Municipal Spatial Development Framework

Volume 1: Chapter 1 – 6 and Technical Supplement A

APPROVED BY COUNCIL
26 JANUARY 2023

CITY OF CAPE TOWN
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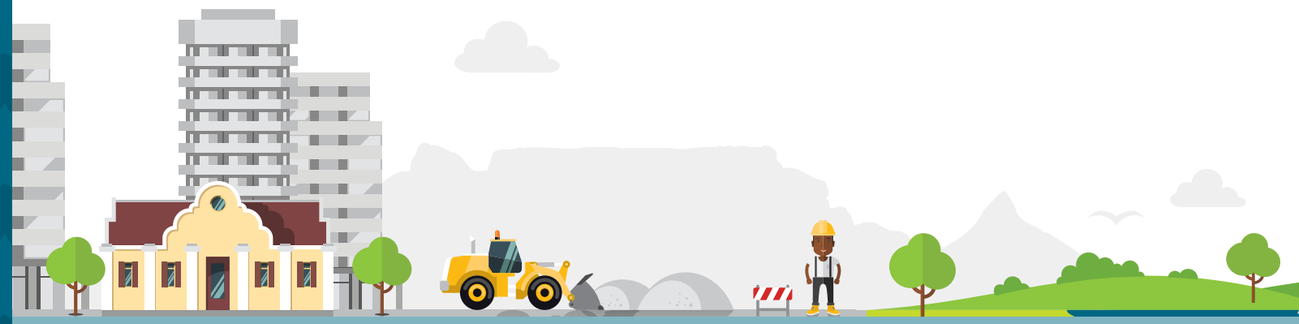

MAKING PROGRESS POSSIBLE. TOGETHER.

26 JANUARY 2023

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FOREWORD

ALDERMAN EDDIE ANDREWS

Executive Deputy Mayor and Mayoral Committee Member for Spatial Planning and Environment

This amendment of Cape Town's Municipal Spatial Development Framework (MSDF) comes at a time of unprecedented disruption to cities in South Africa. Since the previous MSDF that was produced in 2018, the City has been battling a 100-year drought and faced various significant challenges, not least a 'day-zero' crisis, followed shortly thereafter by the Covid-19 pandemic. This brought into sharp focus the significant interconnected issues of climate change, effective resource management, good urban governance and rapid urbanisation.

The 2018 MSDF emphasised a progressive spatial transformation agenda and an inward growth focus. The vision was clear: ***"... an inclusive, integrated and vibrant Cape Town that substantially countered the intergovernmental legacies of apartheid and provided the foundation for sustainable, inclusive spatial and economic growth".*** The desired outcome was to ensure that all residents and businesses in Cape Town have access to the services and opportunities they require and deserve. The 2018 MSDF clarified what the City stood for and what its intentions were. It laid out how the administration planned to progressively realise a clear spatial transformation objective and vision over the coming decades. It aligned with global agendas (e.g. the United Nations Sustainable Development Goals) and national ambitions (e.g. the National Development Plan), and gave localised direction to the sectoral plans and challenges of the greater Cape Town region. The ambitions and foundational principles of the 2018 spatial plan are retained in this MSDF.

The 2018 MSDF also emphasised the importance of an extensive public transport system, built around an expanded and enhanced rail system. Spatial and transport planning were envisaged as seamless and integrated. It contained grand ambitions for transit-oriented development that supports affordable housing and mixed-use precincts, situated around stations and along trunk routes, and framed by an urban inner core within which the City committed to upscale infrastructure and service delivery.

A PROGRESS REALITY CHECK

Despite the City's best intentions and concerted efforts to realise that vision, recent years have delivered a sobering reality check, characterised by:

- a weakened national economic climate;
- significant backlogs identified in key areas of the urban inner core;
- delays on projects;
- headline-grabbing declines in the rail service and a number of key investment projects;
- unprecedented levels of unlawful land occupation; and
- compounding housing needs and backlogs that exceed formal public and private supply delivered by market and subsidised means.

Then came the Covid-19 pandemic, which disrupted cities at a global and local scale and once more reminded us all of the stark inequalities that remain in, and between, communities in Cape Town.

The pandemic also highlighted that trends that had already been emerging, such as e-retail and remote working arrangements, may have more lasting impacts on cities and the commercial property market. The 'digital divide' was amplified by Covid-19, while the lockdown responses also highlighted connectivity disparities based on income, all pointing to household barriers to opportunity.

Beyond income, connectivity infrastructure disparities also reveal a spatial dimension. Fibre installation is slow to non-existent in areas where demand does not meet market thresholds, while data costs remain high in international terms.

Within Cape Town neighbourhoods – both formal and informal – densification and de-densification have now become urgent discussion points. The public sector must do more, at a faster pace and with a greater sense of urgency. It must partner more effectively and be more adaptive in its approaches to land assembly, infrastructure provision, settlement formation and upgrading. This, in a period when the fiscal purse of the public sector is stretched, diminished and vulnerable.

Informality is going to play a large role in how the city grows and operates in the near- to long-term future and, for this reason, the City needs to be thinking differently about placemaking, infrastructure and finance. Unlawful land occupation has continued to grow exponentially. More settlements are being established in hazardous locations exposed to the risks of flooding and fire, and with limited City access for the delivery of basic services. The public sector, collectively, has been ineffective in assembling sufficient land to respond to the rapid expansion of existing settlements and the establishment of new ones. Where land is identified, numerous challenges often preclude the execution of projects. Some of these challenges relate to societal attitudes and property dynamics, while others are the result of the complex, highly regulated system that governs formal development.

The pandemic also raised demands for clarification from city planners on the ambitions of 'densification'. On the one hand, dense, lesser-formal areas are adding to infrastructure overload and urban management challenges. On the other, density increases are a prerequisite to curb urban sprawl and support urban efficiencies and service delivery (e.g. public transport, infrastructure networks, and protection from land development encroachment on scarce agricultural and biodiversity assets).

All of the above are just a handful of the multiple complexities and challenges that has hindered ambitions and the pace of spatial and socioeconomic transformation in Cape Town.

CELEBRATING THE SUCCESSES

There have also been MSDF outcomes over the past five years worth celebrating. These include the following:

- A SPLUMA-compliant, metro-scale spatial vision, strategy and policy have been developed, recognised by the Western Cape Government and key national government departments, aimed at informing investment and decision making for both the public and private sector, and deliberately formulated to be less prescriptive on land use than preceding metro-scale plans.
- Supportive, evidence-based tools have been developed to inform decision making. For example: a) A revised Land Use Model that interprets the 2040 demographic projections into land use quantum and spatial locations/ implications (informants of this review); and b) A Spatial Trends Report (also representing the monitoring framework of this spatial strategy), of specific interest to property developers, policy makers and the general public, reflecting information development trends in the built environment; and c)...
- Spatial transformation areas have been established within the MSDF and form the basis of the prioritisation and allocation of the City's capital budget.
- A hierarchy, guidelines and standards have been developed to support the location, provision and clustering of community facilities.
- A seamless continuation of spatial planning proposals has taken place through the District Spatial Development Framework (DSDF) and associated Environmental Management Framework (EMF) for each of the eight districts.
- Multiple initiatives have been undertaken, highlighted in the implementation chapters of the MSDF and DSDFs/EMFs and aimed at facilitating development decision-making processes.

ASPIRATION, OWNERSHIP AND COMPLIANCE

The new term-of-office Integrated Development Plan (IDP) sets out the vision to create a city of hope – a

demonstration of what is possible in South Africa if we work together – and living proof that South African cities can be places where people's lives steadily improve and poverty is overcome. As an integral component of the City's IDP, the MSDF translates the vision and strategy of the IDP into a desired spatial vision for the municipality. The MSDF and its supporting plans and policies must facilitate rapid and inclusive economic growth so that many more residents, households and communities will be able to improve their circumstances and life chances.

The MSDF serves as the technical foundation for recommendations to the relevant decision-making authorities in matters of planning, investment and development control matters. As such, the MSDF must reach beyond mere compliance with legal requirements, most notably SPLUMA, and provide a comprehensive, logical and thoroughly considered framework. It needs to be relevant and up to date in relation to other sector plans (such as social facilities, housing, transport and infrastructure), relevant to all spheres of government (national, provincial and neighbouring municipalities), and aligned to the needs of businesses and communities.

Importantly, ownership of the spatial vision and policies contained in the MSDF must extend well beyond the team that compiles it, or the Council that adopts it. Internal City departments, public sector partners, business and communities all need to understand and engage with the plan if it is to be implemented and succeed in its vision of helping to transform people and places.

REQUIRED CONDITIONS FOR SUCCESSFUL IMPLEMENTATION OF OUR SPATIAL VISION

In order to achieve spatial vision linked to the ambition of creating a city of hope, a coordinated planning and development approach is required. Further, we need to in parallel assess (through the IDP targets set) the progress made on essential projects, which are the preconditions for achieving the assumptions underpinning the MSDF and DSDF[1]. There are fundamental conditions that are required in the coming years to realise the desired spatial vision that the City, other spheres of government, partners and residents need to work collectively towards, which are listed in the table below.

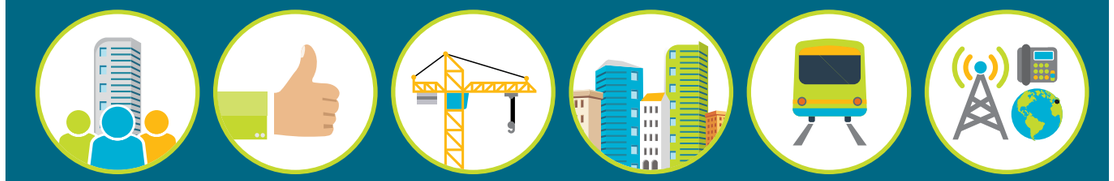
A growing economy Overall intent of the IDP – specifically programme 1	A **growing economy and diversification of business/employment nodes** in terms of different types of economic sectors for both formal and informal components of the economy. This includes the market conditions that are conducive for developers to take up development opportunities in the city and spatially targeted areas such as the urban inner core (UIC).
Financial and operational sustainability Driven and implemented through IDP programmes 4.1, 4.2 and 16.1	**Sustaining and expanding our infrastructure** to support growth and densification requires a growing rates base and securing required grants and other financing options. This includes developing services' business models that are able **to keep services equitable, affordable and accessible** to all.
Rapid release of land for development Driven and implemented through IDP programmes 1.5, 8.1, 8.2 and 16.5	Consistent and sustained rapid **release of land and buildings** in the UIC as well as the incremental growth and consolidation areas (IGCAs) for mixed use, and a range of residential densities, but more specifically, **affordable residential development**. This will have to include local, provincial and national government-owned land and buildings currently underutilised or underdeveloped (such as excessive public open space and inner-city airports or buildings).
Operational and integrated public transport network Driven and implemented through IDP programmes 12.1, 12.2, 12.3, 12.4 and 13.1	A **functioning rail and growing public transport network** that supports and is supported by dense, mixed-use development and the timeous **roll-out of the integrated public transport network (IPTN)**. Public transport, non-motorised transport options and targeted congestion relief are important **to reduce the time residents spend in traffic**, improving quality of life and productivity.
Coordinated infrastructure development for economic growth Driven and implemented through IDP programmes 4.2 and 15.1	**Bulk and reticulation infrastructure capacity, maintenance and expansion** are critical to sustain the current and future development in the metro. This is underpinned by coordinated spatial planning, and infrastructure development is additionally supported by quality modelling and data to anticipate future growth patterns.
Appropriate precinct development and management approaches Driven and implemented through IDP programmes 1.4, 5.1, 6.1 and 6.2	Linked to local spatial planning, **concentrated investment in public infrastructure, community facilities and maintenance operations in targeted areas** is required to drive economic growth and urban efficiencies. This is also supported by **active precinct management and safety and security approaches** to ensure public spaces are well managed and safe open spaces for economic opportunities.
Regulatory reform to support growth Driven and implemented through IDP programmes 1.1 and 15.1	In order to support and facilitate development, **improvement in efficiency of development regulations** needs to be prioritised, such as the Development Management Scheme, as part of the Municipal Planning By-law, among other policies and regulations.
Community support and buy-in Driven and implemented through IDP programmes 1.1 and 15.1	A **partnership approach is important to ensure that communities are engaged and support the spatial vision**. This will include how the spatial plans will impact on their current surroundings and co-creating a future where more people in the city have access to opportunities, transport and affordable housing.

[1] Within the MSDF, the implementation chapter contains detail of the key programmes and projects prioritised in the short term in line with the IDP and the status of citywide infrastructure capacity – for more details see chapter 6.

CONTENTS

EXECUTIVE SUMMARY

CAPE TOWN MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK (MSDF)



GLOBAL COMPETITIVENESS

Global

National

Provincial

MUNICIPAL

INTEGRATED SUSTAINABLE PLANNING

- Municipal Spatial Development Framework (MSDF)
- District Spatial Development Framework (DSDF)
- Local Spatial Development Framework (LSDF)
- Precinct development plan (PDP)
- Site development plan (SDP)

1. What is the MSDF?

The MSDF is a long-term (20-years+) plan to guide and manage current and future growth of the City, as informed by various sector-specific strategies and guided by the vision of the City.

Why an MSDF and DSDFs/EMFs?

The MSDF and the eight integrated District Spatial Development Frameworks and Environmental Management Frameworks (DSDFs/EMFs) work together as a package of documents and maps guiding built environment development and resource protection.

What are the aims of the MSDF and DSDFs/EMFs?

The MSDF aims to promote spatial transformation across Cape Town by addressing spatial inequality using spatially targeted approaches so that developments are beneficial to both Cape Town's citizens and its environment. Find the MSDF documents and maps online:
www.capetown.gov.za/MSDF

Read the integrated DSDFs (DSDFs/EMFs) online:
www.capetown.gov.za/DSDF

Use the Map Guidebook to navigate between MSDF and DSDF maps

2. MSDF vision and spatial strategies

A CITY OF HOPE – A City committed to:

addressing spatial injustice and inequality, and avoiding the creation of new structural imbalances;

working in partnership with the private and public sectors in achieving spatial transformation by building a more inclusive, integrated, vibrant and healthy city; and

proactively responding to social, economic, climate and resource shocks and stresses.

SPATIAL STRATEGY 1: Plan for economic growth and improve access to economic opportunities

SPATIAL STRATEGY 2: Manage urban growth, and create a balance between urban development, food security and environmental protection

SPATIAL STRATEGY 3: Build an inclusive, integrated, vibrant and healthy city

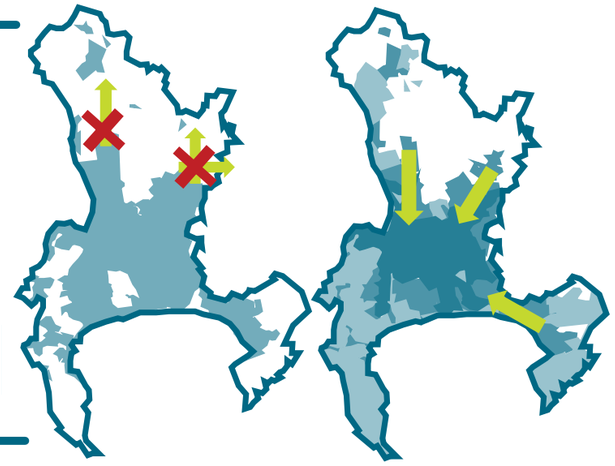
VISION A CITY OF HOPE

3. MSDF PROPOSAL: Inward city growth

Watch these videos on:

- Spatial planning
- Densification
- Human settlements
- Environmental management

https://youtube.com/c/CityofCapeTown021/videos



4. How to read the MSDF and content framework:

CORPORATE PLANNING | SPATIAL PLANNING | TEMPORAL PLANNING | RESOURCE PLANNING

What growth?

CHAPTER 2: Technical supplements C, D and F Spatial context, trends and challenges

Where?

CHAPTERS 3, 4 AND 5 Technical supplements B and E Spatial concept, vision and direction

When?

CHAPTERS 5 AND 6 Directing transformation

How?

CHAPTER 6 Technical supplement A Implementation plan and policy statements. Cross-referencing ongoing programmes

INFRASTRUCTURE AND DELIVERY STRATEGY

COORDINATE
Coordinate and prioritise inclusive economic (and spatial) growth.

PRIORITISE
Prioritise spatially targeted public investment and incentivise the private sector investment within the urban inner core and other spatial targeting areas such the development facilitation areas (DFAs), urban support areas (USAs) and environmental focus areas (EFAs) (as per the DSDFs).

COMMUNICATE
Communicate priorities for short-, medium- and longer-term infrastructure planning provision, particularly where infrastructure deficits inhibit development within an urban inner core.

ENHANCE
Enhance capital and operational budget prioritisation and grant funding alignment across sectors and spheres.

ELEVATE
Elevate areas in need of mitigation or adaptation, considering the carbon neutral and energy efficiency targets for 2050 in the context of climate change adaptation in urban areas.

SUPPORT
Confirm in-principle support for development proposals assessed against SPLUMA Chapter 2 Development Principles, Norms, and Standards.

5. MSDF INVESTMENT RATIONALE

SPATIAL TRANSFORMATION AREAS (STAs)

Urban inner core ≈ 'blue turtle'

Incremental growth and consolidation areas

Discouraged growth areas

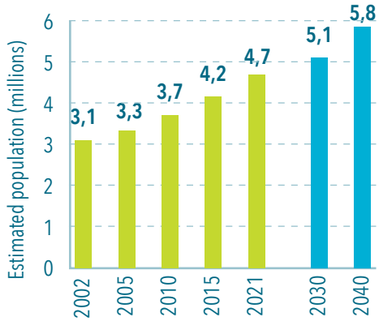
Critical natural assets

Spatial Prioritisation and Investment Framework

6. DID YOU KNOW?

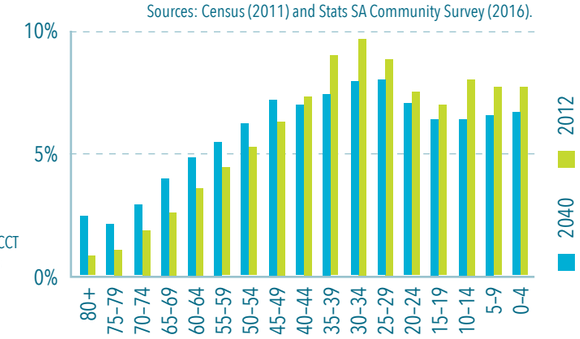
The Cape Town population is expected to exceed 5,8 million people by 2040. Population growth rates are decelerating (2,2% pa 2002–2020 and 1,5% pa 2020–2040).

Population estimates (2002–2040)



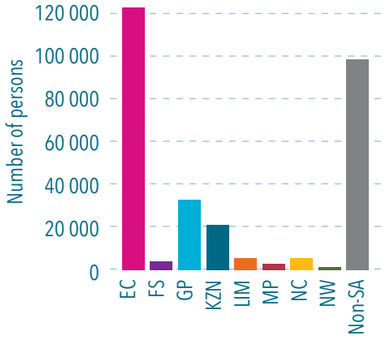
Sources: Stats SA, Mid-year Population Estimates (2020) and CCT Population Projections 2017–2040 (2018).

Sources: Census (2011) and Stats SA Community Survey (2016).

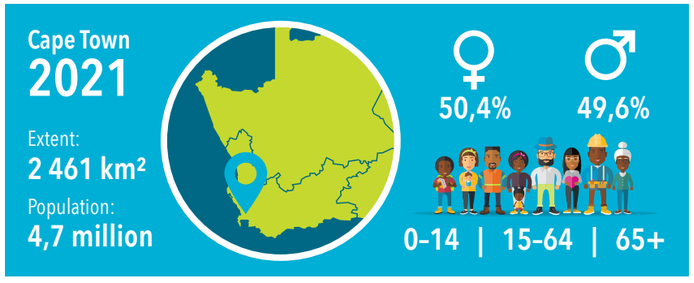


Migration to Cape Town and Western Cape (2016–2021)

Inward migration adds to population growth



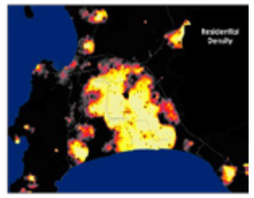
Sources: Provincial Economic Review and Outlook (2021) and Stats SA (2021).

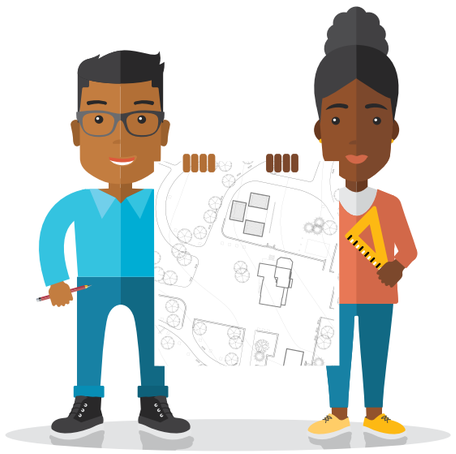


6. DID YOU KNOW? (continued)

Employment concentration influencing transport
(Cape Town CBD, road corridor)

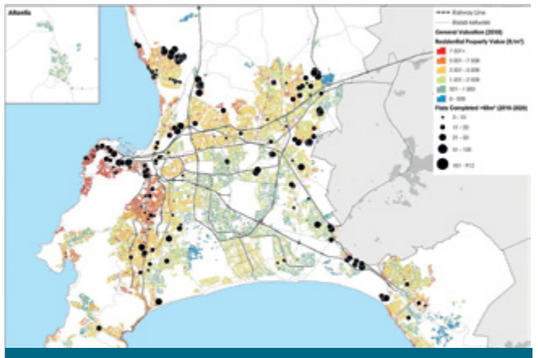
Most populated residential areas
(Khayelitsha, Bonteheuwel, Nyanga, Bishop Lavis)





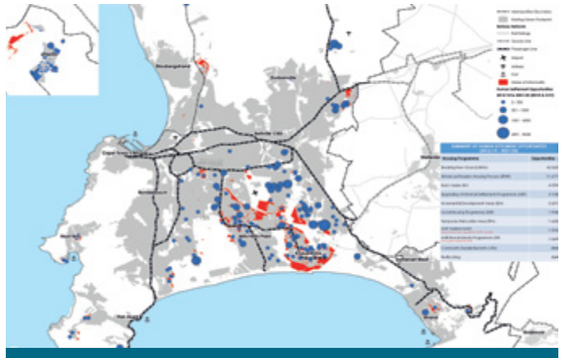
The city is growing:

Residential units built per year by private and public sector (City of Cape Town and Western Cape Government) since 2011: >20 000 per year.



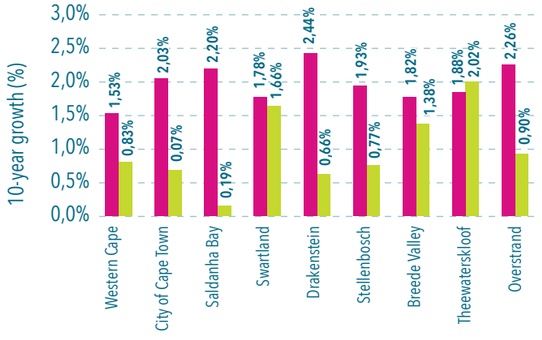
Residential buildings (flats) completed by private sector (2015–2020)

232 ha of City land was unlawfully occupied in 2018 and a total of 338 ha in June 2020 (consisting of land owned by the City, Province and SOEs and privately owned land).



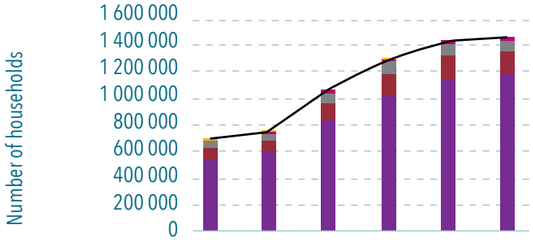
Residential opportunities completed by public sector (2013–2021)

Average annual gross domestic product (GDP) vs population growth (2001–2020)



Source: Quantec (2021).

Households per dwelling estimates



	1996	2001	2011	2016	2019	2020
Unknown	6 643	17 639	-	203	-	-
Other (includes traditional, caravan and tent)	4 342	17 045	12 261	9 229	4120	11 582
Informal structure in backyard	21 775	32 747	74 958	77 634	97 250	64 934
Informal structure NOT in backyard	103 458	110 157	143 823	145 286	179 500	203 069
Formal dwelling	516 867	599 803	837 536	1 032 497	1 130 727	1 160 290
Total	653 085	777 392	1 068 579	1 264 849	1 411 774	1 439 875

Sources: Compiled by the Policy and Strategy Department, 2020 using 1996 Census, 2001 Census, 2011 Census, 2016 Community Survey and 2019 and 2020 General Household surveys, Stats SA, and own calculations using 2021 MYPE.

7. MSDF KEY POLICIES

Promote Cape Town as a globally competitive, diversified and productive city that supports a consolidated regional economy

Direct urban growth away from risk areas and activities

Leverage and support the optimisation of ports and harbours as important economic drivers and coastal access points

Support and enable programmes to enhance and facilitate land and housing supply challenges in Cape Town

Support the integrated intensification and diversification of land uses in identified areas, supportive of inward spatial growth, economically and incrementally

Increased efforts to protect and enhance natural resources such as biodiversity networks and agricultural/rural land at all levels of government in partnership with the public and the private sector

Ensure social infrastructure is accessible to all by means of high-quality public transport and non-motorised transport (NMT) systems

Introduce land use policy reform and mechanisms that will support the development and growth of small businesses and township economies

Plan for food security interventions

Plan for incremental land use intensification and diversification in support of inward growth predicated on the public transport infrastructure

Enable resource-efficient land development by leveraging the protection of renewable resources to improve inclusive economic growth

Plan and prioritise for the expansion of the public transport networks

Support and encourage investment (public and private) through the uptake of available incentives to encourage and facilitate economic growth

Transform and integrate historically marginalised areas and informal settlements into spatially integrated neighbourhoods that enable economic and social opportunities for residents

Provide efficient access to destination places where potential exists, especially in or near areas of high social need in support of economic inclusivity and spatial integration

Plan for the alignment, sequencing and implementation of infrastructure programmes to secure confidence andcertainty for private and public sector investment

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SPATIAL STRATEGIES

Spatial strategy 1: Plan for inclusive economic growth and improve access to economic opportunities

- Promote inclusive, sustainable, shared economic growth and development
- Integrate land use, economic activities and transport planning that support the sustainable operation of the public transport network

Spatial strategy 2: Manage urban growth, create a balance between urban development, food security and environmental protection

- Enhance the city's unique assets, value of heritage resources, scenic routes and destination places
- Facilitate land development to enhance the city's energy independence and efficiency by investing in renewable energy
- Appropriately protect the citizens of Cape Town from risk areas and activities
- Appropriately manage land development impacts on natural resources such as agricultural areas of significance and critical natural assets

Spatial strategy 3: Build an inclusive, integrated, vibrant and healthy city

- Encourage integrated settlement patterns
- Continue to transform the apartheid city

1. INTRODUCTION

1.1 LEGISLATIVE AND REGULATORY GUIDELINES FOR THE MSDF

Spatial plans prepared by different spheres of government are legally obliged to align and respond to the entrenched spatial patterns that continue to worsen social inequality and economic inefficiencies in urban and rural South Africa. Further, they are required to unlock development potential and inform infrastructure investment and prioritisation by coordinating the efforts and resources of different state agencies and sectors as well as the private sector.

The National Development Plan (NDP), National Spatial Development Framework (NSDF) and Integrated Urban Development Framework (IUDF) are three of the main national informants for local government spatial planning policy and strategy. The legislation that underpins this MSDF and the spatial principles it supports is directed by the Spatial Planning and Land Use Management Act (SPLUMA).

The NDP states that *"planning in South Africa will be guided by normative principles to create spaces that are liveable, equitable, sustainable, resilient and efficient and support economic opportunities and social cohesion"*.

These principles for spatial development are premised on spatial justice, spatial sustainability, spatial resilience, spatial quality, and spatial efficiency. They are also replicated in the Provincial Land Use Management Act (LUPA) and Provincial Spatial Development Framework (PSDF). Regional spatial planning that extends beyond Cape Town's boundaries and considers the Swartland, Stellenbosch and Drakenstein municipalities is assisted via the Provincial Greater Cape Metro Regional Spatial Implementation Framework, a mechanism that highlights cross-border planning and alignment of municipal planning around Cape Town.

The SPLUMA, Act 16 of 2013, via the MPBL, dictates the City's spatial planning, land use, building and enforcement processes, and has established a single, consolidated Development Management Scheme (DMS). The Integrated Development Plan (IDP) is the pre-eminent process and document that sets the tone and governance framework for a political term of office. The MSDF needs to support the ambitions and forms the spatial component of the IDP, while recognising that the impact and time horizon of the MSDF spans multiple IDP terms. Additional City plans and policies that have direct spatial implications and impacts include, but are not limited to, the following:

- ✓ Integrated Development Plan (IDP)
- ✓ Eight District Spatial Development Frameworks (DSDFs/EMFs)
- ✓ Human Settlement Strategy (HSS)
- ✓ Infrastructure Planning and Delivery Framework (IPDF) and line department sector plans
- ✓ Water Strategy
- ✓ Resilience Strategy
- ✓ Climate Change Strategy and Action Plan
- ✓ Green Infrastructure Network (GINet)
- ✓ Environmental Strategy
- ✓ Bioregional Plan
- ✓ Community Services and Health Infrastructure Plan (CSHIP)
- ✓ Inclusive Economic Growth Strategy (IEGS)
- ✓ Transit Oriented Development Strategic Framework (TODSF)
- ✓ Comprehensive Integrated Transport Plan (CITP) (inclusive of the Integrated Public Transport Network and Freight Strategy)
- ✓ Social Development Strategy (SDS)

Other technical informants of this 2022 amendment review of the MSDF include **City-driven, evidence-based initiatives** (including detailed land use and transportation modelling scenarios that consider progressively targeted intensification, densification and diversification of future land uses in proximity to the envisaged 2032 public transport network) and contemporary data (see detail in technical supplement F in Volume 2).

1.2 SPATIAL TARGETING, PRIORITIES AND PRECONDITIONS FOR VISION REALISATION

This MSDF amendment has been undertaken in a period of consolidation and at a time when the full extent of the socioeconomic consequences of the drought and the Covid-19 pandemic is not yet fully realised or quantified. Practical programmes and projects have been developed to respond to Cape Town's challenges, and efforts align across national, provincial, metropolitan, district and local planning scales.

This 2022 MSDF aligns with the five-year term-of-office IDP (July 2022 to June 2027) and will be approved simultaneously with the eight integrated District Spatial Development Frameworks and Environmental Management Frameworks – hereafter referred to as DSDFs/EMFs – that interpret the metropolitan-scale strategy and policy aspects within a localised context.

At a metropolitan scale, the focus is on accelerating the implementation of **inward-growth-focused**, spatially targeted programmes, strategies and tools, in particular the following:

- ✓ Spatial transformation areas, including an urban inner core (UIC), which continues to emphasise the integrated public transport network (IPTN) imperatives as a primary restructuring vehicle along the trunk routes associated with rail and MyCiTi.
- ✓ The implementation of the Infrastructure Planning and Delivery Framework and Action Plan (IPDF)[2]
- ✓ The urban development edge (UDE) and coastal edges (CE) to distinguish between the city's existing urban footprint and future urban growth areas, and the areas earmarked for conservation (discouraged growth areas, which include areas of agricultural significance and critical natural areas).
- ✓ Development corridors and nodes that represent the economic nodal points in the city.
- ✓ The priority local facilitation areas (PLFAs)[3] identified in the DSDFs to guide implementation through directing public investment, incentives, budgets and planning focus for the short (five years) to medium term (10–20 years).
- ✓ The Catalytic Land Development Programme (CLDP) and the Consolidated Land Programme (CLP).
- ✓ Public housing, informal settlement upgrading and small-scale rental/micro-unit development programmes.
- ✓ The City's biodiversity network and green infrastructure network.[4]
- ✓ Investment in community facilities located within social/civic clusters.

The spatial vision is a collective agreement between all private and public sector land users in the city. However, the implementation of certain key programmes is essential for the realisation of the spatial vision (refer to the table in the foreword).

1.3 ALIGNING FUNDING PARTNERS AND SOURCES

The MSDF and associated implementation programmes provide an opportunity to plan for the spatial alignment of the various funding sources and investment partners within, and beyond, the city. Enhancing the planning process to facilitate improved intergovernmental coordination in the planning and implementation of City investment is premised on the following:

a) **An outcomes-led planning approach:** Clarifying WHAT we want to achieve and HOW we plan on achieving it. Using predetermined outcomes that can measure the performance of the built environment and inform the planning process, spatially targeting areas of investment in the short, medium and long term.

b) **An aligned intergovernmental budget and project pipeline:** Includes influencing and incorporating the provincial, national and state-owned entities' (SOE)[5] plans and budgets into the City's spatially targeted areas and documents. This is essential to ensure that the IDP and MSDF strategy inform City budgets (strategy-led budgeting). It requires strong linkages between planned activities and actual expenditure of capital budgets, as well as strengthened integration between different sectoral infrastructure budgets.

c) **Cooperative governance and alignment of investment and funding:** The aspirations of this MSDF can be achieved if different spheres and sectors of government cooperate to ensure that:

- ✓ public investment directly addresses infrastructure backlogs across the city and upscales opportunity within the UIC in the short, medium and long term;
- ✓ social infrastructure investment and operations are focused on social/civic clusters;
- ✓ revamped and improved rail networks and infrastructure fulfil the expected role as the backbone of Cape Town's mass-transit public transport system and mobility efforts;
- ✓ direct support exists for the Catalytic Land Development Programme, notably Bellville CBD, the gateway precinct (Foreshore, Cape Town CBD) and the Philippi opportunity area catalytic precinct;
- ✓ district-level spatial targeting is applied by concentrating on the priority local facilitation areas (PLFAs), urban support focus areas (USFAs) and environmental focus areas (EFAs), as well as areas identified for intensification such as the new development areas (NDAs) and mixed-use intensification areas;
- ✓ infrastructure investment is informed by sector and master plans, remedying backlogs and acknowledging different spatial scenarios such as the Land Use Model 2040; and
- ✓ sequenced financial and land resources support the private and public sectors, declared via the Infrastructure Planning and Delivery Framework (IPDF) and Intergovernmental Project and Consolidated Land Pipeline.

1.4 ENABLING THE CITY'S CLIMATE CHANGE COMMITMENTS

In support of the growing global momentum to tackle climate change, Cape Town, along with other cities in South Africa and worldwide, has committed to achieving carbon neutrality and climate resilience by 2050. Importantly, reducing the greenhouse gas emissions that cause climate change is key to limiting global temperature increases to a best-case scenario of 1,5 °C.

However, it is important to note that even though it delivers on this global commitment, Cape Town will still need to adapt to the impacts of a warmer and drier climate with increased frequency of severe storm events. Furthermore, all actions taken for climate change mitigation and adaptation must include considerations regarding equity and differentiated responsibilities across the range of socioeconomic conditions that exist in Cape Town.

This target can only be reached through significant transitions in urban form, energy sources, transportation and resource efficiency. Key elements include building an effective public transport system, cleaning up our sources of electricity, and making the built environment more efficient.

The City of Cape Town is embarking on a diverse and wide-ranging renewable energy programme, driven by:

- ✓ international and local commitments towards mitigating the effects of climate change through the utilisation of sustainable energy sources;
- ✓ the need for increased energy security in the face of diminishing Eskom technical performance; and
- ✓ the need to improve financial sustainability by reducing electricity purchases from Eskom, thereby protecting citizens against the impact of further Eskom tariff increases.

The mechanism for action for the adaptation and resilience work is summarised in diagram 1a on the next page. Refer to the City of Cape Town's Climate Action Plan, 2021 for more details.

[2] Adopted within the City as the Capital Expenditure Framework (CEF) as required by SPLUMA.

[3] The PLFAs identified include the development focus areas, the urban support focus areas, and the environmental focus areas.

[4] An integrated public open space system that mitigates climate change and makes the city liveable and healthy.

[5] PRASA, Eskom and the HDA are three such SOEs relating to rail, power and land competencies that impact on the functional and spatial efficiency of Cape Town.

Diagram 1a: Strategic focus areas

SFA 1:	**Urban cooling and heat responsiveness**	Adaptation to the impact of increased urban average temperatures, heatwaves, high heat days, and working to ameliorate the heat island effect.
SFA 2:	**Water security and drought readiness**	Implementation of the Water Strategy to create a resilient water supply, reduce flood risk, and work towards becoming a water-sensitive city.
SFA 3:	**Water sensitivity, flood readiness and storm management**	Implementation of a range of tools to reduce coastal risk, including green, hard and hybrid infrastructure, limiting development to the area landward of the coastal development edge to strengthen resilience to storm surges and to protect coastal environments.
SFA 4:	**Coastal management and resilience**	
SFA 5:	**Managing fire risk and responsiveness**	Working to reduce the risk of fire in both natural and urban environments, and particularly to reduce the incidence and impact of fire within informal settlements and at the urban/natural interface. Prioritising the use of green infrastructure in adaptation and resilience implementation.
SFA 6:	**Spatial and resource inclusivity**	
SFA 7:	**Clean energy for work creation and economic development**	Enabling small-scale embedded generation (SSEG); driving energy efficiency in City operations and procuring renewable and zero carbon energy from Independent Power Producers (IPPs).
SFA 8:	**Zero-emission buildings and precincts**	
SFA 9:	**Mobility for quality of life and livelihoods**	Shaping regulatory and incentive mechanisms to support net-zero carbon buildings and waste reduction.
SFA 10:	**Circular waste economy**	Support and enable land use intensification (densification and diversification).

Adaptation Focused **Mitigation Focused**

Source: City of Cape Town Climate Change Action Plan, 2021.

1.5 WHY A FOCUS ON 'INWARD GROWTH'?

The fragmented and low-density spatial form of most South African metropolitan municipalities – of which Cape Town is a prime example – has become a structural constraint to economic and inclusive growth and efficiency of systems, in particular, of public transport. This fact shifts the emphasis of the MSDF from a prescriptive-planning approach to a facilitative urban restructuring rationale, based on appropriate resourcing and implementation.

The MSDF is one of three foundations underpinning the City's 2022-2027 IDP (diagram 3a). The IDP contains the budget and programmatic targets for the next five years. The conceptual framework of the MSDF is premised on this integrated and inclusive growth imperative and is implemented across four planning dimensions: corporate planning; spatial planning; temporal planning; and resource planning, as indicated in diagram 1b.

