed that these parks clip onto existing sports complexes and / or are located within the existing linear open space network, particularly abutting existing schools.

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, where 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 4.2: Spatial Development Plan);
- giving further spatial direction through identifying “new opportunities” for publicly assisted housing development (section 6.1.3 a); and
- providing a framework for “informal settlement development and upgrading” processes in the district (section 6.1.3 b).

In the context of the housing backlog, urbanisation trends and land availability patterns at a City and district level, publicly assisted housing in the Cape Flats District focuses on:

- Small to medium scale residential infill development (rather than large scale green field public housing development), building on opportunities around pockets of well-located underutilised land that exists; and
- Incremental upgrading particularly in relation to informal settlements and existing housing estates.

a) New opportunities

In this district, whilst there are not numerous substantial tracts of undeveloped land suited to urban development, a number of opportunities are identified. These include sites which may be part of new subsidised housing projects on the 5 year housing plan, as well as sites that should be further investigated for publicly assisted housing projects. The table below effectively gives guidance to locating suitable land for urban development.

Table 6.1: 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: • 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: • 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: • 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	The identified land should: • 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	When identifying land, and providing infrastructure and shelter for the un-housed and poorly housed, it is important to take their livelihood strategies and social support networks into account.
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i) 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 figure 6.5.

These new subsidised housing projects identified for the Cape Flats District include:

Site	Anticipated yield (dwelling units)
• Hazendal/Bokmakierie	170
• Kewtown	230
• Heideveld	700
• Phumlani/Pelikan Park	100
• Mau Mau & Erf 8448	1000
• Manenberg	550
• Edward Road, Ottery	100
• Hanover Park	500

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.

ii) Further land identification for publicly assisted housing projects

Further land has been identified specifically for investigation for publicly assisted housing projects (see figure 6.5). This is limited to publicly owned land and will be updated over time based on new information. This includes various portions of undeveloped or underutilised land, the most significant of which have been identified in areas such as Parkwood / Lotus River, Pelikan Park, Grassy Park, Strandfontein, Hanover Park and Manenberg.

In addition to these sites other smaller infill opportunities should be explored as identified. 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; and
- rationalising underutilised open space.

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.

iii) 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 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). Examples of these sites include the 44ha site in Ottery and Strandfontein south (south of Spine Road).
- Parastatal or private land where inclusionary housing should be targeted as part of development efforts.

b) 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 Figure 6.3 below.

The Cape Flats District reflects areas of informal settlement ranging from backyard shacks, informal dwellings on their own stand, and broader areas of informal settlement, with varying levels of access to basic services. Some informally settled areas are located on private land, servitudes or uninhabitable land. A differentiated approach is required.

In terms of accommodating the demand for housing in relation to informal settlements, the focus in the Cape Flats district will be on in situ upgrading due mainly to constraints around land availability in the district as well as the general desire to ensure minimal social disruption to communities. There is, however, also a need to plan for new housing opportunities, which may, at least initially, accommodate residents on an incremental basis.

• In-situ upgrading

Incremental Upgrade Module

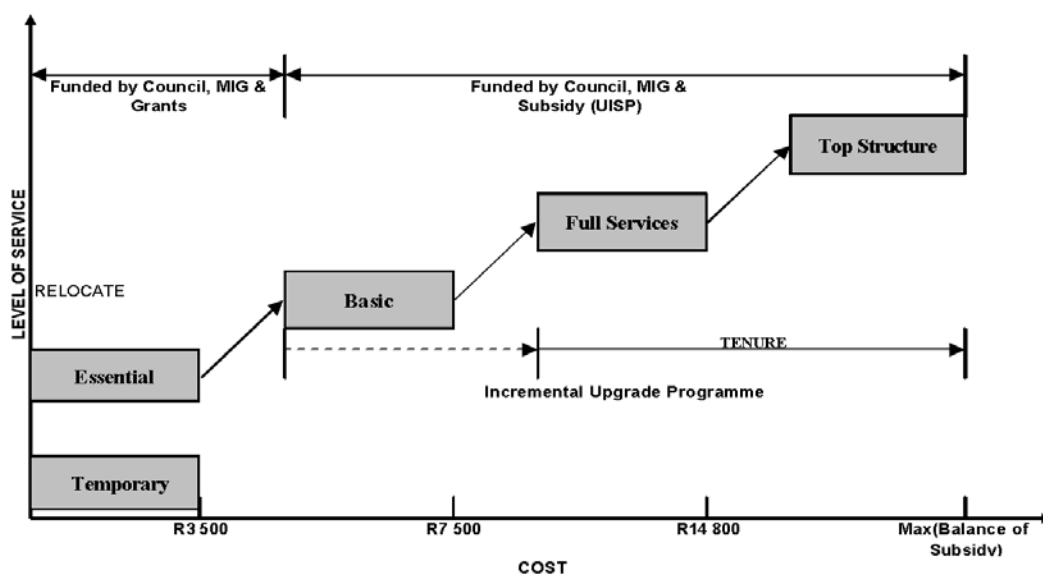


Figure 6.3: Informal Settlements Incremental Upgrade, City of Cape Town, Master Plan 2007

One of the key issues facing informal settlement upgrade is the issue of which settlements should be regarded as permanent, 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 initiated a process of 'categorisation of informal settlements' in terms of three

types of settlement in order to inform the nature of intervention for each settlement (or portions thereof), including:

- 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 categorisation is proposed on the basis of a number of circumstances/features and each has associated proposals regarding possible intervention in light of those circumstances, as indicated in the table below.

Table 6.2: Criteria for categorisation of informal settlements

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 socio-economic improvements for the residents, facilitate the vacating of the area and secure it from re-occupation.
	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.

- **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

a) Water (bulk and reticulation)

The focus of capital investment in water infrastructure within the district relates to upgrading and maintenance to the existing reticulation infrastructure given limited bulk water supply constraints.

b) Waste Water (bulk and reticulation)

- **Waste water treatment works** – Capital investment in the Mitchells Plain WWTW is planned to increase its existing capacity (50 000) by 25 000 by 2018.
- **Reticulation** - Sewer: required network reinforcements including 100dia upgraded in Athlone and Cape Flats southwards area.

c) Roads (upgrading)

The accessibility grid indicates a network of roads which should be the focus of road upgrading and maintenance. Section 6.1.1 a) above indicates a number of new road links. In addition, a number of roads are prioritised for upgrading in the medium term, including:

Strandfontein Road upgrade (current)-Emerald Road, Pelican Park to 5th Avenue, Grassy Park. Future upgrades required from Spine Road to Emerald Road, 5th Avenue to Lansdowne Road. to service existing and future Strandfontein & Pelican Park developments

- **Spine Road** (dualling) – Weltevreden Road to Strandfontein Road – to service Mitchell's Plain & Strandfontein.
- **Jan Smuts Drive** – Lansdowne Road to Klipfontein Road
- **Klipfontein Road (NY108)**- Borchers Quarry to Duinefontein Road – to service Nyanga, Gugulethu.

Other roads prioritised for upgrading (medium to long term) include:

- Old Strandfontein Road/New Ottery Road upgrade – to service proposed Ottery 44Ha site development and existing development.
- Old Ottery Road – Lansdowne Road to Strandfontein Road – heavy duty vehicles due to expansion of Lansdowne Road/Philippi industrial area.
- Weltevreden, Varkensvlei, Olieboom & Schaapkraal Roads (Philippi horticultural) –important link between Mitchell's Plain and Southern Suburbs.

d) Stormwater

The focus of stormwater infrastructure investment in the Cape Flats District includes stormwater planning and upgrading for areas where new development is envisaged, as well as stormwater master planning in the areas of most significant pressure.

The focus of stormwater upgrading in respect of new developments include:

Development area	Services availability/upgrading requirements
Pelican Park (Residential)	Strandfontein Road – upgrading Bulk Stormwater culvert - upgrading
Strandfontein (Residential /	Spine Road – existing, upgrade required

Commercial)	Stormwater – additional infrastructure required
Athlone Stadium (Facility)	Klipfontein Road – existing Stormwater – existing infrastructure.
Gugulethu Mall (Commercial)	NY1 – existing Stormwater – existing infrastructure
Lansdowne Road Industrial (Industrial / Commercial)	Lansdowne Road – improvements required Stormwater - additional infrastructure required
Ottery Housing + 44HA site (Residential)	Old Strandfontein Road – upgrade required Stormwater – Woodlands canal
Mau Mau (Residential)	Lansdowne Road - existing Stormwater – upgrade required
Capricorn(Residential / Commercial)	Prince George Drive – existing Stormwater – additional infrastructure required
Youngsfield (Residential/Commercial)	Ottery Road – existing Stormwater – additional infrastructure required.

The focus of stormwater master planning includes:

- **Woodlands Canal** – upgrade required for future Ottery 44Ha site Development
- **Schaapkraal** – Two major detention ponds & culvert required to service Schaapkraal.

e) **Electricity (bulk and reticulation)**

Notwithstanding a national energy generation capacity and power transmission crisis, and consequent load-shedding, sufficient bulk electricity capacity exists within the district to cater for existing and proposed development. The focus of electricity infrastructure upgrading is to be focussed on upgrading existing major substations to increase footprints, as well as to focus on distribution and reinforcement interventions to alleviate areas with problematic substation loading. They include Gugulethu, Heideveld, greater Lansdowne, Philippi, Ottery and Grassy Park. Vanguard transformer replacement is been identified as a high priority capital project.

6.1.5 **Public facilities and public space**

a) **Urban and civic upgrade**

Urban and civic upgrades are proposed in a number of precincts throughout the district. These are directed at reinforcing structuring routes and public investment nodes, and supporting their civic and commercial roles.

- **Athlone CBD:** significant public and private investment has occurred in the Athlone CBD, including interventions to upgrade public space and the civic environment. This area should continue to be a focus for these actions, however intervention is likely to concentrate on on-going management and maintenance to ensure a conducive environment for continued private investment in the area. Medium and High density residential development should be encouraged in the area to increase the vibrancy of the area, particularly after business hours. Accessibility of the area to public transport makes an attractive location for residential development.
- **Gatesville CBD:** The vision for the Gatesville CBD is a high quality, vibrant and thriving people and pedestrian friendly, mixed use business district. The proposed interventions include: Public space upgrading and pedestrianisation through the creation of a system of public forecourts linked by pedestrian routes which are lined with buildings that create positive building/street interfaces; encouraging additional civic and cultural activities; mixed use infill development should be encouraged on existing vacant and underdeveloped sites. Residential and service related activities to be encouraged; establishing a gateway to Gatesville / Rylands with the creation of a formalised fish market.