The MSDF informs where, when and how appropriate land use development can be facilitated, with the support of targeted investment and effective land use management, based on four primary spatial transformation areas (STAs). These STAs set out investment 'rules of the game', prioritising public investment and growth within an urban inner core framed by existing and planned public transport trunk routes, economic nodes and many of the most vulnerable communities in Cape Town. Importantly, the STAs form the basis for the prioritisation of capital budgeting in the City (25% of the 'scoring of projects and capital programmes' is determined by the spatial location and servicing of those STAs' designations).

The MSDF's inward growth focus directly supports the City's resilience and sustainability efforts and is a response to built environment stresses such as urban sprawl. These stresses typically place the greatest burden on the poorest members of Cape Town society who commute the longest distances between home and work locations, pay the greatest percentage of household income towards fares, and spend the most time getting to and from places of work.

It is imperative that the development potential of public and private land, within the existing urban footprint and using underutilised or vacant land, supports a consolidated land pipeline that drives land, housing and infrastructure programmes and spatial transformation ambitions. The unpacking of the undeveloped and partially developed land inventory (UPDLI)[6] by the DSDFs is one of the significant enhancements and foundations of the MSDF/DSDFs implementation.

The slow pace of the roll-out of the public transport networks and retrofit programmes, as well as repeated failings over decades of public land assembly, remain fundamental hindrances to effective spatial transformation. The revised Land Use Model, projecting land use and demographic projections to 2040, has been developed from the assumption that the approach to vacant and underutilised land has to, and will, change.

[6] UPDLI is a database that contains undeveloped or underutilised land parcels within the newly defined urban development edge. Each parcel is categorised according to current use as well as any status flags, which indicate potential future development or intent to develop. It provides a verified base for decision making around land identification for future development throughout the eight districts.

Diagram 1b: Planning dimensions of the MSDF

- Addressing the fragmented apartheid legacy of the city form: addressing contemporary urbanization pressures and accommodating demographic / land use projections
- Facilitating the integration of communities and the densification of urban form
- Extending basic service provision
- Economic inclusion and job creation
- Efficiency of networks and investment (balance between new and maintenance)
- Socio-economic and improved livelihoods for marginalised communities
- Optimisation of social services and amenities
- Financial sustainability

- Resilience and climate adaption approaches, including resource and energy efficiency and sustainability in support of the City's commitment to SDGs, net-zero carbon buildings and energy self-sufficiency
- Protection of biophysical assets and infrastructure provision within priority locations
- Alignment of resources and infrastructure provision within priority locations
- Intensification of land use (diversity and density) within the Urban and Coastal Development Edges
- Enhanced, extended and operationally aligned public transport infrastructure and consolidation of infrastructure networks as key informants of restructuring
- Inward growth, optimizing existing infrastructure and enhancing the viability of all modes of public transport; reducing costs for users (in particular low-income users); reducing carbon emissions and increased modal shift from private vehicle usage
- Investment, enhancement and protection of economic nodes with potential
- Risk management and precautionary buffers informed by specialist studies
- Environmental climate change and agricultural policy and strategy

- Review of infrastructure and facility development programmes (Master and Sector plans of the line departments)
- Infrastructure asset renewal and maintenance programmes (line departments)
- An aligned medium-term capital budget to support Spatial Transformation Areas (informed by sector plans; the annual strategic planning process (SMF and IPDF)
- Collaborative planning with other spheres and government to align investment and strategy
- Development and communication of resources project pipeline linked to land assembly initiatives to address infill (UPLDI as an informant to support / Consolidated Land Pipeline to implement)
- Expanded commitment to support, and invest in, urban management approaches
- Supporting the emerging affordable accommodation typologies frequently linked to townships established in terms of the Less Formal Townships Act (LFTEA) – via revised regulatory controls and advisory services
- Innovative planning (e.g. overlay zones, amendment to base zoning to limit delay and increase certainty in the development process)

- Resource challenges (e.g. backlogs and projected demand re: water, energy supply and network capacity)
- Targeted investment into defined Spatial Transformation Areas, and the prioritisation of capital funding in the short-, medium-, long term to meet projected demographic projections and land use budgets (i.e. current to 2040)
- Spatial targeting initiatives (e.g. Catalytic Land Development Programme (CLDP) priority precincts; Urban Inner Core; and development corridors, Development Focus Areas etc.)
- Existing and future public transport infrastructure (using the IPTN Implementation Plan)
- Utilisation of assessment tools to consider:
  - the financial impacts (on city, public partners and end-users) of capital and operational costs (life-cycle costing), using the Spatial Costing Model;
  - the potential and performance of economic nodes; and
  - infrastructure and facility capacity.
- A Consolidated Land Pipeline and capital project pipeline that is resources in the short-medium- and long term with capital and operational budget

2. SPATIAL CONTEXT, CHALLENGES AND OPPORTUNITIES

The historic form, function and spatial characteristics of Cape Town can be attributed to complex variables, including:

- the topography, coastal location and abundant natural assets;
- global, regional and localised development, economic trends and politics;
- inequitable socioeconomic conditions emanating from the racially divisive policies of South Africa's history;
- market forces and investment decisions made by the private and public sector; and
- the transportation networks facilitating the movement of people and goods.

2.1 THE CITY IN THE REGION

Contextually, Cape Town's spatial planning must be located within a broader regional economy. Although Cape Town is the Western Cape's focal urban area, given its scale, infrastructure and employment base, it also forms part of a regional spatial and economic network that extends into Stellenbosch, Malmesbury, Paarl, Saldanha and Grabouw.

Cape Town's spatial development exists in a dynamic relationship with its neighbours in the region, necessitating a coordinated approach between planning authorities **(diagram 2a)**.

2.2 CAPE TOWN'S SPATIAL HISTORY AND STRUCTURING ELEMENTS

Initially, Cape Town's urban origins and spatial form were largely dictated by the city's topography and transport infrastructure, most notably the rail network. By the 1950s, however, Cape Town's urban form was increasingly being shaped by apartheid legislation and planning that resulted in forced removals and the implementation of racially discriminatory laws. Increasingly, black and coloured communities were forced to live in segregated dormitory townships on the fringes of the city. This contributed fundamentally to the sprawling urban form that has stubbornly persisted in the post-apartheid era.

The burden of this persistent and unsustainable urban form is born primarily by low-income communities whose members are forced to travel, at great cost, to access employment and other public and private goods and services. Of particular concern is the mismatch between the location of job seekers in the residentially dense southeast of the city and the location of jobs in the historic city centre and related areas that comprise what this MSDF terms the urban inner core **(diagram 2b)**.

Diagram 2a: City's MSDF contextualised within a spatial hierarchy of the national, provincial and regional environment

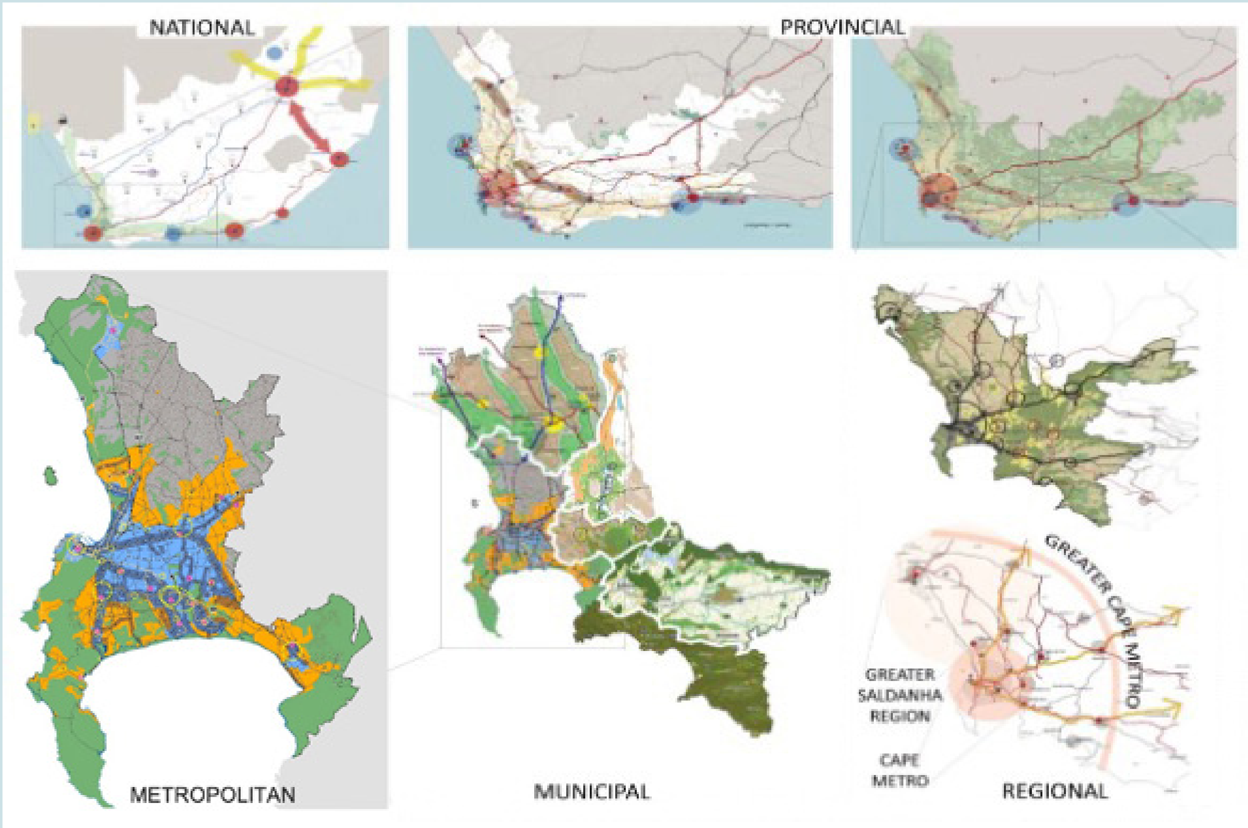
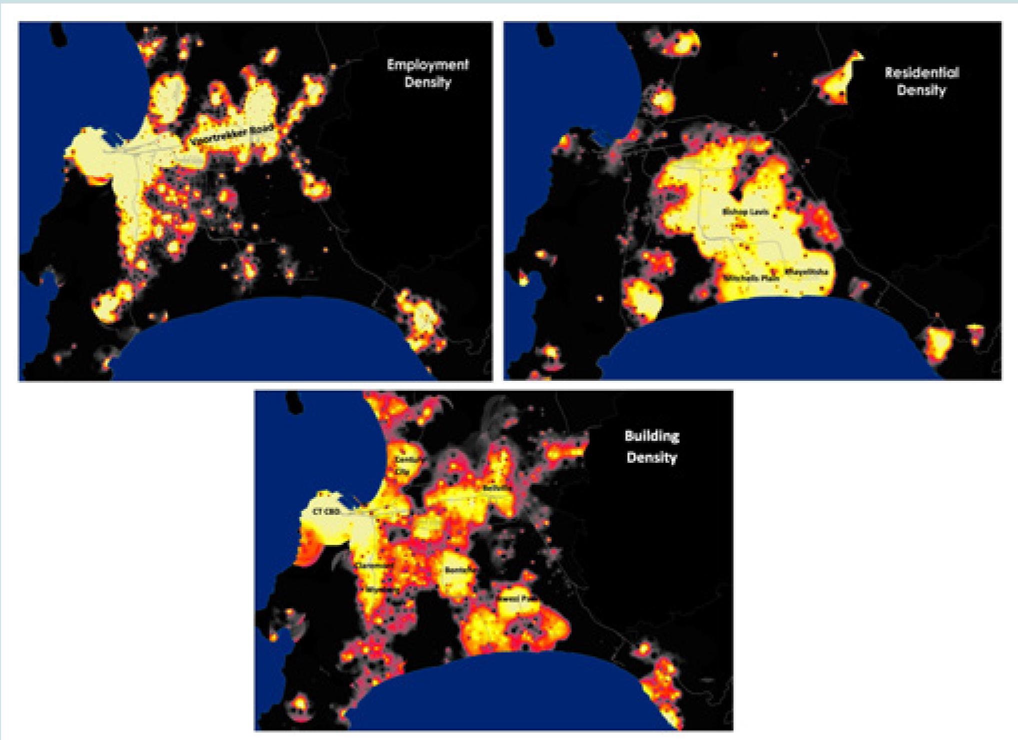


Diagram 2b: Employment, residential and building density in Cape Town (2018)



2.3 Other structuring elements

The city's contemporary urban structure is also influenced by:

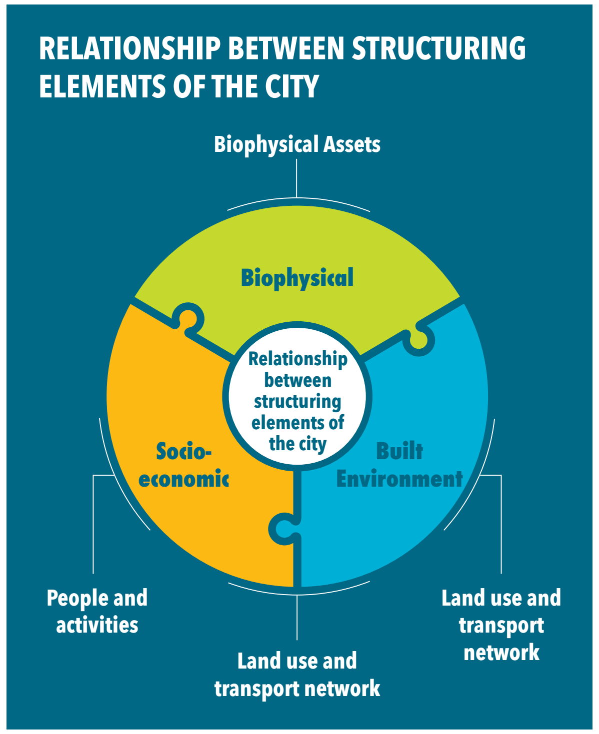
- natural and biophysical assets with associated destination places;
- people, activities and land uses reflecting certain trends; and
- the transportation system and utility infrastructure (e.g. water, power, and sanitation) and social infrastructure (schools, clinics, libraries, community centres, etc.)

Notable structuring elements are Cape Town's natural and biophysical assets (including its biodiversity, green open spaces,[7] rivers and wetlands), and coastline and destination places developed over several centuries **(map 2a)**, which make the city a desirable place to live, work, study and engage in both the formal and informal economy **(map 2b)**. Many of these natural and biophysical assets are now also regarded as green infrastructure and recognised for the ecosystem services they provide. Certain parts of the coastline are considered high-intensity use areas, with multiple access points and activities associated with the use of the sea and the beach (map 2d). Key internationally acclaimed destination places include the Cape Floristic Kingdom World Heritage Site, inclusive of the Table Mountain National Park and Kirstenbosch and Robben Island, as well as numerous heritage areas, coastal areas, biodiversity and important cultural landscapes. Refer to **maps 2d, 5b, 5f and 5g**.

Development, demographic and socioeconomic trends are variables to which the MSDF must respond in order to adapt and reflect a credible and practical spatial vision. These trends and dynamics of Cape Town's urban form are detailed in technical supplement F.

Based on this evidence, the MSDF assumes that Cape Town has entered a phase of its development characterised by demographic and spatial consolidation, within the context of low-growth

Diagram 2c: Relationship between structuring elements of the city



forecast for the global economy. This implies the need to do more with less in order to address the city's historic spatial challenges.

Demographic projections suggest 5,8 million people will reside in Cape Town by 2040. This represents 1,75 million more people than the current population figure. The analysis indicates that population growth is slowing, and that the household size is decreasing (i.e. more households). Household sizes have decreased from 3,92 to 3,17 people per household since 2011, with implications for housing supply. It is now estimated that 35 000 housing opportunities must be supplied each year, over 20 years, to meet the current backlog.

In-migration, as well as internal growth in informal settlements, was responsible for increased numbers of unlawful land occupation **(map F1, MSDF volume 2)**,

[7] The purpose of the City's Green Infrastructure Programme (GIP) is the protection and enhancement of existing natural assets and the promotion of new green infrastructure (GI) assets, in order to underpin Cape Town's sustainability, enhance the city's living environment and improve its resilience to the effects of climate change. As part of the GIP, green open spaces (public and private and >1 ha) have been mapped, based on their ecosystem service provision. These areas are contributing to providing ecological, social and infrastructural services, and together with corridors, are spatially captured as the green infrastructure network (GINet). The GINet is intended to be an informant to help guide decision making by highlighting which areas are providing green infrastructure services, with a view to consideration of those during the development process, in order to protect and enhance the ecosystem services and GI provision, and promote and create new GI assets. The GINet includes open space systems and ecological corridors (i.e. recreation and parks areas, rivers, floodplains and wetlands, and parts of biodiversity areas).

particularly between 2018 and 2021. The national lockdown during the Covid-19 pandemic boosted the incidence of higher socioeconomic vulnerability **(map 2c)** and further unlawful land occupation. This remains a critical urbanisation challenge for the City and is shaping the landscape more directly and at a larger scale than the formal sector. Compounding the issue, many unlawful land occupations took place in areas of environmental significance, hazardous locations, on infrastructure-related servitudes or on state-owned land that has been identified for housing programmes. Between 2018 and 2020, an average of 325 ha per year of land was unlawfully occupied. Almost 75% of the unlawfully occupied land is owned by the City of Cape Town and almost 84% is owned by different government entities (including state-owned entities).[8] It is expected that less-formal/informal dwelling types will contribute just under half of all new dwellings from now until 2040. This holds far-reaching consequences for the City in terms of service delivery, health and safety aspects related to buildings and living conditions, and the provision of social facilities.

Commercial activity is concentrated in three business nodes, namely the CBD, Century City and Tyger Valley. Continued work-from-home arrangements are having negative impacts on the vacancy rates and the performance of most nodes/business precincts in the city. Land use projections are difficult to extrapolate, given the significant shifts in market behaviour and the longer-term impacts of a number of these trends. At the same time, in Cape Town's increasingly service-oriented economy, blue-collar jobs are moving to peripheral industrial nodes.

With respect to employment, in-migration is outpacing job creation, and modest economic growth is centred in service-oriented industries. Covid-19 and a weakened national economy contributed to the historic high of >30% unemployment in Cape Town during 2021.

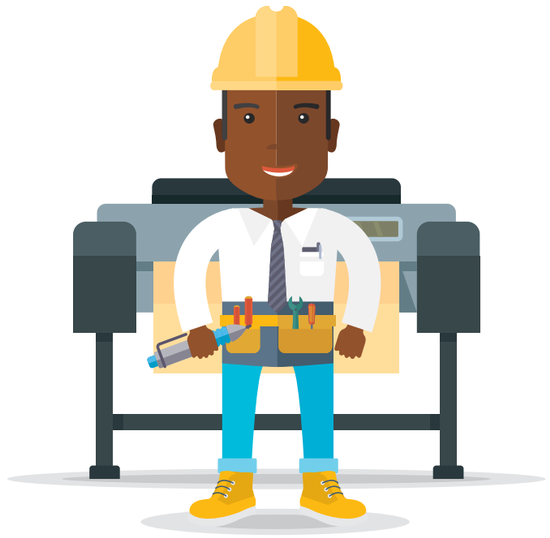
Other trends include rising efficiencies associated with:

- ✓ water, electricity and land resources as households and businesses begin to use these more sustainably;
- ✓ rising transport costs associated with congestion and rail failures; and
- ✓ a transition from formal, market-led housing supply to informal solutions.

These trends have implications for infrastructure in less-established areas, and while there have been marginal increases in formal densities, these are insufficient to support public transport thresholds.

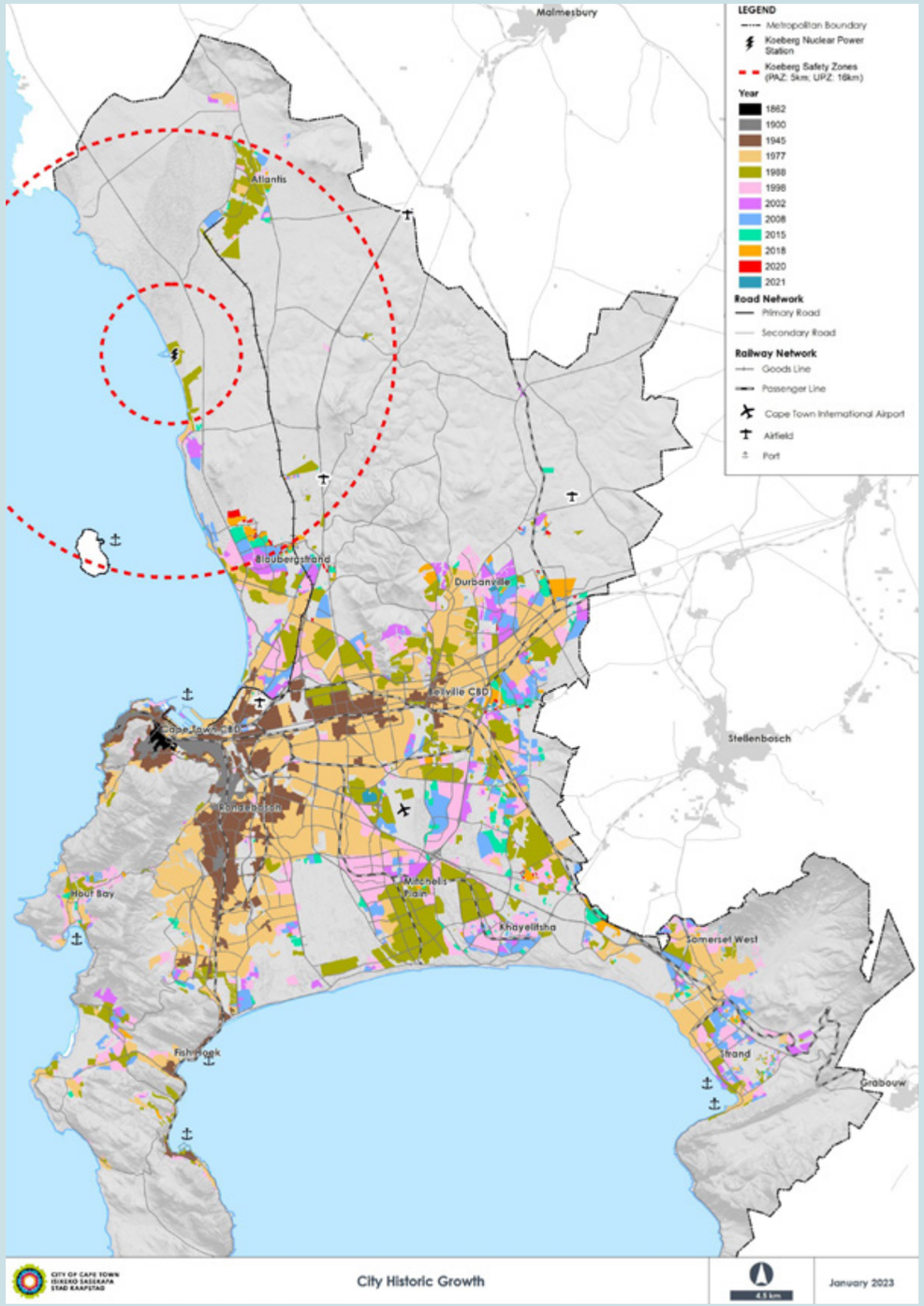
2.4 Socioeconomic needs

In addition to changes in population and household structure, the MSDF must respond to socioeconomic needs and vulnerabilities **(maps 2c, 2e and 2g)**. The City's socioeconomic index (2011) identifies the areas of greatest need and indicates that 25,5% of households live in 'needy' or 'very needy' areas of the city. This corresponds with the highest vulnerability index areas in 2020 **(map 2c)**.

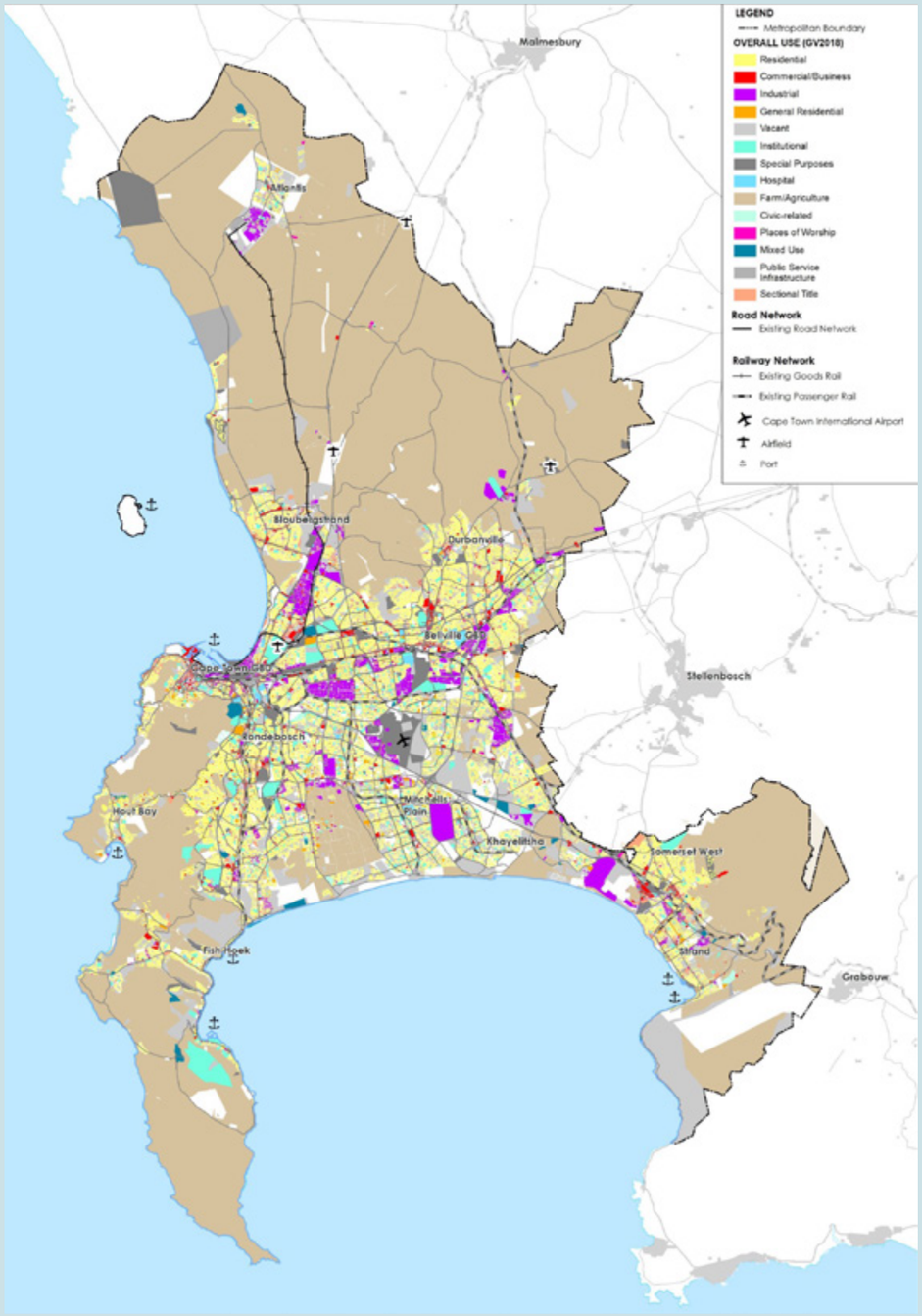


[8] Human Settlements Sector Plan, Nov 2020:31–33.

Map 2a: City historic growth

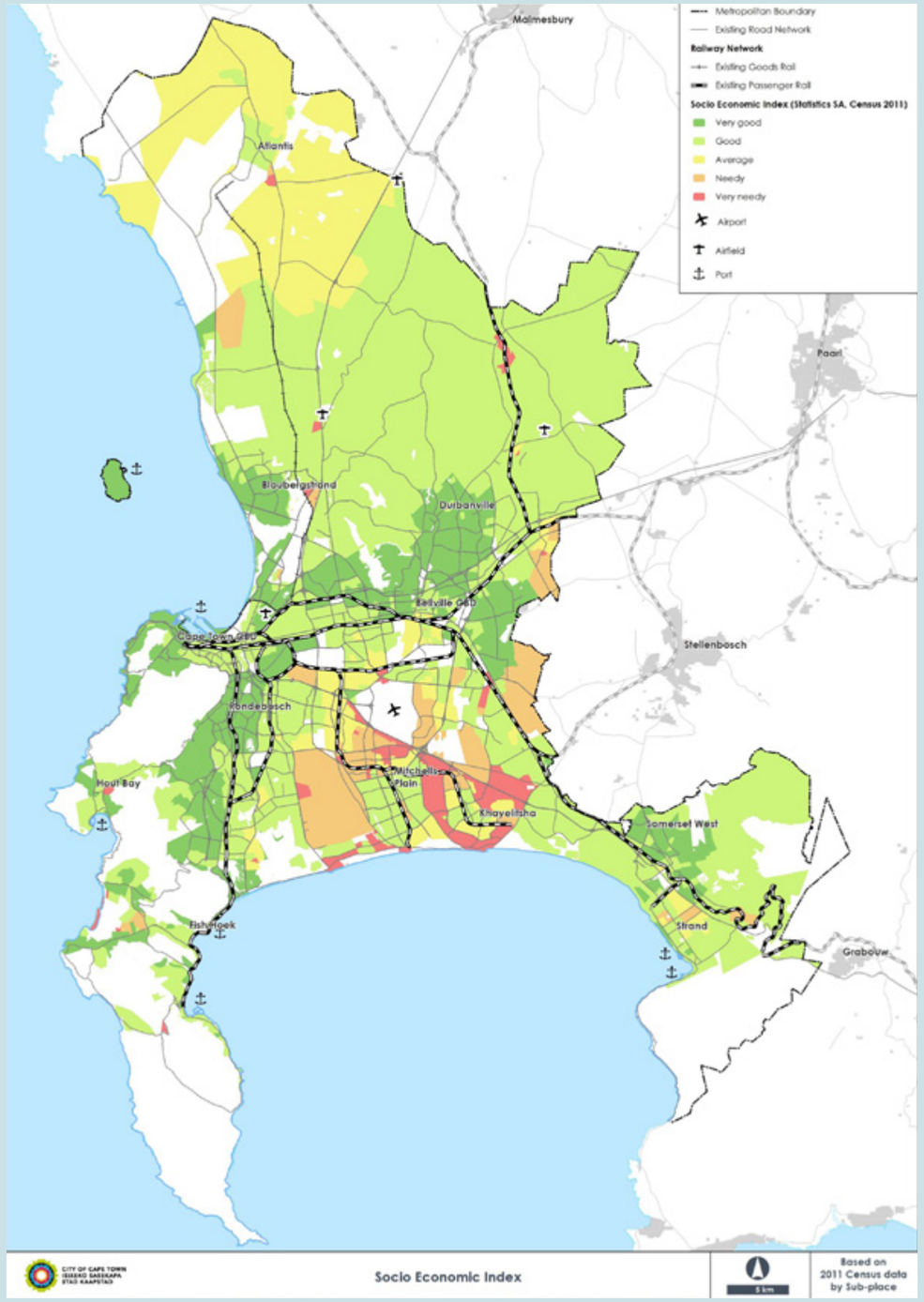


Map 2b: Overall land use

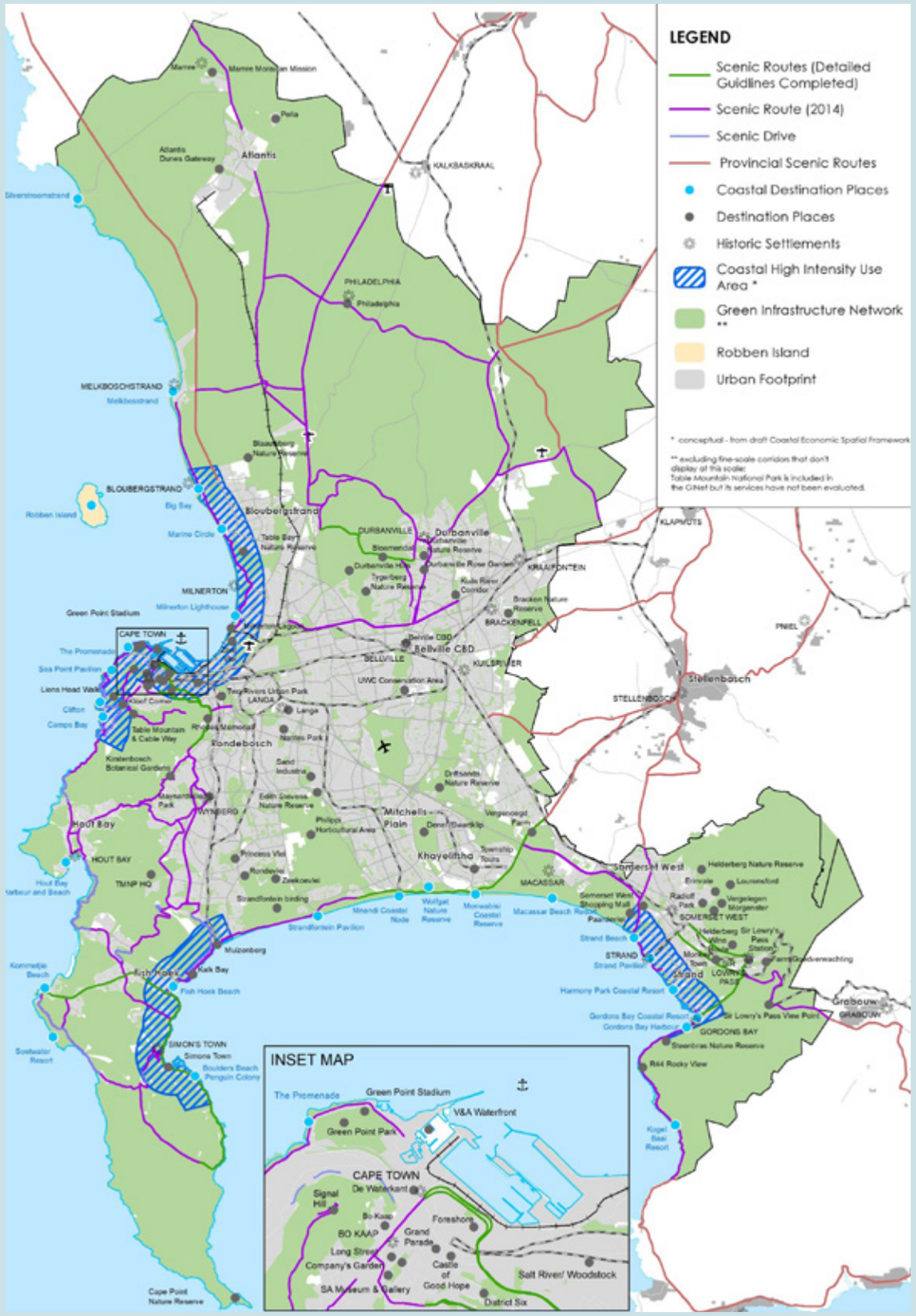


Source: General valuation roll and land use categories

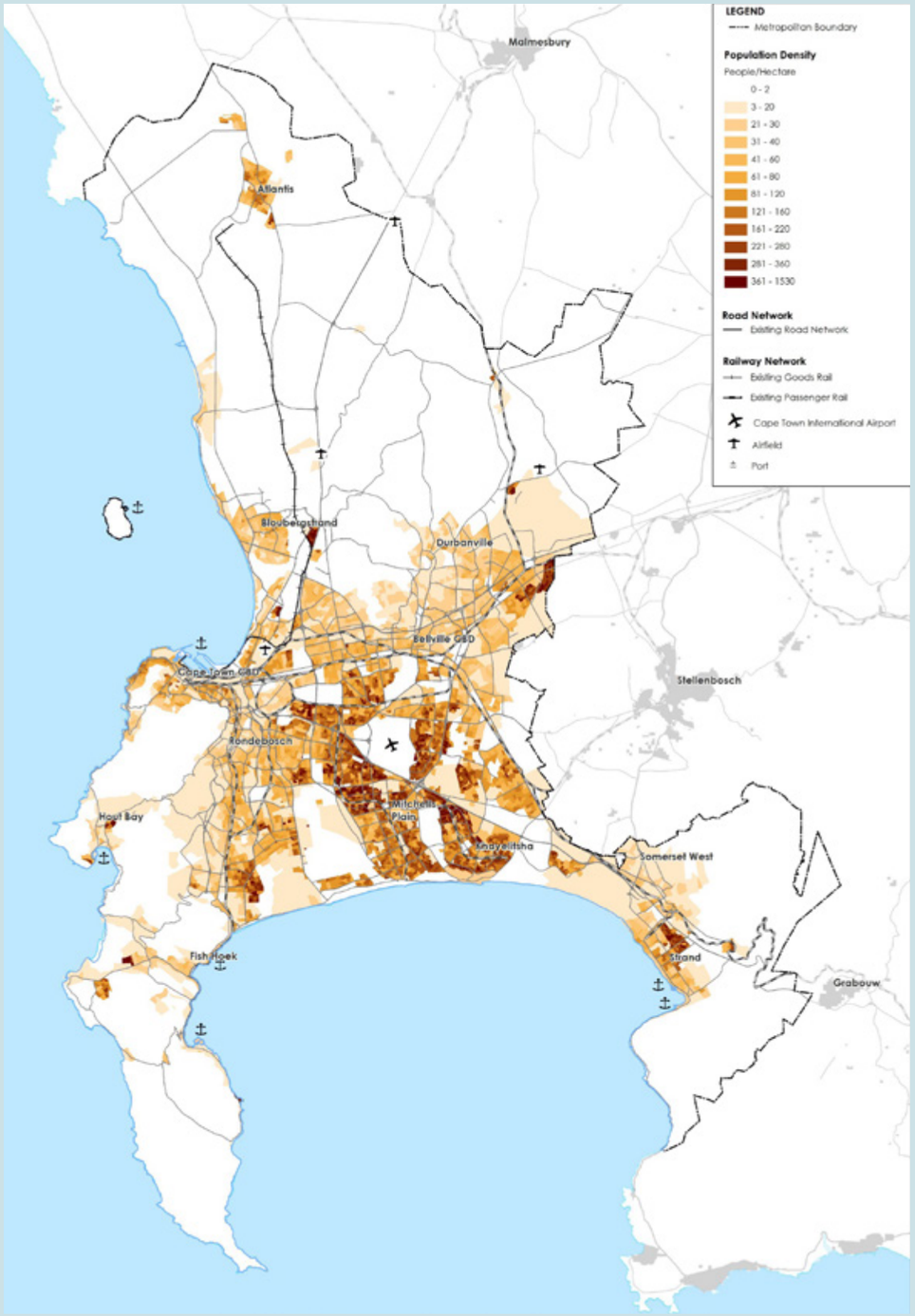
Map 2c: Socioeconomic index



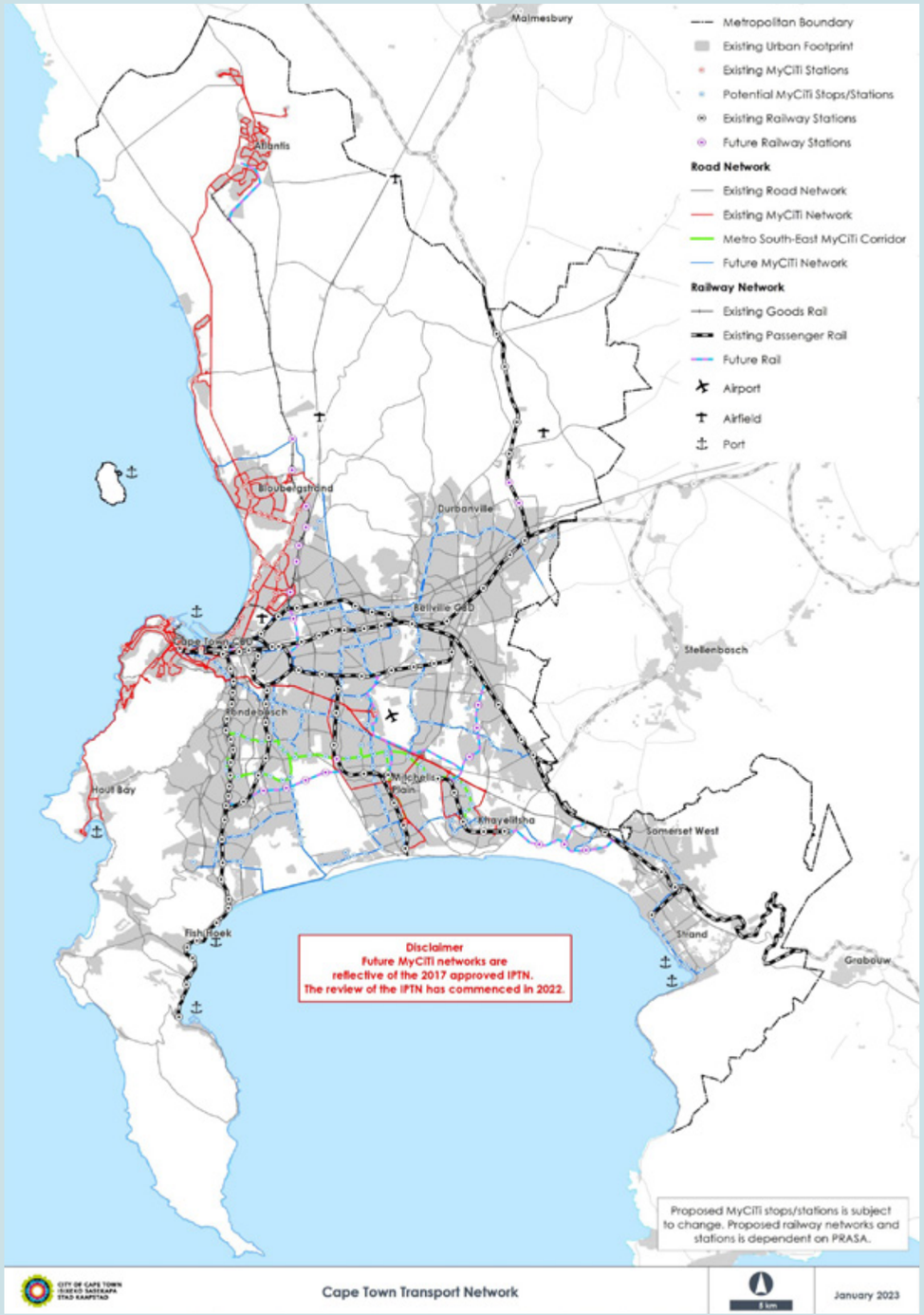
Map 2d: Green infrastructure network and destination places