- **Manenberg CBD** The vision for the Manenberg CBD is a safe and vibrant people and pedestrian friendly, mixed use business district. The proposed interventions include: new commercial development (private); community facilities-training college, church, skills training and business hives (public); public housing with potential retail (public); library forecourt (public); town centre public walkways (public); Thames Road extension.
- **Hanover Park CBD** The vision for the Hanover Park CBD is a safe and vibrant people and pedestrian friendly, mixed use business district. The proposed interventions include: new taxi rank and bus terminus; the creation of a central multi-use and pedestrian orientated square of high environmental quality, the identification of appropriate forms of mixed use development opportunities; general environmental upgrade; improved interface conditions and urban continuity; improved visual and physical connections; the rationalisation of vehicular movement, parking and servicing.
- **Nyanga Urban Node and Station Precinct:** Upgrading and developing hard public space as part of a new station forecourt (eastern side of station) as well as reinforcing the linear space associated with the Nyanga urban node and associated upgrades that are currently being planned. This public space development should investigate the opportunity for the provision of market / informal trading infrastructure, particularly in the area around the station and be considered as part of an integrated intervention around the upgrading of Kosovo informal settlement.
- **Ottery civic precinct:** Investment will be required to upgrade and develop the civic environment associated with new development proposed in this precinct. Intervention should focus on the public areas around the existing institutional uses and proposed civic cluster which should be detailed in the local area development framework.
- **Busy Corner and Lotus River CBD:** Upgrade of the public space is proposed to reinforce the 5th Avenue activity street. This should include hard space upgrading and development/intensification at strategic points on the route. Special place-making attention should be focussed along 5th Avenue and Victoria Road at Busy Corner and 5th Avenue at Lotus River CBD. Upgrading along the route should include planting as well as NMT infrastructure.
- **Strandfontein/Spine Road:** Investment will be required to upgrade and develop the civic environment associated with new development proposed in this precinct. Intervention should focus on the public areas around the police station and the proposed civic cluster, which should be detailed in the local area development framework.

b) Public facilities

The district plan provides an input to guiding the provision and distribution of public facilities, which should be supplemented by local development plans and community services directorate's master plans.

The distribution of public facilities (such as clinics, libraries and community halls) is informed by the location of the proposed hierarchy of civic precincts (see section 4) proposed as clusters of social facilities and public institutions and proximity to the accessibility grid.

Furthermore, the development of higher order (e.g. district and metropolitan) parks and sports facilities is informed by the identification of the structuring open space system, which these facilities should seek to reinforce.

In terms of the further provision of public facilities in the district, there is a need to address both areas of shortfall as well as plan for the development of new facilities in relation to new development areas. In the Cape Flats district, a focus on both aspects is required.

- **Areas of shortfall**

In the Cape Flats district key areas of shortfall in relation to public facility provision have been identified (see Guidelines & Standards for the Planning of Cape Town's Social Facilities & Recreational Spaces, CSIR, 2010). These include:

- Gugulethu
- Nyanga / KTC
- Lavender Hill / Vrygrond
- Hanover Park
- Heideveld

These areas of shortfall should be addressed through detailed facility planning and review in order to either identify appropriate sites for new facilities that may be required or upgrade existing facilities to a higher order to address service delivery requirements.

- **Requirement for planning for facilities in relation to new development areas**

In terms of the new development areas in the district, there will be additional requirements in terms of public facility provision. In this regard the areas identified in the new development areas table above (see table 6.3), require review in terms of budgeting for public facility provision. This should be initiated as part of the detailed planning for the development of these sites.

- **"Area based" opportunities**

In terms of addressing current and future public facility requirements, as well as contributing to the broader upgrade of the public environment, the following strategic "area based" opportunities exist (depicted in table 6.3). Whilst some of these opportunities are not likely to be developed in the short term, they should be retained as the focus for medium to longer term investment in public facilities to reinforce their district (and in some cases metropolitan) level role.

Strategic "area based" opportunity	Public facility possibilities to be investigated
• Gugulethu urban node/Civic precinct and surrounds	• Regional library • Local library • Secondary school • Primary school • Community park (x2) • Sportsfield
• Nyanga urban node and surrounds	• Local library • District park (see Nantes precinct below) • Primary school • Community park
• Lavender Hill/Vrygrond community precinct	• Local library • Sportsfield/stadium • Primary school • Community park
• Athlone stadium/ Nantes precinct (see 6.1.2a)	• Sport and recreation (reinforce and upgrade) • Parks (passive and active)
• Hanover Park	• Sportsfield • Community park
• Heideveld	• Community park

Table 6.3: Strategic "area based" opportunities for public facility upgrading and development (CSIR Guidelines & Standards report, 2010)

c) Cemeteries

Given that most cemeteries in the district are near capacity and that growing shortfalls require additional cemetery development in the short-medium term, the provision of additional new space should be explored.

Klip West Extension Phase 2 cemetery (6,4ha), together with the possible expansion of Ottery cemetery (6,2ha) are identified to address burial demand in the District, as well as in the eastern areas of the Southern District. The proposed cemetery in Mitchell's Plain (at Lenteguur) could also serve the demand in the Cape Flats District (e.g. from Gugulethu and Nyanga). The recently developed Klip North cemetery and an extension to Vygiekraal cemetery could provide for Muslim burial demand in the area.

d) Destination places

A number of destination places are proposed as places where the residents of the Cape Flats can experience and enjoy the district's most prized assets. The Cape Flats suffers from a significant lack of areas where people are able to spend much needed recreation and relaxation time. Whilst the district has significant recreational promise as a result of its natural assets, formal opportunities for such experience should be enhanced in a manner than offers spectacular, safe and affordable recreation spaces. A number of locations within the district are identified as places that, with the necessary enhancement could play that role, they include:

- **Cape Flats Urban Park**

The Cape Flats Urban Park has been a part of planning at a metropolitan and local area scale for some years. The current landowners, Consol Glass and the City have an agreement that the area will, once mining operations are concluded on the land, be developed as a metropolitan urban park.

It is proposed that a specific medium term investment should be made as the first phase of the urban park and could be a catalyst for future complimentary uses that would contribute towards the realisation of the vision for urban park in the area. This first phase should be the creation of a destination place that could include public space interventions, a picnic area and an enviro-tourism centre. These opportunities should be investigated in partnership with the adjacent communities and Consol Glass.

- **Strandfontein Coastal Node**

This area is regarded as strategic as it holds the opportunity of promoting access to the coastal amenity for a large proportion of the City's residents. This is due to its proximity to public transport, given Strandfontein Roads metropolitan connectivity and identification as a trunk IRT route.

The scenic nature of the coastline and beach holds potential (through reinforcement / upgrade to the Strandfontein pavilion/resort and surrounds) to develop a memorable destination place. The intention of the proposed destination place is to enhance the use and experience of the ocean and coastline by the surrounding communities, through the development of a safe and more intensely utilised coastal node (see figure 6.4 below).

This should include;

- o development of a broader range and mix of activities, including residential, commercial and recreational and tourism activities;
- o upgrading the existing pavilion as a functional recreational/tourism area; and
- o development of the strategic vacant land surrounding the existing Strandfontein sports complex.

- **Nantes**

The river system and surrounding open space offers an opportunity to create a high quality open-space-focussed passive recreational area in Bridgetown and Kewtown where such opportunities are very limited. Such a facility is a means to begin to address/alleviate some of the social challenges that exist in the neighbouring communities. Rehabilitation of the river system and designation and improvement of specific areas for public activities such as inter alia, picnicking, walking, community events and environmental education can be enjoyed in a safe and well maintained urban park.



Figure 6.4: Proposed coastal node development at Strandfontein

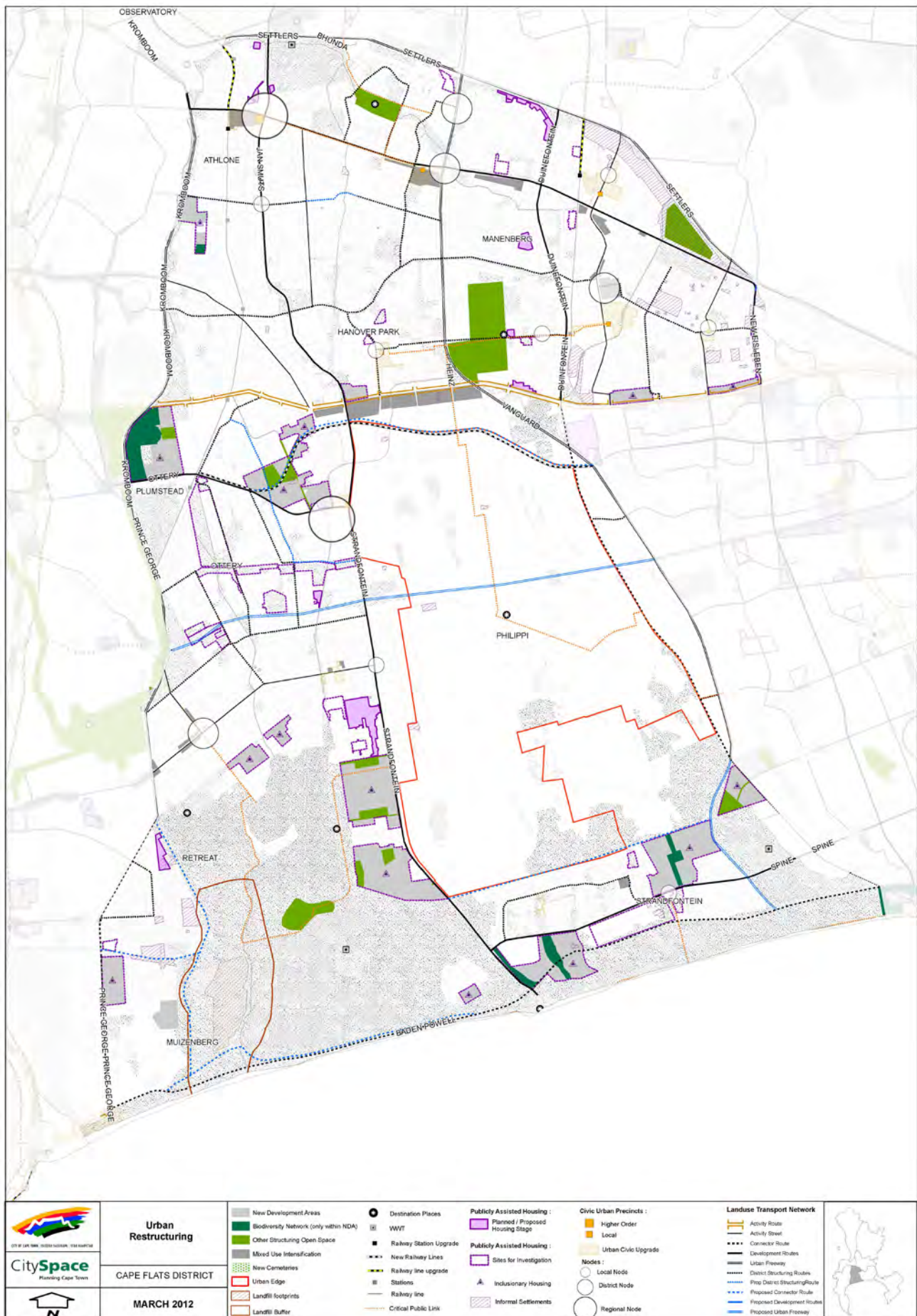
- **Philippi Horticulture Area (PHA)**

The purpose of this destination place should be to showcase the district's unique agricultural asset. The development of a destination place at the central location identified within the core horticultural area that would enable the public to experience the agricultural and open space value of this area should be investigated further. The destination place would be considered the entire horticulture area, but may well focus on certain edge areas at the interface between urban and horticulture area. It is crucial that the creation of a destination place does not precipitate further urban creep into the horticulture lands. Potentially compatible activities that could be associated with this destination place include equestrian, touch farms and farms open to public access for produce picking, eco-tourism/agri-tourism and environmental activities (especially associated with wetland areas. Other compatible development, which would be confined to adjacent urban development areas, would be reasonably intense (medium density) mixed use development inclusive of residential development as a core component of the mixed land use. Appropriate municipal service provision would be required to support the kinds of destination place activities envisaged. This would include road provision or upgrade to create a defined urban edge, and well as community park facilities and landscaping in higher density areas.

- **False Bay Ecology Park (FBEP) Headquarters & visitor centre**

The purpose of this destination place should be to showcase the districts magnificent environmental features such as the picturesque water bodies and the diverse faunal and floral assets located in this unique natural setting. FBEP Headquarters and visitor centre is surrounded by a number of complimentary facilities and is proposed in a central location within the Park. The development should include expansion of facilities such as those provided at Rondevlei, a visitors centre, the implementation of dedicated passive recreation areas and environmental education focussed facilities. The optimisation of the public's experience and enjoyment of waterbodies and associated environmental assets, such as a prolific birdlife in the area should be the focus.

Figure 6.5: Urban Restructuring



6.2 Sub district guidelines for land use decision making

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'.

Within each district there are distinct intra district units or 'sub districts' for which more detailed land use guidelines could assist land use and environmental decision-making as result of commonalities and functional relationships between land uses within those sub districts. Such, more specific land use guidelines offer guidance and support for a distinct sub district spatial vision and objectives, which relate to the character of that area, it's development capacity and desirability of specific types of land use.

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

In the Cape Flats District, six distinct geographical sub districts are identified (see figure 6.6), including :

- Sub-district 1: Greater Athlone
- Sub-district 2: Manenberg / Gugulethu / Nyanga
- Sub-district 3: Grassy Park - Ottery and Environs
- Sub-district 4: Philippi Horticultural Area
- Sub-district 5: Muizenberg East - Pelican Park
- Sub-district 6: Strandfontein and Environs

The sub-district guidance for land use and environmental decision-making is dealt with in two parts.

The first is to provide guidance towards achieving desirable medium to long term future development visions for these identified sub districts. This includes guidance for existing urban, open space, natural and agricultural areas (see tables headed 'Sub districts'). It should be noted, however, that this broad sub-district guidance does not replace detailed local area guidance (eg. local area structure plans), which is usually at a significantly greater level of detail (including street and even erf scale).

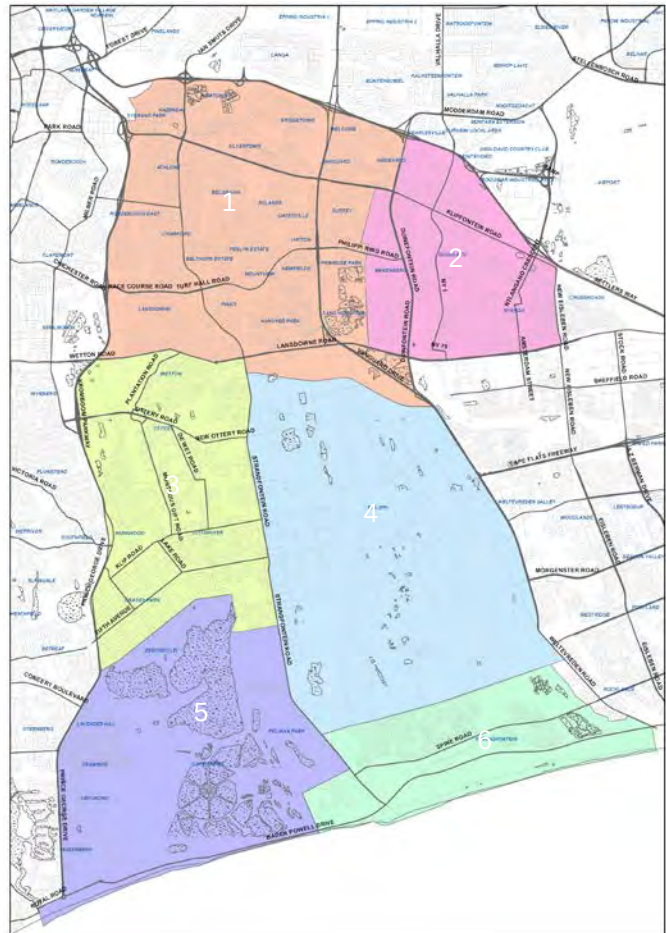


Figure 6.6: Sub-Districts

The second part of this section is to specifically include guidance for undeveloped areas (only those exceeding 5ha) identified for future development (see tables headed 'New Development Areas'). More detailed site by site guidance is provided in the sub-district sections below.

6.2.1 Sub-District 1: Greater Athlone

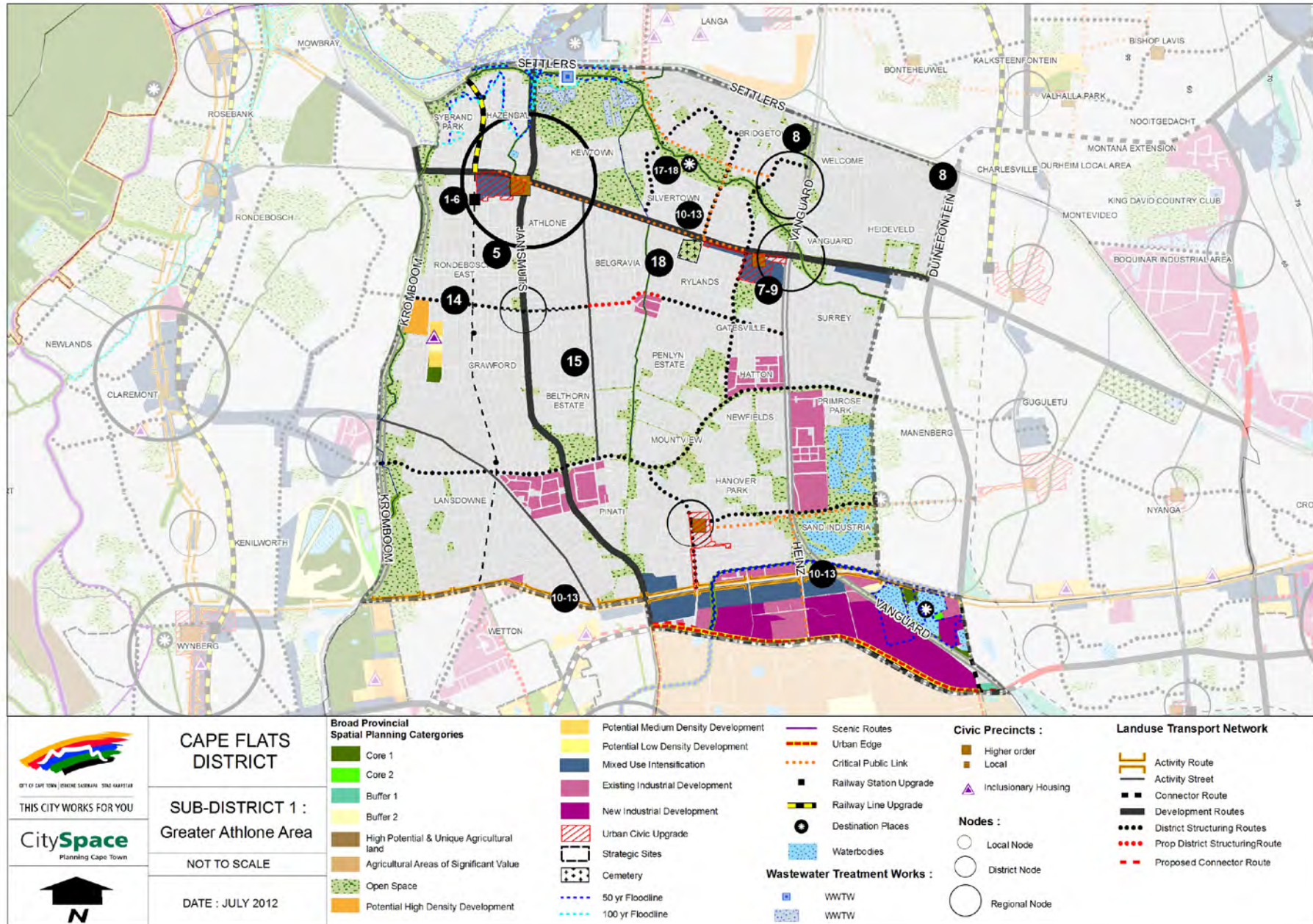
SUB-DISTRICT 1: GREATER ATHLONE: CHANGES IN LAND USE AND FORM		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
• Reinforce Athlone CBD as vibrant business district by increasing thresholds, supporting economic activity, encouraging night life and enhancing surveillance/safety • Encourage improvement of the public and pedestrian environment within the Athlone CBD. • Protect areas/buildings of cultural significance in greater Athlone.	1. Promote Athlone CBD as an urban development zone (UDZ) where higher intensity of development is encouraged, supporting urban regeneration. 2. Encourage and support residential densification within the Athlone CBD 3. Alternative residential accommodation which provides affordable housing e.g. student accommodation/communal residential buildings should be supported to attract residential land uses to the Athlone CBD. 4. Ensure that public and private development initiatives contribute (incrementally) to upgrading public spaces and walkways. 5. Protect buildings of architectural, historical, and cultural significance in the Athlone area. 6. Promote Athlone CBD as a civic hub.	• Land Use Policy for Kromboom Road, Athlone & Rondebosch East • A Land Use Management Policy for Belgravia Road, Athlone • Hanover Park & Sand Industria Local Area Spatial Development Framework • Lansdowne Road Industrial Area Development Framework
• Reinforce Gatesville as a business node by increasing thresholds, supporting economic activity, encouraging night life and enhancing surveillance/safety • Protect areas/buildings of cultural significance.	7. Support land use intensification within the node 8. Ensure that public and private development initiatives contribute (incrementally) to upgrading public spaces and walkways. 9. Protect residential areas by preventing commercial creep into the residential areas.	
• Support and reinforce key public transport routes, including identified Development Routes and Activity Routes, as well as Activity streets.	10. Support land use intensification at intersections of urban corridors/major public transport routes (e.g. Vanguard, Duinefontein,) 11. Support land use intensification and land uses of a mixed nature along Klipfontein and Lansdowne Roads. Allow/encourage parallel service roads to facilitate mobility along Klipfontein Road (a development route). 12. Development should front onto Lansdowne and Klipfontein Roads. 13. Residential development along this route should be of a medium – high density and where possible combined with retail commercial or light industrial	