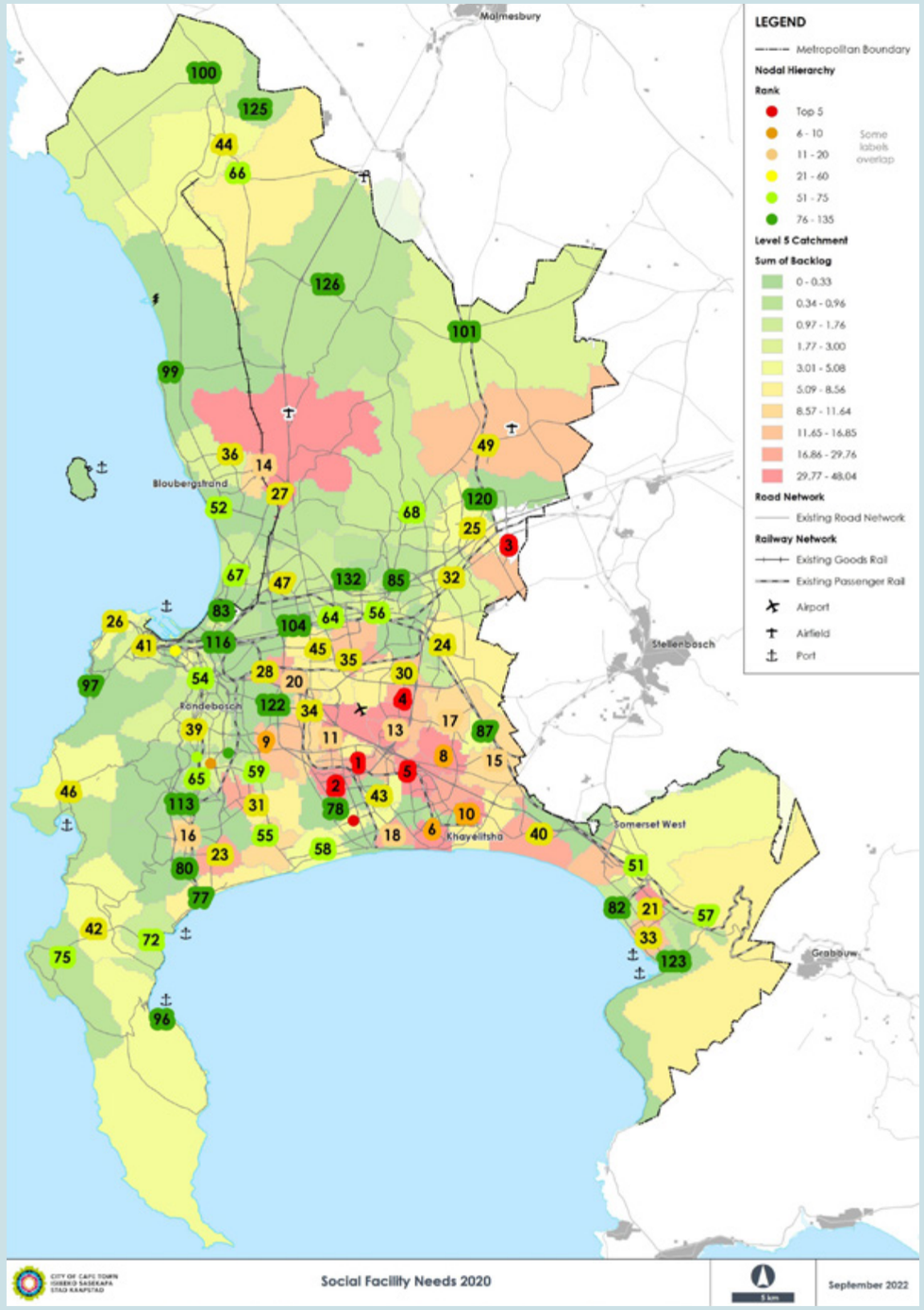
Map 2e: Population density (2018)



Map 2f: Cape Town transport network



Map 2g: Social facility needs (2020)



2.5 TRANSPORT INFRASTRUCTURE

Transport infrastructure is an important spatial structuring element connecting the spatially fragmented parts and land uses in the city. The city's road, rail and BRT networks impact directly on its spatial form and aim to enhance its integration and connectivity **(map 2f)**.

Cape Town's road network was acknowledged as the most congested in South Africa in 2019,[9] with motorists spending more time in traffic each year. An estimated 500 000 people cannot afford public or private transport, and poor households are burdened with having to spend an excessively high percentage of their income on public transport (estimates suggest in excess of 40%). The IPTN aims to improve the public transport network premised on MyCiTi and an expanded rail network.

In support of the IPTN, and while no dedicated right-of-way lanes are provided for both the Golden Arrow Bus Services and minibus-taxi industries, they do utilise the general road network that forms part of a multimodal public transport network.

CONCLUSION

A number of challenges affect the implementation of the spatial policies of the MSDF and DSDFs, including the following:

- ✓ **High levels of vulnerability to multiple shocks and stresses:** Cape Town, like other cities around the world, is facing more frequent and severe shock events in the social, economic and climate environments. However, in Cape Town, these shocks are experienced by its residents alongside a multitude of other existing and chronic stresses, which weaken the social and economic fabric of the city. These additional stresses include high levels of informality, unemployment, civil unrest, violence, crime and substance abuse. The development of the city's built environment, and the way in which future growth is managed, will be critical to Cape Town's resilience.
- ✓ **The unregulated and 'unseen' nature of urban growth:** Much of Cape Town's urban development is in the form of informal settlement growth, backyard and micro-developers and unlawful land occupation. The unpredictable and unregulated nature of this development, and the drivers behind it, indicate that the City's spatial policies and mechanisms for incentivising and disincentivising growth have very little bearing on where and how this development takes place.
- ✓ **The limited growth of municipal finances:** Public infrastructure investment is a powerful catalyst for spatial integration and incentivises intensification and diversification within key nodes and corridors. However, South African municipalities struggle to sustainably finance the expansion and improvement of public infrastructure due to the limited opportunity to expand the revenue base, combined with the continued need to provide vulnerable households with rates exemptions and free basic services.

Beyond the strategies and policies, the spatial plans of Cape Town (MSDF and DSDFs/EMFs) provide guidance for prioritised public investment, local area and precinct planning priorities, and enablement mechanisms. The MSDF and DSDFs direct the City in terms of how best to align public funding and planning processes to support and enable development, including infrastructure investment and social amenities. In particular, the City's Catalytic Land Development Programme (CLDP) and the DSDFs prioritise the priority local facilitation areas (PLFAs),[10] giving direction to the implementation efforts required to bring the spatial proposals in the various plans to fruition. This is especially true in relation to driving inclusive economic growth and spatial transformation, and increasing the spatial efficiency of the city's built form (i.e. a more compact city).

[9] Cape Town among world's worst 30 cities for time wasted in traffic jams (**timeslive.co.za**).

[10] Development focus areas (DFAs), urban support focus areas (USFAs) and environmental focus areas (EFAs).

3.
SPATIAL VISION AND CONCEPT

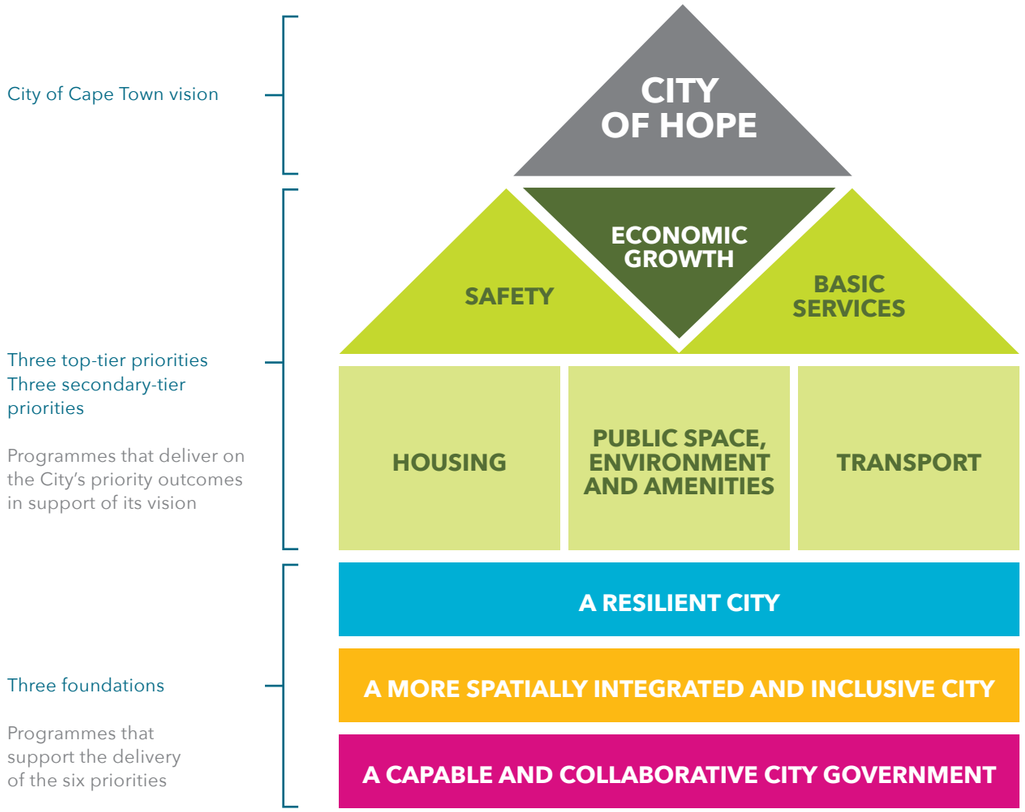
CITY OF CAPE TOWN VISION
A CITY OF HOPE FOR ALL

Cape Town has the potential to be a tangible demonstration of what is possible in South Africa. It can offer proof that South African cities can be places where opportunities steadily improve and poverty is overcome. Where each resident can hope, secure in the knowledge that their city government is capable and accountable to deliver on the services they need. A city built on good governance, where the economy can thrive and bring investment and jobs, without being weighed down by public infrastructure failure and corruption.

To turn Cape Town into such a place of hope, the City must provide the foundation necessary and use the public resources entrusted to it to co-create a city that is more caring, more inclusive, more prosperous, more united, more respectful, safer and more free.

The following diagram shows the focus areas of the City over the next five years. The City will focus on six priorities, the most important of which is economic growth to reduce poverty. These priorities will rest on three foundations essential to realise 'A City of Hope'.

Diagram 3a: The IDP strategic plan, priorities and foundations that support the City vision



The IDP strategic plan, comprising priorities and foundations that all support the vision of creating a *City of Hope*

3.1 SPATIALLY TRANSFORMING CAPE TOWN

The spatial vision has been formulated to support the City's spatial transformation objectives to better serve all residents and businesses. It recognises the historical and regional context, legal and policy environment, guiding principles for development and the opportunities and constraints described in the preceding sections of this document.

The resulting spatial vision is a city committed to:

- ✓ working in partnership with the private and public sector;
- ✓ addressing spatial injustice and inequality and avoiding the creation of new structural imbalances in the delivery of services or the availability of economic and residential opportunities; and
- ✓ meeting sustainability obligations while responding to social, economic, climate and resource shocks and stresses.

To realise the spatial vision and work towards a restructured urban form and function for Cape Town, the following imperatives and partnerships are essential:

- ✓ An efficient, safe and affordable public transport system in line with the concept of transit-oriented development (TOD) and land use intensification (i.e. diversification and densification) in and around transit corridors, nodal points; serviced by an existing and future public transport network.
- ✓ Coordination, prioritisation and implementation of development and investment aligned to the MSDF's spatial transformation areas investment rationale.
- ✓ Acknowledgment of inherent natural and man-made risks and land development directives.
- ✓ Coordination focused on enhancing and optimising the world-renowned natural, cultural and heritage value of Cape Town in a sustainable way.
- ✓ Reinforcement of critical infrastructure elements that support Cape Town's metropolitan functionality.
- ✓ An effective approach to social infrastructure provision (clustering of community facilities, optimisation and rationalisation of City assets) as a critical contributor to the realisation of the MSDF spatial vision.
- ✓ Preservation and enhancement of the natural assets of the city and the conservation of cultural heritage assets.

The following section considers the estimated future land use demand. It encompasses projected land use estimates that the City anticipates as urban growth between 2020 (base year) and 2040 (desired spatial outcome). This forms the basis of land use intensification according to the principles of SPLUMA and TOD, supported by an extensive and citywide public transport network. Future land uses are structured around, and within, a spatial frame of development corridors and associated nodal development and transit-accessible precincts, and implemented via a deliberate, spatially targeted and prioritised investment approach to infrastructure provision.

3.2 LAND USE ESTIMATES

The City developed a new Land Use Model (LUM) with a 2020 baseline and an estimated scenario of land use distribution for 2040. This 'Pragmatism in the face of pandemics and poverty – Oct 2020' scenario builds on the four previous land use models (scenarios) developed between 2013 and 2015,[11] which estimated land use patterns for 2032. The LUM 2040 is based on updated population projections for Cape Town, an updated vacant land audit, and pragmatic assumption shifts amid the Covid-19 pandemic, particularly in respect of the market realities that informed Cape Town's space economy at the time. A summary of these assumptions is shown in **table 3.1**.

The 2040 land use needs, based on anticipated population growth, have been calculated for residential and non-residential land uses. **Diagram 3b** illustrates the additional projected land use demand for 20 years, which informed the scenarios used for this MSDF. The projected land use demand was added to the 2018 baseline estimate,[12] resulting in a spatially quantifiable 2040 scenario of residential, industrial, commercial and retail use locations.

[11] The previously approved 'TOD Comprehensive' LUM was largely aspirational (illustrating how non-residential and residential land uses should locate for optimisation of the public transport system). The LUM 2040 is underpinned by a 'reality check' in terms of land use distribution and factors that impact on the property market (e.g. land costs, infrastructure availability, agglomeration of industry).

[12] The baseline is referred to as LUM 2020, reflecting the year in which the baseline was updated.

Table 3.1: Main departure points between 2015/17–2032 and 2020–2040 LUMs

Residential departure points	• Residential growth estimates were informed by population projections to 2040 • More low-income households will need to be accommodated with less government funding for housing provided • Subletting of land for income generation will become even more prevalent • Significant increase in the future growth of informality – 1 200 ha of new informal settlement areas assumed and new boarding multi-residential/ small flats/ rental unit typologies included • No 'wild card' residential developments included outside the urban development edge (deemed unlikely to materialise)	• Most new residential developments will likely be multi-storey • Residential infill and densification will continue in spite of intentions to target corridor densification along public transport corridors. It is more affordable and practical for households with erven to provide second and third dwelling units to redevelop multi-storey and mixed-use residential development on demolished or redeveloped land in corridors • Residential intensification will continue in spite of diminished formal residential opportunities – even if multi-residential / flat development progress is slower
Non-residential departure points	• The inertia and limited relocation potential of non-residential land use are accepted • Work-from-home arrangements will continue to have a major impact on space demand for business and office use in the main nodes • New industrial floor space will optimise in existing industrial areas, with demand for peripherally located freight-industry-related land uses • Office developments are likely to follow agglomeration trends in existing office-dominant nodes with fewer and smaller suburban growth nodes	• Retail land use growth is strongly related to locational patterns of high earning households, and will thus follow residential infill and intensification patterns • Technological advancements will continue to negatively impact demand for office, retail and manufacturing space • Greater demand for warehousing, co-work, and business process outsourcing (BPO) is envisaged • A greater demand for mixed-use buildings is anticipated, due to a need for more sustainable, smart buildings that are occupied for longer parts of the day

Diagram 3b: Projected additional land use quantum required for 20 years

Table 3.2 below illustrates the 20-year additional land use demand for the four major land use categories. It also represents the forecasted percentage increase across these land use categories.

Table 3.2: 2018 baseline demand versus 2040 projections

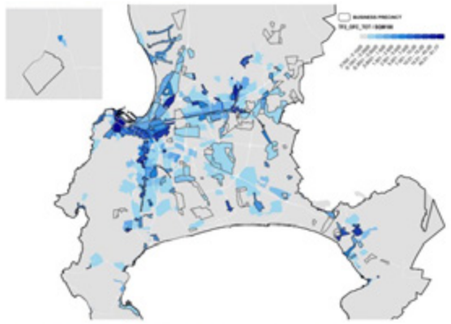
Land use	2018 baseline	Additional land use demand (2018–2040)	Annual land use demand (2018–2040)	2040 estimated demand	Estimated change (2018–2040)
Residential	**Units (est.)**	**Units (est.)**	**Units (est.)**	**Units (est.)**	**%**
Formal					
Main dwelling	1 140 464	208 053	9 457	1 436 490	26,0%
Additional dwelling		87 973	3 999		
Informal					
Main dwelling	172 380	167 298	7 604	506 622	193,9%
Additional dwelling		124 081	5 640		
Multi-residential boarding house		42 863	1 948		
TOTAL	1 312 844	630 268	28 649	1 943 112	48,0%
Non-residential	**GLA m² (est.)**	**GLA m² (est.)**	**GLA m2 (est.)/ annum**	**GLA m² (est.)**	**%**
Retail	8 616 281	1 007 727	45 806	9 824 008	14,0%
Office	7 544 246	1 481 951	67 361	9 026 197	19,6%
Industry	23 353 755	3 650 764	165 944	27 304 519	16,9%
TOTAL	39 514 282	6 140 442	279 111	46 154 724	16,8%

The 2018 baseline analysis suggests an average residential density of 18,5 du/ha gross across the metro, while the 2040 scenario reflects a projected average residential density of 25 du/ha gross **(diagram 3c)**. The 2040 projection aligns with the 2012 Densification Policy's citywide densification target of 25 dwelling units per hectare. This should not be considered as a densification limit. Rather, it represents a benchmark that promotes a minimum level of urban land use efficiency and, by extension, service and resource efficiency.

Diagram 3c on the next page reflects the quantum per land use superimposed in space based on the above assumptions for a 2040 spatial scenario.

Diagram 3c: 20-year demand estimated for each land use category and possible location

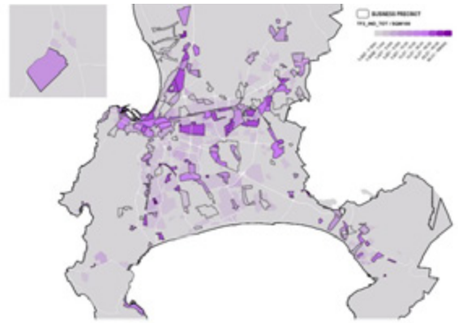
Office additional: 1,5m m² GLA
Total: 9 million m² GLA



Retail additional: 1m m² GLA
Total: 9,8 million m² GLA

Residential total: 2,172m du/ha
Average density: 25 du/ha

Industrial additional: 3,4m m² GLA
Total: 27 million m² GLA



Access to public transport and the optimisation of associated locational benefits remain fundamentals to support the restructuring and spatial transformational agenda in Cape Town, and will be central to the prioritisation of new development areas identified in the eight DSDFs.

While intensification of existing urban areas (mostly through infill of vacant or underutilised land or mixed-use intensification of corridors) is likely to serve a sizable proportion of demand, it remains impossible to model beyond the five-year term. The LUM 2040 therefore assumes that residential demand is to be serviced from currently vacant and underutilised land parcels identified as new development areas (NDAs) in the DSDFs, as well as through incremental densification in the form of additional dwelling units (formal or informal). This brings into sharp focus the need to do the following:

- ✓ Unlock significant parcels of vacant land within Cape Town's urban footprint and the urban development edge over the next 20 years (refer to the undeveloped and partially developed land index in the DSDFs).
- ✓ Plan, coordinate and implement key bulk engineering infrastructure, enhancing basic service delivery provision in existing areas of informality/informal settlement areas and areas prone to additional dwelling units – previously referred to as backyarder or small-scale rental units (refer to the annual report of the Infrastructure Planning and Delivery Framework).

- ✓ Ensure that future public transport service is sustainably rolled out in support of the above-mentioned transformation objectives (refer to the Comprehensive Integrated Transport Plan currently under review), in order to facilitate appropriate intensification of the built footprint where public transport services provide access to economic and social opportunities.
- ✓ Track the rate at which Cape Town's urban footprint is intensifying in order to better forecast the extent to which land use demand is being serviced by brownfield redevelopment (refer to the Spatial Trends Monitoring Framework).

3.3 LAND USE INTENSIFICATION PREMISED ON PUBLIC TRANSPORT

To address Cape Town's fragmented spatial form and inefficiencies, harness potential, mitigate negative trends, and optimise scales of efficiency associated with investment commitments, the City needs to consider property and development economics, land use, and transport in an integrated manner.

The mutually supportive relationship between land use and transportation, and the importance of density and diversity within the city, remain relevant. Land use intensification[13] implies a medium- to long-term mix of residential and non-residential land use (diversification) through the increased use of space, both horizontally and vertically (densification). This can be achieved within existing areas or properties and new developments. It implies an increase in the number of dwelling units or households (densification) in accessible, high-opportunity locations, good public transport accessibility and concentrations of employment opportunities, commercial development, social amenities/infrastructure and civic functions. This will generate the transport usage thresholds required to support a sustainable public transport system.

The core TOD principles[14] are defined in **diagram 3d**. TOD principles, together with an integrated public transport network, serve as the basis for formation of the MSDF conceptual spatial structure.

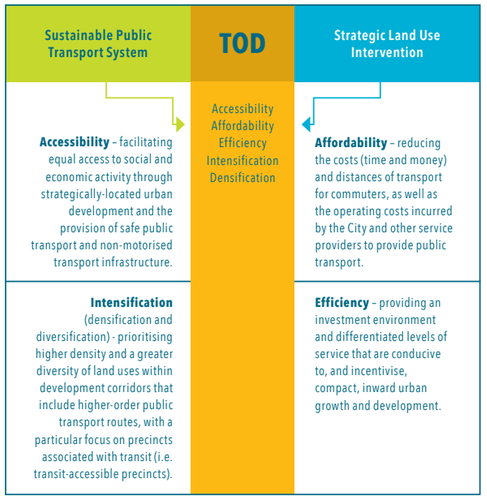
Transit-oriented development is the City's basis for land use intensification. It targets higher-density, mixed-land use development in close proximity to existing or planned high-capacity, high-quality public transport.

3.4 INTEGRATED PUBLIC TRANSPORT NETWORK (IPTN) PLAN

Notwithstanding the challenges affecting the roll-out of Cape Town's public transport network, the City's objective to intensify land use around public transport remains a firm commitment. The Comprehensive Integrated Transport Plan (under review) provides the strategic guidance framework within which the 2032 IPTN was developed. It outlines the strategic approach to designing an integrated public transport network for Cape Town that:

- ✓ responds to the mobility needs of the future city;
- ✓ achieves an appropriate mix of modes; and
- ✓ provides a sustainable balance of adequate capacity and reduced travel time for all trips.

Diagram 3d: TOD principles adopted in the Cape Town TOD strategic framework



[13] Refer to technical supplement B.

[14] TOD principles were adopted by the City in the TOD Strategic Framework (2016) and are linked to Sustainable Development Goal (SDG) 11 – *Sustainable Cities and Communities.*

The approved 2032 IPTN Plan (currently being reviewed) was used as basis for this MSDF and encompasses rail- and road-based modes as well as proposals for improving non-motorised transport access and park-and-ride facilities at modal interchanges. It determines which modes are best suited to meet existing and future public transport demand, route descriptions and modal interchanges, station and stop locations, system operational parameters, infrastructure needs and estimates of total system costs.

Since the approval of the 2018 MSDF, one of the primary shifts in focus from the 2032 IPTN Plan has been an **emphasis on multi-modality**, which involves addressing all public transport modes rather than having a specific focus on rail and BRT. Emphasis is placed on financial and fiscal sustainability and resilience, thus necessitating incremental improvements to the public transport network.

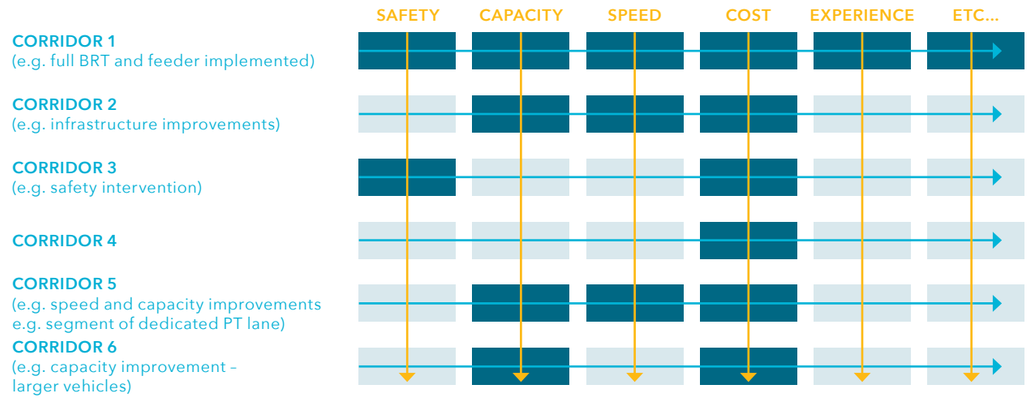
Passenger rail and BRT are bolstered by quality bus services and supplemented by improved demand-responsive minibus-taxi services as well as new-generation technological advancements (e.g. e-hailing), all of which come together to form an integrated public transport system. These modes will also be complemented by improved provision of non-motorised transport.

The long-term network plan indicates public transport corridors that have been prioritised for implementation as funding becomes available. The public transport routes, as defined in the approved IPTN 2032 Plan[15] **(maps 3.1 and 3.2)** consist of:

- ✓ the existing rail network;
- ✓ the planned Blue Downs rail link;
- ✓ the extension of the Strand line; and
- ✓ the existing and planned BRT trunk routes.

The primary focus for short- to medium-term implementation is the T11/T12 trunk routes, which form the metro southeast MyCiTi public transport corridor, with different segments currently in various stages of completion. An updated IPTN implementation strategy contained within the latest CITP balances the longer-term 'corridor' prioritisation approach – which refocuses the original large capital investment in infrastructure and vehicles within metropolitan development corridors – with a more 'incremental' approach to ensure that improvements to public transport are introduced to more parts of the city earlier. Such incremental improvements could take the form of improved safety, security, integrated ticketing, information systems and scheduling **(diagram 3e)**. The emphasis is on retaining and attracting as many passengers by improving the convenience and commuter appeal of public transport. Submetropolitan-scale planning initiatives, and the release of strategic land parcels for development along these routes, will further enhance opportunities to combine spatial and transportation planning opportunities and expand the development potential of these corridors.

Diagram 3e: The incremental approach to improvements and corridor development



Source: CITP Review, 2021

[15] The failure of rail services and a realistic view of its recovery will inform the review and update of the IPTN Plan. In turn, this may lead to a significantly different prioritisation of future public transport corridors and interventions.

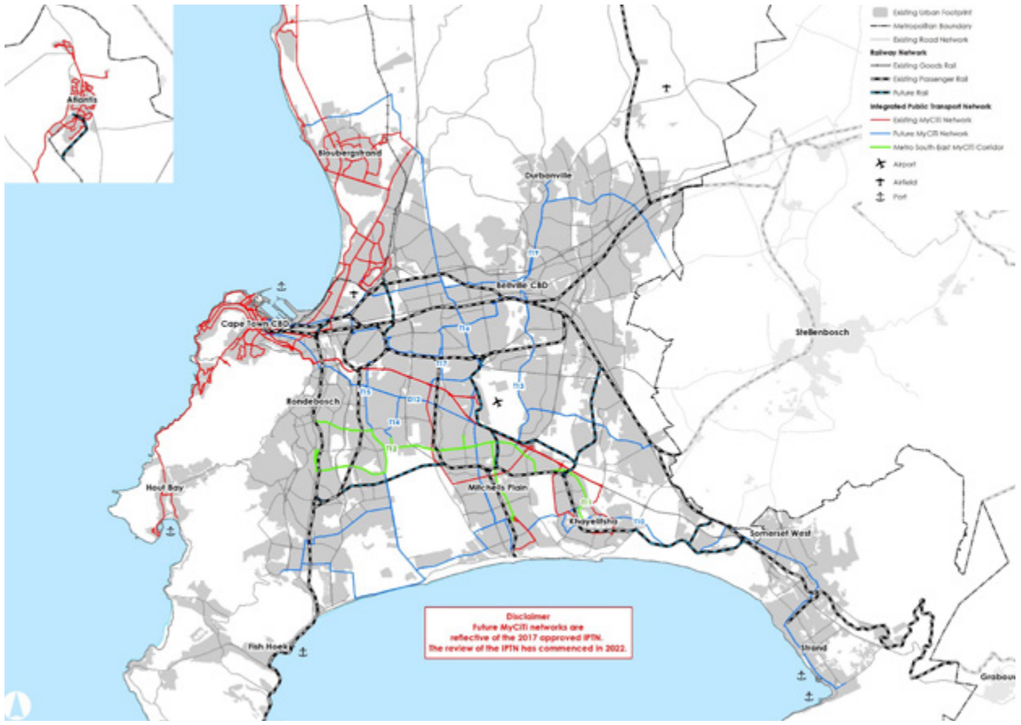
The realisation of the long-term public transport network is heavily reliant on the stabilisation of Cape Town's existing rail service. Although competencies relating to rail reside with the national government, the City has embarked on feasibility investigations to effect operational and infrastructure programmes managed locally. The rail service remains the primary high-capacity public transport restructuring opportunity for the future of Cape Town. Therefore the MSDF reflects the spatial end state, which includes the rail network as a component of the IPTN. However, any further deterioration of the rail system, or lack of implementation of measures to enhance the system, will bring into greater focus the need to accelerate alternative public transport infrastructure linkages within the IPTN. The reprioritisation of existing rail infrastructure has compromised plans for the implementation of proposed new rail lines.

Challenges (and opportunities) related to rail are best addressed through a partnership approach between the City and PRASA, in support of a sustainable rail recovery plan. In this regard, the City must adopt a proactive role in rail recovery by:

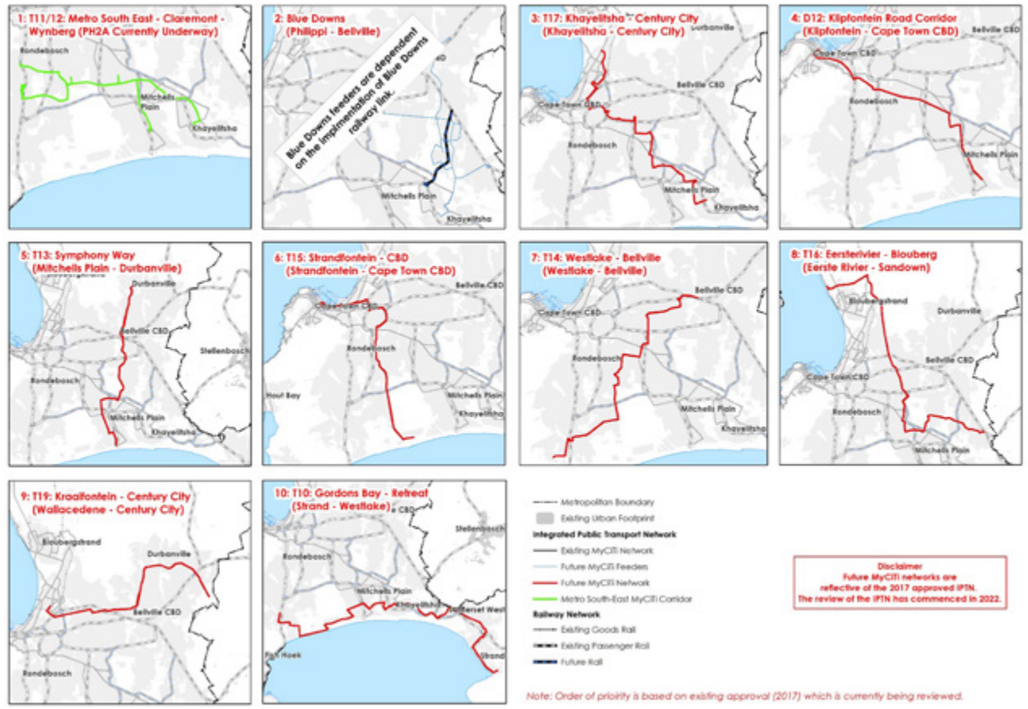
- ✓ increasing densities along transit corridors (particularly around rail access);
- ✓ encouraging more affordable housing options in proximity to rail stations; and
- ✓ providing a diverse mix of land uses to encourage boarding and alighting along public transport corridors.

This partnership-based approach is being employed in the Bellville CBD through the intended upgrade of the Bellville public transport interchange.

Map 3.1: Integrated public transport network



Map 3.2: Future BRT trunk routes



Note: Order of priority is based on existing approval (2017) which is currently being reviewed.

3.5 COMPONENTS OF THE MSDF CONCEPTUAL SPATIAL STRUCTURE

The MSDF spatial concept is anchored primarily by a system of metropolitan nodes and development corridors. This nodal and corridor approach aims to provide a citywide spatial structure that provides confidence that land use intensification, according to the principles of TOD, will be supported within those areas. **Map 3.3** reflects the MSDF conceptual spatial structure, with more details provided in technical supplement E.

In addition to nodes and corridors, the MSDF spatial concept is informed by the following important spatial informants:

- ✓ Development corridors
- ✓ Metropolitan and district nodes
- ✓ A network of transit-accessible precincts (TAPs)
- ✓ Key economic infrastructure (ports, harbours, employment-generating business and industrial areas) **(map 5d)**
- ✓ A range of civic clusters (concentrations of social/ community services) **(map 5d)**

Development corridors are defined as urban areas of medium to high intensity (i.e. dense and diverse), mixed use (i.e. residential and non-residential land uses), strip or nodal development, focused around a combination of rail and high-capacity road and trunk bus routes. The overarching intention with these corridors is to promote a dynamic, mutually supportive relationship between land use and the movement system along their full length.

Development corridors

Development corridors are generally supported by a hierarchy of transport services that function as an integrated system to facilitate ease of movement for private, public and non-motorised transport users. Corridor development is mainly focused on trunk routes, serviced by mass rapid public transport services (i.e. rail or bus rapid transport or quality bus services). However, the routes may serve different functions, with some routes combining route functionality in terms of accessibility and mobility. The concentration of intense bands of high-intensity urban development reduces overall trip lengths and improves access to opportunities. In this way, they offer a means of conveniently delivering services to communities while helping to fulfil a range of economic and social needs.

Historically, the system of metropolitan and district nodes acted as development catalysts, and were followed by infill development between these nodal points. However, corridors do not necessarily comprise 'wall-to-wall' development and mixed land uses. The form, scale and intensity of land use, and associated nodes along the corridor, may vary over short distances. The land use response and intensity are also linked to the inherent functionality of route segments that anchor the corridor. However, the leveraging of land use potential may justify a change in route functionality over time.