	uses.	
• Retain and reinforce well-functioning movement routes and improve the relationship between movement and land use. • Support focussed economic (commercial and retail) development along activity routes and streets, as well as structuring routes. • Support targeted nodal commercial and retail development along structuring routes • Encourage infill development on publicly owned land	14. Retain existing function of Kromboom Road as a “residential feeder” and movement route. a) Encourage nodal retail development by reinforcing the existing commercial node and discouraging haphazard commercial development along the road. b) Protect existing residential character between nodal development areas. 15. Retain and reinforce exiting function of Belgravia Road as a local activity street.	•
• Positive interfaces with parks and open spaces. • Development and consolidation of open space, as well as increased urban densities surrounding parks and positive urban-open spaces interfaces.	16. Encourage increased residential densities adjacent to Nantes District Park and encourage development which faces onto park creating surveillance. 17. Encourage new development adjacent to existing open spaces (eg. Vygekraal and Rondebosch East Common) to front onto and enclose open spaces, to ensure that they create well defined, safe spaces, and positive interfaces. 18. Encourage development of Nantes as district urban park and encourage reinforcing and upgrading sports facilities and park in proximity to Athlone stadium and Nantes precinct.	

SUB-DISTRICT 1: GREATER ATHLONE: NEW DEVELOPMENT AREAS		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
LANSDOWNE RD INDUSTRIAL AREA		
• New Industrial, commercial and mixed use development is envisaged on the undeveloped portions of land within the	• Encourage / facilitate mixed use commercial and industrial land uses between Lansdowne Road and the proposed Sheffield Road alignment. • Create a positive open space / soft interface adjacent to the proposed Sheffield Road extension to soften the visual and noise impact of the proposed mobility route and provide transition into Philippi Horticultural Area.	Lansdowne Road Industrial Area Structure Plan 4(6), 1996

Lansdowne Road Industrial Area. • Whilst there has been recent investment in industrial development in the area, there are still significant portions of undeveloped land.		
RONDEBOSCH EAST (erven 42994, 42998, and 43855, 43839)		
• The site is well located and has potential for a range of development opportunities. This includes (but is not necessarily limited to) residential, mixed use development in certain areas, and institutional. • The most appropriate option is likely to be mixed used development, as well as medium density residential development.	• Development of this site should be respectful of existing neighbouring development (i.e. especially the development's outer edges), but be generally at a higher development intensity, in keeping with developing a more compact city. • Encourage a positive interface with Kromboom Road even if direct access is not possible from Kromboom Road. • Residential development should be generally medium density, with higher dwelling unit density in proximity to Kromboom Road, and decreasing moving (southwards) towards existing residential areas. • Mature trees and features of environmental value should be retained and incorporated into the development. • Consideration needs also to be given to creating a positive interface with the M5.	• Land Use Policy for Kromboom Road, Athlone & Rondebosch East

Figure 6.7: Sub-district 1: Greater Athlone Area



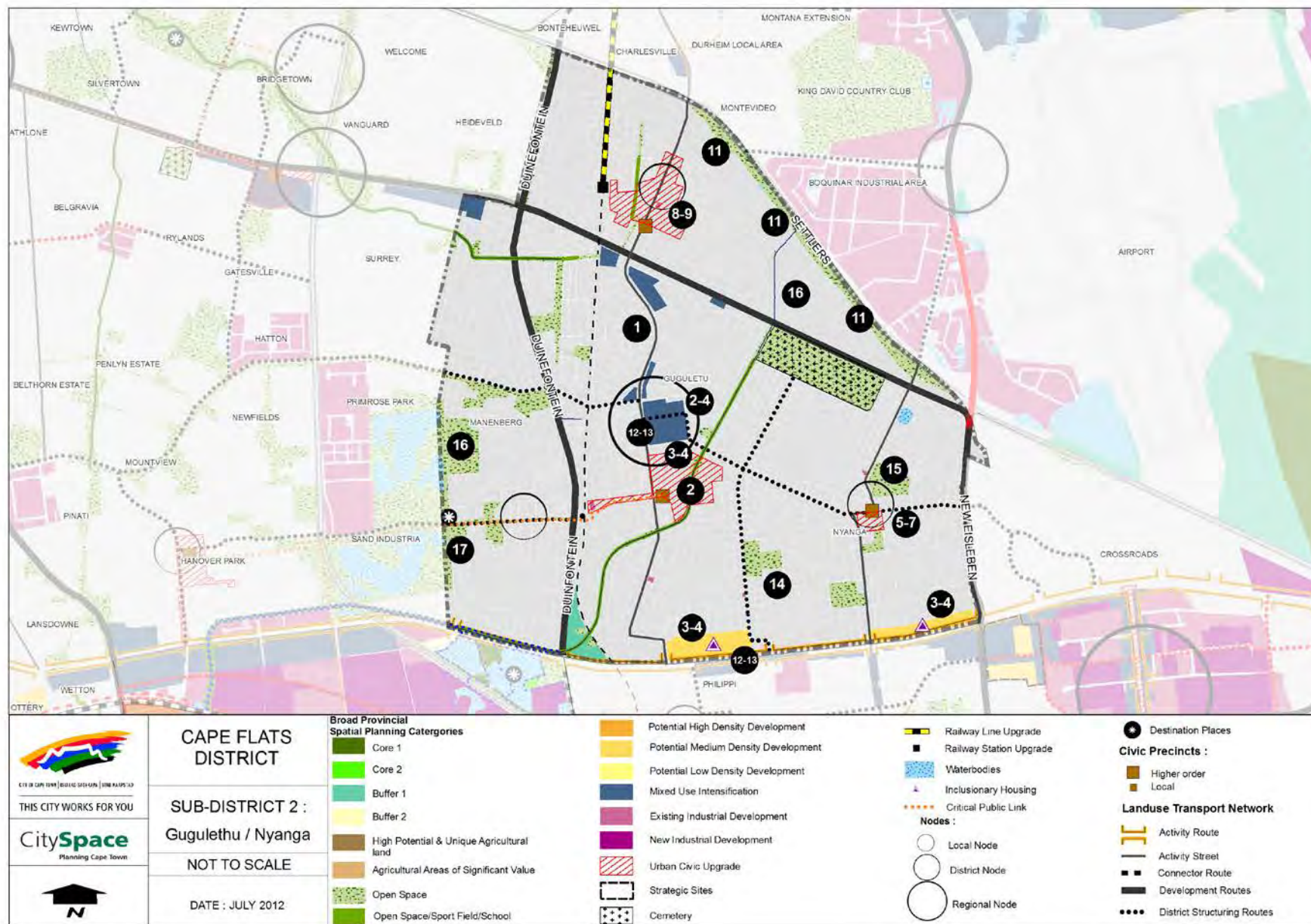
6.2.2 Sub-District 2: Manenberg - Gugulethu - Nyanga

SUB-DISTRICT 2: MANENBERG - GUGULETHU – NYANGA: CHANGES IN LAND USE AND FORM		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
Reinforcement and further development of the Gugulethu urban node and civic precinct, including the development of new public facilities/new parks.	- Encourage intensification and mixed land uses, including medium-high density residential development within the node and along NY1. - Encourage the retention and reinforcement of the Gugulethu civic precinct (including the station precinct) through incremental upgrading and continuous maintenance of public facilities and public spaces in the area - New public facilities that should be investigated/considered to be accommodated within the urban node, civic precinct, or along accessibility grid (along NY1) include a regional library, local library, secondary school, primary school and two community parks. - Ensure that public and private development initiatives contribute (incrementally) to upgrading public spaces and walkways.	- Gugulethu - Manenberg Local Area Spatial Development Framework - Nyanga Local Area Spatial Development Framework
Reinforcement and further development of the Nyanga urban node and civic precinct, including the development of new public facilities/new parks.	- Encourage the retention and reinforcement of the Nyanga civic precinct through incremental upgrading and continuous maintenance of public facilities and public spaces in the area - New public facilities that should be investigated/considered to be accommodated within the urban node, civic precinct or along accessibility grid include a local library, primary school district park and community park. - Ensure that public and private development initiatives contribute (incrementally) to upgrading public spaces and walkways.	
Reinforcement and further development of the Heideveld Civic precinct	- Encourage the retention and reinforcement of the Heideveld civic precinct (including the station precinct) through incremental upgrading and continuous maintenance of public facilities and public spaces in the area. - Encourage the development of a new community park in Heideveld.	
Upgrading of informal settlements and relocation of inhabitants from areas where settlement presents significant risk to health and safety.	- Encourage upgrading of informal settlements in Gugulethu, Nyanga and Crossroads. - Encourage the redevelopment of Kanana in a manner that accommodates as many of the current inhabitants as possible. Ensure that the most viable portions of the site are retained to accommodate urban development and that which is not suitable/feasible for urban development is incorporated into the open space network (e.g. parks, sportsfields, and agriculture).	
Encourage intensification (and land use	Support intensification along urban corridors/major public transport routes (Wetton/Lansdowne, NY1) and support	

change) and densification at intersections of Development Routes and/or Activity Routes, as well as along (linear) Activity Routes and Activity streets.	development of a mixed use nature. 13. Development should front onto Lansdowne Road, Klipfontein Road and NY1.	
• Development of a functional network of open space, including active and passive open spaces such as sportfields and parks respectively.	14. Encourage the retention and upgrading of the existing open space network in Gugulethu, Nyanga and Crossroads. 15. Closure of any open space in the area should be discouraged given the extent of under-provision. 16. Encourage development of new open spaces (passive and active) and encourage multi-purpose use of them (also see 3 above).	

SUB-DISTRICT 2: MANENBERG - GUGULETHU – NYANGA: NEW DEVELOPMENT AREAS		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
ERF 8448 & MAU MAU (erf 2849)		
	• A medium density residential development is proposed. • Encourage positive interface with Lansdowne Road. • Incremental changes of land use should be considered to allow for mixed use development along Lansdowne Road.	