Metropolitan nodes

Metropolitan nodes aim to focus concentrated intensification at points of very high or high accessibility, exposure, convenience and urban opportunity (typically along highly accessible and multiple-activity routes). Metropolitan nodes serve as spatial anchor points, which support and encourage a very high or high intensity mix and clustering of urban activities or land uses (maximum variety of land uses and highest densities). They serve a broad spectrum of citizens and businesses.

The following metropolitan-scale nodes anchor the spatial structure of Cape Town:

CAPE TOWN CBD	With the largest concentration of economic activity and employment opportunities, the CBD serves as the economic heart of Cape Town. Cape Town CBD has suffered considerably as a result of the Covid-19 pandemic and the lengthy lockdown response. The result has been unprecedented commercial and retail vacancies, largely as a consequence of dwindling customer numbers as consumers were required to isolate and office employees entered work-from-home arrangements. Cape Town's recovery from the pandemic is premised on the economic recovery of the CBD, specifically by boosting mixed-use intensification and the supply of residential opportunities to residents from as many income brackets as possible. These aspects could also enhance the sustainability and affordability of public transport for households and operators. Programmes within the City, with relevant partners and stakeholders, continue to support this premise. The node is a key part of the City's Catalytic Land Development Programme.
BELLVILLE CBD	The Bellville metropolitan node (considered the second metropolitan node), comprises the Bellville CBD to the south and Tyger Valley mixed-use node to the north. The Bellville node has the second-highest public transport passenger throughput on the city's public transport network and is supported by a combination of civic, institutional and economic activities. Bellville CBD has traditionally been described as being in a general state of urban blight and stagnation, with the bulk of private investment having migrated to Tyger Valley, north of the N1. Despite these challenges, the latent potential of Bellville remains high, with gradual signs of private investment growth emerging. However, in order to maximise this potential, public investment in the spatial restructuring of Bellville is needed. The City is intent on supporting the regeneration of the Bellville CBD through the implementation of several public interventions. The node is a key part of the City's Catalytic Land Development Programme.
WYNBERG/ CLAREMONT CBD	Together, the Wynberg and Claremont CBDs form a metro-scaled economic and civic cluster along the southern corridor and anchor what was traditionally known as the Lansdowne-Wetton corridor to the west. The past decade has seen a significant degree of investment in Claremont specifically. While Wynberg trails in terms of investment and urban management, it still plays an important public transport 'junction' role on the city network and serves different economic markets. The implementation of the metro southeast MyCiTi corridor BRT route through this area will serve to transport large volumes of residents, enhancing Wynberg's accessibility via the City's public transport network. The improved metropolitan access and mixed-use intensification opportunities within the node elevate its status from a district-scale node to a metropolitan-scale node.
PHILIPPI OPPORTUNITY AREA (POA) CATALYTIC PRECINCT	This node serves as the point of convergence for several rail- and road-based public transport routes. It includes several smaller concentrations of economic and institutional activity such as Philippi Village, Stock Road interchange, Nolungile Station and future development opportunities on the Swartklip site. Initially identified as an emerging node, the ability of this node to achieve its full potential has been inhibited by several urban challenges, such as land invasions, precinct management issues and competition for investment with other nodes. Despite these challenges, the City has invested, and will continue to invest, in the Philippi metro node and emerging opportunity area to encourage economic growth and job creation. Should development take place at the Swartklip site over the medium term, it may be necessary to re-evaluate the status of the node.
SOMERSET WEST CBD	Somerset West maintains a thriving economy within the metropolitan area as well as the Cape functional region, and is supported by several smaller district and local nodes of economic and civic activity (e.g. Somerset West CBD, Strand CBD and Strand beachfront, Somerset triangle, and various industrial clusters). Originally located at Somerset triangle as an emerging node, the linear node, anchored by Somerset West CBD and Strand CBD, was reclassified as a metropolitan node with latent potential, given its land use intensity trends and public transport access. Notwithstanding the above spatial prioritisation, the future intensification of the Somerset triangle and development of the Paardevlei site provide additional nodal opportunities in support of the metropolitan node classification, which will be monitored over time.

District nodes

A large number of district-level nodes correspond with the structure in the DSDFs, but are still of slightly less intensity of development. The same diversity of land uses applies as at MSDF nodal level.

TAPs as an important spatial restructuring mechanism

In addition to these corridors and nodes, the importance of Cape Town's rail stations and BRT stations to land use intensification, based on TOD principles, is also integral to the approach. Areas within a 500-metre walking distance of rail and BRT stations, and certain higher-order stops, are referred to as transit-accessible precincts (TAPs).[16] These are shown in **map 3.4**.

Depending on the land use intensity of surrounding land, TAPs can act as generators or attractors (or both) of people and trips. By facilitating an optimised distribution of land use intensity across the city, a movement pattern can potentially be encouraged

[16] The relative importance of TAPs differs based on the following elements: 1) Station status – station exists or station is proposed; 2) Network status – the network/route exists or is proposed; 3) Connectivity – travel time to other locations; 4) Mode capacity – the capacity/level of service of the individual transport modes (rail, BRT trunk, BRT feeder) found at the station; 5) Station capacity – the combination of transport modes at the station, e.g. a confluence of rail lines, rail stations, BRT stations, public transport interchanges, feeder services; and 6) Accessibility – the number of people residing or working within the TAP.

that systematically improves the sustainability of the public transport network. TAPs could, however, be constructed in strategic areas to incentivise development, thereby supporting emerging nodes, or even creating new ones. Despite their importance, not all TAPs are fully developed or planned. **Map 3.4** demarcates the existing and proposed TAPs. Proposed TAPs concentrated along the metro southeast MyCiTi corridor can be considered as ready for increased intensity and diversity over the short to medium term (i.e. their public transport accessibility and land use benefits are imminent).

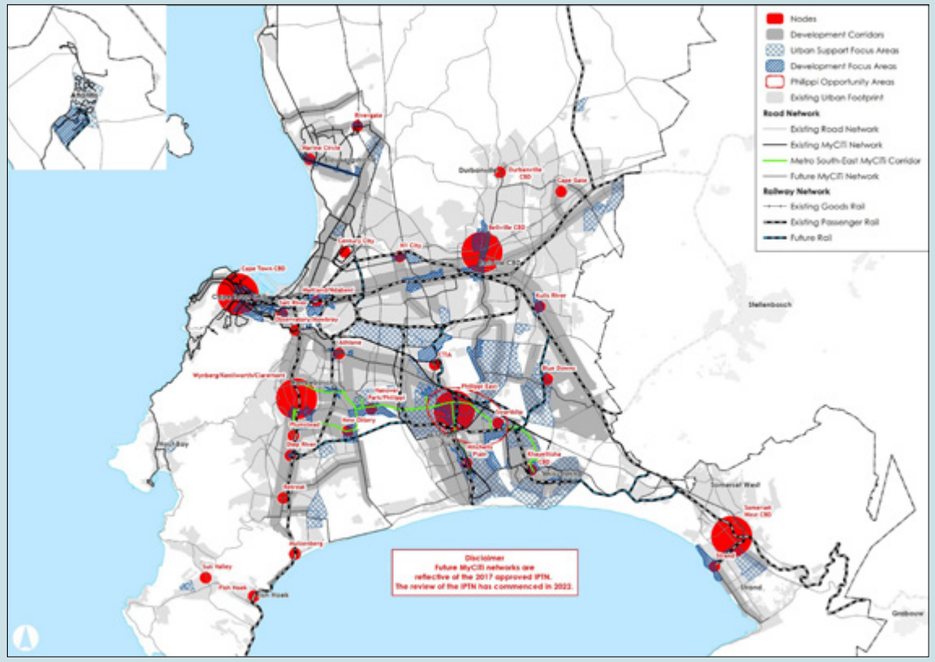
In addition, a number of these TAPs are already demarcated as public transport/parking reduction (PT) zones and will be included as an overlay zone in the Development Management Scheme. PT zones have reduced requirements for onsite parking as a measure to promote densification and intensification of land uses in areas with access to good-quality public transport (i.e. within walking distance from stations).

3.6 KEY ECONOMIC INFRASTRUCTURE

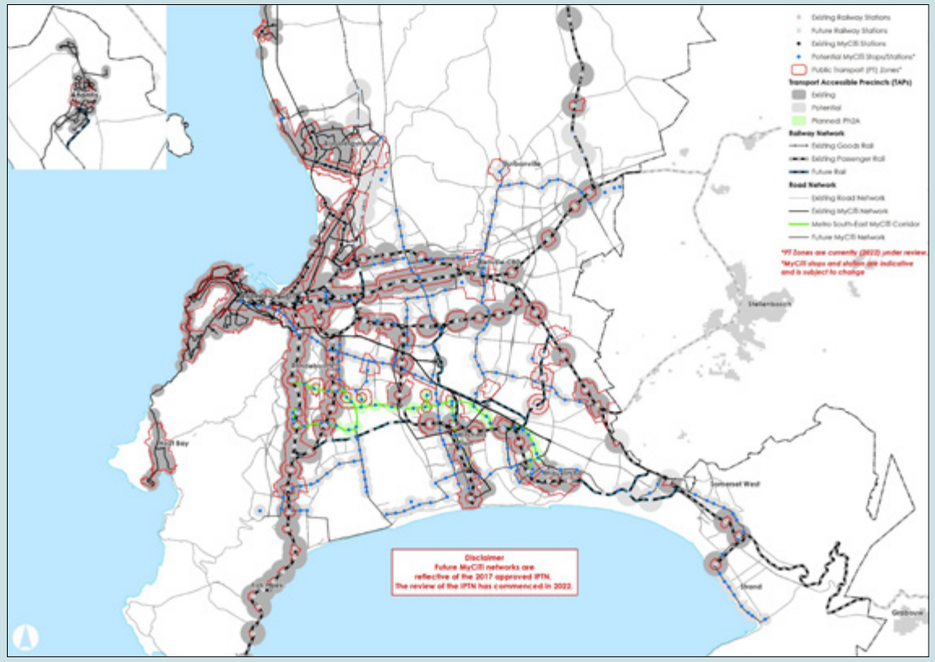
Several key elements of economic infrastructure support and promote the economic functionality of the metro and beyond. They are identified as key spatial informants to the conceptual spatial structure of the metro.

- **Cape Town International Airport (CTIA)** – CTIA is one of Cape Town's primary freight and logistical links to global commercial markets. Retention and expansion of airport infrastructure and intensification of associated land uses support both the regional economy as well as job creation. Its continued role in aviation and related land uses surrounding the airport should be encouraged and actively supported. Migration of general aviation activity from CTIA to Cape Winelands Airfield should be supported in order to promote better operational efficiencies for aviation. Other civil aviation authority-accredited landing strips, flying schools, as well as farms and other recreational landing areas, will continue to play a smaller role, even in the regional context.
- **Port of Cape Town and supporting freight infrastructure** – The Port of Cape Town is a major commercial and freight gateway into the city and the broader freight corridors through the western side of the country. As such, maintaining and expanding the economic functionality of the port remains a high priority. Transnet's Long-Term Planning Framework (2019) identifies sustained growth in containerisation in accordance with its role as a primary container terminal. Growth projections forecast that container handling demand will begin to outstrip capacity between the port and the existing inland terminal at Bellville marshalling yard by 2034. Thereafter, a dedicated rail shuttle track will be required to consolidate container stacking and break-bulk functionality. This will also contribute to decongesting the inner city through reduced freight transport activity.
- **Cape Town's system of economic areas** – The network of economic areas help to anchor the metropolitan space economy. Identified economic areas include commercial, retail and industrial areas, which in certain instances can overlap within designated urban nodes. This takes place at points of maximum accessibility, exposure, convenience and urban opportunity. The informal economy is more adaptable in terms of spatial location, but requires a high footfall of potential customers and is generally symbiotic to the formal economy. In this regard, economic areas play an important role in determining job proximity.

Map 3.3: Conceptual development corridors and urban nodes



Map 3.4: TAPs shown in relation to the existing and planned IPTN



4. DIRECTING SPATIAL TRANSFORMATION

The City's key spatial imperative is to ensure inclusive economic growth while addressing matters such as housing, access to basic services and transport. Coordinated and prioritised public infrastructure investment can be a powerful catalyst for spatial integration, and can meaningfully improve access to economic, educational and social opportunities.

The MSDF provides policy measures aimed at the preservation and reinforcement of Cape Town's macroeconomic stability, revitalisation of the jobs market and improvement in the investment climate by providing certainty to both the private and public sector.

The framework for effectively directing spatial transformation requires an understanding of the preconditions for directing spatial transformation (diagram 4a), followed by the prerequisites for spatial transformation from the NDP (diagram 4b), the SPLUMA principles (table 4.1) and the context of the sustainable development goals.

The National Development Plan (NDP) continues to guide South Africa's long-term focus on eradicating poverty and reducing inequality through inclusive economic growth. It offers identified prerequisites to achieve inclusive economic growth and spatial transformation.

Diagram 4a: Preconditions for spatial transformation

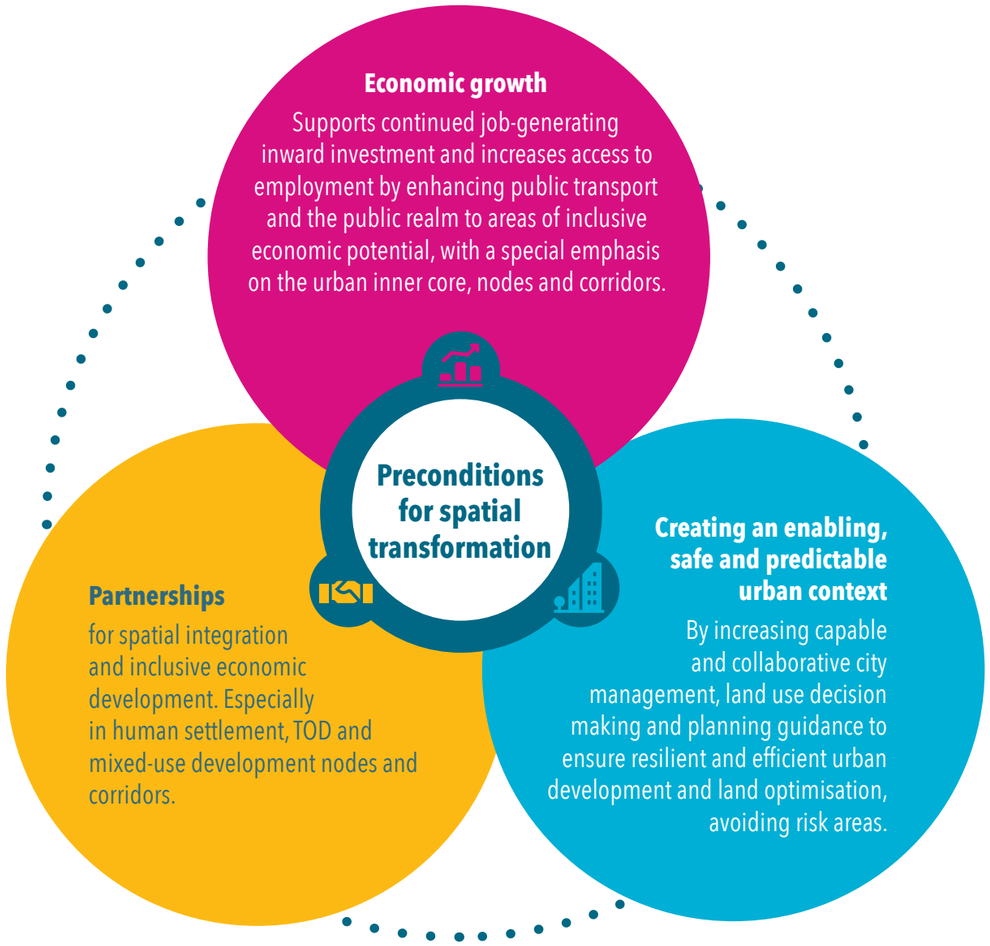


Diagram 4b: Prerequisite for spatial transformation

SPLUMA (2013) provides the legislative framework for the integration of spatial planning and land use systems to reduce the impacts of historic spatial fragmentation, and to focus on more inclusive, sustainable and efficient growth trajectories that are aligned to the global agenda targets and national aspirations. Section 7 of SPLUMA[17] establishes five development principles to which national, provincial and local government and the private sector must give effect.

These principles **underpin** the City's spatial planning system reflected in the MSDF, its eight DSDFs, LSDF, DMS, MPBL and IDP. The MSDF interprets the principles and translates them into a spatial vision for the city as reflected through the key maps referenced as **maps 5a–g**, three spatial strategies, accompanying substrategies and the policy guideline tables detailed in technical supplement A. These principles also need to be balanced with all of the desirability considerations contained in sections 99(2) and (3) of the MPBL in assessing applications.

This approach recognises that the principles do not operate in isolation to each other, but are interlinked and overlap. The interpretation of these principles through the MSDF ensures that the assessment of development applications is not approached as a 'tick box' or checklist exercise, but rather allows decision makers to follow a balanced evaluation approach that objectively weighs up the impact of the proposed development. The City will collaborate to create an enabling, facilitative and predictable investment environment and consistently apply all land development principles contained within Chapter 2 of SPLUMA (2013). This will ensure uniformity and consistency in the City's spatial planning and land use management, assessed against the development principles summarised in **table 4.1**.

4.1 SPATIAL TRANSFORMATION AND INVESTMENT PARTNERSHIPS

This amended MSDF comes at a time of unprecedented events and challenges. There is an urgent need to balance, prioritise, reform, coordinate and realise the long-term spatial vision for Cape Town based on three spatial strategies. For that spatial vision to align priorities towards a restructured, inclusive, efficient urban form and function for Cape Town, the following imperatives and partnerships are essential in framing the urban inner core:

[17] Spatial Planning and Land Use Management Act, Act 16 of 2013, South African Government (www.gov.za).

Table 4.1: SPLUMA development principles

- ✓ Support and facilitate inclusive economic growth using context-sensitive planning tools and funding models to ensure the timeous provision of connective infrastructure (i.e. public transport, broadband, bulk reticulation) to support spatially efficient, job-generating inward investment.
- ✓ Ensure access to employment by enhancing public transport to areas of economic potential, with a special emphasis on the inner city business nodes.
- ✓ Support, coordinate and facilitate equitable land markets by increasing private and public housing supply interventions. These should enable transit-supportive development and deliver key benefits to housing agglomeration and increased employment densities.
- ✓ Provide an efficient, safe and affordable public transport system supportive of transit-oriented development and land use intensification (i.e. diversification and densification) in and around

transit corridors and nodal points serviced by an existing and future public transport network.

- ✓ Coordinate, prioritise and implement land development and public investment aligned to the MSDF's spatial transformation areas investment rationale and in support of inward growth.
- ✓ Acknowledge inherent natural and man-made risks and land development directives.
- ✓ Reinforce critical infrastructure elements that support Cape Town's metropolitan functionality.
- ✓ Conserve and enhance the natural assets of the city, including unique agricultural areas.
- ✓ Ensure an urban development edge that enhances the STA investment rationale by providing a clear position on the vision for spatial planning and land use systems.
- ✓ Further promote and facilitate a well-defined balance between future urban development needs and the protection of natural environment and unique agricultural areas.

The City remains committed to employing a range of evidence-based urban growth management tools and processes, and to considering the designation of priority areas, managed growth areas and protection areas with associated development parameters, premised on a partnership investment approach.

Table 4.2: Investment partnerships for spatial transformation

STA	INVESTMENT PARTNERSHIP	INVESTMENT PRIORITY	PUBLIC EXPENDITURE	GRANT PRIORITISATION	PRIVATE SECTOR OPPORTUNITIES
URBAN INNER CORE (UIC)	Public sector investment priority. Areas of co-investment between public and private sector (development charges and City budget allocations cover capital and operational cost of infrastructure).	Future proofing of UIC through bulk infrastructure prioritisation. Cross-sectoral collaboration, maintenance and upgrade of bulk engineering infrastructure and social infrastructure.	Priority: Implementation of key public sector interventions associated with bulk and social infrastructure, including existing and planned public transport network.	Urban development zone. Special economic zones. Manufacturing incentives. Social housing restructuring zones. Prioritised human settlement areas.	Spatially targeted mechanisms, incentives and facilitation to support urban regeneration and spatial integration, increase access to affordable housing opportunities and drive sustainable and inclusive economic growth.
INCREMENTAL GROWTH AND CONSOLIDATION AREAS (IGSAs)	Public sector investment priority. Areas of co-investment between public and private sector.	Serving existing developments and communities. Subject to capacity of existing services. Alternatively, financially feasible inclusion in utilities master planning with co-financing.	Priority for phased bulk engineering infrastructure, subject to the City's engineering masterplan.	Full suite of grant funding in support of new development areas and development focus areas. Restructuring zone, where aligned to TOD imperatives.	Development permitted, subject to network capacity. Spatially targeted cross-subsidised social infrastructure. Limited incentives.
DISCOURAGED GROWTH AREA (DGA)	Self-funded areas for private sector land development. City and the public sector will not co-finance the provision of bulk engineering and social infrastructure beyond the City's master planning and urban development edge.	Zero priority for public sector funding for land development beyond that permitted within agriculture and rural zonings.	May include funding by government of bulk infrastructure of regional importance. National government grant funding/ permitted financing programmes and incentives to support agriculture as economic sector.	Bulk, link and reticulation engineering and social infrastructure self-funded and subject to determination of engineering services as per sections 65(3) and (5) of the MPBL.	Preferred activities include those related to agriculture and rural zonings. In the event of land development approval(s), will be subject to determination of financial implications on Council's engineering services masterplans.
CRITICAL NATURAL ASSETS (CNA)	Public sector priority and partnerships based on preservation and enhancement of natural assets.	Focused on enhancement, expansion and increasing accessibility to assets.	Priority	Partnership based on protection and enhancement of natural resources.	Limited tourism-related development opportunities that do not compromise assets.

4.2 SPATIAL TRANSFORMATION IN THE CONTEXT OF THE CITY OF CAPE TOWN

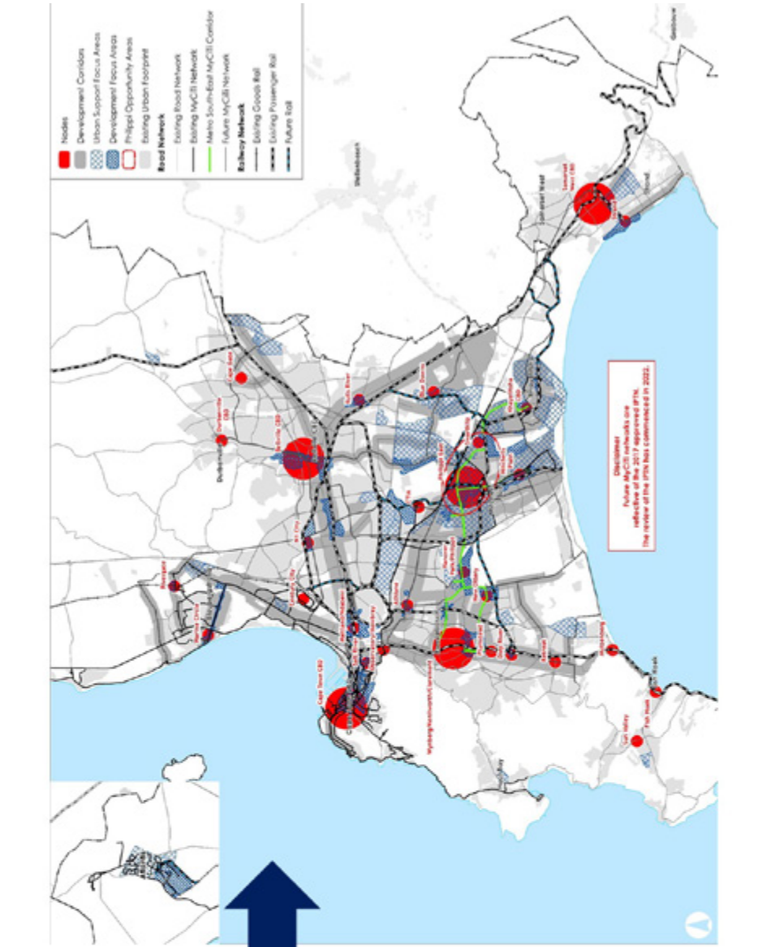
The City's spatial transformation agenda cannot be achieved without buy-in and cooperation from the private sector and other public sector role players. In achieving the spatial vision and priorities towards a restructured, inclusive, efficient urban form and functionality for Cape Town, the following imperatives and partnerships frame the urban inner core:

- ✓ Coordinate and prioritise inclusive economic (and spatial) growth.
- ✓ Prioritise spatially targeted public investment and incentivise private sector investment within the urban inner core and other spatial targeting areas such as the priority local facilitation areas[18] (PLFAs) as identified in the DSDFs.
- ✓ Assist in determining in-principle support for development proposals assessed against SPLUMA, chapter 2: Development Principles, Norms, and Standards.
- ✓ In support of the discouraged growth areas investment rationale, introduce the urban development edge as a complementary growth management tool to manage land development.
- ✓ Support short-, medium- and longer-term infrastructure provision, particularly where infrastructure deficits inhibit development within an urban inner core.
- ✓ Support an efficient urban form, predicated on transit-supportive land use intensification as an instrument.
- ✓ Enhance capital budget prioritisation and grant funding alignment across sectors and spheres.
- ✓ Support and guide the City's land acquisition and disposal strategies.
- ✓ Introduce a spatial rating system to evaluate human settlement programmes and prospective land acquisitions in support of the Integrated Human Settlement Framework.
- ✓ Conduct spatial monitoring and evaluation reporting in support of the MSDF implementation.

The City's spatial targeting areas in the MSDF and DSDFs are inferred in **diagram 4c** and lead to the framing of an urban inner core as a key spatial targeting area.

Spatial targeting is the deliberate act of focusing government and private sector interventions, services, infrastructure development or policy responses into a specific geographical area. This area-based approach generally seeks to maximise the impact of an urban or regional policy initiative, and can be applied at a range of scales.

[18] **District priority local facilitation areas**
The PLFAs provide a district-/local-level basis for spatial prioritisation and aim to guide implementation through directing public investment, incentives, budgets and planning focus for the short to medium term. The DSDFs explain the methodology related to the decision to select certain areas for spatial targeted initiatives and the direction of both spatial planning attention and capital and operational budget investment. These include the development focus areas (DFAs), urban support focus areas (USFAs) and environmental focus areas (EFAs).



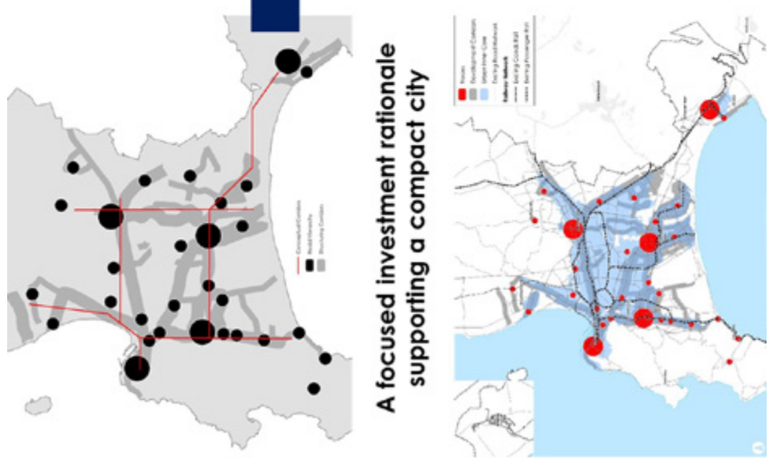


Diagram 4c: Spatially framing the urban inner core

Diagram 4d: The city's spatial transformation areas and investment rationale

The investment partnership approaches in each of the STAs are outlined in **table 4.2** and spatially represented in **map 4.1.** Partnerships and leverages need to be created and maintained to effect spatial transformation. This is key to the ways in which investment will be directed to strengthen the principles of fiscal prudence and prioritised spatial transformation.

The detailed informants and development outcomes of the STAs are outlined in **table 4.3** and spatially represented in **map 4.1**.

Atlantis and Somerset West are included in the urban inner core. These changes emerged from the DSDFs review process and input from public participation workshops. The cadastral refinement of the STAs identified Atlantis and Somerset West areas that demonstrate the polycentric nature of urban land development and activities that can contribute to cross-municipal-border challenges.

- ✓ **Atlantis** is the home of the industrial development-led green-tech special economic zone (SEZ). Several new development areas (NDAs) were also delineated. Both these factors necessitated the designation of Atlantis within the UIC to prioritise public infrastructure investment and precinct management in support of employment-generating opportunities.
- ✓ The designation of **Somerset West** as a part of the UIC is intended to prioritise spatially targeted public interventions and incentives. These should stimulate urban regeneration and the implementation of bulk engineering infrastructure required to support inward growth. The spatial demarcation of the STAs has been refined, as illustrated in **map 4.1**.

Map 4.1: Spatial transformation areas (STAs)

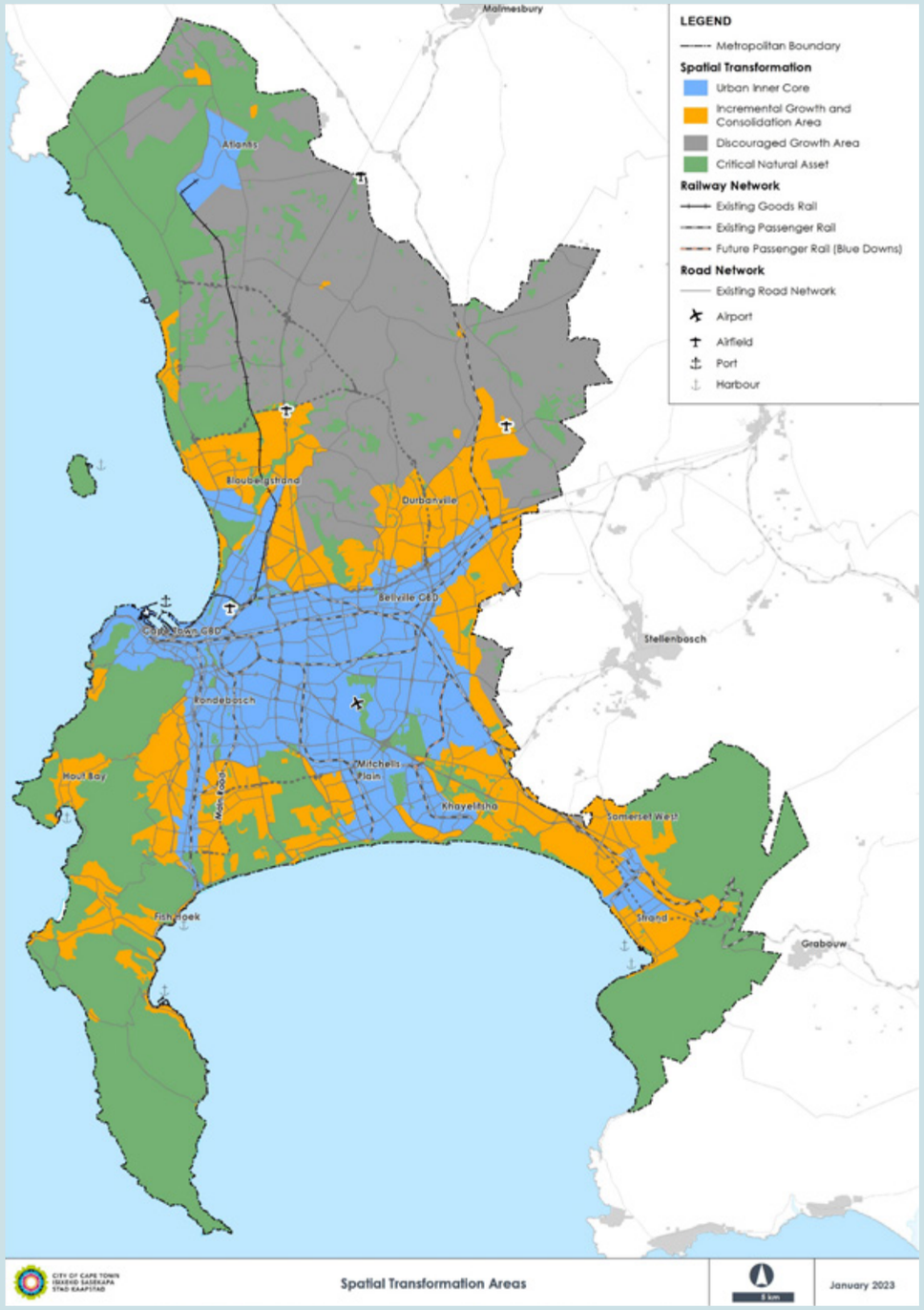


Table 4.3: Spatial transformation areas – principles, informants and guidelines

URBAN INNER CORE	
PRINCIPLE	The City and public and private sectors are committed to coordinated, spatially targeted investment and land development to spatially transform and integrate the city form.
INVESTMENT PARTNERSHIP	The City and public and private sector investment priority areas for spatially targeted interventions and mechanisms.
INFORMANTS	1. Primary structuring elements as per revised IPTN including metropolitan nodes and district nodes 2. District nodes and development corridors (higher order and lower order) 3. Areas designated as development focus areas and urban support areas in relevant DSDFs Economic areas and public sector investment prioritisation in: 4. Majority of commercial, retail and industrial nodes 5. Airport/ports and primary freight infrastructure 6. Three integration zones (Blue Downs/Symphony Way, metro southeast, Voortrekker Road) 7. Metro southeast MyCiTi corridor implementation/IPTN 8. Blue Downs passenger rail link extension 9. Full extent of urban development zone, prioritised human settlements and draft social restructuring zones as well as special economic zone 10. Public transport zones 1 and 2 (when declared)
DESIRED SPATIAL OUTCOMES AND LAND USE GUIDELINES	Diverse and dense land uses in association with current and future public transport infrastructure provision. Refer to **technical supplements B and E.** Spatial manifestation of the following legislative requirements per SPLUMA development principles, norms and standards and MPPM regulations.[19] Include areas where the following apply: • Key focus area for a wide variety of affordable housing priority areas and land release strategies. • High priority is given to coordination, alignment and integration of sectoral master planning and policies. • Public and private land development that is supportive of spatial transformation is prioritised and implemented. • Intensification and diversification of land uses support city growth, unless classified as a facility of (inter)national, provincial or metropolitan or district importance. This may imply that space-intensive land uses such as large distribution centres, large sports stadiums or racing car tracks may have to be replaced over time with more intensified and diversified land uses. • Differentiated intensification guidelines outlined in table 5.7. • Detailed local plans are developed for subdistrict areas in need of spatially targeted interventions through applicable DSDFs and LSDFs and development guidelines. • Priority is given to spatially targeted interventions and optimisation of public and private land development in development focus areas, urban support areas as well as new development areas. • Public expenditure and other capital investment are prioritised to address urban infrastructure constraints and services redress. • Prioritisation to address current social infrastructure backlogs, operational deficiencies and needs. This provision is not applicable in cases of unlawful occupation of private land. • Government grant expenditure is coordinated and prioritised in support of spatially targeted mechanisms such as UDZ/SEZ and other strategic interventions. Public expenditure and other capital investment prioritisation to address urban infrastructure constraints and services redress. Optimised design and utilisation of social or community facilities as well as public open spaces and ecological corridors (considering UIC is targeted for densification, diversification and intensification of land uses).

[19] SPLUMA sections 21 (i, j, k, l, m and n) and MPPM Regulations (2001), Chapter 2, sections 2 (4)(i), (ii), (iv) and (v).

INCREMENTAL GROWTH AND CONSOLIDATION AREAS	
PRINCIPLE	The City and public sector are committed to conserving existing and new communities. New development subject to capacity of bulk engineering infrastructure (MPBL, section 99(3)(e)).
INVESTMENT PARTNERSHIP	The City and public sector prioritisation and implementation of planned maintenance and upgrading of external and bulk engineering infrastructure and networks. Development Contribution Policy applies. Internal and link engineering infrastructure for the cost of the developer, subject to MPBL section 65 determination of responsibility of engineering services. Bulk infrastructure as partnership between the City and the private sector. Administered per MPBL and implemented as conditions of approval.
INFORMANTS	Existing built-up area of the city that is not immediately framed by structuring elements (such as development corridors and nodes). Existing built footprint of the city and latent approved land use rights. Anticipated land development requirements for the medium term within the context of urban growth management. Bulk Infrastructure Masterplan and modelled areas include: • Infrastructure master planning areas • 20-year future land use scenarios (excluding 26 January 2023 additions by Council) • IPTN modelling
DESIRED SPATIAL OUTCOMES AND LAND USE GUIDELINES	1. Diverse and dense land uses, where bulk engineering infrastructure allows. 2. Diversification of mono-use residential patterns and cross subsidisation for the provision of social infrastructure. 3. Incremental intensification (density and diversity) via subdivisions/second and third dwelling and rezoning. 4. Public sector investment in existing and future human settlements permitted. 5. Maintenance of existing infrastructure, and development according to infrastructure capacity and associated capex/lifecycle costs. 6. Spatial manifestation of the following legislative requirements per SPLUMA and MPPM regulations,[20] including areas where: • priority is given to coordination, alignment and integration of sectoral master planning and policies; • implementation of public and private land development is supportive of spatial transformation; • consolidation and diversification of land uses are in support of city growth; • differentiated intensification guidelines are outlined in table 5.6; • intensification is subject to provisions within the MPBL (sections 64–66); • secondary but crucial focus area for a wide variety of affordable housing priority areas and land release strategies exists; • incremental upgrading approach to development is applicable; and • detailed local plans are developed for subdistrict areas in need of spatially targeted interventions through applicable DSDFs and LSDFs and development guidelines. 7. Medium to high priority can be given to the capital infrastructure projects and programmes with specific reference to new infrastructure in areas earmarked for future development within the UDE. 8. Optimised design and utilisation of social or community facilities as well as public open spaces and ecological corridors (considering IGCA is prone to densification, diversification and intensification of land uses). 9. Open space corridors and pockets of agriculturally zoned land should be retained to provide much needed opportunities for active and passive recreational space, urban agriculture, and tourist activities in close proximity to residential areas with increasing densities.

[20] SPLUMA sections 21 (i, j, k, l, m and n) and MPPM Regulations (2001), Chapter 2, sections 2 (4)(i), (ii), (iv) and (v).

DISCOURAGED GROWTH AREAS	
PRINCIPLE	The City, in partnership with the public sector, is committed to supporting regional economic growth.
INVESTMENT PARTNERSHIP	Land uses beyond the UDE, which would ordinarily be accommodated within the existing built footprint and which are public transport and social facility dependent, will be subject to contributions to costs for bulk, link and network engineering infrastructure upgrades, which may be required as per the MPBL, if applied for in the DGA.
INFORMANT	• Protection of areas of agricultural significance/natural assets.[21] • MPBL section 65: stipulation of responsibility for engineering services. • City's engineering infrastructure services masterplans, capital, and operating budgets that show that the majority of these locations are beyond the 20-year investment horizon of the City. Refer to Urban Development Edge Report. • Lack of social and supporting infrastructure. Areas that fall outside the investment rationale and financial sustainability of the City. • From a City perspective, these areas would not contribute immediately to the inward growth and TOD premise.
DESIRED SPATIAL OUTCOMES AND LAND USE GUIDELINES for areas outside the UDE. This should be in addition to the land uses provided for in the Development Management Scheme[22]	1. Discourage land use activities that can be accommodated within the existing built footprint or the future urban extent (UIC and IGCA) as well as land uses that generate a high dependency on publicly provided transport and social infrastructure. 2. Support developments permitted in respect of existing agricultural/rural zoning.[22] In addition to the list of land uses in the DMS, the following could be considered with the intention of limiting rezoning of agricultural land away to predominantly urban land uses which should be accommodated within the UDE: • Activities and land uses directly relating to the primary agricultural economy, e.g. agri-processing and food processing;[23] • Activities or land uses of appropriate scale that do not detract from farming or food production, that diversify farm income, and add value to locally produced products, and contributes to the enhancement of the regional space economy,[24] e.g. farm/agri-tourism; eco-tourism; restaurant and function venue facility; farm stall and farm store; • Local agricultural industries/product processing (e.g. winery, olive pressing); • Rural recreational facilities (e.g. riding school); • Renewable energy generation; and • Exploration and mining outside areas of agricultural significance or biodiversity with the required environmental management plans. 3. Support land use activities that optimise investment in rural, agricultural and heritage assets and conserve the dominance of a functional agricultural landscape with cultural-historical value. 4. Discourage the subdivision of commercial farms to sizes below 40 ha.[25] In exceptional cases, minimum subdivision sizes of 20 ha can be considered (as per the DMS section 109 (e)) but will require a specific deviation application. 5. All land to permit bulk infrastructure-related servitudes in areas outside the primary biodiversity protection zones. 6. Support the consolidation of agriculture land aimed at job creation for intensive regional economy to support national and international exports e.g. agro-processing[26]/ agricultural industries, horticultural and environmental-related land uses. 7. Support compatible land use activities that do not compromise biodiversity, cultural and scenic landscapes, and are of an appropriate scale and form to fit in with their context in the rural landscape. 8. Support land use activities that mitigate the impact or support the enhancement of the visual value of the rural and agricultural landscape and enhance the protection of tourist and scenic routes and travellers' sightseeing experiences. 9. Support land uses that support and optimise the uptake of incentives and available financing opportunities for agriculture and rural activities, such as climate smart agriculture. 10. Support renewable energy opportunities and activities, subject to EIAs and extensive involvement of the City's Energy Directorate, including thorough evaluation of the visual impact on the rural landscape (from a tourism point of view), and the impact on the aviation industry (managed via the civil aviation authority). 11. The existence of soils with low agricultural potential is not sufficient reason to consider allocating conventional urban development rights or subdivision of the land.

[21] Western Cape Land Use Planning Act, Act 3 of 2014) (LUPA), Western Cape Land Use Planning Guidelines for Rural Areas (2019), Municipal Systems Act, 2000.

[22] MPBL Chapter 13: Part 1: Land uses in the Agricultural Zoning (AG), and Part 2: Rural Zoning (RU)

[23] Western Cape Government (Department of Agriculture) Land Use Planning Guidelines for Rural Areas, 2019

[24] Rural space economy is not only about agricultural development, but also broad-based agrarian transformation, diversifying the agricultural-rural economy, tourism, government promotion of rural development and land reform programmes, and functional ecosystems. Whilst the economy is essentially based on secondary and tertiary activities located mainly in the large urban areas, many of these activities relate to adding value to the outputs of rural activities.

[25] Western Cape (Government Department of Agriculture) Land Use Planning Guidelines for Rural Areas, 2019

[26] Agro-processing refers to the sub-sector of the manufacturing that beneficiates primary materials and intermediate goods from agricultural, fisheries and forestry based sectors. Department of Trade and Industry

DISCOURAGED GROWTH AREAS	
CONSIDERATIONS	1. The appropriate combination of prescribed processes, which may include NEMA, LUPA, MPBL and Act 70 of 70, are applicable during consideration of all changes to land use and subdivision of agricultural land. 2. Pre-application meeting with all relevant City officials would be advantageous. 3. Applicants may be advised to generate motivations for a site-specific deviation from the City's Council-accepted vision of a more compact and integrated City as communicated in the MSDF and the DSDFs. 4. The applicant might be requested to demonstrate how the development proposal will support the agricultural activities and how the development will mitigate the cost of transport for employees as well as the possible need for social/community infrastructure. 5. Motivations may be required as to why the protection of areas of agricultural significance or critical natural assets are not essential anymore or not applicable in the application (SPLUMA and LUPA). 6. The public sector most likely will not invest or utilise any grant funding to finance engineering services expansions for human settlement or conventional urban development projects in isolated locations in the DGA, considering the contradiction with the inward growth premise. 7. A package of plans submission may be required, including a phasing plan for engineering services provision. 8. The development's connectivity with adjacent land uses and services networks may have to be thoroughly explained and illustrated. Similarly, the intent regarding availing or donating land for and the construction and operation of community facilities may be questioned. 9. The cost and financial implications for each role player in the bulk and link infrastructure network system may be required as part of the first documents. 10. The City may insist that the developer carries all costs related to the provision of all required bulk, link and reticulation engineering infrastructure services, as well as social and community facility infrastructure (and services) as contemplated in the MPBL section 65, and such agreements might be required as part of the conditions of approval.

CRITICAL NATURAL ASSETS	
PRINCIPLE	The City and public sector are committed to protecting, enhancing and extending access to critical natural assets.
INVESTMENT PARTNERSHIP	Co-investment and collaboration in the protection of critical natural assets and cultural landscapes.
INFORMANTS	• Cape Floral Regional World Heritage Site (Natural World Heritage Site) and Table Mountain National Park • Protected areas and conserved areas (core 1) • Critical biodiversity areas (core: CBA1a-CBA2) • Ecological support areas (core 2) • Other natural areas (buffer 1) • Other ecological support areas (buffer) Any land development permitted within a protected area must be in accordance with an approved management plan in terms of the National Environment Management: Protected Areas Act (NEM: PAA).
DESIRED SPATIAL OUTCOMES AND LAND USE GUIDELINES	Protected areas and conserved areas (core 1): Encouraged to retain in a natural state, with a management plan focused on maintaining or improving the state of biodiversity. 1. Maintain and enhance in a natural or near natural state with no further loss of natural habitat and critical natural assets. 2. Enhance and connect the critical natural assets that support the city within the regional environment and ecology systems/networks. 3. Conservation management activities, such as alien clearing, research and environmental education should be encouraged. 4. Non-consumptive, low-impact eco-tourism activities, such as recreation and tourism (e.g. hiking trails, bird and game watching, and visitor overnight accommodation). 5. Harvesting of natural resources (e.g. wild flowers for medicinal, culinary or commercial use), subject to a management plan demonstrating the sustainability of harvesting. 6. Power lines may be permissible under certain conditions, inclusive of linear infrastructure of any sort that will cause significant loss of habitat and/or disrupt the connectivity of ecological corridors. 7. Based on Cape Town's high visual or aesthetic value of critical natural landscapes, no large-scale eco-tourism developments are to be permitted. 8. Land consolidation should be encouraged and subdivision prohibited: • Land seaward of the coastal edge (aquatic) • Keep natural, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate • Mountainous areas performing an agriculturally significant or stormwater catchment function For sites located in the urban inner core and the integrated growth and consolidation areas that may have conservation value, refer to **map 5b**.

5. THE SPATIAL DEVELOPMENT FRAMEWORK

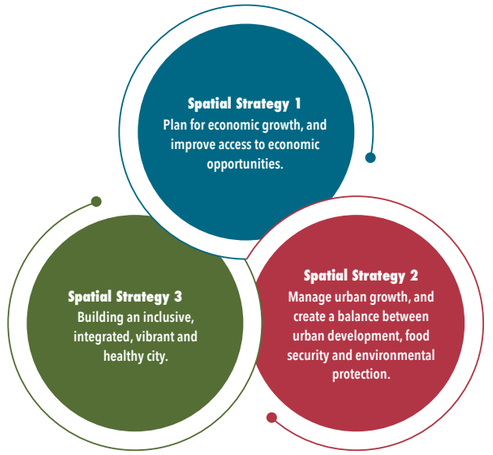
Various strategies and policies provide the supporting framework for the spatial vision and concept described in the preceding sections of this MSDF document. The elements of this framework, which are unpacked in this chapter, comprise the following:

- **Three spatial strategies –** drawn from the IDP and associated sectoral and spatial policy guidelines.
- **Development directives –** environmental, resource, heritage and risk-related spatial aspects usually governed by additional or parallel regulatory processes beyond those associated with land use processes and applications made via the MPBL.
- **Conceptual designation –** associated with the Spatial Development Framework.
- **A series of maps –** that collectively provide a metropolitan-scale interpretation of the City's spatial vision, development directives, land use informants and investment priority areas.

Collectively, these framework components provide direction for the City's strategic development and infrastructure investment, while also promoting a rational and predictable land development environment (SPLUMA section 12(1)(l)). In addition, they provide the basis for a more detailed review of existing district and local plans.

5.1 MSDF SPATIAL STRATEGIES

The spatial strategies and policy guidelines are informed and aligned to the City's IDP, SPLUMA principles and the United Nations Sustainable Development Goals (SDGs) and targets.



The MSDF interprets the vision of the IDP (namely to create a conducive economic development environment where more Capetonians can lift themselves out of poverty) into a spatial vision for the city. The vision is unpacked, translated in the MSDF through the three spatial strategies, and elaborated on further in terms of what they mean for the City in the substrategies and policy guidelines tables below and in **technical supplement A**.

The three spatial strategies serve to direct decision making that is binding on the City and must be used to inform the City's capital budget expenditure to give effect to the implementation of this MSDF. They provide strategic intent and investment guidance for the public sector, as explained in technical supplement A, and the substrategies, as summarised in **tables 5.1, 5.2 and 5.3** in this chapter. Collectively, the spatial strategies provide the spatial direction that:

- establishes a corporate spatial perspective, which informs the review of sector plans and lower-order spatial plans;
- informs and directs infrastructure investment and maintenance approaches and project pipelines;
- informs submissions and motivations for development proposals and applications from the public and private sectors; and
- directly affects the assessment of applications under delegation or via the Municipal Planning Tribunal.

The alignment of the spatial strategies to the SDGs is demonstrated in the policy statement tables in technical supplement A, which identifies direct links between the strategic and implementation intent of each policy statement and the detail provided in the relevant SDG goal and target. The inclusion of the SDGs and their targets in the MSDF not only strengthens the City's localisation of the SDGs, but also supports their implementation and monitoring. The City of Cape Town's approach to SDG localisation is reflected in diagram 5a on the next page.

While sustainable development goal 11:[27] Sustainable cities and communities is the most relevant goal to the MSDF, it remains a cross-cutting document that requires inclusion of appropriate sector-specific goals and targets. Refer to technical supplement A, table A1 below on how the SDGs are translated into this MSDF. It identifies direct links between the strategic and implementation intent of each policy statement and the detail provided in the SDG goal and target.

27 Sustainable Development (un.org).

Diagram 5a: The City's approach to SDG localisation

Source: City of Cape Town 2019, CCT SDG and Implementation approach. Policy and Strategy Department.

The sustainable development goals and targets are used as foundation for the policy strategic and implementation intent and are aligned to the City's IDP objectives. Table 5.1 below demonstrates how each of the three spatial strategies and associated substrategies align to the SDG goals and targets, as well as the City's IDP.

Strategy 1: Plan for economic growth, and improve access to economic opportunities

Cape Town's current and future spatial form and function will support or inhibit the City's immediate and longer-term economic prospects. The extent to which the City realises its spatial development goals is directly linked to its ability to sustain employment-generating economic growth in the medium term and to reduce accessibility costs for the urban poor. To this end, imperatives for this spatial strategy are as follows:

- ✓ Encouraging a more compact city form by promoting higher land use and building densities compatible with existing residential land uses to create an optimum relationship between urban form and public transport services.
- ✓ Establishing and maintaining a liveable, vibrant and productive urban environment through effective urban services and engineering infrastructure, management and maintenance.
- ✓ Creating and attracting investment that will ensure integrated, sustainable communities by providing new infrastructure and maintaining that which already exists.
- ✓ Actively focusing on land use facilitation targeting semigration arrivals, especially considering the ageing population profile of the province and the city.
- ✓ Enhancing cultural heritage as well as natural/ biodiversity qualities of destination places as a means to support tourism initiatives and related economic activity.
- ✓ Facilitating formal and informal economic growth and responding appropriately to the spatial needs of the economic sectors that are attracted to, and operate in, Cape Town.
- ✓ Prioritising investment in the improvement of public transport systems and linkages to facilitate more convenient and affordable access to employment opportunities, natural resources and social infrastructure.
- ✓ Diversifying travel flows between single-use or higher-density residential developments and social amenities such as schools, which generate large volumes of single-direction movement in peak hours.
- ✓ Augmenting existing infrastructure such as Cape Town's airport, port, transport and logistics systems, with the continued roll-out of financially feasible projects, which may include broadband networks to enhance the digital connectivity of the city, the MyCiTi bus rapid transit system and essential and planned rail extension (such as Blue Downs).

ALIGNMENT OF SDG GOALS AND TARGETS WITH MSDF STRATEGY 1 AND IDP OBJECTIVES

SPATIAL STRATEGY 1: PLAN FOR INCLUSIVE ECONOMIC GROWTH AND IMPROVE ACCESS TO ECONOMIC OPPORTUNITIES

Substrategy 1.1: Prioritise inclusive economic growth

Substrategy 1.2: Integrate land use, economic activities and transport planning that support the sustainable operation of the public transport network

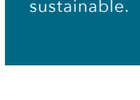
Associated SDGs	SDG targets	Other	CCT IDP (2022-2027) objectives
 **SDG 8:** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	**Target 8.3:** Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services.	This goal speaks to economic growth and job creation. The MSDF needs to enable faster economic growth and job creation in locations that help address Cape Town's inequality and apartheid legacy.	**Objective 1:** Increased jobs and investment in Cape Town. **Objective 4:** Well-managed and modernised infrastructure to support economic growth.
SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.	**Target 9.a:** Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries.	This goal emphasises the sustainability and resilience of infrastructure in support of industry, i.e. the networks, fiscal models and 'reach' of infrastructure across communities.	**Objective 12:** An integrated, efficient transport system that provides safe and affordable travel options for all.
SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.	**Target 11.2:** By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, i.e. women and children, persons with disabilities and older persons.	This goal and associated targets capture the overall intentions of this spatial strategy.	**Objective 15:** A more spatially integrated and inclusive city. **Objective 12:** An integrated, efficient transport system that provides safe and affordable travel options for all. **Objective 16:** A capable and collaborative city government.

Table 5.1: Spatial strategy 1: Substrategies and policy guidelines

SPATIAL STRATEGY 1: PLAN FOR EMPLOYMENT AND IMPROVE ACCESS TO ECONOMIC OPPORTUNITIES			APPLICABILITY IN STA			
SUBSTRATEGY	**POL-ICY**	**POLICY STATEMENT**	**UIC**	**IGC**	**DGA**	**CNA**
Prioritise inclusive economic growth	**P1**	Plan for the alignment, sequencing and implementation of infrastructure programmes to secure confidence and certainty for private and public sector investment. *Map/table reference: Chapter 6*	✓	✓		
	P2	Support and encourage investment (private and public) through improved access information, cross-sectoral planning and institutional efficiency. *Map/table reference: DSDF implementation chapter*	✓	✓		
	P3	Introduce land use policy reform and mechanisms that will support the development and growth of small businesses and township economies (both formal and less formal). *Map/table reference: Map 5d*	✓	✓		
	P4	Prioritise and promote inclusive economic growth through innovation and sustainable industrialisation and ensure that well-located, well-performing and established industrial areas are protected and preserved. *Map/table reference: DSDF map*	✓			
	P5	Promote Cape Town as a globally competitive, diversified and productive city that supports a consolidated regional economy. *Map/table reference: Diagram 2a*	✓	✓		
Integrate land use, economic activities and transport planning that support the sustainable operation of the public transport network	**P6**	Plan and prioritise for the expansion of the integrated public transport service, informed by the Integrated Public Transport Network (IPTN) Plan and the City's Integrated Transport Plan (CITP). *Map/table reference: Maps 3.1 and 3.2*	✓	✓		
	P7	Plan and implement a sustainable, high-quality and human-scale public realm in and around transit precincts. These precincts must be legible and accessible to all and include universal access and non-motorised transport facilities and a public environment that is vibrant, inclusive and safe. *Map/table reference: Map 3.4*	✓	✓		
	P8	Support a strategic approach to parking allocations to encourage use of public transport. *Map/table reference: Map 3.4*	✓	✓		
	P9	Plan for incremental land use intensification and diversification in support of inward growth predicated on the public transport infrastructure. *Map/table reference: Table 5.6*	✓	✓		
	P10	Leverage and support the optimisation of ports and harbours as important coastal access points and national economic drivers. *Map/table reference: Map 5d*	✓			

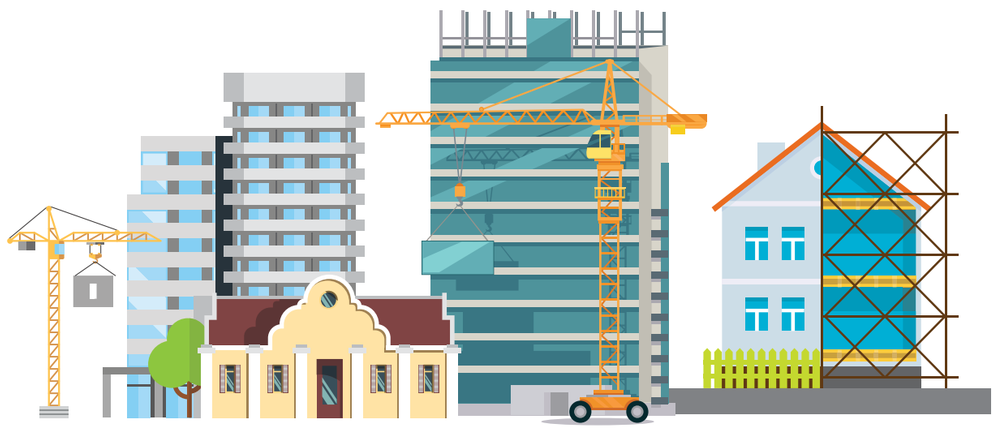
Strategy 2: Manage urban growth, and create a balance between urban development, food security and environmental protection

The City views urban resilience as a core factor in achieving its strategic goals and objectives. It recognises urban resilience as the capacity of individuals, communities, institutions, businesses and systems to survive, overcome, adapt and grow, no matter what stresses and acute shocks they experience.

To this end, the City actively pursues an urban form with higher densities and mixed land use patterns within an urban inner core, supported by an extensive and efficient public transport system. Through this form, it seeks to achieve a number of developmental outcomes, including sustainable use of land and natural resources; lower carbon emissions; more efficient use of infrastructure; and effective and efficient public transport systems and social amenities.

The imperatives for this spatial strategy are as follows:

- ✓ More efficient use of non-renewable resources, such as land, water and biodiversity, including protecting and maintaining existing surface- and groundwater resources and sustainably managing existing and future water supplies.
- ✓ Focus on land optimisation, especially development of vacant and underutilised land parcels, which will result in expansion of engineering services networks accommodating higher-intensity (density and diversity) land uses in a vertical, rather than horizontal, format.
- ✓ Achieving carbon neutrality by 2050, by introducing new technologies to clean up the fuels and activities that cause greenhouse gas emissions, while enhancing social, economic and environmental goals.
- ✓ Leveraging the natural environment to support spatial justice by improving access to cultural sites and heritage resources and by enhancing access for all residents to a quality, safe, open-space network that provides community, recreational and economic opportunities.
- ✓ Ensuring ecological service provision is acknowledged, protected and enhanced to ensure a resilient urban form that can act as a buffer against the increasing climate risk, and ensure that low-carbon and green infrastructure are considered to meet ecosystem service provision.
- ✓ Avoiding, or appropriately managing, negative development impact on natural resources, considering their finite nature and the costs relating to rehabilitating or mitigating degraded natural areas.
- ✓ Taking biodiversity, aquatic resources, heritage resources, cultural landscapes and green open space networks as well as agricultural areas into account when planning new development.
- ✓ Pursuing national biodiversity targets as well as those identified in the City's Bioregional Plan.
- ✓ Sustainable conservation of cultural resources to ensure their protection and enhance tourism opportunities.
- ✓ Managing negative development impacts on sensitive cultural landscapes.



ALIGNMENT OF SDG GOALS AND TARGETS WITH MSDF STRATEGY 2 AND IDP OBJECTIVES

SPATIAL STRATEGY 2: MANAGE URBAN GROWTH, CREATE A BALANCE BETWEEN URBAN DEVELOPMENT, FOOD SECURITY AND ENVIRONMENTAL PROTECTION

Substrategy 2.1: Enhance the city's unique assets, agricultural areas, value of heritage resources, scenic routes and destination places

Substrategy 2.2: Facilitate land development to enhance the city's energy independence and efficiency by investing in renewable energy

Substrategy 2.3: Appropriately protect the citizens of Cape Town from risk areas and activities

Substrategy 2.4: Appropriately manage land development impacts on natural resources, green infrastructure and critical biodiversity networks

Associated SDGs	SDG targets	Targets localised to the City context	CCT IDP (2022-2027) objectives
 **SDG 2:** End hunger, achieve food security and improved nutrition and promote sustainable agriculture.	**Target 2.1:** By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round. **Target 2.3:** By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment. **Target 2.4:** By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.	SDG 2 considers the agricultural sector in its entirety, which is not a mandate of the City. The City's mandate and link to SDG 2 refer more specifically to food gardens and access to urban food security. There is also a link to the City's Resilience Strategy.	**Objective 1:** Increased jobs and investment in Cape Town. **Objective 4:** Well-managed and modernised infrastructure to support economic growth.
 **SDG 7:** Ensure access to affordable, reliable, sustainable and modern energy for all.	**Target 7.1:** By 2030, ensure universal access to affordable, reliable and modern energy services. **Target 7.a:** By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil fuel technology; and promote investment in energy infrastructure and clean energy technology.		**Objective 3:** Support sustainable and independent energy generation for Cape Town. **Objective 4:** Well-managed and modernised infrastructure to support economic growth.

Associated SDGs	SDG targets	Targets localised to the City context	CCT IDP (2022-2027 objectives
 **SDG 11:** Make cities and human settlements inclusive, safe, resilient and sustainable.	**Target 11.3:** By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement. **Target 11.4:** Strengthen efforts to protect and safeguard the world's cultural and natural heritage by 2030. **Target 11.7:** By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, particularly for women and children, older persons and persons with disabilities.	These are relevant targets for the City in terms of addressing disasters and mitigating disaster risks, e.g. impact of the pandemic on jobs and livelihoods, and how the Cape Town drought was mitigated.	**Objective 15:** A more spatially integrated and inclusive city. **Objective 9:** A healthy and sustainable environment. **Objective 11:** Quality and safe parks and recreation facilities supported by community partnerships. **Objective 14:** A resilient city.
 **SDG 12:** Ensure sustainable consumption and production patterns.	**Target 12.2:** By 2030, achieve the sustainable management and efficient use of natural resources.	Sustainable use of natural resources, which speaks directly to the spatial strategy aim of 'creating a balance between urban development, food security and environmental protection'.	
 **SDG 15:** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.	**Target 15.1:** By 2030, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements. **Target 15.4:** By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development. **Target 15.7:** Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2030, protect and prevent the extinction of threatened species. **Target 15.9:** By 2030, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.	Land as a resource requiring environmental protection. This demands a balanced approach to development for human well-being (e.g. human settlement building), which speaks directly to the spatial strategy's aim of balancing environmental protection and urban development.	**Objective 1:** Increased jobs and investment in Cape Town. **Objective 9:** A healthy and sustainable environment. **Objective 10:** Clean and healthy waterways and beaches. **Objective 11:** Quality and safe parks and recreation facilities supported by community partnerships. **Objective 16:** A capable and collaborative city government.

Table 5.2: Spatial strategy 2: Substrategies and policy guidelines

SPATIAL STRATEGY 2: MANAGE URBAN GROWTH, AND CREATE A BALANCE BETWEEN URBAN DEVELOPMENT, FOOD SECURITY AND ENVIRONMENTAL PROTECTION			APPLICABILITY IN STA			
SUBSTRATEGY	**POLICY**	**POLICY STATEMENT**	**UIC**	**IGC**	**DGA**	**CNA**
Enhance the city's unique assets, value of heritage resources, scenic routes and destination places	**P11**	Identify, conserve and manage heritage resources and cultural landscapes. *Map/table reference: Map 5f*	✓	✓	✓	✓
	P12	Provide for cultural and social practices and events to promote spatial justice and spatial integration. *Map/table reference: Maps 5f and 5g*	✓	✓		
	P13	Protect and enhance scenic route sightlines and places of scenic value, including destination places. *Map/table reference: Map 5g*	✓	✓	✓	✓
	P14	Provide efficient access to destination places where potential exists, especially in or near areas of high social need, in support of economic inclusivity and spatial integration. *Map/table reference: Map 5g*	✓	✓		✓
Facilitate land development to enhance the city's energy independence and efficiency by investing in renewable energy	**P15**	Enable resource-efficient land development by levering the protection of renewable resources to improve cohesion between natural environmental resources and inclusive economic growth. *Map/table reference: Maps 4.1, 5b and 5d*	✓	✓	✓	
Appropriately protect the citizens of Cape Town from risk areas and activities	**P16**	Direct urban growth away from risk areas and activities. *Map/table reference: Map 5a*	✓	✓		✓
	P17	Avoid inappropriate urban growth and development in risk areas (fire, flooding, heat exposure, poor air quality and noise pollution). *Map/table reference: Maps 5a and 5e*	✓	✓	✓	
Appropriately manage land development impacts on natural resources, green infrastructure and critical biodiversity networks	**P18**	Increase efforts to protect and enhance biodiversity networks at all levels of government, with the public and private sector. *Map/table reference: Maps 5b, 5c and 5g*	✓	✓	✓	✓
	P19	Plan for, and mitigate the impacts of urban development on water resources and encourage water-sensitive design responses. *Map/table reference: Maps 5c, 5e and 5g*	✓	✓	✓	
	P20	Promote risk-averse and sustainable urban development along the coast, in accordance with the coastal development edge. *Map/table reference: Maps 5a, 5b, 5c, 5e and 5g*	✓	✓		✓
	P21	Support food-sensitive planning that supports the food system value chain, from production, processing, and distribution to access, consumption and waste management. *Map/table reference: Maps 5c and 5g*	✓	✓	✓	
	P22	Plan and adopt a proactive planning approach to mining resources. *Map/table reference: Map 5a*		✓	✓	✓

Strategy 3: Building an inclusive, integrated, vibrant and healthy city

The City is intent on building a more inclusive, integrated, vibrant and healthy Cape Town. This requires that it addresses economic and social exclusion stemming from the apartheid era and deals with the social and economic shocks brought about by Covid-19. Key commitments underpinning these responsibilities include addressing existing imbalances in the distribution of different types of residential development and avoiding the creation of new structural imbalances in the delivery of services.

The desired outcomes include a better mix of income groups, land uses and population densities, as well as the adequate and equitable provision of social facilities, recreational spaces and public institutions. In order to deliver on these outcomes, the imperatives for this spatial strategy are as follows:

- ✓ Supporting vulnerable areas and transforming informal settlements into economically and socially integrated neighbourhoods.
- ✓ Forging public-private partnerships to provide and diversify integrated housing delivery.
- ✓ Improving the quality of living environments in the previously underserviced areas.
- ✓ Identifying, conserving and facilitating the appropriate management of heritage resources and areas within the City's HPOZ, to enhance and harness opportunities brought by heritage and minimise negative impacts on these non-renewable resources.
- ✓ Managing heritage resources, cultural landscapes, scenic routes and destination places in line with legal requirements, including those of the National Heritage Resources Act.
- ✓ Celebrating diverse cultural legacies through appropriate management of urban form, architectural design, signage and artwork, and the various land use management tools provided for in the Development Management Scheme.
- ✓ Maintaining and creating quality, safe places, open space systems, and public spaces, through design and appropriate land use management that leverages partnerships and commitments from both the public and private sector to optimise existing facilities, while strategically locating new ones.
- ✓ Planning and managing collaboratively, in creative and innovative management arrangements, to ensure operational sustainability and reduce operational costs across internal municipal departments as well as other spheres of government.

ALIGNMENT OF SDG GOALS AND TARGETS WITH MSDF STRATEGY 3 AND IDP OBJECTIVES

SPATIAL STRATEGY 3: BUILDING AN INCLUSIVE, INTEGRATED, VIBRANT AND HEALTHY CITY

Substrategy 3.1: Encourage integrated settlement patterns

Substrategy 3.2: Continue to transform the apartheid city

Associated SDGs	SDG targets	Targets localised to the City context	CCT IDP (2022–2027) objectives
 **SDG 3:** Ensure healthy lives and promote well-being for all at all ages.	**Target 3.6:** By 2030, halve the number of global deaths and injuries from road traffic accidents. **Target 3.9:** By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals, and air, water and soil pollution and contamination.	These targets are included because they speak to the healthy city component of the spatial strategy. A healthy city implies healthy residents and a healthy environment.	**Objective 5:** Effective law enforcement to make communities safer. **Objective 2:** Improved access to quality and reliable basic services. **Objective 13:** Safe and quality roads for vehicles, cyclists and pedestrians. **Objective 13:** Healthy and sustainable environment.
 **SDG 8:** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	**Target 8.3:** Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services.	The target supports the City's imperatives of an inclusive city, where residents are afforded the opportunity to participate equitably in the economy.	**Objective 1:** Increased jobs and investment in Cape Town. **Objective 4:** Well-managed and modernised infrastructure to support economic growth. **Objective 6:** Strong partnerships for safer communities. **Objective 12:** An integrated, efficient transport system that provides safe and affordable travel options for all.
 **SDG 11:** Make cities and human settlements inclusive, safe, resilient and sustainable.	**Target 11.1:** By 2030, ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums. **Target 11.3:** By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management. **Target 11.6:** By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management **Target 11.7:** By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.	This goal and associated targets capture, in detail, the City's overall imperatives of building an inclusive, integrated and healthy city.	**Objective 7:** Increased supply of affordable, well-located homes. **Objective 8:** Safer, better-quality homes in informal settlements and backyards over time. **Objective 9:** Healthy and sustainable environment. **Objective 10:** Clean and healthy waterways and beaches. **Objective 11:** Quality and safe parks and recreation facilities supported by community partnerships. **Objective 12:** An integrated, efficient transport system that provides safe and affordable travel options for all. **Objective 14:** A resilient city. **Objective 15:** A more spatially integrated and inclusive city.

Table 5.3: Spatial strategy 3: Substrategies and policy guidelines

SPATIAL STRATEGY 3: BUILD AN INCLUSIVE, INTEGRATED, VIBRANT AND HEALTHY CITY			APPLICABILITY IN STA			
SUBSTRATEGY	**POLICY**	**POLICY STATEMENT**	**UIC**	**IGC**	**DGA**	**CNA**
Encourage integrated settlement patterns	**P23**	Support the integrated intensification and diversification of land uses in identified areas, supportive of inward spatial growth, economically and incrementally. *Map/table reference: Maps 3.4, 3.4 and 5d*	✓	✓		
	P24	Ensure that urban development contributes to safety and wellbeing for all. *Map/table reference: Maps 5a and 5e*	✓	✓	✓	✓
Continue to transform the apartheid city	**P25**	Support and enable programmes to enhance and facilitate access to land and housing supply in the City, acknowledging that access to social and community facilities and well-functioning public open spaces are important for redressing and integration. *Map/table reference: DSDF implementation map*	✓	✓		
	P26	Transform and integrate historically marginalised areas and informal settlements into spatially integrated neighbourhoods that enable economic and social opportunities for residents. *Map/table reference: Map 3.3*	✓	✓		

5.2 DEVELOPMENT DIRECTIVES

Cape Town's biophysical assets and cultural heritage tourist destinations are identified as structuring elements of the existing and future urban form. SPLUMA, NEM: PAA and the City's Environmental Strategy collectively provide a basis to protect and enhance the city's biophysical, socio-cultural and aesthetic assets in order to sustain the economy, create liveable urban environments and build resilience.

The development directives included in **table 5.4** are based on environmental, risk and social factors that are likely to impact on the development potential of sites, and may trigger additional legislative processes. Accordingly, the following spatial and policy aspects should be considered when assessing development proposals, irrespective of the conceptual designations outlined in the consolidated spatial concept map **(map 5d)**:

- ✓ Urban development and coastal edges
- ✓ Biodiversity and marine protected areas, rivers and wetlands
- ✓ High-potential areas or areas containing unique agricultural land and aquifers
- ✓ Areas of risk such as aviation-related zones, utility services buffers, safety zones, flood-prone and fire-risk areas, mining, refinery, cemeteries and noxious industrial areas with major hazardous installations
- ✓ Climate change-related information sources
- ✓ Cultural heritage assets inclusive of protection and exemption initiatives

Technical supplement A provides further details and guidance to support development proposals and land use applications in respect of the development directives in this MSDF.

Table 5.4: Development directives

DEVELOPMENT DIRECTIVES: URBAN GROWTH AND RESILIENCE			
URBAN GROWTH SUBTHEME	**LAWS/POLICY**	**AUTHORITY**	**PRINCIPLE THAT APPLIES WHEN CONSIDERING ALLOCATION OF DEVELOPMENT RIGHTS**
Urban development edge Coastal edge Maps 5a, 5b and 5d	Gives effect to sections 21a, b, c and d of SPLUMA IUDF National Integrated Coastal Management Act Western Cape Provincial Coastal Management Programme CCT Integrated Coastal Management Policy and Programme Climate Change Strategy Coastal Economic and Spatial Strategic Framework (upon approval) Coastal By-law Cape Town Resilience Strategy City of Cape Town Climate Action Plan Table Mountain National Park Marine Protected Areas	CCT SANParks as marine authority	In relation to the coastal edge: • The coastal edge has made provision for development opportunities at strategically located identified coastal nodes such as Silwerstroomstrand, Strandfontein, Mnandi, Monwabisi and Kapteinsklip. • The coastal edge delineation is intended to buffer infrastructure against the impacts of coastal processes (such as coastal erosion, storm surge and inundation areas[28] and migrating estuaries/dune systems) to promote risk-averse, sustainable and resilient coastal development, and to protect the functional integrity of sensitive coastal ecosystems. • Urban development is precluded from the seaward side of the coastal edge in instances where coastal processes and the need to protect sensitive coastal ecosystems are the primary informants for which the position of the coastal edge has been defined for a specific area. • Where land use and development proposals are about the landward side of the coastal edge, but where such proposals are known to be at risk to coastal processes, specific conditions determined on a case-by-case basis will be applicable. In relation to the urban development edge: • The urban development edge has made provision for development opportunities at strategically located expansion areas located close to areas of intense urbanisation pressures, mass land invasion, significant levels of persistent informality and increasing levels of unauthorised occupation of land nullifying scheduled government housing projects. • The urban development edge delineation is intended to: **a.** protect areas of agricultural significance; **b.** limit uncontrolled urban sprawl to areas aligning within long-term engineering infrastructure networks; **c.** allow for the optimisation of vacant and underutilised land within the built-up area; **d.** allow for horizontal expansion opportunities of urban development in areas away from risk regions;

[28] "Coastal inundation areas reflect temporary areas of impact resulting from simultaneous occurrence of an extreme tide and extreme storm, an event with a nominal return period of 500 years." Source: Fairhurst, L. 2008. Global climate change and adaptation: a sea-level rise risk assessment. Phase two: Final Report – Risk and Impact Identification.

DEVELOPMENT DIRECTIVES: URBAN GROWTH AND RESILIENCE			
URBAN GROWTH SUBTHEME	**LAWS/POLICY**	**AUTHORITY**	**PRINCIPLE THAT APPLIES WHEN CONSIDERING ALLOCATION OF DEVELOPMENT RIGHTS**
			e. promote risk averse, sustainable and resilient development; **f.** protect the functional integrity of sensitive biodiversity; and **g.** ensure efficiency increases in service delivery of centrally located government-sponsored social and community facilities and public transport. • Urban development is discouraged on the outside of the urban development edge in instances where biodiversity processes and farming activities require protection of irreplaceable or sensitive natural resources, such as soil conditions and ecosystems, which were the primary informants for the position of the urban development edge delineated in a specific area. • Where land use and development proposals on the built-environment side of the urban development edge occurred, but where such proposals are known to be opposed by neighbouring municipalities or the Department of Agriculture (as custodian to agricultural land protection), specific development guidelines regarding specialist studies or development phasing will be applicable on a case-by-case basis.

DEVELOPMENT DIRECTIVES: ENVIRONMENT			
ENVIRONMENTAL SUBTHEME	**LAWS/POLICY**	**AUTHORITY**	**PRINCIPLE THAT APPLIES WHEN CONSIDERING ALLOCATION OF DEVELOPMENT RIGHTS**
Cape Floral Region World Heritage Site	WHCA and NEM: PAA	SANParks, Cape Nature	• Protected areas to remain in perpetuity as prescribed by the Outstanding Universal Criteria (OUV ix) ecological processes and (x) biodiversity for such world heritage sites.
Biodiversity network (biodiversity and marine protected areas, rivers, wetlands, floodplains, ecological corridors, and open spaces) Map 5b	NEM: PAA Bioregional Plan	DEA&DP WCG DFFE CCT	• Protection of biodiversity as resource is managed under additional legislation. • As a general guideline, where the critical biodiversity areas have been delineated to protect natural resources (core bioregional spatial planning categories), development should not be considered. • Careful management of development to avoid developing in high-flood risk areas, such as watercourses and their floodplains and wetlands, to protect the environmental integrity and green infrastructure value of aquatic resources and to ensure that permitted development enhances the ecological functioning/habitat conservation, the aesthetics and character of the adjacent watercourses, floodplains and wetlands.