Figure 6.8: Sub-district 2: Gugulethu / Nyanga



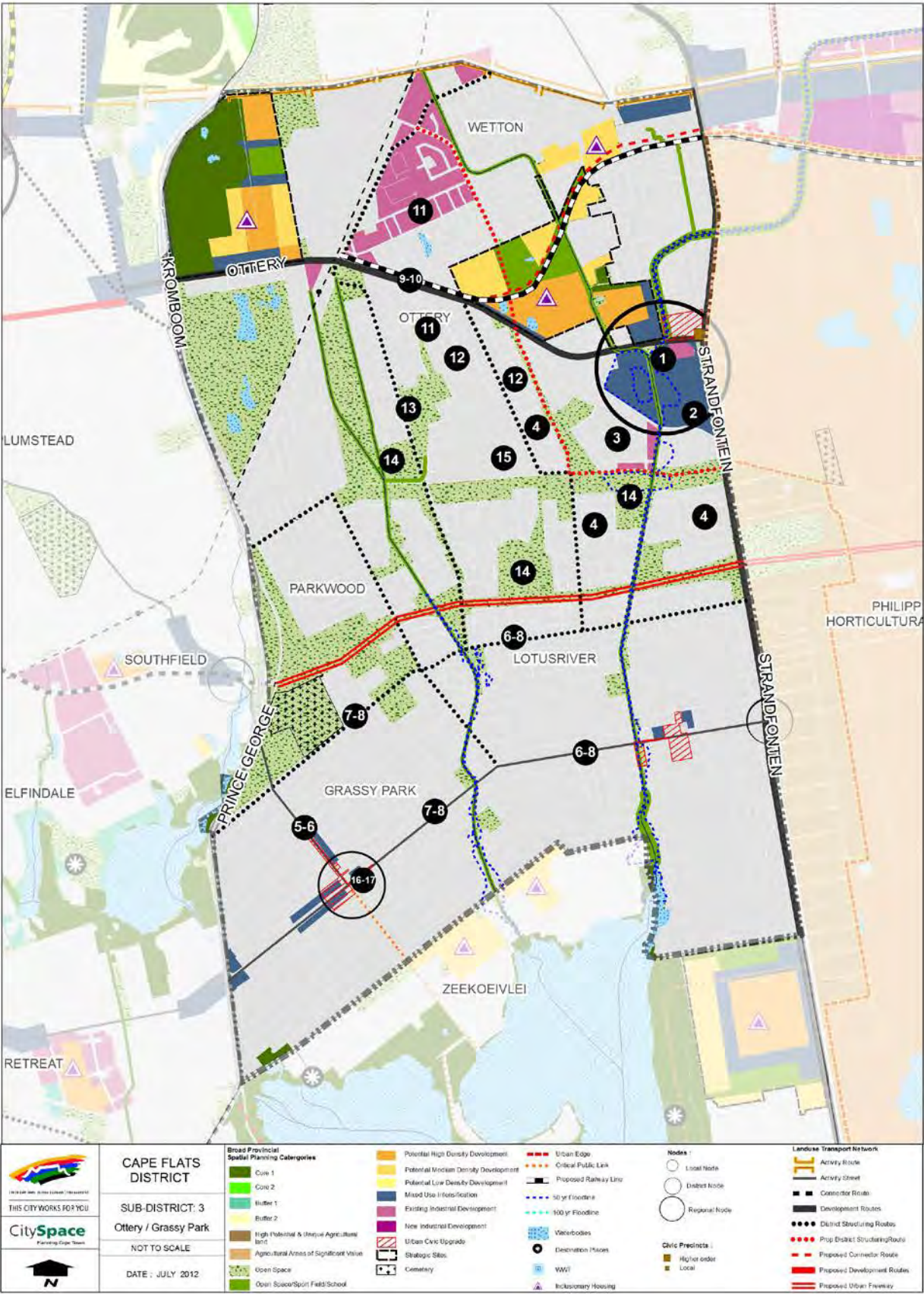
6.2.3 Sub-District 3: Grassy Park / Ottery and Environs

SUB-DISTRICT 3: GRASSY PARK - OTTERY AND ENVIRONS: CHANGES IN LAND USE AND FORM		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
• Reinforce and strengthen the Ottery commercial/light industry node	1. Support expansion of commercial development node. 2. Support applications for rezonings to commercial/light industrial in Edward Township. 3. Promote industrial and commercial uses and intensification thereof to support existing industrial commercial activities. 4. Protect adjacent residential amenities.	• Ottery East Local Structure Plan (Draft) • Grassy Park Local Area Structure Plan
• Reinforce Victoria Road as an activity street • Facilitate Klip and Fifth Avenue as movement routes/ public transport routes and utilise land along these roads more efficiently	5. Encourage mixed use and high density residential development along Victoria Road. 6. Encourage positive/integrated interfaces between developments and the street. 7. Supporting medium to high density residential developments along these routes. 8. Support mixed use provided that it does not compromise the role of these roads as movement routes.	
• Discourage commercial activities within residential areas	9. Formalise existing commercial activities along Ottery Road, particularly in terms of access, parking. 10. Encourage new commercial activities along Ottery Road (east of Ferness Road) and within the commercial node. 11. Protect residential character north and south of Ottery Road.	
• Define/create structuring elements to give logic and identity to the area • Consider appropriate land use options for underutilized land	12. Prepare a local area spatial framework for the Ottery environs incorporating structuring elements as well as possible land uses for large underutilised sites.	
• Development of a functional network of open space, including active and passive open spaces such as sportfields and parks respectively.	13. Protect and upgrade existing open spaces in the Ottery environs. 14. Undertake an audit of land zoned for open space purposes and determine what open space areas should be retained and what could be developed. 15. Determine appropriate locations for high density housing.	
• Consolidate Busy Corner as a community facility node.	16. Encourage expansion of existing facilities 17. Direct new community facilities to this node.	

SUB-DISTRICT 3: GRASSY PARK - OTTERY AND ENVIRONS: NEW DEVELOPMENT AREAS		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
YOUNGSFIELD		
• New mixed use development proposed on a portion of the Youngsfield Military Base. Development is proposed on land which the military no longer requires for its operations. • The land is strategically situated between the M5, Wetton Road, the more densely developed portions of the existing military base (east) and the Ottery Road to the south. • The vision for the area includes a medium density mixed use development where the sports sector is a major component.	• The proposed development includes, - o sports facilities/complex which could accommodate a sports academy; - o mixed use along Ottery Road and along proposed structuring route; - o higher density residential development along the proposed central north south structuring route, flanked by medium density residential development adjacent to the industrial area to the east and the proposed open space to the west; - o open space strip along the western edge of the site (adjacent to the M5), as a transition between urban development and the urban freeway.	• Youngsfield and Environs Development Framework
OTTERY (erven 1449, 3160, 1940-1, 2877)		
• The vision for the site includes a new mixed use development. Whilst the area includes a number of wetlands and low lying areas that present challenges to bulk service provision. The wetlands in particular present unique place making elements and the new development should be able to	• The proposed land uses include, - o mixed use precinct associated with the proposed civic precinct in the south east corner of the site; - o high density development on the southern portion of the site (south of proposed Sheffield Road extension) adjacent to Ottery Road. - o It is imperative that a positive interface, with a strip of mixed use development should be encouraged along Ottery Road; - o a mobility link is proposed through the site, which is the extension of Sheffield Road between the Ottery East and Ottery Road; - o structuring routes linking the new development with the surrounding urban development, as well as to create a link/connection through the site between Ottery Road and Ottery East; - o low lying portions of the site on which seasonal wetlands exist, should be retained as natural/open space areas. Their use as passive recreational	

integrate the wetlands into the development.	areas should be encouraged through the enhancement of these spaces and the development of passive recreation infrastructure such as paths and boardwalks; - o a green link along the alignment of the existing river (canalised). - o The development of the site should incorporate improvements to the quality of the river system.	
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Figure 6.9: Sub-district 3: Ottery / Grassy Park



6.2.4 Sub-District 4: Philippi Horticultural Area

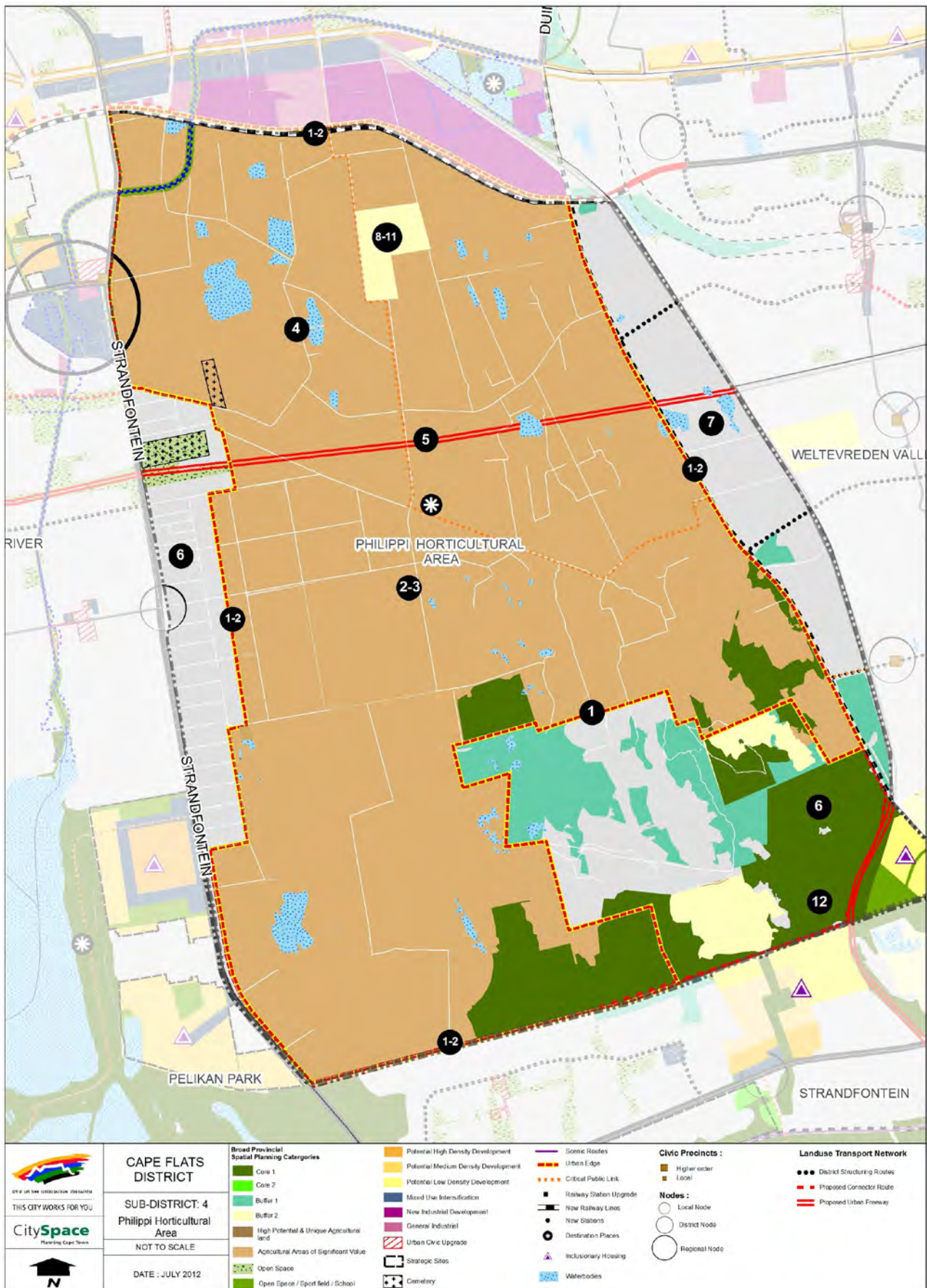
SUB-DISTRICT 4: PHILIPPI HORTICULTURAL AREA: CHANGES IN LAND USE AND FORM		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
- Protected and productive core horticultural area -	- Protect core horticultural area, bounded by the proposed Sheffield Road alignment (north), Weltevreden Road (east), northern edge of Strandfontein/horticultural area boundary (south) and eastern boundary of Schaapkraal smallholdings area (or as identified in the Schaapkraal Smallholdings study (2012). - Discourage livestock farming and feedlots so as to limit groundwater (aquifer) contamination. - Encourage positive urban-rural interfaces with the horticultural area. This includes: - well-defined (clear) edges, preferably using (an existing) road - development 'fronting' onto the edge interface rather than 'backing' onto it - visually permeable edges rather than high walls onto horticulture - Protect silica sands resources within the PHA. High grade silica is situated to the west of the PHA and low grade is located to the south. Refer back to section 5.5 and figure 5.5b. - Promote the urgent need for the R300 freeway extension across the PHA to relieve the increasing east-west traffic congestion between Mitchell's Plain and the southern suburbs Main Road corridor and adjacent work opportunity areas. However, this freeway extension should not include any direct access to the PHA which encourages a subsequent urban development response in the PHA. Instead, the extension should include sufficient underpasses in support of retaining a functional horticultural area both north and south of it.	- Philippi Horticultural Area - Management Plan - PHA Rapid Review (2009)
Changes in land use in specific areas no longer considered core horticulture area.	- Encourage the consideration of appropriate changes in land use within the Schaapkraal smallholdings area - Encourage medium density mixed use development - Encourage positive (urban) interface with Strandfontein Road (could include service road, frontage facing Strandfontein Road, appropriate landscaping etc). - Upgrade and improve services accordingly - Encourage the consideration of appropriate changes in land use (to urban development) within the area bordered by Weltevreden Road and Vanguard Drive. - Encourage medium density mixed use development - Encourage positive (urban) interface with Weltevreden Road (could include service road, frontage facing Weltevreden Road, appropriate landscaping etc). Weltevreden Road should	

	be considered as a future scenic route.	
• Consolidate and improve Highlands Estate as a viable and functional urban area within the PHA.	8. Upgrade service provision to this area. Given its unique (and challenging, due to its dislocation from other urban areas) location, opportunity exists to provide quality sustainable 'off-grid' servicing, which may act as a 'market leading demonstration municipal project. 9. Extend Highlands Estate to incorporate the informal development to the south of it. 10. Limit urban development to residential only. 11. Support and facilitate the development of positive urban-rural interfaces with the horticultural area. This includes: a. well-defined (clear) edges b. development 'fronting' onto the edge interface rather than 'backing' onto it c. visually permeable edges rather than high walls onto horticulture	
• Retention of core biodiversity areas within the PHA, as well as links between biodiversity areas within and outside the PHA.	12. Encourage retaining the biodiversity/open space link between the PHA and the south east core biodiversity areas, False Bay Ecology Park and the Strandfontein coastline.	

SUB-DISTRICT 4: PHILIPPI HORTICULTURAL AREA: NEW DEVELOPMENT AREAS		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
Weltevreden Road 'wedge' (between Vanguard Drive and Weltevreden Road) <i>Area not indicated as a New Development Area (colour yellow) on Sub-district plan (see Fig. 6.10) as area already partially developed.</i>		
• This area has been identified by the City for future new urban development. • The location and nature of urban development in this area requires detailed investigation. • This urban development should not negatively affect the sustainable long term viability of the adjacent Philippi Horticultural Area	• Future development within this area will be / is subject to the Weltevreden Road 'wedge' study <i>(as recommended by Council in November 2009)</i>. • Key issues to be considered in future urban development within the area include: - o Hydrological issues: significant low lying land, including seasonal wetlands, subject to flooding. Future urban development must acknowledge accordingly. - o Road network constraints: Vanguard Drive is an expressway, precluding direct access from it except (possibly) from one or two major interchanges, potentially making the 'wedge' area significantly isolated from adjacent urban areas to the east. Further to this, the proposed future R300 freeway extension across the Philippi Horticultural Area (PHA) and related interchange at Vanguard Drive, will preclude any access between the northern and southern portions of the 'wedge' area, except via Weltevreden Road.	• Cape Town SDF (2011) • Weltevreden Road 'wedge' study (short term priority)

(west of Weltevreden Road), and should ideally support this area, and especially the interface area between the two (i.e. along Weltevreden Road).	- o Ownership: all land within the 'wedge' area is privately owned. Attention should be given to coordinated land use development. - o Land use demand: this includes demand for low-income housing (state provided) and industrial development - o Horticulture: significant intensively farmed horticulture area exists in the south of the 'wedge', which is also low lying, which suggests this should be seriously considered as a medium to long term land use. - o Biodiversity: a small area in the far south of this 'wedge' area requires detailed investigation, and any future urban development in this area may need to respond accordingly.	
Rapicorp area (erven 579 – 582, 587 – 591, 637 – 641, 652 – 654, 756 – 658 et al Philippi)		
• An application for an amendment of the Peninsula Urban Structure Plan (1988) on the land owned by Rapicorp (472ha) was approved by the PGWC in late 2011. As a result part of this area may possibly in future, subject to environmental (to NEMA) and land use (to LUPO) applications, be a new urban development area.	• The future of this area will be subject to full environmental and land use processes.	
Schaapkraal Smallholdings area (east of Strandfontein Road)		
• <i>This area has not been identified on the SDP or Sub-District map, since it is already significantly developed as an urban area. However, it has hitherto been identified as a 'smallholdings' area, and is now identified (by the CTSDf) as an urban area.</i>	• <i>It is likely that this area will densify significantly in coming years.</i> • <i>Future development of this area will be / is subject to the Schaapkraal Smallholdings and Environs urban edge and development guidelines study. This includes the area identified as future urban development area.</i>	• <i>Schaapkraal Smallholdings and Environs urban edge and development guidelines study (to be completed in 2012)</i>

Figure 6.10: Sub-district 4: Philippi Horticultural Area



6.2.5 Sub-district 5: Muizenberg East to Pelican Park

SUB-DISTRICT 5: MUIZENBERG EAST - PELICAN PARK: CHANGES IN LAND USE AND FORM		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?) City SDF ref	Existing frameworks
Protected and enhanced environmentally sensitive areas, including areas of biodiversity value and significant aquatic complexes in a manner that will facilitate public access and use of these resources.	- Promote the protection and enhancement of environmental resources incorporated in the False Bay Ecology Park. - Encourage the development of recreational and educational facilities which facilitate access to and experience of the ecology park. - Encourage the development of safe gateways/access points to open spaces adjoining the ecology park. - Encourage development to face green spaces.	- Zeekoevlei Local Structure Plan - Pelican Park Phase 1-3 Concept Urban Development Plan
Development of strategically located, undeveloped publicly owned land (at Pelican Park) in a way that , while creating mixed use development opportunities, facilitates a positive relationship between new development and existing environmental and recreational assets, as well as improve safety of those accessing open spaces and recreational areas.	- Development of phases 1 and 2 of Pelican Park - Permit 2-3 storey medium density development with mixed uses. - Encourage positive interfaces with open space close to Zeekoevlei, including 2-3 storey development which fronts onto/faces open spaces adjacent to vlei. - Promote erection of visually permeable fencing between developments and the open space. - Encourage gateways/ public access points into open space from new development. - Encourage the creation of walkways and cycle-ways within open space corridor.	
Reinforcement and further development of the Lavender Hill/Vrygrond civic precinct, including the development of new public facilities/new parks.	New public facilities that should be investigated/considered to be accommodated within the civic precinct or along accessibility grid include a local library, sportsfield/stadium, primary school and community park.	
Development which avoids hazardous areas related to the False Bay landfill site.	- Restrict development to outside the designated buffer area of the False Bay landfill site. - Retain ecological corridor between Capricorn park development and the False Bay landfill site.	

SUB-DISTRICT 5: MUIZENBERG EAST - PELICAN PARK: NEW DEVELOPMENT AREAS		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
PELICAN PARK (east of Zeekoe Vlei)		
A new mixed use development (Pelican Park) comprising two phases is envisaged on portions of well-located	- The proposed land uses in Phase 1 of the new development include: - mixed use and medium to high density residential development with a commercial component; - a commercial and mixed use edge along	

land east of the False Bay Ecology Park (FBEP) and adjoining Strandfontein Road.	Strandfontein Road (positive interface with Strandfontein Road); - o utilisation of a service road which facilitates a positive building street interface, (encourages pedestrianism, and supports a minimal building setback, avoids large parking areas adjacent to service road, and encourages on street parking only along the service road); - o medium density development adjacent to False Bay Ecology Park, positive interface with FBEP (residential development to front onto FBEP and facilitate views and experience of Zeekoevlei) ; - o mixed use development strip (north south) proposed between the medium and high density residential development.; - o open space links are proposed between the FBEP and the PHA (a positive interface should be created between these links and the adjacent residential and mixed use development). - o Urban development should front onto these spaces as opposed to the back of buildings facing them. • Phase 2 comprises a proposed development with stronger residential character than phase 1, with smaller concentrated mixed use and commercial areas. The proposed land uses in the new development include: - o mixed use development adjacent to the proposed structuring route perpendicular to Strandfontein Road; - o adequate open space should be provided for. - o medium density residential development is proposed on the remainder of the site.	
CAPRICORN EXTENSION (west of Cape Flats landfill site)		
• The proposed development is adjacent to the existing Capricorn Park (west) and the False Bay landfill site (east) and it is envisaged as an extension of that commercial/light industrial park.	• The envisaged new development in this area includes the extension of the existing Capricorn Park commercial/light industrial development. • The boundary of the proposed Capricorn development is the edge of the Council approved landfill buffer, which is also the edge of a proposed mobility route connection between the M5 (south of Lavender Hill) and Baden Powell Drive.	
PRINCE GEORGE DRIVE (erven 82483, 82490, 82491, 82498 et al)		
• Significant opportunity is presented by the undeveloped and underutilised City owned land adjacent to the M5 freeway and opposite the Marina De Gama development. • A mixed use development of medium density is envisaged.	• New development is proposed which includes mixed use and residential components. - o The location of a mixed use zone is proposed along the highly exposed Prince George Drive edge and opposite the Capricorn Shopping Centre node. - o A medium density residential component is proposed east of the proposed mixed use development and west of the existing urban development. A north south green corridor should be retained to perform important ecological functions as well as local recreational spaces and accommodating pedestrian linkages.	