DEVELOPMENT DIRECTIVES: ENVIRONMENT			
ENVIRONMENTAL SUBTHEME	**LAWS/POLICY**	**AUTHORITY**	**PRINCIPLE THAT APPLIES WHEN CONSIDERING ALLOCATION OF DEVELOPMENT RIGHTS**
Agricultural areas of significance (i.e. high-potential or unique agricultural land) Maps 5c and 5d	Subdivision of Agricultural Land Act, Act 70 of 1970 Draft Policy and Bill on Preservation and Development of Agricultural Land City of Cape Town Environmental Strategy Department of Agriculture Guidelines	National Department of Agriculture WCG: Department of Agriculture CCT	• The existence of soils with low agricultural potential is not sufficient reason to consider allocating urban development rights. • In the case of a specific crop failure, consideration should be given to the potential for other crops. • Protection of agricultural land as resource is managed under additional legislation. • Smallholdings are intended for agricultural- and rural-related land uses, not urban or industrial land uses.
Aquifer resource protection zone Map 5c	National Water Act Policy and Strategy for Groundwater Quality Management in South Africa	National Department of Water and Sanitation	• Prevent weakening or destruction of water sources through appropriate location and design of developments.

DEVELOPMENT DIRECTIVES: ENVIRONMENT			
ENVIRONMENTAL SUBTHEME	**LAWS/POLICY**	**AUTHORITY**	**PRINCIPLE THAT APPLIES WHEN CONSIDERING ALLOCATION OF DEVELOPMENT RIGHTS**
Floodplains, wetlands, coastal flood-risk areas and areas exposed to coastal processes and storm surges and possible inundation risks. Maps 5a, 5d and 5e	Integrated Coastal Management Policy[29] Floodplain and River Corridor Management Policy Climate Change Strategy Draft Coastal Economic and Spatial Strategic Framework Coastal By-law	CCT	• Development of coastal economic and social opportunities must be undertaken in a manner that does not reduce, harm or degrade the coastal environment or its ability to cope with climate risks in the future. • Avoid additional densification and infill development in areas both known to be exposed to coastal processes and storm surges, and which are also anticipated to be subject to climate change-induced pressures of sea-level rise into the future, unless this is specifically designed to respond to these risks. • Development or land uses should not create adverse effects on the functional integrity of coastal processes. • Major new urban development infrastructure and bulk services investment in coastal areas that are exposed to coastal processes must be avoided. • Careful management of development to avoid developing in high flood-risk areas to protect the environmental integrity and green infrastructure value of aquatic resources and to ensure that permitted development enhances the aesthetics and character of the adjacent watercourses and wetlands. • Where development proposed in existing vulnerable areas requires new or amended land use rights, the desirability of such rights must also be guided by the relevant district plan and overlay zone. Such development should reflect consideration of potential flood risks and include mitigation measures, as may be deemed necessary. • Avoid the formalisation of informality, especially for residential units located within the 1:100-year floodline. • Avoid additional densification and infill development in areas known to be flood prone or are anticipated to become flood prone, unless additional flood management infrastructure is put in place. • Ensure the conservation, maintenance and restoration of coastal dunes, floodplains, wetlands, river corridors, and riparian habitats in order to ensure that the green infrastructure function that these perform in terms of flood attenuation and climate change risk reduction are conserved.

[29] The City's coastal management line as per requirements of the Integrated Coastal Management Act, Act 36 of 2014.

DEVELOPMENT DIRECTIVES: ENVIRONMENT			
ENVIRONMENTAL SUBTHEME	**LAWS/POLICY**	**AUTHORITY**	**PRINCIPLE THAT APPLIES WHEN CONSIDERING ALLOCATION OF DEVELOPMENT RIGHTS**
Heat islands[30] Map 5e	Climate Change Strategy Resilience Strategy	CCT	• Ensure that development takes into account the need for additional active or passive cooling measures to ensure occupant comfort and avoid health risks associated with heat islands. Implementation of heat island mitigation measures including, but not limited to, tree planting, shading, landscaping, green roofs, and the use of cool surfaces must be demonstrated. • Development of facilities where high-risk groups will be the predominant users (e.g. old-age homes, hospitals, early childhood education facilities) should be carefully considered and located in lower-risk areas, where possible.
Marine protected areas Map 5b	National Integrated Coastal Management Act National Marine Living Resources Act, Protected Areas Act TMBP MPA	National Department of Forestry, Fisheries and Environment in consultation with the CCT SANParks as marine authority	• All relevant and applicable national legislation to be applied in such instances.
Green infrastructure network (GINet) Map 5g	Integrated Development Plan Environmental Strategy Climate Change Strategy	CCT	• The green infrastructure network (GINet) has been developed based on mapping open spaces, in relation to a range of ecosystem services that they provide. Questions that relate to ecosystem services were considered for each space identified and the space evaluated accordingly. • The GINet's role is to help guide development by highlighting, spatially, which areas are important for green infrastructure provision, and should a space be developed, where measures need to be considered with a view to protecting or enhancing ecosystem services and GI provision, or where new GI assets can be promoted or created. • A GINet viewer is being developed that will provide information on the services evaluated, and where corridors are identified in order to retain linkages.

[30] "Heat island risk areas have been delineated based on composite heat risk scores derived from the combination of daily solar irradiation, mean annual wind speed, and land cover". The source is: Petrie, B., Rawlins, J., Engelbrecht, F., and Davies, R. 2019. Vulnerability and Hazard Assessment Report: Elaboration of a 'Climate Change Hazard, Vulnerability and Risk Assessment' Study to the benefit of the City of Cape Town. Cape Town: OneWorld Sustainable Investments

DEVELOPMENT DIRECTIVES: ENVIRONMENT			
ENVIRONMENTAL SUBTHEME	**LAWS/POLICY**	**AUTHORITY**	**PRINCIPLE THAT APPLIES WHEN CONSIDERING ALLOCATION OF DEVELOPMENT RIGHTS**
Veld fire and inner city fire-risk areas Map 5e	National Veld and Forest Fire Act	CCT SANParks Cape Nature	• Consideration should be given to reducing fire risk and to the operational needs of the City's fire services. • Consideration must be given to the creation of buffers between developed areas and naturally vegetated areas (usually BioNet), especially where controlled burning is periodically required to retain fynbos ecosystems. • Consideration must be given to the removal of invasive alien plant species, landscaping using only appropriate low-risk species, and the use of fire-resistant building materials and methods. • Managers of natural areas as well as residents adjacent to the natural areas should focus on reducing flammable fuel loads, especially from alien species such as pines and gum trees that pose a significant hazard to firefighting efforts. • Redevelopment in/formalisation of areas of informality (with exceptionally high risk and impact of localised fires) should be redesigned to facilitate adequate firefighting services access. The use of fire-resistant building materials and methods for redevelopment or formalisation/partial formalisation of informal areas must be considered.
Koeberg risk zones PAZ (16 km) UPZ (5 km) Map 5a	DMS section 158. Regulations on the control of development around Koeberg (once available)	CCT National Department of Mineral Resources and Energy National Nuclear Regulator Eskom	• No new development is permissible within the precautionary action zone (area within a 5 km radius of the Koeberg nuclear reactors) other than development that is directly related to the siting, construction, operation and decommissioning of the KNPS or that is a result of the exercising of existing zoning rights.

DEVELOPMENT DIRECTIVES: RISK (PRECAUTIONARY AREAS)			
RISK SUBTHEME	**LAWS/POLICY**	**AUTHORITY**	**PRINCIPLE THAT APPLIES WHEN CONSIDERING ALLOCATION OF DEVELOPMENT RIGHTS**
Ysterplaat height restrictions Map 5a		National Defence Force	• Governed through conditions of approval and title deed restrictions that may exist.
Cape Town International Airport noise contours (55dBA – 80dBA) Map 5a	SANS Building Regulations	CCT	• Governed through conditions of approval and principles associated with ACSA's Noise Monitoring and Management Plans.

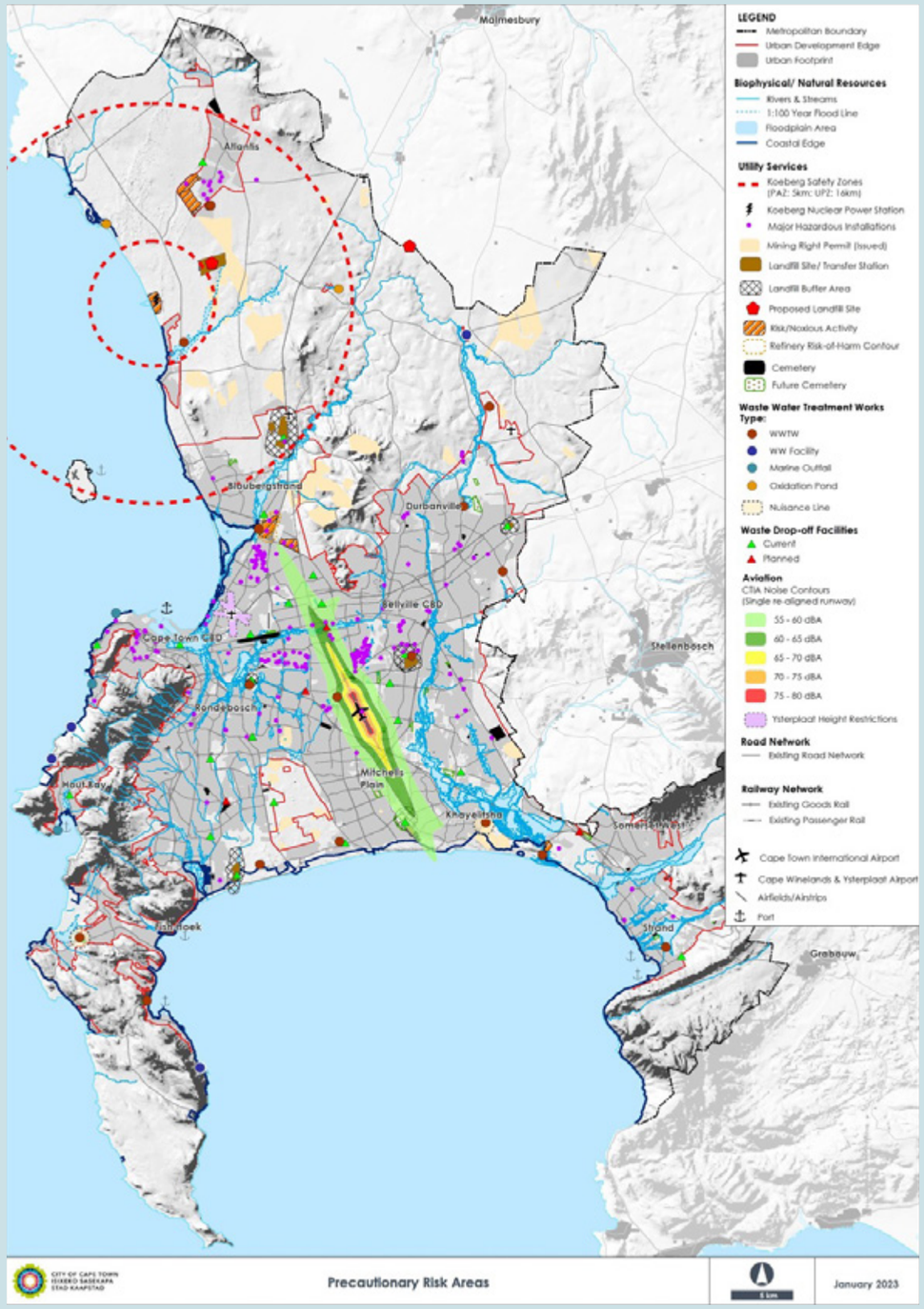
DEVELOPMENT DIRECTIVES: RISK (PRECAUTIONARY AREAS)

RISK SUBTHEME	LAWS/POLICY	AUTHORITY	PRINCIPLE THAT APPLIES WHEN CONSIDERING ALLOCATION OF DEVELOPMENT RIGHTS
Infrastructure capacity Maps in chapter 6	SPLUMA, MPBL	Mostly CCT Eskom re: energy	• Bulk infrastructure investment not forming part of the City's infrastructure investment plans cannot be funded by the City. • Development cannot be approved without clarity regarding the financing responsibility for bulk, link and reticulation infrastructure installation, repairs, maintenance and refurbishment.
Exclusion buffers around wastewater treatment works, landfill sites, refuse transfer stations, major hazardous installations, refinery risk areas, noxious industry locations Map 5a	MPBL	CCT	• Employ a precautionary approach to urban development within identified exclusion buffer – specifically where land uses include permanent and temporary residential, social facilities and open-air recreational uses. • Based on regulatory or permit conditions, exclude any residential development (e.g. within some identified exclusion buffers around a landfill).
Mining Map 5a	MPBL	CCT	• EIA procedures preceding MPBL processes should establish appropriateness of location. • Rehabilitation (also of topsoil) for future agricultural use should be committed to prior to approval for mining.
Cemeteries Map 5a	MPBL	CCT	• EIA procedures preceding MPBL processes should establish appropriateness of location.

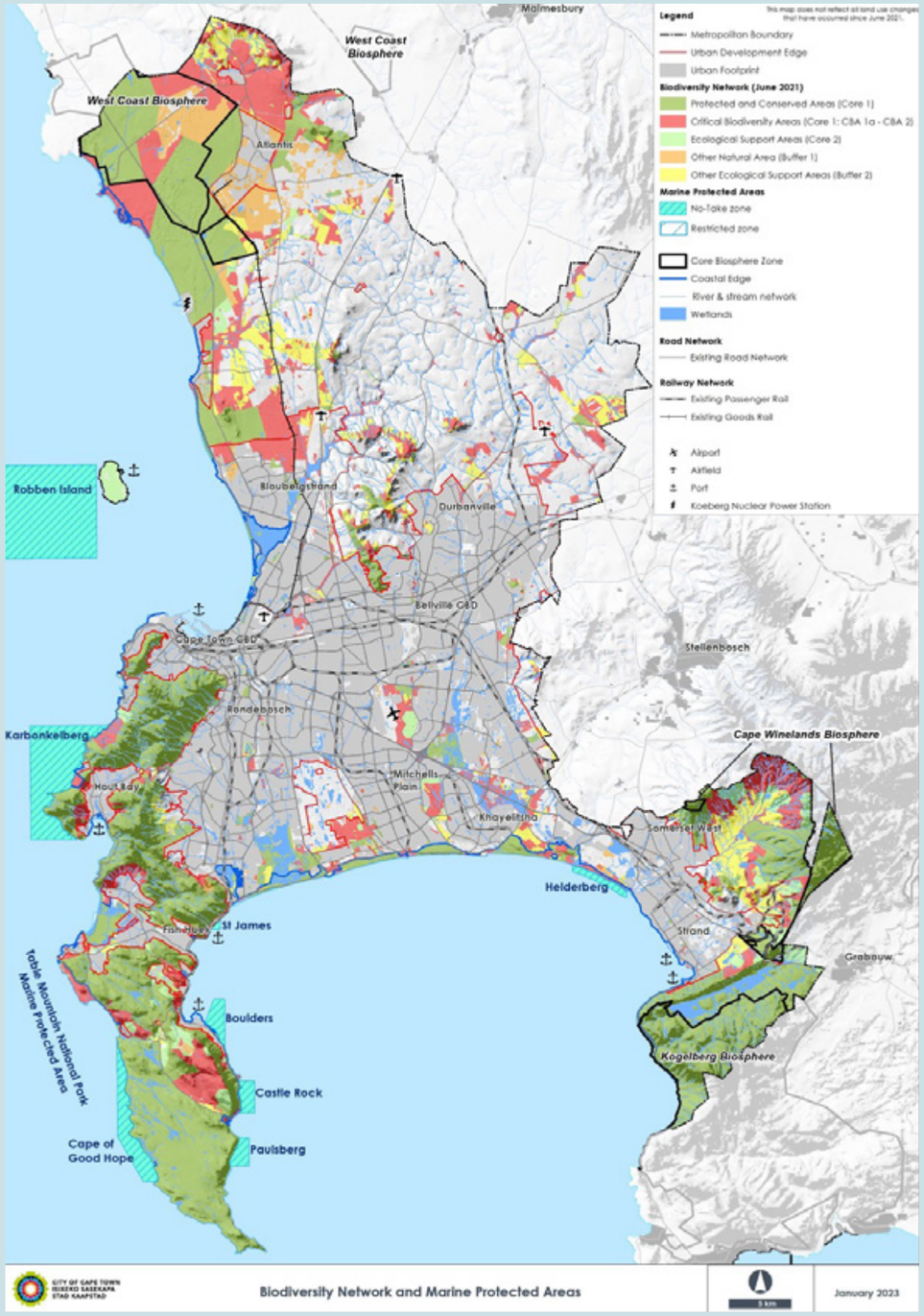
DEVELOPMENT DIRECTIVES: HERITAGE, AESTHETIC AND SOCIAL

HERITAGE SUBTHEME	LAWS/POLICY	AUTHORITY	PRINCIPLE THAT APPLIES WHEN CONSIDERING ALLOCATION OF DEVELOPMENT RIGHTS
Heritage considerations (conservation areas and cultural landscapes) Map 5f	National Heritage Resource Act CCT Cultural Heritage Strategy included in Environmental Strategy (2017) World Heritage Convention Act MPBL	CCT: Heritage and Resource Management Heritage Western Cape SAHRA UN	• Protection of heritage resources is managed under additional legislation. • Valuable view corridors, undeveloped ridgelines, heritage assets and existing vistas should be enhanced and celebrated by development proposals. • Potential developments should consider continuous ongoing assessments in certain areas focused on proactive exemptions or selective protection.
Tourism considerations (tourism areas, gateways, destination places and scenic/ tourist routes) Map 5g	Scenic Drives Management Frameworks (2003 and 2014)	CCT	• Valuable view corridors, undeveloped ridgelines, heritage assets and existing vistas should be enhanced and celebrated by development proposals. • The cumulative impact of development proposals on the tourism areas, destination places and gateways should be considered.

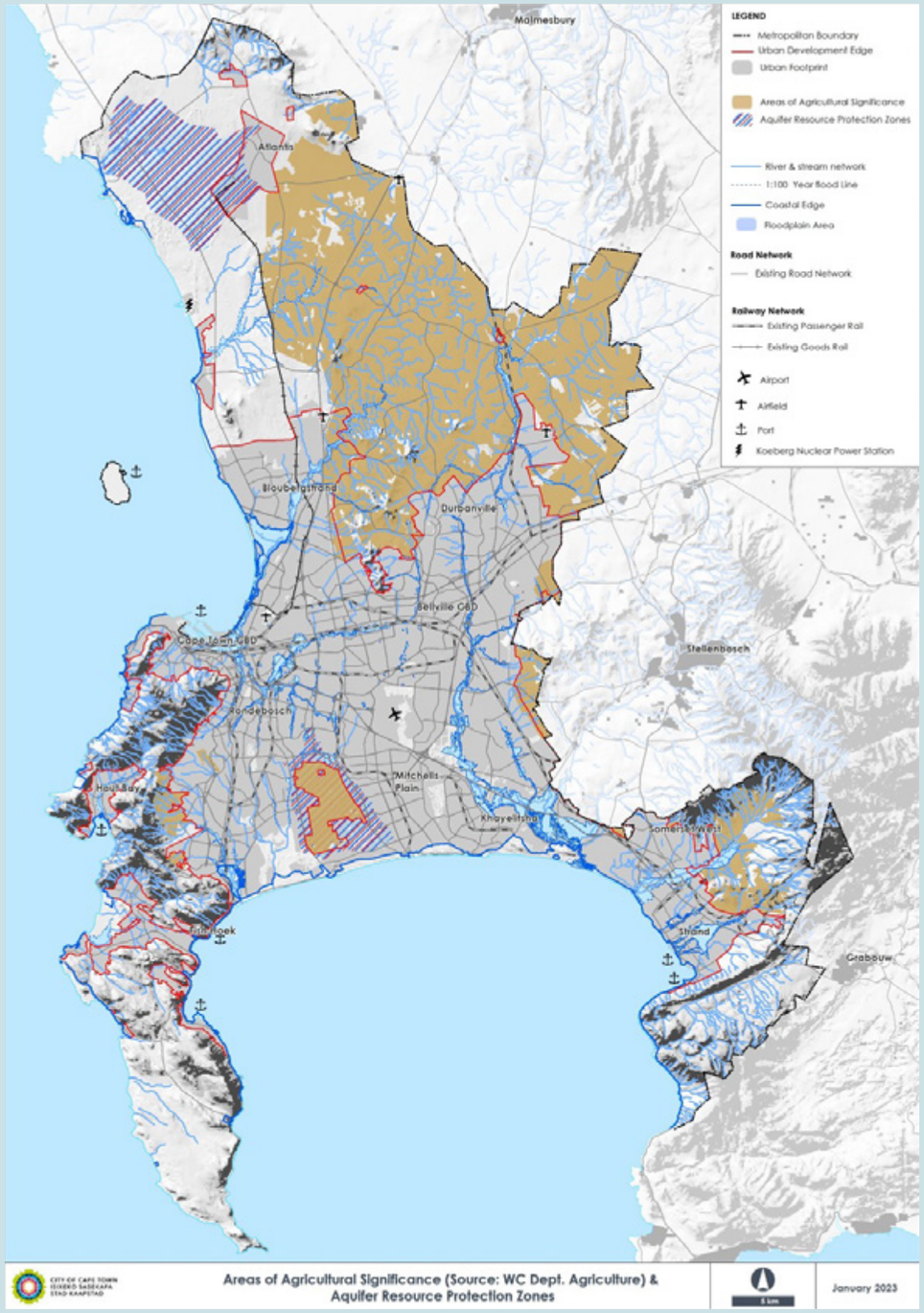
Map 5a: Precautionary risk areas



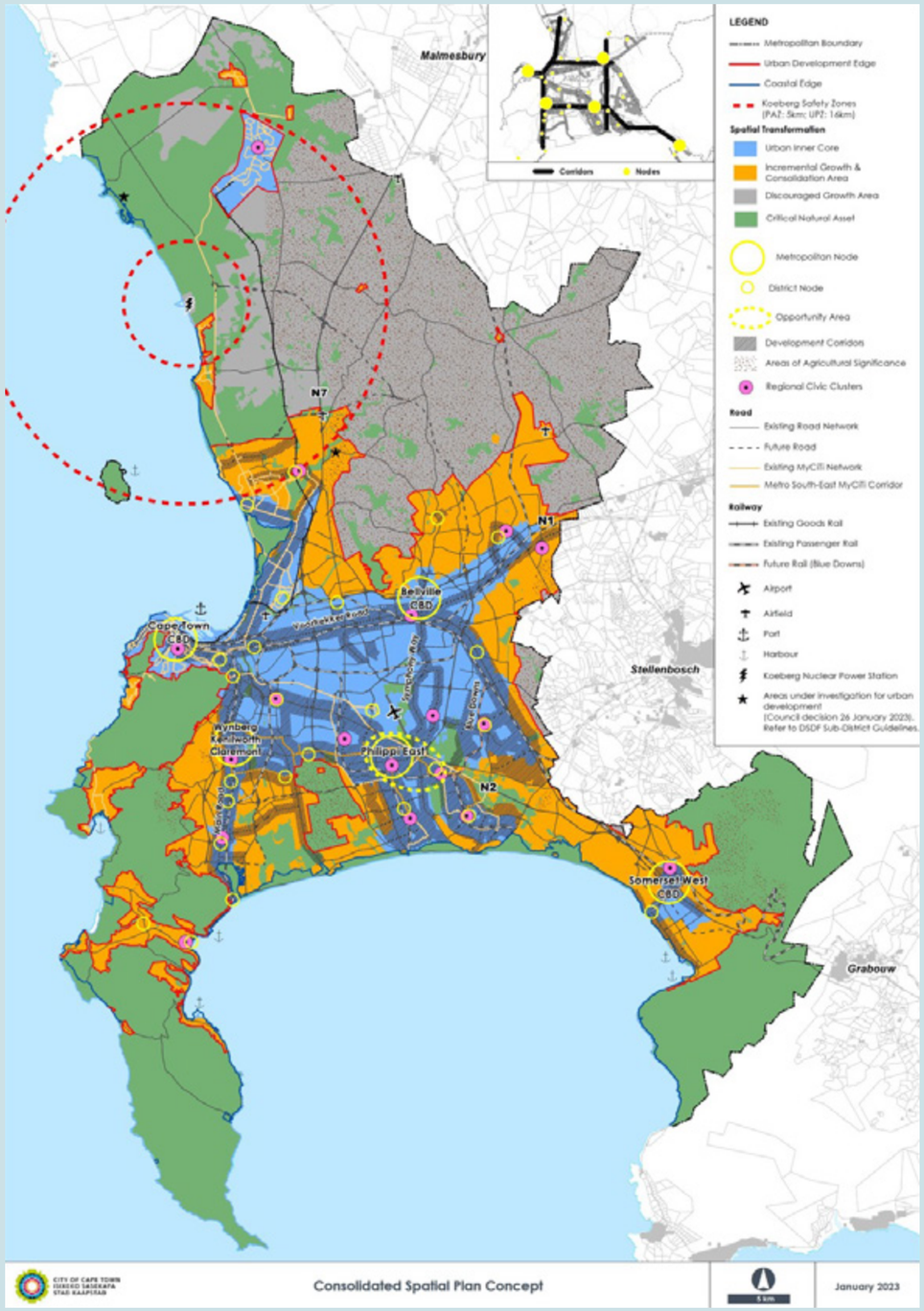
Map 5b: Biodiversity network and marine protected areas



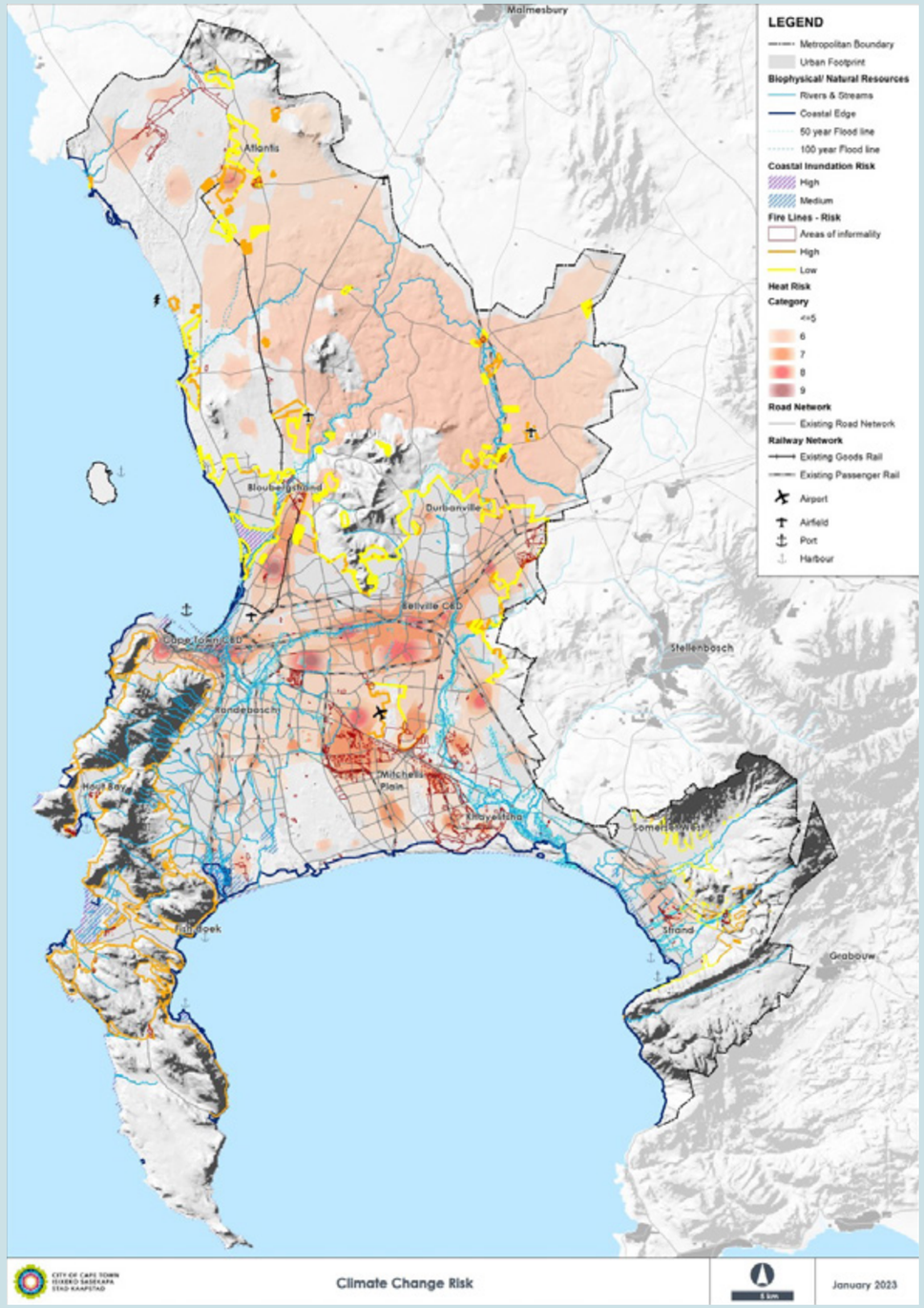
Map 5c: Areas of agricultural significance and aquifer resource protection zones



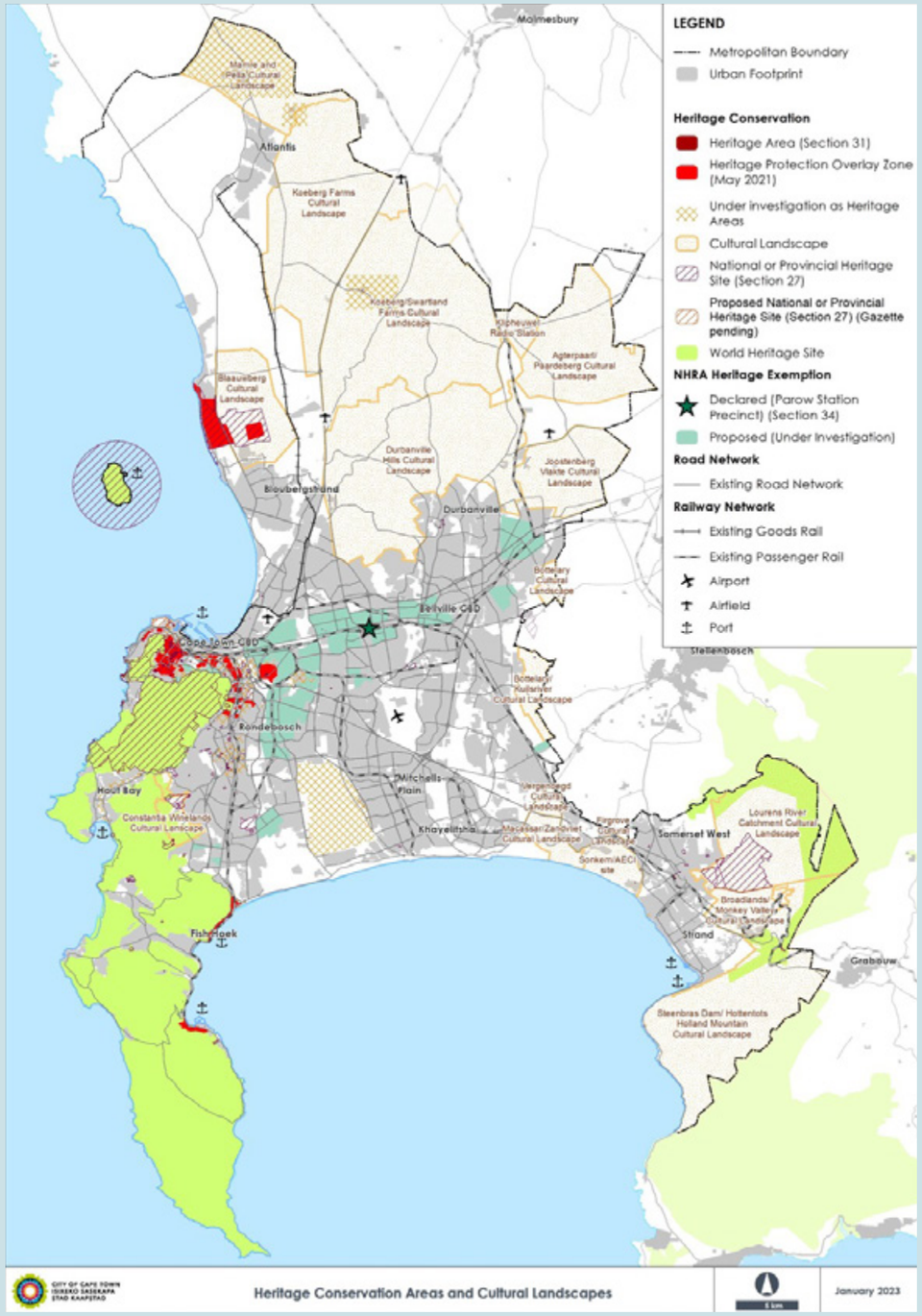
Map 5d: Consolidated spatial plan concept



Map 5e: Climate change risk



Map 5f: Heritage conservation areas and cultural landscapes



Map 5g: Tourism assets and green infrastructure network

5.3 CONCEPTUAL DESIGNATIONS

The conceptual designations **(map 5d)** identified by the MSDF have significance for directing, coordinating and prioritisation development in the city. They comprise the following:

- ✓ Spatial transformation areas – urban inner core, incremental growth and consolidation areas, discouraged growth areas, and critical natural assets (as per chapter 4)
- ✓ Structuring elements (refer to **table 5.5**) supportive of land use intensification
- ✓ Additional spatial informants
- ✓ Differentiated intensification guidelines (refer to table 5.6)

The differentiated intensification guidelines framed in **table 5.6** are provided to assist in forming a general understanding of the type and intensity of development the City wishes to encourage in each spatial transformation area. Although the spatial transformation areas have been cadastrally delineated, the areas are aspirational in nature and are intentional in their guidance of how Cape Town's built areas should be densified and prioritised. As such, the proposed guidelines on net density and development typology are more flexible, while still promoting contextually appropriate, transit-supportive land use intensification.

The DSDFs provide a district-scaled interpretation of these guidelines, with further contextual application at the subdistrict scale, cross-referencing where necessary. The DSDFs should also be referred to for more detailed district-scale maps regarding spatial development proposals and guidelines (the district plan, subdistrict as well as EMF maps), and the DSDF implementation plan maps.

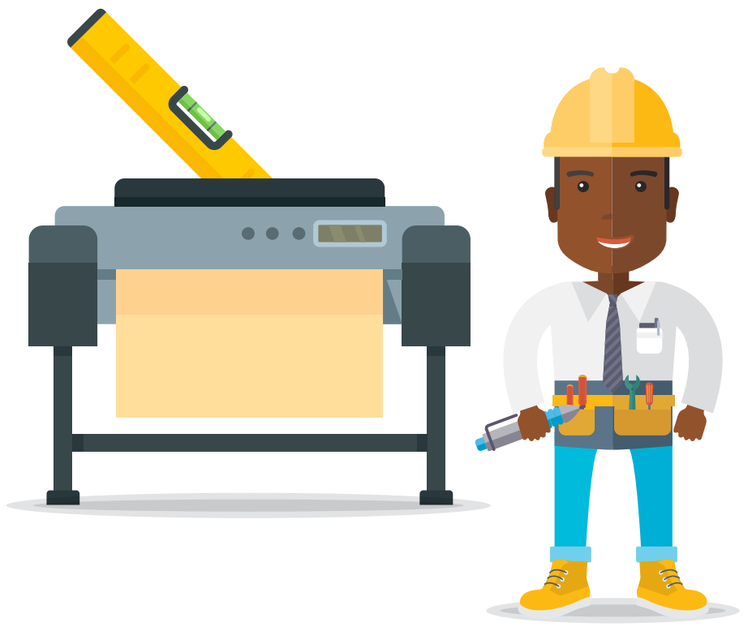


Table 5.5: Structuring elements supportive of land use intensification

SPATIAL PLANNING CATEGORIES (SPCS)	DESCRIPTION
Development corridors Map 5d	Corridors designated as structuring are typified by intensified and diversified land use. They reflect the targeted, prioritised areas earmarked for the largest spectrum of land use mix associated with the highest density of population and employment. They are inclusive of integration zones and link diverse economic nodes – ranging from mature and developing to emerging, and across a hierarchy of function and services levels (metropolitan and district). Examples include: **Metro-scale corridors:** Voortrekker Road/Van Riebeeck Road (CBD to Bellville CBD); southern suburbs Main Road to Muizenberg; R27/Marine Drive/Koeberg Road and Blaauwberg Road; metro southeast MyCiTi corridor/Govan Mbeki (between Claremont/Wynberg and metro southeast); AZ Berman (to Mitchells Plain CBD); Bonga/Walter Sisulu (to Khayelitsha CBD); Blue Downs-Symphony Way corridor. **Secondary corridors:** Jan Smuts Drive/Strandfontein; Spine Road extension; Retreat Road/Fifth Avenue; Klipfontein Road; Giel Basson extension/Jan van Riebeeck/35th Avenue; Hindle Road; Durban to Wellington to Botfontein Road; Birkshire Boulevard (to be established); Marine Drive and Otto du Plessis; Somerset West Main Road to Strand.
Nodes and civic clusters Map 5d	Nodes are characterised by the intensity (density), mix (diversity) and clustering of urban activities and land use found within them. Nodes often contain central access points to municipal or other civic services (subcouncil offices) and centrally located community facilities/social infrastructure (courts, hospitals, clinics, libraries, community halls, sports arenas). These are reflected as a range of civic clusters at different levels and with varying catchment sizes (regional, community and neighbourhood). Most nodes have a mix of land use that focuses on services, commercial, retail and industrial, mixed with medium- to higher-density residential. Nodes are located at points of maximum accessibility, exposure, convenience and urban opportunity. The roles and functions of nodes are differentiated in terms of scale (metropolitan, district and local).[31] Some nodes are in the process of being developed.
Metropolitan nodes Map 5d	The City has five metropolitan nodes, namely: Cape Town CBD; Bellville CBD; Philippi node and broader Philippi opportunity area; Helderberg; and Wynberg/Claremont.
District nodes Map 5e	There are more than 25 identified nodes across the eight districts as indicated below: • Blaauwberg district: Century City; Rivergate; Marine Circle • Northern district: Cape Gate; Durbanville • Tygerberg district: N1 City; Kuils River; Cape Town International Airport • KMPBD district: Blue Downs; Khayelitsha; Swartklip; Mitchells Plain • Helderberg district: Strand • Table Bay district: Woodstock; Observatory/Mowbray; Maitland/Ndabeni • Cape Flats district: Athlone; Ottery; Hanover Park • Southern district: Observatory/Mowbray; Plumstead; Diep River; Retreat; Muizenberg; Fish Hoek; Sun Valley
Economic areas/ employment concentrations Map 5d	Economic areas are nodes consisting of either industrially, commercially (business/office) and retail-zoned land with associated ranges of non-residential land uses. These formal economic areas do have pockets of informal business and trading areas located in close proximity to most of the nodes. However, only some of the informal trading areas are formally managed by the City and there is a growing spatial spread of informal business and economic areas not formally managed. Historically, these areas were monitored via the City's Economic Areas Management Programme (ECAMP).

[31] District, community and local nodes are reflected in the DSDFs.

ADDITIONAL SPATIAL INFORMANTS	
SPCs	**DESCRIPTION**
Additional spatial informants	**Map 5d** should be read together with the detailed information on **map 5c** (areas of agricultural significance), especially for areas north of the N2 to the north and east of the built-up area.
Coastal nodes/tourist destination places Map 5g	Coastal nodes are typically also destination-type places, which are areas of attraction on the coast and within the growing denser parts of the city. Existing and future coastal nodes include a range of functions, from businesses (shops, services and restaurants), and social facilities (recreation and resorts) to residential developments (e.g. Camps Bay, Table View, Mnandi, Monwabisi and Silwerstroomstrand). Coastal nodes are usually associated with forms of development that support their function as a point of attraction, rather than detracting from it. These nodes make responsible use of the social and economic benefits of the coast, certain public spaces, and historical and biophysical assets. They have been identified in locations that allow natural systems to function sustainably and are protected from flood risk. In these areas, public access must be preserved, or actively enhanced. Some nodes are in the process of development and are referred to as emerging recreational or coastal nodes. The emerging nodes often exist in conjunction with destination places. Specific coastal node areas identified for intensified use are: a) Big Bay to Camps Bay – with intensified densities around Big Bay, Marine Circle, the CBD, Waterfront, Sea Point and Camps Bay b) Simon's Town to Muizenberg – with intensified densities around Fish Hoek and Muizenberg c) Strandfontein, Mnandi and Monwabisi d) Paardevlei (Heartland) to Gordon's Bay – with intensified densities around Strand, and less around Hendon Park and Gordon's Bay
Coastal edge Maps 5d and 5e	The coastal edge delineation is intended to buffer infrastructure against the impacts of coastal processes and to protect coastal ecosystems. The coastal edge is a demarcated area around the coast, located in such a position as to promote sustainable and risk-averse coastal development. The primary aims are to protect coastal resources and avoid hazards and financial implications pertaining to areas at risk of flooding, storm surges and long-term climate change impacts. The coastal edge also represents the City's coastal management line. This aligns with the requirements of the Integrated Coastal Management Act, Act 36 of 2014, specifically section 25, that requires municipalities to delineate coastal management lines. Urban development is precluded on the seaward side of the declared coastal edge. Where development abuts the landward side of, but is at risk to, coastal processes, coastal overlay zones must be developed and applied to these areas.
Routes/roads (current and future) Map 5d	A network of roads provide access to land uses and, depending on their level in the hierarchy, fulfil a range of functions as follows: a) Routes with an associated pedestrian engagement (e.g. high streets in CBDs, routes supporting a mix of land uses and high-density development with direct road access and interrupted movement flows). b) Routes connecting different areas that are characterised by high volumes of fast-moving traffic, which may include access to abutting land uses and residential properties. c) Routes with greater mobility functions than points a) and b) that fulfil a connectivity role as secondary roads to freeways. Although high-density and -intensity land uses can be located on the route, the access points are predominantly at intersections. d) Routes fulfilling a mobility function for people and goods, but that do not permit direct access to abutting land uses (freeways/primary roads). The high connectivity provided by direct freeway/expressway connections tends to attract manufacturing, warehousing, major retail and industrial land uses. Only current and future type c) and d) routes are indicated on the MSDF. These opportunities tend to be realised around key intersections or off-ramps, and on roads running parallel to, or linked to, freeways.

ADDITIONAL SPATIAL INFORMANTS	
SPCs	**DESCRIPTION**
Railway lines and network (stations) Map 5d	Existing and planned/future priority railway lines are indicated in the MSDF. The rail network provides for mobility over longer trip distances. The hierarchy of stations supports the rail service and comprises primary points of accessibility, particularly when associated with areas of high road-based accessibility. They support intense concentrations of transport-oriented activity and medium to high land use densities. Rail corridors, and areas surrounding railway stations, are generally suitable for a range and mix of urban development uses at medium to high densities supported by the public transport parking zones 1 and 2, delineated in terms of the DMS. Generally, the classification of a station in terms of its typology should inform the form and scale of development within and surrounding the station precinct, but this work will be conducted in the future.
Bus rapid transit/IRT trunk route stations Maps 5d, 3.1 and 3.2	At present, the MyCiTi BRT system runs on the integrated public transport network (IPTN). This will be reviewed over time and, linking implementation realities to budgets, the anticipated alignment of routes will be confirmed. The IPTN uses different classes of roads to establish a network of connectivity, sometimes consisting of dedicated bus lanes or in-traffic delineated routes. BRT trunk routes provide mobility through access-controlled right-of-way infrastructure and high-occupancy vehicle priority lanes. MyCiTi BRT stations are confirmed, with phased roll-out, and will support intense concentrations of mixed land use activity and medium to high land use densities. IRT/BRT/public transport corridors and high-intensification areas surrounding bus, rail and minibus-taxi trunk stations are generally suitable for a range of urban development uses at medium to high densities.
Cape Town International Airport and airstrips Port of Cape Town Harbours Map 5d	Cape Town International Airport, airfields/strips, the port and harbours are considered critical infrastructure, which should be optimally balanced from an economic and social perspective. These physical and economic access points are essential from a business and tourism point of view, but the negative impacts of the land uses and activities need to be managed through a set of institutional and policy arrangements.

Table 5.6: Differentiated intensification guidelines

	DESCRIPTION OF THE SPATIAL AREA/ STRUCTURE	TARGETED LOCATIONS/AREAS	DENSITY GUIDELINE[32]
Citywide incremental densification	On all single residential-zoned areas	All locations as permitted by the Development Management System (DMS) or on application for new rights, but with a particular focus on the urban inner core. Incremental intensification (more land use mix) and densification (more residential units) in the incremental growth and consolidation area to be supported, subject to engineering services capacity clearance. All locations previously constructed under the now repealed Less Formal Township Establishment Act and similar acts.	Second and third dwellings, as well as other forms of development, provided no other departures are required. Pursue development typologies that facilitate the formalisation of: • existing less formal residential areas (areas of informality); • expand on formalisation of informality (small-scale rental/micro-units/ boarding house units); and • potentially consider de-densification needs in informal settlements, where necessary (especially for disaster management reasons).
Affordable housing initiatives	Within areas of economic potential and focused public sector investment, where spatial integration is actively encouraged, e.g. urban nodes and development corridors	Informed by locations within social housing restructuring zones (SHRZs), prioritised human settlement areas. Other possible future prioritised housing overlay zones and the urban development zone.	A differentiated approach to density and typology guidelines is required for social and affordable housing projects. Densities should be maximised to support economies of scale, but should consider appropriateness within the receiving context, and subject to DSDF subdistrict development guidelines.
Metropolitan nodes Map 5d	Focused intensification in metropolitan nodes to realise a high- to very high-intensity mix and clustering of urban activities or land uses at points of high to very high accessibility, exposure, convenience and urban opportunity. The width, height and size of the node and the corridor are not prescribed, but depend on the nodal hierarchy and the accumulated land uses and civic functions. For example, metropolitan nodes could be as large as a 2,5 km radius.	Metropolitan nodes: • Cape Town CBD • Bellville CBD • Philippi East • Somerset West CBD • Wynberg/Claremont	>600 du/ha (net) and >10 storeys within metropolitan urban nodes. Tall Building Policy guidelines apply. A review of the CBD incentives should be consolidated in an LSDF or other collaborative planning document with Council approval.
District and local nodes, in addition to existing and planned transport-accessible precincts (TAPs) Map 3.4	Focused intensification in district nodes, as well as existing and emerging TAPs, to realise a medium- to high-intensity mix and clustering of urban activities or land uses at points of high accessibility, exposure, convenience and urban opportunity. Identified nodes may be more geared towards local community services, within walking distance from such services. Certain identified decentralised nodes may warrant more conservative approaches to density, where the impact on the surrounding landscape may be high.	District nodes as identified in the DSDFs, namely: • Century City • Rivergate • Marine Circle • Cape Gate • Durbanville • N1 City • Kuils River • CTIA • Blue Downs • Khayelitsha • Mitchells Plain • Woodstock • Observatory/Mowbray • Maitland/Ndabeni • Athlone • Ottery • Hanover Park • Plumstead • Diep River • Retreat • Muizenberg • Fish Hoek • Sun Valley Local nodes are identified in the eight DSDFs.	250–650 du/ha (net) and 3–15 storeys within district nodes. >250 du/ha (nett) and minimum three storeys within local nodes. Tall Building Policy guidelines apply.
Metro-scale development corridors Map 3.3	Generally associated with higher development intensities, and densities linked to high frequency and volume of public transport, linking metro and district nodes. Existing corridors may be in different stages of maturity, but the aim is to support and expand an intense mix of land uses, concentrated into several higher-density urban nodes along the corridor. The width of higher-order corridors can vary from 500 m to 800 m from the route centreline, with density transitions guided by DSDF subdistrict guidelines as well as the Urban Design Policy.	DSDF metro-scale development corridors, including: • Voortrekker Road/Van Riebeeck Road (CBD to Bellville CBD) • Southern suburbs Main Road to Muizenberg • R27/Marine Drive/Koeberg Road and Blaauwberg Road • West-east southern corridor • AZ Berman (to Mitchells Plain CBD) • Bonga/Walter Sisulu (to Khayelitsha CBD) • Blue Downs-Symphony Way corridor	250–650 du/ha (net) and 3–11 storeys.

[32] Density ranges adjusted from the **Density Policy**.

6. IMPLEMENTATION

The MSDF implementation plan is intended to ensure the priorities presented in the City's spatial framework are implemented through a targeted capital investment and growth strategy. The alignment of the IDP, MSDF, and budget planning and review processes is critical in ensuring that the City's financial, land and human resources work towards the realisation of the spatial priorities of the City. For the detail of the actual programmes, and the funding allocations, refer to the IDP and approved budget (each updated annually).

Up until 2019, the City's efforts relating to spatial targeting, capital expenditure, infrastructure investment programmes and urban management approaches were captured and approved within the City's Built Environment Performance Plan (BEPP). Annually, the BEPP reflected the following in spatial and quantitative terms:

- The annual City budget, inclusive of capital grants and Medium-Term Revenue and Expenditure Framework (MTREF)
- The Catalytic Land Development Programme (CLDP)
- The investment rationale of other state departments and entities
- Strategic themes emphasised in guidelines issued annually by National Treasury
- The planning rationale and financial strategy supportive of the City's spatial targeting initiatives, which are at the heart of the City's spatial restructuring agenda and underpin its spatial targeting narrative and logic.

The maturity of the BEPP process and plan, as well as infrastructure imperatives arising from urbanisation pressures and, more immediately, the Covid-19 pandemic, have led to the City reframing its approach to infrastructure needs and planning. It has achieved this via the Infrastructure Planning and Delivery Framework (IPDF), supported by the Project Portfolio Management System (PPM).

6.1 OUTCOMES-BASED IMPLEMENTATION PLANNING

The key informants of planning, at the highest (metropolitan) level, remain the spatial transformation areas (STAs) adopted by the MSDF (chapter 5) as the urban inner core (UIC), and the incremental growth and consolidation areas (IGCAs). The rationale and emphasis of the STAs are listed in **table 6.1**. The STAs have been refined and delineated through the DSDF reviews, where the spatial targeting continued to unfold into the lower scales of planning instruments and where programmes compete for resources. The STAs of the MSDF are expanded with spatial targeting areas in the DSDFs (and reflected in **diagram 6a**).

The DSDF spatial targeting framework expands on the MSDF's spatial prioritisation and investment framework through the designation of new district-/local-level spatially targeted areas, the **priority local facilitation areas (PLFAs)**. The PLFAs provide the district-level basis for spatial prioritisation and aim to guide implementation through directing public investment, incentives, budgets and planning focus for the short to medium term (i.e. the lifespan of the DSDFs). These include:

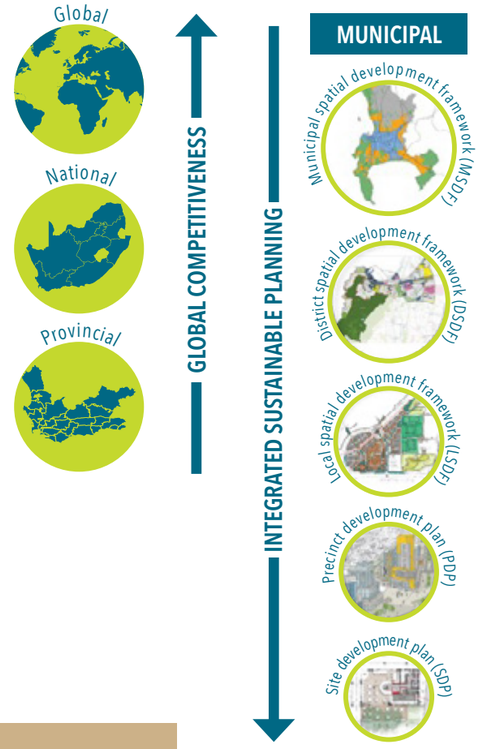
- **Development focus areas (DFAs):** Areas targeted for urban restructuring and planning focus in the short to medium term that have the highest potential spatial transformative impact with dedicated budget, planning or investment to facilitate development.
- **Urban support focus areas (USFAs):** Areas that are faced with a combination of challenges, including but not limited to infrastructure failure and service delivery challenges; high socioeconomic need and crime rates and require a coordinated public investment and planning approach in the short to medium term.
- **Environmental focus areas (EFAs):** Areas with critical environmental significance (in terms of national conservation targets) outside of formally protected areas, which have been identified as priority areas for investment and/or protection over the lifespan of the DSDFs, given its environmental significance, but are not within designated DFAs and USFAs and hence require equivalent focus. Refer to the eight DSDF implementation plans for further detail.
- **Urban development spatial planning categories (SPCs):**
  The DSDF identifies local areas for intensification of urban use (e.g. areas where redevelopment is being promoted) and new urban development (focused on greenfield development). These include –
  - **Mixed use intensification areas (MUIAs):** Developed or partially developed areas where further intensification of existing land uses is supported or where appropriate redevelopment to a mix of land uses is actively encouraged (refer to chapter 3 of the DSDFs).
  - **New development areas (NDAs):** Undeveloped (vacant) or partially developed land targeted for new infill development of various typologies and densities for residential as well as proposed non-residential uses (i.e. industrial and/or commercial and/or institutional and/or public service) or a combination thereof (refer to chapter 3 of the DSDFs).

Table 6.1: Rationale and emphasis of the MSDF spatial targeting

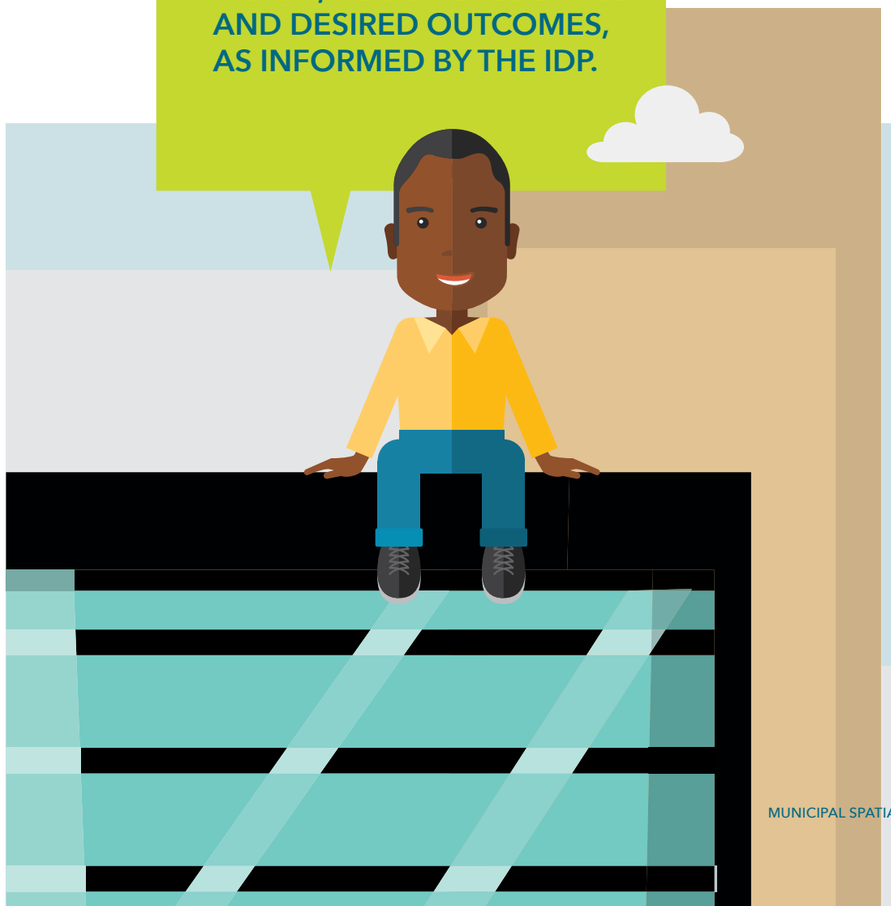
MSDF	RATIONALE AND EMPHASIS OF OUTCOMES-BASED SPATIAL TARGETING
Activating and incentivising development in the urban inner core (UIC)	1. Prioritise basic infrastructure maintenance and replacement. 2. Continued expansion and incremental improvement of the public transportation network in support of the integrated public transport network. 3. Dedicated funding that prioritises and sequences infrastructure investment in engineering and social amenities to address current backlogs and meet the demands implied by land use projections. 4. Land assembly initiatives, in conjunction with the public and private sector, to unlock key strategic underdeveloped land parcels and buildings – including key sites such as Wingfield, Ysterplaat and Youngsfield. 5. The release of vacant and underutilised City-owned land for development at optimal densities, ensuring that lower-income households, in particular, can live closer to economic nodes and public transport infrastructure. 6. Identification, facilitation and implementation of rental property schemes within the UIC to ensure a supply of accommodation to meet the demands of all income groups. 7. Integrated urban management in cooperation with community-based organisations or, alternatively, as special rating areas/City improvement districts. 8. Designation of the UIC as the City's priority and preferred (restructuring zone) location for allocation of Capital Restructuring Grant (RCG) funding, to support social housing initiatives. Prioritisation of spatially targeted interventions and optimisation of public and private land development and associated infrastructure investment in priority local facilitation areas.
Servicing existing communities within the incremental growth and consolidation areas (IGCAs)	9. Prioritisation of planned maintenance and upgrading of bulk engineering infrastructure. 10. Medium to high priority can be given to the capital infrastructure projects and programmes to expand the infrastructure network with link and new bulk infrastructure up to the urban development edge. 11. Bulk and link infrastructure as partnership between the City and the private sector and administered per the Development Contribution Policy and MPBL. 12. Diversification of mono-use residential patterns and cross subsidisation for the provision of social infrastructure. 13. Prioritisation of spatially targeted interventions and optimisation of public and private land development and associated infrastructure investment in priority local facilitation areas. 14. Use an incremental approach to upgrade or expand development, where appropriate and applicable.

The MSDF and DSDF implementation plans are interconnected with other spatial planning and project implementation programmes at various scales:

- ✓ The MSDF is the overarching framework communicating the longer-term spatial vision, policy objectives and desired outcomes, as informed by the IDP.
- ✓ DSDFs align with, and give effect to, the MSDF by translating the strategic priorities of the MSDF (and IDP) into district and subdistrict development guidelines and nominate further spatial targeting areas.
- ✓ Local spatial development frameworks (LSDFs) align with, and give further effect to the relevant DSDFs by providing more detailed, local planning guidance. LSDFs also include detailed information regarding proposed precinct development areas undertaken by the local authority in association with land owners, or by a large land owner for a specific land parcel.
- ✓ Precinct development plans (PDPs) provide specific design guidelines for precincts and are a proactive part of the land development. They include details of projects and the associated implementation plans to develop specific precincts.
- ✓ Site development plans (SDPs) represent planning at site level. They provide detailed information, such as site layout, positioning of buildings and structures, and property access, and are a result of an active process initiative by the land owner.



THE MSDF IS THE OVERARCHING FRAMEWORK COMMUNICATING THE LONGER-TERM SPATIAL VISION, POLICY OBJECTIVES AND DESIRED OUTCOMES, AS INFORMED BY THE IDP.



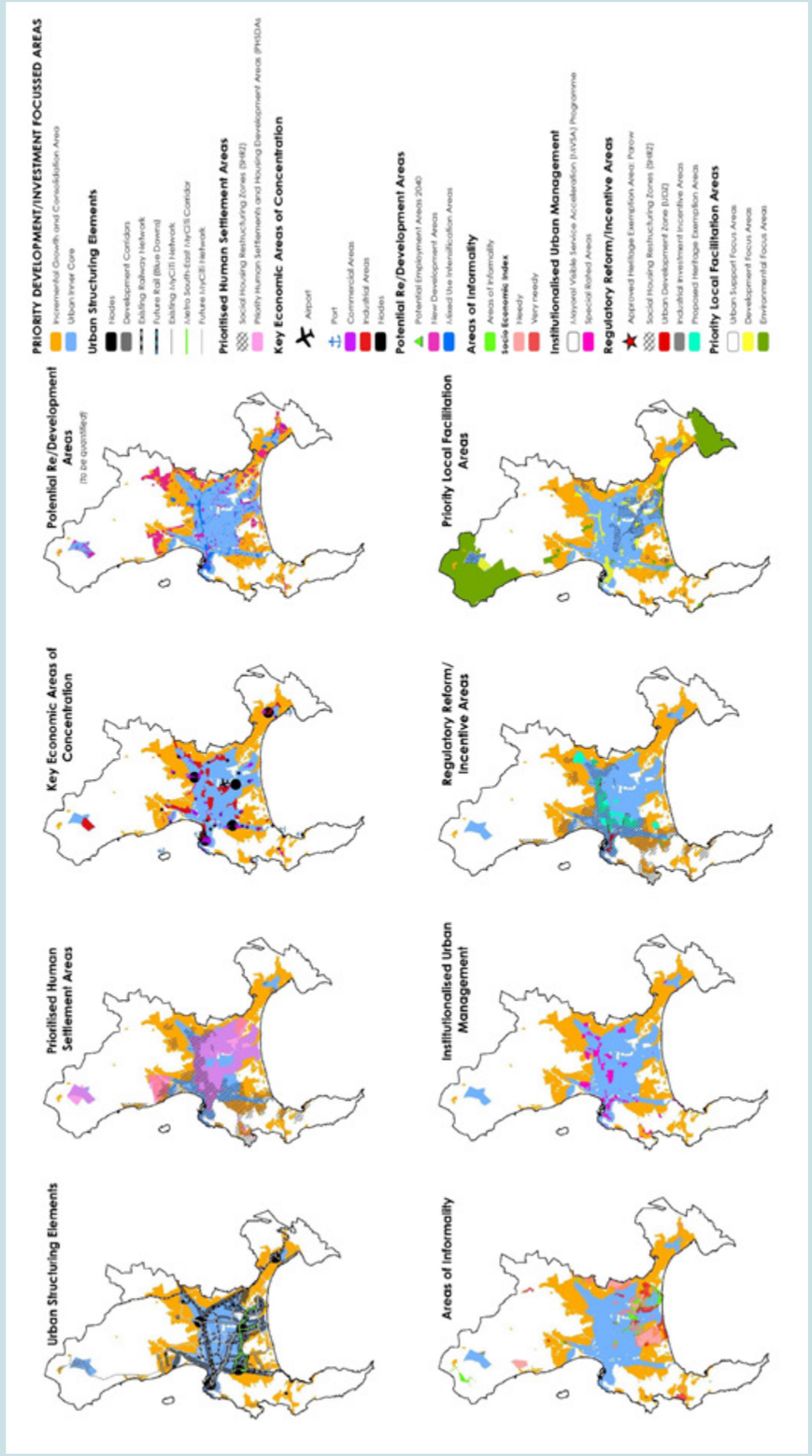


Diagram 6a: Spatial components of the urban inner core (UIC) and incremental growth and consolidation areas (IGCAs)

The MSDF and DSDF spatial transformation areas (STAs) form the basis of prioritisation of public investment in, and incentivisation of, the below listed programmes. Prioritisation of the capital budget, and the implementation of projects to facilitate the development of the UIC and the IGCAs, are key outcomes of spatial targeting. Since 2020, the spatial targeting approach of the MSDF has been adapted into the Prioritisation Framework for the Capital Programme Portfolios, which are part of the operationalisation of the Infrastructure Planning and Delivery Framework (IPDF). This ensures that new capital programmes are prioritised within the UIC and the IGCAs **(diagram 6a)**. The IDP highlights the following key implementation programmes that contribute to achieving the envisioned spatial targeted outcome:

- ✓ **Human Settlement Programmes** by the private and public sector, especially those located in the Priority Human Settlement and Housing Development Areas (PHSHDAs)[33] and the social housing restructuring zones[34]. This includes other programmes such as:
  - The in-situ engineering upgrading services programmes in those informal settlements/areas of informality that are deemed legally and practically possible, especially where they overlap with the 'very needy' communities as identified in the Socioeconomic Index.
  - Recently designed backyarders/small-scale rental facilitation and micro-developers facilitation programme, which forms part of the new IDP.
  - The land release programme that focuses on the identification and optimisation (or release) of private and public sector land for affordable housing, which may take place in new development areas (as identified in the DSDFs)[35].
- ✓ The **Catalytic Land Development Programme** with prioritised precincts of Bellville Future City/ catalytic precinct[36], Philippi Opportunity Area catalytic precinct and the Gateway Catalytic Precinct.
- ✓ The central business district and associated **CBD Recovery Programme.**
- ✓ **The Integrated Public Transport Network (IPTN) Programme**, also facilitating the development corridors, nodal hierarchy (and TAPs) aligned to the public transport programme's trunk routes (rail and road based). These are effectively ready for mixed-use redevelopment/intensification areas[37] and include many of the commercial and industrial areas.
- ✓ **The Forward Planning 2040: Community Facilities and Service Development Programme.**
- ✓ **Local spatial development frameworks** (LSDFs) and precinct planning programme.
- ✓ The implementation of the multiple **Regulatory Reform and Incentives Programmes**, such as the Urban Development Zone tax incentive zone (UDZ)[38], Public Transport Parking (reduction) zones and Heritage Exemption Areas contributing to regulatory reform.

6.2 TARGETED PUBLIC INVESTMENT FOR URBAN RESTRUCTURING AND UPGRADING

Urban restructuring and targeted major upgrading deal with changes that need to occur within the existing urban footprint to reinforce development in line with the City growth strategy and spatial targeting goals. This requires:

- ✓ sector-specific capital investment associated with infill development in new development areas (mostly vacant and underutilised private and publicly owned land); and

33 Priority Human Settlements and Housing Development Areas (PHSHDAs) | National Department of Human Settlement (dhs.gov.za)

34 Where the Restructuring Capital Grant (RCG) is applied, social housing institutions receive this grant from the (IGCAs) Social Housing Regulatory Authority (SHRA) as a capital grant to develop social housing in restructuring zones.

35 Mixed-use NDAs include undeveloped (vacant) or partially developed land targeted for new development with a combination of residential and non-residential uses, or a combination of non-residential uses (i.e. industrial or commercial or institutional or public service).

36 ttps://www.capetown.gov.za/Media-and-news/City prioritises investment and job creation through regeneration of Bellville as second CBD?fbclid=IwAR0Gv1WYp9N6X2KR3AYdkWdNQ29SXfABIH8P0ZzAzS5eNSr1cI5U-IlSPbc

37 These include developed or partially developed areas where further intensification and diversification of existing land uses are supported or where appropriate redevelopment to a mix of land uses is actively encouraged. It should be noted that a mix of land use for both new development areas and intensification areas refers to an appropriate combination of either a) residential and non-residential uses or b) non-residential uses (i.e. industrial or commercial or institutional or public service). More details on the appropriate mix of land uses are described in the subdistrict guidelines of the DSDFs.

38 https://www.capetown.gov.za/work and business/doing-business-in-the-city/business-support-and-guidance/urban-development-zones

- ✓ areas where major intensification (densification and diversification of land uses) is proposed, such as mixed-use intensification areas, nodes and corridors.

In support of achieving the above, two considerations are important in terms of planning for targeted public investment, namely:

- ✓ services (such as public facilities, parks); and
- ✓ infrastructure (such as transport, or bulk infrastructure for engineering services provision).

Optimising existing infrastructure and prioritising the planning and implementation of infrastructure maintenance, renewal and expansion are fundamental to the City's achievement of its spatial vision of a restructured urban form. Firstly, there is a need to address backlogs based on the existing demands and, secondly, a need to plan for new demand. As such, the MSDF at a broader scale and DSDFs at local scales attempt to:

- ✓ spatially delineate areas for intensification of urban uses (the WHERE?) (mixed-use intensification areas, nodes and corridors) as well as new development areas (vacant and underutilised land);
- ✓ provide some indication, where possible, of the quantum and type of development (the WHAT and HOW MUCH?) and likely phasing of development, which are indicated in the district and subdistrict SDPs; and
- ✓ identify spatial priority areas or priority local facilitation areas (PLFAs) to guide implementation through directing public investment, incentives, budgets and planning focus for the short to medium term (i.e. the lifespan of the DSDFs). These include the development focus areas, urban support focus areas as well as environmental focus areas – refer to the eight DSDF implementation plans for further detail.

Notwithstanding the challenges of estimating the future WHERE? and HOW MUCH?, the existing capacity of bulk infrastructure networks impacts directly on the pace and sequencing of development.

Regrettably, various engineering networks are constantly under strain. For example, water and sanitation challenges are, at present, negatively impacting development approvals in some areas of the city.

The City's approach to addressing infrastructure backlogs and meeting projected needs has an immediate and direct impact on the pace of accommodating growth and implementing spatially targeted development. Investment in bulk infrastructure needs to be aligned with supporting infrastructure investment from other state partners, including rail, electricity, water, education, and health facilities.

6.3 KEY PROGRAMMES IN THE URBAN INNER CORE (UIC) AND INCREMENTAL GROWTH AND CONSOLIDATION AREAS (IGCAs)

The following section outlines the key programmes at metropolitan scale where targeted public investment (for urban restructuring and upgrading) will be required to enhance the spatial targeting objectives and strategies.

HUMAN SETTLEMENT STRATEGY (HSS) (MAY, 2021) AND ASSOCIATED HUMAN SETTLEMENTS SECTOR PLAN (2022)	IDP 2022-2027 PROGRAMME REFERENCE PROGRAMMES 7.1 TO 7.4 AND 8.2

The Human Settlements Strategy (HSS) is purposefully broad in attempting to draw boundaries around the housing system in Cape Town. It does this in order to afford the City the dexterity to deal with complexity by shifting its resources, focusing on different roles within the sustainable delivery of housing, and prioritising specific interventions to fit a changing context. The City is aware that it cannot achieve all of the interventions outlined in the HSS at the same time. However, by understanding the system as a whole, the City is better able to transition between its roles of regulator, provider and enabler to support affordable housing delivery. Aside from offering a fully transversal understanding of housing delivery, the HSS represents a pragmatic approach to human settlements, focusing on iteration and inclusion. It allows the City to support diverse typologies in high-density areas (such as social housing institutions and affordable housing delivered by the private sector, as articulated in programmes 7.1 and 7.2 of the IDP), as well as service provision (iterative basic services and upgrading) where complete redevelopment of the land is not possible.

In addition to the range of human settlement projects continuously in process by the City, as well as the Provincial Human Settlement Programme, the following two new programmes were included in the new term-of-office IDP to pursue implementation of the spatial vision of inward growth in the UIC and the IGCAs as reflected in the MSDF and DSDFs.

CONSOLIDATED LAND PIPELINE AND RELEASE PROGRAMME (CLP)	IDP 2022-2027 PROGRAMME REFERENCE PROGRAMME 1.5 AND ANNEXURE A

A comprehensive approach to land assembly by the City, and with state partners, is a key implementation imperative for Cape Town's spatial plans. The CLP is a strategic, consolidated programme for land planning, acquisition and disposal by the City, driven by the imperatives of economic growth and spatial integration. The CLP will establish a single spatial land database representing multiple layers of land demand requirements including:

- human settlements and development infrastructure and basic services;
- biodiversity and environmental needs;
- social amenities and community service centres, public open space, and land for future affiliated residential needs; and
- land for economic and job stimulating uses, e.g. commercial, industrial and agricultural activities.

The CLP will allow for a critical evaluation of the City's current practices of land acquisition and disposal, and support greater planning integration across the administration and with other state partners.

MICRO-DEVELOPER AND SMALL-SCALE RENTAL UNIT PROGRAMME	IDP 2022-2027 PROGRAMME REFERENCE PROGRAMMES 2.1 AND 8.1

So-called 'backyard structures' have proliferated in many of Cape Town's townships in the absence of a framework for their management, or a means through which they might achieve formal building compliance (and recognition as formal structures). The existing and growing informality, which is a feature of many neighbourhoods in Cape Town, requires that the management, systems and services provided by the City continually be adapted and tailored to these realities. Without a concerted effort to build greater flexibility and agility within service delivery models in response to informality, the City's service delivery approaches and planning regulations will become increasingly at odds with the requirements of the communities it serves.

Accordingly, the City is in the process of establishing a policy framework for the administration of additional dwelling unit structures and will put in place mechanisms for considering basic service access for additional dwelling units. This will include such basic service provision and incentives for additional dwelling unit builders and micro-developers to comply with best practice building standards.

Further, the needs of micro-developers providing affordable housing via private rental (small-scale rental units) will be investigated and a facilitation response defined. This will capture, inter alia, processes associated with finance, building applications and regulations, security of tenure, and access to land.

Projects/proposals:

Refer to the Integrated Human Settlement Sector Plan as well the District Spatial Plan Implementation chapter where the urban restructuring and upgrading map depicts the spatial location of all human settlements projects by Province and the City in various types of pipelines and processes.

Lead and dependency:

While the City's Human Settlements Department leads this programme, it requires support and coordination from various intergovernmental stakeholders.

CATALYTIC LAND DEVELOPMENT PROGRAMME (CLDP)

IDP 2022-2027 PROGRAMME REFERENCE

PROGRAMME 1.4 AND ANNEXURE A

South African metros and larger municipalities are experiencing continued inequality as a result of the spatial legacy of apartheid. One way to drive a spatial restructuring agenda is to adopt an 'urban acupuncture' (i.e. focused and targeted) approach that enables transformative urban mixed land uses. An urban acupuncture approach is rooted in a network-based understanding of the urban structure. This approach is promoted through the National Treasury's Urban Network Strategy (UNS) and supporting spatial planning and urban design guidance. It is promoted to drive outcomes-based planning and transit-oriented development principles aimed at restructuring the typical spatial organisation of cities to enable economic growth and encourage efficiencies through investment consolidation and agglomeration. The City has identified three precincts in which this planning and management initiative is implemented:

1. Bellville catalytic precinct

The development vision for the Bellville CBD catalytic precinct includes:

- the creation of a vibrant and sustainable urban centre with a distinct identity;
- a new vertically integrated multimodal PTI/mobility hub at Bellville rail station;
- a network of high-quality public spaces and a pedestrian-prioritised public realm;
- mixed-use development, offering a range of housing typologies and urban opportunities;
- significant new employment space; and
- improvements to the existing road-based transport network, including the proposed realignment and extension of Robert Sobukwe northwards (linking Bellville node and the Metro South-East via Symphony Way corridor (incorporating high-capacity public road transit services, i.e. T13 MyCiTi).

2. Philippi opportunity area (POA) catalytic precinct

Realisation of the POA as a catalyst for the investment and development of the Metro South-East is premised on:

- supporting high-density, mixed-use development at strategic locations to unlock further economic and housing opportunities in the area;
- unlocking underdeveloped and vacant state-owned and privately owned land;
- addressing basic infrastructure needs by coordinating public investments;
- unlocking economic opportunities by taking advantage of the area's locational advantages for vertically integrated agri-processing value; and
- stabilising the area through urban management initiatives with community organisations.

3. Gateway catalytic precinct

The City is exploring opportunities to unlock land with enhanced development rights as a means of leveraging greater private sector participation in development that addresses accessibility and contributes to inner-city affordable housing provision in the Cape Town CBD. The project is investigating the following:

- The merits of completing the inner viaducts of the unfinished freeways on the Cape Town Foreshore to alleviate congestion and facilitate greater access to the city.
- Approaches to unlock the economic potential of the Foreshore and strengthen linkages between the CBD (including Bo-Kaap) and the V&A Waterfront.

In addition to the three primary catalytic precincts, the City has also identified secondary precincts, namely Athlone CBD, Claremont CBD, De Grendel, Parow Golf Course, Diep River, Kapteinsklip/Mnandi coastal node, Mowbray Golf Course, Tygerdal and Monte Vista Station.

Projects/proposal: Various smaller projects are in the pipeline for each of these precincts but are mainly reflected on the capital budget of implementation-focused line departments.

Lead and dependency:

While the City's Urban Catalytic Investment Department is driving this initiative, it requires the forging of partnerships with key stakeholders, including both private and public sector investors to ensure objectives are met over time.

CBD RECOVERY PROGRAMME

IDP 2022-2027 PROGRAMME REFERENCE

PROGRAMME 1.4

The Covid-19 pandemic and the associated extended lockdown restrictions have had a devastating impact on Cape Town and the Western Cape, with the central business district (CBD) of Cape Town experiencing business closures daily. The coordination and refocusing of a disparate set of public initiatives and processes into a cohesive suite of interventions have provided, at least over the short to medium term, the foundation for the CBD's post-Covid-19 road to recovery. Beyond spatial planning and development guidelines, this programme aims to put in place the foundational requirements to facilitate the medium- and long-term 'generational shift' needed in the city. It is now necessary to proceed with the programme of action that ensures the CBD is a welcoming, vibrant place where Capetonians work, live and play and learn alongside other local residents, visitors and tourists.

The overall CBD recovery programme is split into three linked programmes and associated actions, as approved by the executive management team (EMT) in July 2021:

- **Programme 1:** Precinct management and tactical urbanism targeted activities/interventions to stall short-term decline and ensure continual improvements while planning commences in other programmes.
- **Programme 2:** Transition planning for CBD (CCDS 2.0 development) in the medium and long term to facilitate generational transformation in the CBD and surrounds.
- **Programme 3:** Strategic land release and development (with a focus on the Foreshore area) to package and transfer the City-owned properties to unlock a revenue stream for other social housing and Citywide projects.