Figure 6.11: Sub-district 5: Muizenberg East to Pelican Park



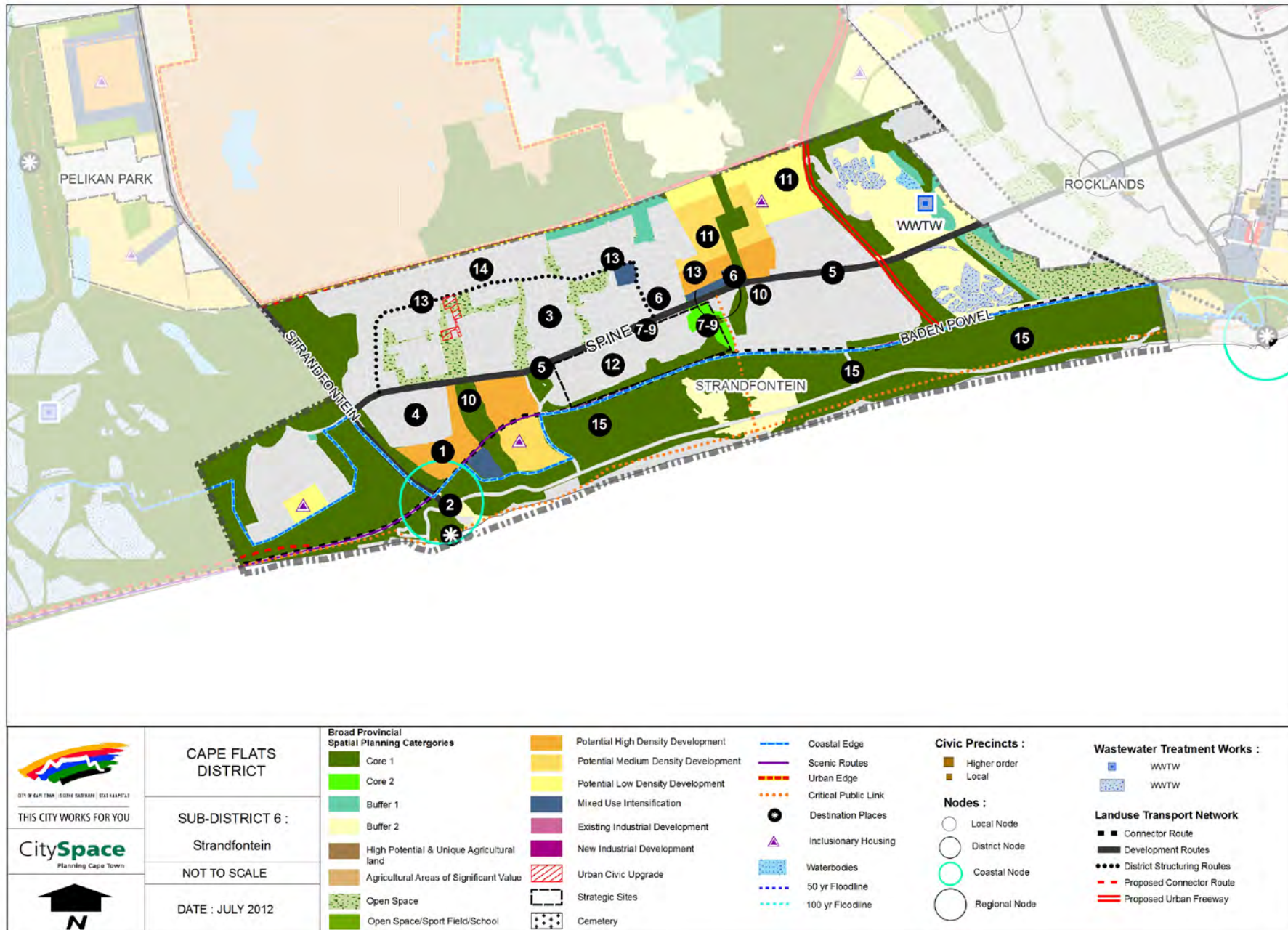
6.2.6 Sub district 6: Strandfontein and Environs

SUB-DISTRICT 6: STRANDFONTEIN AND ENVIRONS: CHANGES IN LAND USE AND FORM		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
• Improve access, functionality and intensity of use of Strandfontein coastal node- 'meeting the coast' and the creation of a 'special place' destination. • Greater diversity and intensity of land uses in areas immediately surrounding the Strandfontein Coastal node (aligned with proposals contained in the Rapid Planning Review of Potential Future Development Areas along False Bay Coastline (2009)).	1. Nodal residential development is promoted in areas adjacent to Strandfontein coastal node, especially north of the existing node. 2. A greater mix and intensity of land uses is encouraged within and surrounding the existing Strandfontein resort. 3. Encourage rationalising underutilized open space to improve its functionality (retain what is essential, but dispose of that which is unusable). Promote a hierarchy of functional open space (biodiversity conservation areas, sports facilities, local play parks and combinations of these functions). 4. Retain the Strandfontein Sports Complex and encourage urban development adjacent to that facility to create a well-defined positive edge to the sports complex. In addition to this, development which faces onto the sports complex should be encouraged.	• Rapid Planning Review of Potential Future Development Areas along False Bay Coastline (2009).
• Reinforce Spine Road as the highest order and key development route through the Strandfontein area, by encouraging mixed use development along this route.	5. Further economic activity and residential intensification is encouraged along Spine Road. 6. Intensification of economic activities is encouraged at nodal locations where access routes intersect with Spine Road. 7. Service roads are encouraged to retain the mobility function of Spine Road. 8. Concentrate higher order facilities clusters along Spine Road 9. Higher density residential development along this road would also be encouraged, in general up to a height of three storey walk ups. 10. Ensure visual corridors to the coastline, other environmental features and well placed open spaces to break the facades of development fronting this road.	
• Development of strategically located undeveloped/undeveloped, publicly owned	11. Development of publicly owned land east of Strandfontein and north of Spine Road is encouraged. a. Mixed land uses, higher densities and facilities clusters are promoted adjacent to Spine Road	

land parcels.	b. Ensure a suitable interface with the PHA and biodiversity / green spaces. 12. Encourage redevelopment of institutional precinct east of Camp Road, south of Spine Road and north of Baden Powell Drive as a mixed use precinct with positive development interfaces along Spine Road and Camp Road is encouraged. The land is owned by the City of Cape Town and is leased to institutions. The ad hoc and disjointed nature of the development has resulted in sub-optimal use of the land thus it is proposed that the land is redeveloped and (land uses) intensified. a. A gradient of density and building heights is encouraged, with highest densities and building heights being supported along Spine Road, decreasing towards the coastal zone. b. Development up to five storeys will be permitted in this area, adjacent to Spine Road. c. Developments in this area should make provision for public links/walkways and cycleways to the coastline. Development should interface positively with and front onto critical public links	
Increased residential densities and diversity of residential opportunities in specific locations within Strandfontein.	13. Encourage more intense, medium density developments around facilities hubs and along key structuring routes, such as Denegeur Road 14. Permit greater densification to create a greater variety and choice of types of accommodation. Low-key densification throughout the area can occur through smaller erf sizes, subdivisions, double dwellings and second dwellings.	
- Protection of the coastal zone and related ecologically valuable areas, while allowing for nodal development within zones of opportunity. - Retain east west biodiversity/ ecological corridor.	15. Disallow development south of Baden Powell Drive and retain this as a scenic drive d. Urban development will not be permitted south of Baden Powell Drive (excluding nodal development at Strandfontein coastal node). e. Development north of Baden Powell Drive should be in line with proposals in the scenic drives policy.	City's Scenic Drive Network Management Plan (2003).

SUB-DISTRICT 6: STRANDFONTEIN AND ENVIRONS: NEW DEVELOPMENT AREAS		
Spatial Development Objectives (what?)	Supporting Land use Guidelines (how and where?)	Existing frameworks
STRANDFONTEIN COASTAL NODE (erven 1212-3, 21168, 21165)		
• Infill development which creates the thresholds for a viable and vibrant coastal node • integrating coastal resort with other parts of and Strandfontein	• New development is proposed which includes mixed use and residential components. - o The location of a mixed use zone is adjacent to the coastal resort (west) and proposed residential development (north and east). - o High and medium density residential components are proposed north of the coastal edge line.	
STRANDFONTEIN EAST (erven 1210-2, 21200, 21199, 21202, 47731)		
• Infill development on underutilised undeveloped land.	• New development is proposed which includes mixed use and residential components. - o The location of a mixed use zone, with higher density residential potential proposed adjacent to Spine Road in proximity to the proposed urban node. - o Medium and low density residential components are proposed east and north of developed parts of Strandfontein and south of the urban edge line in the south of the Philippi Horticultural Area.	

Figure 6.12: Sub-district 6: Strandfontein



6.3 Local area planning priorities

While the district plan gives direction at a district scale, local area plans are required to provide a greater level of planning direction in strategic locations, aimed at implementing the plan. Several priority local planning and investment areas are identified in order to implement the plan. Inputs from the public engagement process have been an essential part of this process. These inputs have been balanced with the need to be:

- strategic in focussing on projects with maximum impact;
- aligned with the spatial strategies of the CTSDP and District SDP; and
- programmed with due regard for resources available to undertake projects.

Based on the 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.
- Project/development facilitation projects where further work is needed to unlock strategic land for development.

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.

The local area planning priorities for the Cape Flats district are detailed in the following table.

Table 6.4: Local Area Planning Priorities

	Plan / Project	Description	Timeframe
Local Area Planning Initiative			
1.	Schaapkraal smallholdings area development framework and land use policy	Framework and land use policy required to guide land use change. Significant change has already occurred and there is insufficient guidance to appropriate land uses in the area.	Short term
2.	Weltevreden Road and Vanguard Drive 'wedge', Philippi Land Use Policy	Framework and land use policy required to guide land use change.	Short term
3.	Manenberg / The Downs and Vygiekraal precinct development framework	Framework and guidelines required to give direction to a range of development initiatives in the area.	Short term
4.	Nyanga urban node Spatial Development Framework	Local area spatial development framework to guide changes in land use. There is limited spatial policy guiding the development of the area.	Short term
5.	Heritage study for the greater Athlone area	Local area study of buildings and areas of historical, architectural, and cultural significance.	Medium term
6.	Gugulethu urban node Spatial Development Framework	Local area spatial development framework to guide changes in land use. There is limited spatial policy guiding the development of the area.	Medium term
7.	Lavender Hill & Vrygrond Spatial	Local area spatial development	Medium term

	Development Framework	framework to guide changes in land use. There is limited spatial policy guiding the development of the area.	
8.	Ottery Ferness/Wetton Spatial Development Framework	Framework/investigation required guiding future urban development. Significant undeveloped land.	Medium term
9.	Fifth Ave & Victoria Road activity streets Land Use Policy	Land use policy required to guide land use change on activity streets. Existing approved policy outdated.	Medium term
10.	Hanover Park undeveloped land feasibility investigation	Framework required to guide urban development.	Medium to long term
11.	Lansdowne Road (Jan Smuts to Vanguard) urban design guidelines	Guidelines required to guide land use change and the form of development. Emerging development area with limited urban design guidelines.	Medium to long term
12.	Bridgetown/Silvertown/Kewtown spatial development framework	Local area spatial development framework to guide changes in land use. There is limited spatial policy guiding the development of the area.	Medium to long term
Project/Development Facilitation			
	Strandfontein south institutional precinct & coastal node development framework	Feasibility study required for development possibilities in the area given extent of underutilised land and existing infrastructure.	Medium term
	Zeekoevlei eastern bank & Pelikan Park Phase 2 development framework	Facilitation of phase 2 of the Pelikan Park development, as well as attention to improving the banks of Zeekoevlei to improve public access and safety.	Medium term
	Strandfontein East feasibility investigation	Feasibility study required for development possibilities in area.	Medium term
	Ottery 44ha Development Framework	Facilitation of Ottery new development area investigation. Emphasis on services requirements for development.	Medium to long term
	Youngsfield Development Framework	Facilitation of Youngsfield new development area investigation. Emphasis on balancing areas appropriate for development and environmentally sensitive areas.	Long term

ANNEXURES

Annexure A:

List of withdrawn planning policy documents

Approved structure plans

Plans promulgated in terms of section 4(10) of the Land Use Planning Ordinance, and that impacted on the Cape Flats District, which are withdrawn include:

- None

Council approved policy plans

Policy plans approved by Council, and that impacted on the Cape Flats Plain District, which are withdrawn include:

- Muni-SDF (2000) as it pertains to the Cape Flats District – the remainder is being withdrawn on the basis of the Table Bay and Southern District Plans

Annexure B:

Principles for assessing development proposals in “areas of potential impact” on selected natural environmental 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.*³

³ 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.

4. *In key areas (particularly where on site mitigation is limited or not possible) investigate the use of biodiversity offsets⁴ 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 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.

⁴ Provincial Guideline on Biodiversity Offsets (revised draft, March 2007). Department of Environmental Affairs and Development Planning, Provincial Government of the Western Cape

Annexure C:

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 - Flood risk area 1 (1:50 flood line) - Flood risk area 2 (1:100 flood line) - Flood risk area 3 Rivers, Estuaries and Wetlands - Rivers, wetlands and associated buffers Aquifers - Highly productive aquifers - Moderately productive aquifers	- 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 - Coastal Protection Zone - Coastal risk areas Dune Areas - Sensitive dune fields	- 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 - Protected areas - Critical Biodiversity Area 1 - Critical Biodiversity Area 2 - Critical Ecological Support Areas - Other Ecological Support Areas - Other Natural Vegetation	- 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 - Cultural landscapes - Potential archaeological sites - Other significant heritage resource areas - Grade 3 heritage sites - Scenic Routes Public Open Spaces - Structuring Open Spaces	- 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: - 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

<i>Natural Economic Resources Zone</i>	High Potential Agricultural Areas • 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 • Priority mineral resources	High Potential Agricultural Areas • 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 • 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 • Nuclear Exclusion zones • Landfill sites and buffer zones Industrial and Commercial Areas • Industrial areas • Commercial areas Infrastructure and Utilities Areas • Infrastructure servitudes, including WWTWs	• 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 D:

Relationship between CTSDF & District Plan Spatial Planning Categories and the Biodiversity Network Classification

Biodiversity network: critical biodiversity area mapping categories CTSDF / District Plan Spatial Planning Category	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 E:

Relationship between CTSDf and District Plan route designation, the National Department of Transport road classification system, the PSDF (2009), and City's hierarchical road network classification system

The relationship between the CTSDf (and district plan) route designation and the National Department of Transport (DoT) road classification system, the PSDF (2009) and the City's hierarchical road network classification system is described in Table C.1, providing a general indication of the relationship between different road classification systems and their land use functionality.

The route designation does not replace the City's hierarchical road network classification system, nor is it intended to run in parallel as a duplicate classification system. The City's hierarchical road network classification system will continue to determine road network planning, classification and the mobility and accessibility functions. The City's hierarchical road network classification system, together with the Road Access Guidelines (PGWC, 2001), will continue to manage competing demands between mobility and accessibility in the evaluation of development applications to change or enhance land use rights.

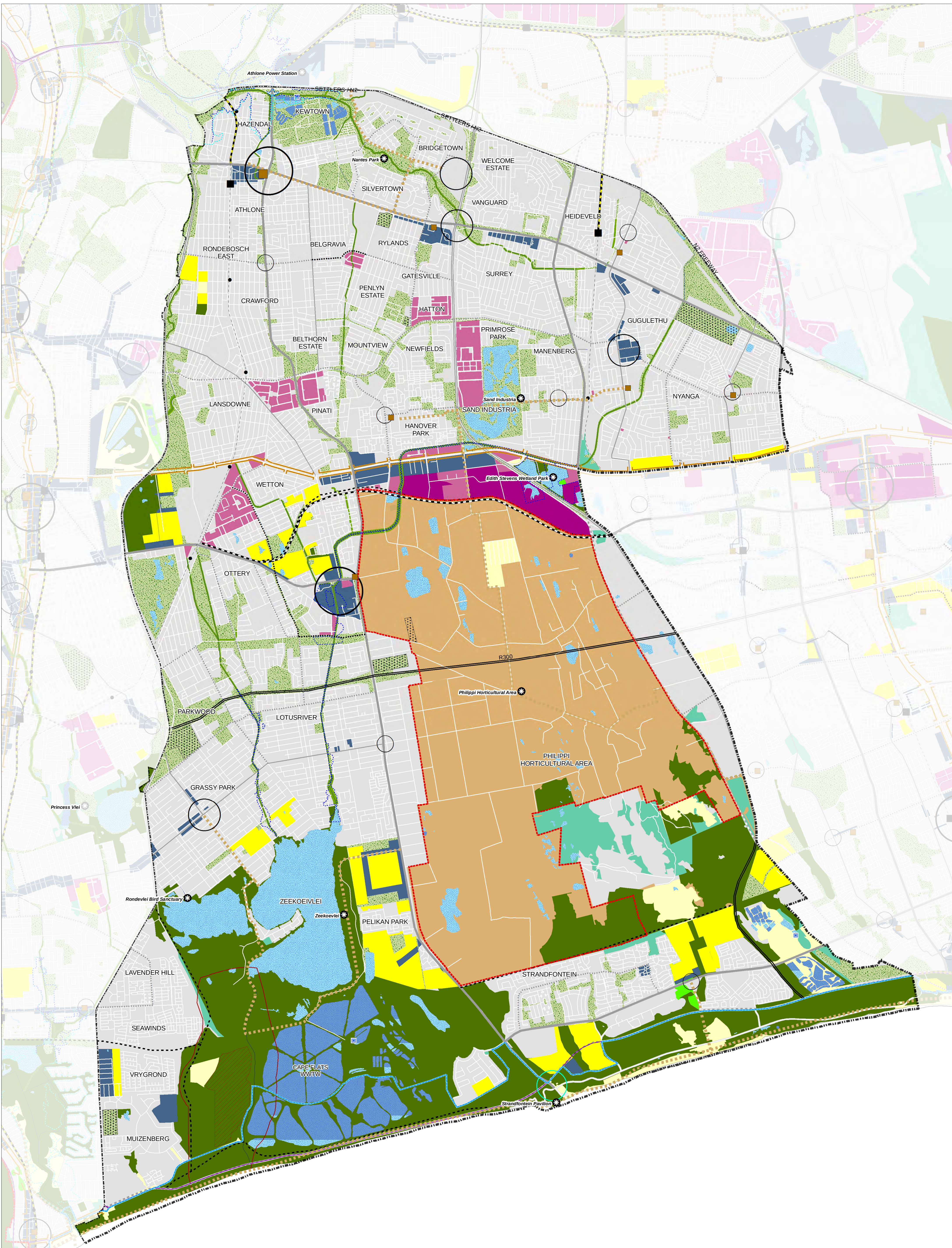
Table E.1: CTSDf route (and district plan) designation relationship with the National Department of Transport road classification system, the PSDF (2009), and the City's hierarchical road network classification system.

ROUTE DESIGNATION	ROAD CLASSIFICATION		
Cape Town Spatial Development	Department of Transport (DoT)	Provincial Spatial	City of Cape Town Road Network
ACTIVITY ROUTE	Predominantly Class 2 to 4 roads	Predominantly main roads	Predominantly secondary arterials
ACTIVITY STREET	Predominantly Class 2 to 4 roads	Predominantly main roads	Predominantly secondary arterials
DEVELOPMENT ROUTE	Predominantly Class 2 or 3 roads	Predominantly trunk roads	Predominantly primary arterials
CONNECTOR ROUTE	Predominantly Class 2 to 4 transport routes	Predominantly national roads, divisional roads	Predominantly expressways, primary and secondary arterials
URBAN FREEWAY	Class 1	National roads	Freeway

It is anticipated that the CTSDf route designation indicating land use functionality will encourage an appropriate level of development and more intense mixed land uses to locate on, or adjacent to, the accessibility grid. Opportunities along designated routes can also be linked to parallel streets and side roads in line with applicable policies, the relevant zoning scheme, District SDPs, and applicable local plans. This will contribute towards establishing the thresholds required for sustainable and cost effective public transport.

Routes exhibit different characters and do not represent a uniform mix and density of land uses along their length. It is for these reasons that the route designations are indicated as a conceptual designation on the Cape Town Spatial Development Framework (Map 6.1).

The process of land use intensification along designated routes must be evaluated at a more detailed local level of planning to inform land use management decision-making and the processing of development applications – to consider, for example, the nature of access roads, additional traffic impacts, parking requirements and the level of service (LOS) provided by public transport services. This is necessary to protect the mobility and operational integrity of road networks, and to ensure that land use intensification is informed by the operational capacity of particular routes and the public transport services by which they are supported.





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CitySpace
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Spatial Development Plan

CAPE FLATS 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

Land Use

- Mixed Use Intensification
- New Urban Infill
- Open Space
- New General Industrial Development
- General Industrial Development
- Waterbodies

Other Features

- Landfill Sites
- Landfill Buffer Areas
- Cemetery
- Urban Edge
- Coastal Edge
- Critical Public Link
- Scenic Routes
- Destination Places

Infrastructure

- New Railway Lines
- Railway Station Upgrade
- Railway Line Upgrade
- Waste Water Treatment Works : WWTW
- WWTW

Nodes :

- Local Node
- District Node
- Coastal Node
- Regional Node

Civic Precincts :

- Higher Order
- Local

Landuse Transport Network

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