In terms of progress made to date, programme 1 has led with the rapid conception and implementation of short-term stabilisation interventions in the midst of the pandemic.

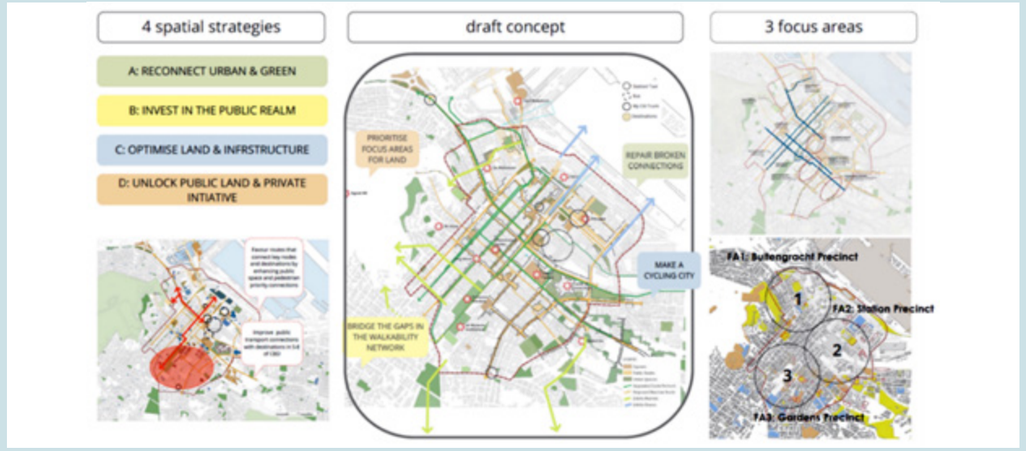
- Programme 2 has kicked off with the formation of a project management team and the development of terms of reference for medium- to long-term transition planning over the duration of 2021/22.
- In parallel, a rapid review of the CCDS conceptual planning and design guidelines is being undertaken as a sectoral feed into the formulation and process of approval of the overall transition plan over the duration of 2022/23, with the implementation of prioritised interventions to follow.
- In addition to the application of spatial strategies within the central city area, the CCDS updated conceptual plan spatially focuses public sector interventions within three precincts where public land is predominant, namely the Buitengracht/Foreshore gateway precinct, station precinct and Gardens precinct. More detailed project proposals are envisaged to follow as the programme unfolds.

Projects/proposals: See **diagram 6b**

Lead and dependency:

The City's Urban Planning and Design Department, in association with a transversal project management team, is currently driving the planning for the medium- to long-term transition of the Cape Town CBD. The implementation measures supporting the objectives are dependent on both the relevant City line departments and the private sector.

Diagram 6b: Indication of spatial extent of the CBD planning



INTEGRATED PUBLIC TRANSPORT NETWORK (IPTN) IMPLEMENTATION PROGRAMME	IDP 2022-2027 PROGRAMME REFERENCE
	PROGRAMMES 12.1-4 AND ANNEXURE A

The implementation of the City's IPTN remains one of the most ambitious public transport investment projects in the country. It is an integral component to the MSDF as the spatial backbone around which the future Cape Town can be restructured. The trunk routes of the IPTN service link the city's urban inner core and enhance mobility and efficiency of movement for all residents.

The MyCiTi bus rapid transport (BRT) system complements the existing rail trunk system. The challenges to the speed of roll-out of the MyCiTi system and the financial implications of implementation require the consideration of an incremental approach in the new IPTN to enhance the current modes and capacity of public transport in Cape Town.

Following the successful roll-out of phase 1 of the MyCiTi system as well as the N2 Express (to compensate for the lack of rail service), the next envisaged phase is the Metro South-East MyCiTi corridor from Khayelitsha and Mitchells Plain to Claremont and Wynberg. Once fully rolled out, the Metro South-East MyCiTi corridor will serve more than 1,4 million commuters (CITP, 2021). This will provide the missing east-west trunk link across the southern part of the urban inner core, and help the City deliver on its commitment to continuously improve transport options for all residents.

The above addresses the pressing mobility needs in the city. However, access can effectively also be achieved through proximity. High-density, high-intensity, mixed-use development is prioritised along trunk routes and specifically within transit-accessible precincts (TAPs) anchored by rail stations and planned MyCiTi stations. This means that rail stations, MyCiTi stations and PTIs will serve as catalysts for development and regeneration.

The Transit Oriented Development Strategic Framework (TODSF, 2016) details the linkages between land use and transportation objectives and the implications for spatial planning.

Projects/proposals: Refer to the CITP and IPTN

Lead and dependency:

The City's Urban Mobility Directorate, with multiple transversal project management teams, in association with various intergovernmental stakeholders.

COMMUNITY FACILITIES AND HEALTH PROGRAMME	IDP 2022-2027 PROGRAMME REFERENCE
	PROGRAMMES 1.2E, 6.2, 8.2, 11.1-2, 16.5

The City takes an integrated precinct planning and development approach to providing civic and community facilities. This includes upgrading/expanding capacity within existing facilities and developing new facilities in areas of need, following a co-location and clustering of facilities approach.

A hierarchy of civic clusters (a network of 135 nodes illustrated on the map with numbers indicating ranking in terms of need) with community facilities operating at different scales has been identified and forms the basis of a development framework for community facilities. This supports the principle of co-location and clustering of facilities within precincts taken by the Community Services and Health Directorate.

As such, 24 precincts across the city have been identified as backlog or optimisation precincts and prioritised for investment to drive spatial transformation. The prioritisation of precincts was informed by modelling that identifies sufficiency and insufficiency (understand areas of need) in light of the different facility standards and population projections. The results are used as a data-driven support tool to inform strategic planning, budgeting and implementation of community facilities.

This investment is planned for and implemented through key programmes for the following line departments: Recreation and Parks, Social Development and Early Childhood Development (SDECD), Libraries and Information Systems, and City Health.

The Recreation and Parks programmes include the Integrated Recreation Facilities Programme, which involves the clustering of sports and recreation and parks facilities within identified areas at a community scale, the Regional Recreation Hubs Programme that involves developing and facilitating organised, formal sport, informal recreation and play at a regional scale. These are multi-code and multi-use facilities that meet federation standards, such as soccer, athletics, cricket, netball, rugby, hockey, swimming, cycling and tennis. Other programmes implemented include the optimisation programme to ensure that operation and maintenance resources are utilised efficiently and effectively.

The SDECD programmes include the homeless shelter programme and the implementation of community facilities (ECD centres and play areas) within informal settlements. The LIS programmes entail the optimisation of services and expansion of libraries, while City Health programmes include the National Core and Ideal Clinic Standards. IT modernisation is a programme that cuts across all line departments, leveraging technology to enhance key aspects of service delivery (e.g. clinic appointments, records systems and facility booking systems).

COMMUNITY FACILITIES AND HEALTH PROGRAMME	IDP 2022-2027 PROGRAMME REFERENCE
	PROGRAMMES 1.2E, 6.2, 8.2, 11.1-2, 16.5

The City's Department of Community Facilities and Health, in association with the provincial departments of Health and Education, also join forces every five years to review the estimated social facility needs for the next 20 years. The most recent round of review included a 2020 baseline and a 2040 estimate. Only one map is included in chapter 2 of the MSDF, reflecting the 2020 needs. The Education Department highlighted that their immediate focus is on the provision of schools in high-recipient areas, which include Wallacedene (priority 3 on map 2), Nomzamo (location 21), Mfuleni (location 8) and Delft (location 4).

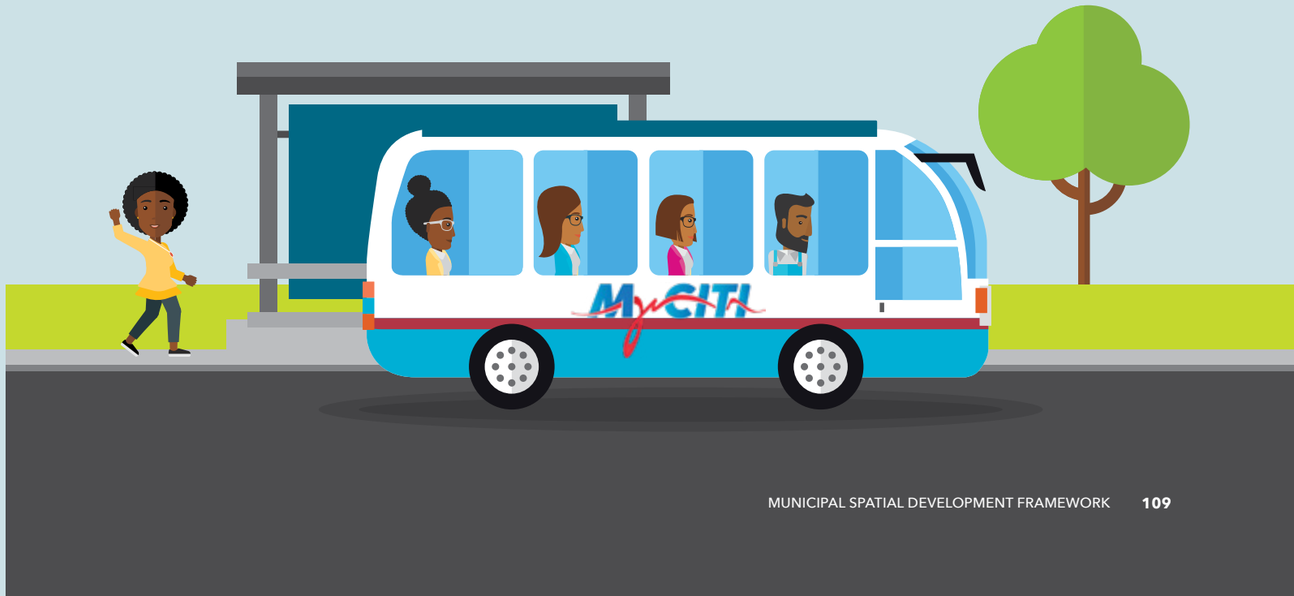
Projects/proposals:

Precincts and clusters of facilities where the benefits of agglomeration can be realised by residents and departments alike have been prioritised in order to guide future planning, design and project execution. Some current examples include Wallacedene, Enkanini, Delft, Wynberg, Elsies River, Blue Downs, Bellville, Philippi and Pelican Park.

Lead and dependency:

The City's Community Services and Health Planning and Development and Project Management Office on behalf of the following line departments: Recreation and Parks, Social Development and Early Childhood Development (SDECD), Libraries and Information System and City Health.

Map 6.1: A hierarchy of civic clusters in terms of most facilities needed (numbers indicate rank)



LOCAL SPATIAL DEVELOPMENT FRAMEWORKS (LSDFs)/ LOCAL AREA PLANNING INITIATIVES (LAPIs) PRECINCT PLANNING AS WELL AS URBAN MANAGEMENT PROGRAMME	IDP 2022-2027 PROGRAMME REFERENCE
	PROGRAMMES 1.4, 11.2, 15.1, 16.1, 16.4, 16.7

Multiple line departments in the City are working on localised spatial planning initiatives resulting in the identification of capital projects or continuous operational projects. With the intention of ensuring the implementation of spatial targeting, as reflected in the MSDF and DSDFs, an annual 'Focus your local areas planning or management process' is undertaken between these internal City departments.

This is effectively an annual planning process where different departments list and describe the locations of their intended spatial planning, budget extraction and implementation processes. They collaborate to prioritise all of the departmental business plan initiatives with the intention of focusing efforts and targeting certain local areas or precincts with the objective to progress spatial targeting implementation. The objective is to enhance transversal departmental collaboration via coherent decision-making processes before the lead departments proceed with formulation of development visions and implementation plans.

Key local areas or precincts are selected and verified, and a lead department is nominated prior to embarking on the full planning process. These targeted locations are both for spatial planning processes and products, which result in capital investment frameworks, implementation plans, precinct plans (a prerequisite for capital prioritisation), or community action plans, which list day-to-day operational projects in need of focused attention by departments responsible for service implementation, repairs and maintenance and spending of operational budgets.

Projects/proposals: Refer to **map 6.2** for the list of prioritised locations as identified for a 10-year period from MSDF and DSDF approval. These are compared to the targeted locations prioritised in the 2022/23 business planning processes. Ultimately, it will be the outcome of the spatial planning, precinct management, and maintenance processes that will affect the quantified requirements for future engineering infrastructure network improvements (paragraph 6.4 below).

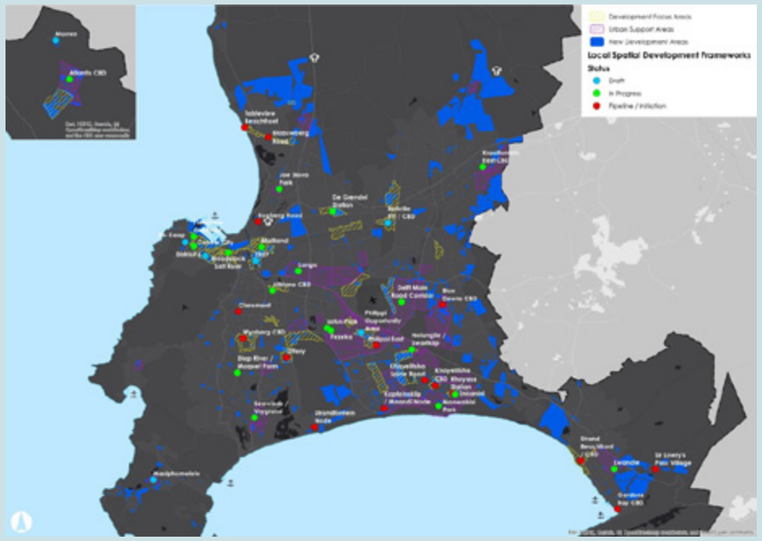
Lead and dependency:

The City's Spatial Planning and Urban Design Department leads this initiative, coordinating the annual review of the LSDF/LAPI and precinct planning and management process. The process has thus far included:

- branches specialising in precinct management and maintenance (such as the Mayoral Urban Regeneration Branch, the City Improvements District Management Branch, Informal Trading Area Management Branch);
- branches specialising in planning and design (such as the Urban Design Branch, District Spatial Planning and Mechanism Branch, Community Facilities and Health Planning Branch); or
- branches targeting the implementation of property transactions and public-private partnership, leading to property development projects (such as the Property Management Department and the Urban Catalytic Investments Branch).

In 2022, the consultation process will be expanded to include departments focusing on public transport facility upgrading and informal trading area management.

Map 6.2: Targeted LSDF/LAPI processes compared to short-term prioritised initiatives



REGULATORY REFORM AND INCENTIVES PROGRAMMES	IDP 2022-2027 PROGRAMME REFERENCE
	PROGRAMMES 7.1, 8.1, 15.1

The DSDFs' implementation chapter highlights a large number of initiatives in progress that can be grouped as the regulatory reform and incentives programmes. These are an attempt to facilitate the spatial transformation of the city in the UIC and the IGCAs. This includes the monitoring and expansion of existing incentives, such as

- the urban development zone tax incentive zone (UDZ)[39];
- the public transport (parking reduction) (PT1 and PT2) zones; and
- the review of the density overlay zone for development around Koeberg.

New overlay zones (OZs) are also envisaged in support of spatial transformation directing urban development, which include:

- the discourage growth area overlay zones;
- the expansion of the heritage exemption areas (refer to the DSDFs);
- priority human settlements and housing development areas (PHSHDAs); and
- social housing restructuring zones (SHRZs), as gazetted by the national Department of Human Settlements.

The priority human settlements and housing development areas (PHSHDAs) comprise:

- Atlantis SEZ;
- Blaauwberg development area;
- Blue Downs integration zone;
- Cape Town Voortrekker Road corridor;
- Hout Bay/Imizamo Yethu;
- Khayelitsha corridor.

The majority of these potential locations represent a strong spatial correlation with the urban inner core, the CLDP and other spatially targeted nodes.

The PHSHDAs and the SHRZs are an alignment and spatial transformation mechanism involving national housing programme funding and municipal implementation. The PHSHDAs focus on funding in-situ upgrading of informal settlements, new developments and the SHRZs on funding social housing projects through the Restructuring Capital Grant (RCG) awarded to social housing institutions as a capital grant to develop social housing in restructuring zones.

Projects/proposals: Refer to the DSDF implementation chapter, the implementation mechanisms: exclusions map, and the implementation mechanisms: incentives map where incentive programmes locations are depicted.

Lead and dependency:

District Spatial Planning and Mechanisms in association with the Metro Spatial Planning Department, Development Management Department, and Environmental and Heritage Management Department.

[39] https://www.capetown.gov.za/work and business/doing-business-in-the-city/business-support-and-guidance/urban-development-zones

6.4 INFRASTRUCTURE PLANNING REFLECTED IN SECTOR PLANS AND PRIORITISED WITH SPATIAL TARGETING FOCUS

Infrastructure investment is central to economic recovery and realising the strategic and spatial priorities of the City. However, in the context of severely constrained resources, the City must ensure that investment decisions yield maximum economic and social returns.

The City's infrastructure planning and delivery framework (IPDF) provides a longer-term, consolidated view to determine which capital projects are likely to have the greatest impact, and support preparation and delivery of those projects. In addition, the City is required to focus on repair and maintenance of existing infrastructure as well as the protection of infrastructure and other assets, especially fixed assets.

Section 6.5 provides an overview of the sector plans reflecting infrastructure priorities for the City in the medium to long term. The sector plans for each of the engineering services divisions are based on various scenarios, which each sector uses to update its masterplan and then consolidate information back to a single sector plan (e.g. for Water and Sanitation).

These consist of a narrative around the priorities in the capital and operational budgets necessary for the sector to continue service provision – dealing both with backlogs, current pertinent demands as well as anticipated future needs. It can therefore be assumed that the key spatial targeting programmes, as implemented by various line departments (and referenced in section 6.3), will be absorbed by each line department into their masterplan/ implementation plan and then translated into a sector plan highlighting capital and operational programmes for the MTREF period.

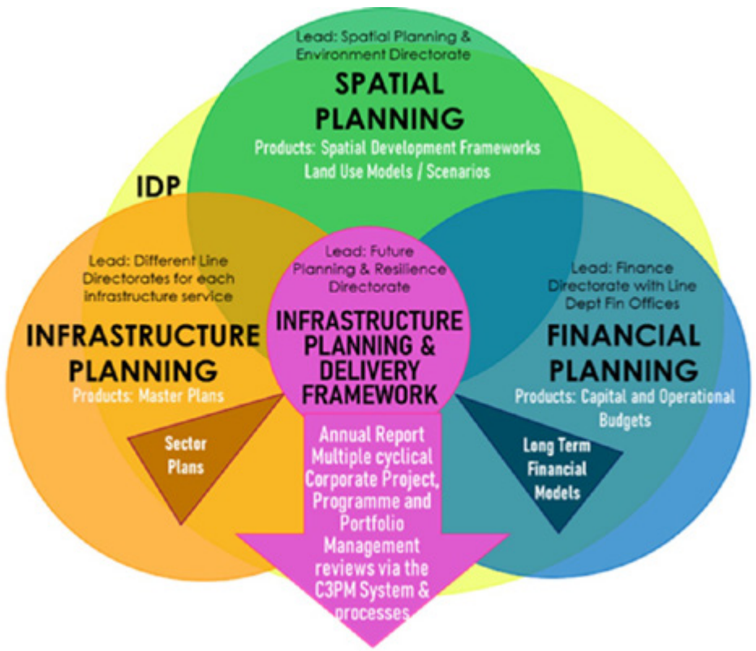
Furthermore, section 6.5 has been supplemented with maps for each sector that aim to:

- ✓ spatially depict the current state of infrastructure by including baseline capacities as a means to convey the challenges faced across the respective components (where applicable) for each of the sectors;
- ✓ overlay capital projects that are aimed at addressing the challenges faced, and provide the responses based on the intent outlined in the key programmes being implemented (including that which has been communicated in the IDP);
- ✓ illustrate where potential (re)development areas are envisioned and which have been identified as a means to provide guidance around future infrastructure requirements demand; and
- ✓ reflect when each project is anticipated to commence, either in the MTREF or outer years.

There is a well-documented, carefully implemented and cyclical effort to get capital and operation projects, as prioritised by line departments, into the SAP Project Portfolio, Programme and Project Management System. This C3PM[40] system provides a systematic and transparent platform of record keeping for project, programme and portfolio management purposes. The extensive support offered by the Engineering Services Unit and the C3PM Unit assists line departments to verify, on a quarterly basis, the progress made on the various steps involved in capital projects, from planning and implementation, financing, design, tender processes, project implementation readiness, contractual commitments, and contract management to the implementation and completion of the projects.

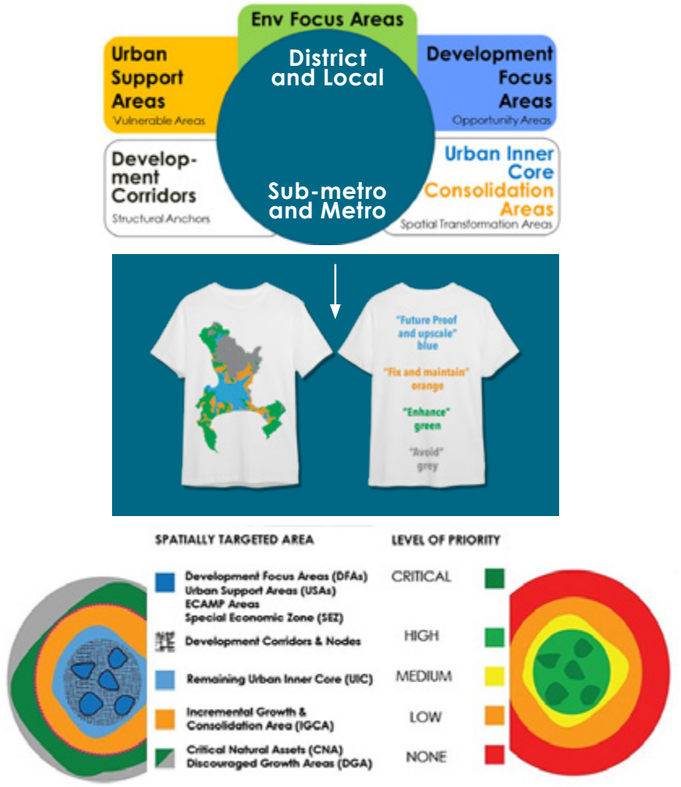
Diagram 6c illustrates the relationship between spatial, engineering, infrastructure and financial planning. **Diagram 6d** illustrates how spatial targeting is translated into the prioritisation framework for the capital projects, programmes and portfolios in the financial and infrastructure planning context.

Diagram 6c Relationship between spatial, engineering infrastructure and financial planning



TIMEFRAME (FISCAL YEARS)	MEDIUM-TERM REVENUE AND EXPENDITURE FRAMEWORK REFERENCE								OUTER YEARS	
	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32

Diagram 6d Spatial targeting applied to capital project, programme and portfolio prioritisation



[40] Corporate Portfolio, Programme and Project Management Unit

6.5 INFRASTRUCTURE CAPACITY, RENEWAL AND PROVISION PRIORITIES FROM SECTOR PLANS

The future planning branches of the engineering service departments are key partners in formulating and implementing the City policy and spatial planning products, running collaborative planning processes and incorporating Land Use Model scenarios into master planning, while comparing these to internal demand forecasting models. Ultimately, the different departmental sector plans are a reflection of the sector-specific contextual analysis, demand and supply analysis and lists of capital and operational projects targeted for the short, medium and long term.

Urban growth trends put engineering services under pressure. The first round of coherent/standard content sector plans for most of the engineering services departments, as well as human settlements, transport and facilities, and community services, was developed in 2019. Thereafter, in 2019/20, the Land Use Model (LUM) (as described in technical supplement B) was formulated and used as a particular 20-year growth scenario/perspective. Line departments supplemented the LUM with other internal scenarios and some have reviewed sector plans for 2021/22, or are still in the process of doing so. The aim is to iteratively estimate the demand-differences for the range of scenarios and determine the future pressure these will put on current infrastructure capacities. Ultimately, the capital and operational budgets required over a 20-year period for the portfolios, programmes and projects to ensure continued service provision at the committed standards, will have to be planned for and prioritised.

Mapping of capacity conditions of key components of the engineering services networks is important for communication purposes and aims to illustrate that capital projects are spatially targeted to ensure that 'current year' backlogs/capacity limitations are addressed with the immediate (Medium-term Revenue and Expenditure Framework's) budget planning of capital projects. This also serves to detect potential capacity limitations in advance, so that project preparation can commence early enough. Masterplans and sector plans should quantify the anticipated future urban growth in the outer years, so that upgrading and refurbishment of infrastructure can adequately cope with expected demand. However, capacity mapping for a base-year, or a 20-year forecast, is not currently a product of the sector plans (although it will be from 2023/24).

Council supported the IPDF (and an annual report) in November 2021. These will provide a spatial representation of the location and scope of key infrastructure portfolios, programmes and projects. The intention is to communicate how the targeted programmes address the backlogs/capacity shortfalls and create future capacity to deal with anticipated demands from urban development growth trends.

In anticipation of the first IPDF annual report and for purposes of bridging this period, this MSDF implementation plan offers a high-level view of the current capacity situation within some components of the different City engineering services networks, with an associated reflection of the spatial location of the short- and long-term capital programme or project location.

SECTOR: ELECTRICITY	IDP 2022-2027 PROGRAMME REFERENCE
	PROGRAMMES 2.1, 3.1-3.2, 4.1

1.Generation

Current generation assets comprise Steenbras pump storage scheme and two small gas turbines, which are usually only run in emergencies. The continued operation of the Steenbras Hydro Pump Storage (SHPS) Scheme, along with the two City-owned gas turbines, has helped to limit the impact of the national energy crisis on Cape Town residents by reducing the severity of load shedding by up to one stage. In so doing, it has helped to maintain Cape Town's attractiveness as an investment destination. As such, the maintenance and expansion of the plant are imperative, not only to bolster generation capacity, but also as a key asset for cost saving in the City of Cape Town through the implementation of arbitrage during peak load periods. The large generating assets in the province, namely the Koeberg nuclear power station and the gas turbines at Ankerlig and Gourikwa, are Eskom-owned.

The City is intent on addressing the socioeconomic disruptions associated with load shedding. To this end, it is embarking on a diversified energy supply programme as well as an energy demand response programme. The aims of these programmes are to:

- increase energy security in the face of diminishing Eskom technical performance;
- improve financial sustainability by reducing electricity purchases from Eskom, thereby protecting citizens against the impact of further Eskom tariff increases; and
- mitigate the effects of climate change through the utilisation of sustainable energy sources.

2. Distribution network

The City's distribution network is supplied from the national grid via 41 points of delivery. Projects executed on the distribution network are normally separated into new infrastructure, refurbishment or replacement projects, as well as improvement or expansion projects.

2.1 New infrastructure projects

These projects are driven by customer demand and are normally reactive in nature. Projects are initiated as and when customer applications or large new developments require it. New connections are accommodated on existing infrastructure, provided that technically sound networks exist. Typically, 90% loading on existing neighbouring main substation footprints will be a trigger for a new main substation. Lower than expected load growth is normally a cause for project deferment until such time that the project becomes financially feasible. Some projects are initiated for financial sustainability reasons, as they enable the City to secure a reduced purchase price by moving the supply connection from an Eskom distribution point to an Eskom transmission point.

2.2 Refurbishment/replacement projects

End-of-lifecycle projects are subject to a condition-based assessment of the equipment in order to determine correct time of project initiation and potential extended useful life. Of the 183 power transformers in operation, 19 will reach their theoretical end of life in the next 10 years.

The replacement and refurbishment programmes for the MV metal-clad switchgear in the distribution network will run for some years yet, before all legacy switchgear has been addressed. Since project commencement in 2010/11, 463 switchgear panels have been replaced with modern switchgear and 2 328 panels have been refurbished through switchgear panel upgrades and retrofits.

2.3 Improvement/expansion projects

The intention of these projects is to increase operating capacity of existing assets, either by adding another cable/conductor, upgrading existing power transformers with larger transformers (typically in 50 MVA units), or establishing new switching stations to consolidate intake points or supply from a higher voltage level.

2.4 City-initiated generation initiative

Recognising the urgent need to diversify Cape Town's energy supply away from reliance on Eskom, the City will prepare sites for renewable-energy power generation directly connected to the energy grid, to be operated by the City or the private sector, subject to further investigation. These power plants will include both ground-mounted and rooftop solar photovoltaic systems, while the feasibility of other technologies will also be explored.

- **Utility-scale, ground-mounted solar PV project in Wesfleur, Atlantis:**
  The Atlantis solar PV project is a grid-connected solar photovoltaic installation, which will be situated in Atlantis on vacant land between the existing industrial and residential zones. The facility will be connected directly to the City's internal electrical network. The scope of the project is to design, build, operate and maintain a 7 MW ground-mounted solar PV facility and to connect it to the City's existing electrical grid.
- **Utility-scale, renewable-energy generation project in Paardevlei, Somerset West:**
  The Paardevlei renewable energy generation project will be developed and implemented on vacant City-owned land outside Somerset West. The piece of land is currently being considered for various future uses by the City, including housing, agriculture and energy generation. The energy generation project proposes to design, build,

operate and maintain a renewable-energy generation plant, most likely ground-mounted solar PV, with a battery storage facility and connection to the City's existing electrical grid.

- **Athlone power station redevelopment in Athlone:**
  It is the intent of the City to redevelop the existing Athlone power station site to ensure its utilisation is aligned to strategic priorities, including load shedding mitigation, energy security for economic growth, climate change mitigation, and the sustainable delivery of essential services. As such, there is an opportunity to consider utilising the site for renewable, low-carbon or sustainable energy technologies and to potentially leverage public sector investment to catalyse investment by the private sector in the development of a green energy hub.

3. Electrification

The City has a very high electrification rate, exceeding 97%, with the remaining unelectrified communities residing in 'unelectrifiable' areas such as contested land, privately owned land, dwellings below the 50-year floodline, or land reserved for infrastructure. Since the 2012/13 financial year, the City has installed more than 23 000 subsidised electricity connections.

In line with the national Free Basic Alternative Energy Policy (FBAE), the City is developing a policy to guide the scope and implementation of a FBAE subsidy to qualifying indigent households in informal settlements that are electrifiable or that will not be electrified for some time. Refer to the State of Energy and Carbon report, 2021, paragraph 5.6 for additional information on free basic electricity and energy poverty relief interventions implemented, or considered, for future implementation by the City.

4. Municipal Energy Efficiency Programme

The City's Municipal Energy Efficiency Programme has been running since 2008. Facilities require improvement in energy efficiency for operational cost savings and to achieve the City's net zero carbon (NZC) commitment by 2030 in terms of the C40 Deadline 2020 Programme. Energy efficiency retrofits of municipal buildings also ensure a safe, secure and healthy environment, as required in the Occupational Health and Safety Act.

City-owned SSEGs[41] in the form of rooftop photovoltaic (PV) systems are used to offset electrical consumption at municipal facilities as part of this programme.

The City is also responsible for public lighting in the entire metro (including Eskom supply areas). The Energy Efficiency Programme entails retrofitting high-intensity discharge (HID) streetlights with LED fittings. For more information on energy efficiency and demand management in municipal operations, consult paragraph 5.8 in the State of Energy and Carbon Report, 2021.

5. Philippi MTS supply area

The Philippi main transmission station (MTS) supplies the entire Southern Peninsula. After peak load exceeded 120% of firm capacity prior to 2019, Eskom initiated two projects to alleviate the load at Philippi MTS: a new Erica substation (500 MVA[42] firm capacity, CO 2028) and the Philippi substation extension project (which involves the installation of a third 400/132 kV 500 MVA transformer as a hot standby, CO 2026)[43]. Due to the delays in the Erica substation project[44] and the extreme security-of-supply risk at Philippi MTS, the City looped one of the Mitchells Plain–Steenbras 132 kV lines in and out of Eskom's Pinotage MTS in 2020. This Mitchells Plain–Steenbras 132 kV loop-in project has proven very successful, preventing loss of load for sustained periods during a Philippi transformer failure from October 2020 to June 2021. It is paramount that Eskom delivers these projects at the planned commercial operation dates as declared in the most recent TDP to accommodate the expected/anticipated load growth in the Southern Peninsula in the medium to long term.

Projects/proposals: Refer to **map 6.3**.

Lead and dependency

While the projects across the various programmes shown on **map 6.3** are mainly carried out by the City, the commencement of some of these projects is dependent on infrastructure.

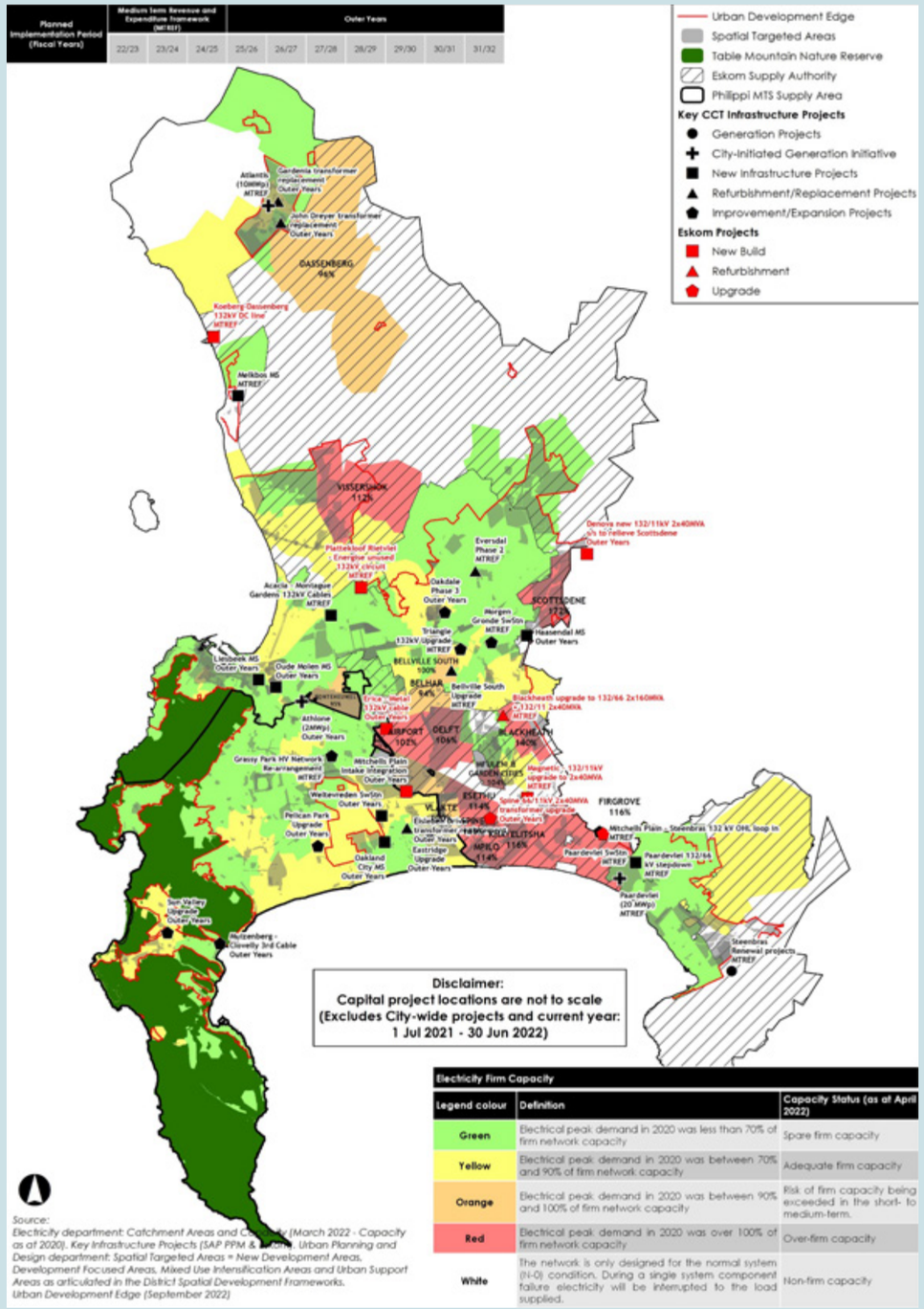
41 Small-scale embedded generation (SSEG) refers to power generation facilities, located at residential, commercial or industrial sites where electricity is generally also consumed. These are mainly solar photovoltaic (PV) systems but include other technologies such as wind and biogas.

42 MVA = megavolt ampere

43 Source: Eskom's Transmission Development Plans (TDP) 2022 – 2031

44 Eskom's oldest TDP (2010 - 2019) mentioned the establishment of a new substation in Mitchells Plain (also known as the Erica substation) in 2015. Installation of the Philippi third transformer was originally planned for 2013.

Map 6.3: Electricity capacity (2020) and projected pipeline (including Eskom)



Electricity Firm Capacity

Legend colour	Definition	Capacity Status (as at April 2022)
Green	Electrical peak demand in 2020 was less than 70% of firm network capacity	Spare firm capacity
Yellow	Electrical peak demand in 2020 was between 70% and 90% of firm network capacity	Adequate firm capacity
Orange	Electrical peak demand in 2020 was between 90% and 100% of firm network capacity	Risk of firm capacity being exceeded in the short- to medium-term.
Red	Electrical peak demand in 2020 was over 100% of firm network capacity	Over-firm capacity
White	The network is only designed for the normal system (N-0) condition. During a single system component failure electricity will be interrupted to the load supplied.	Non-firm capacity

SECTOR: WATER AND SANITATION	IDP 2022-2027 PROGRAMME REFERENCE
	PROGRAMMES 1.2, 2.1, 4.1, 4.3

1.1 Water reticulation (map 6.4)

Approximately 10 889 km of water pipes, 154 reticulation reservoirs/tanks (including disused) and 71 water pump stations (excluding booster connections) make up the city's water reticulation network. These networks need to be extensive (to reach all areas where the service is needed), have sufficient capacity (to meet the service demand) and be maintained in good working condition. While Cape Town has made impressive improvements over time with respect to water pipe bursts, the combination of aging infrastructure, increased water demand and low rates of pipe replacement means that more needs to be done. In order to achieve network modernisation, the following advancements in technology are being investigated:

- Advanced metering infrastructure (AMI) as part of the meter replacement programme
- The latest methods of pipeline construction with advanced materials providing improved performance or having the ability to withstand adverse conditions
- Remote recording, logging and software analysis tools for improved network management
- The latest technology for pressure management, monitoring and controlling with increased remote control
- Infrastructure fieldwork: effective portable data acquisition and management systems
- The expansion and maintenance of spatial information and asset mapping layers (GIS) to improve planning and management
- The expansion of electronic submission and processing of various types of customer applications to the City

The Water and Sanitation Masterplan (last reviewed in 2018 and currently being updated) takes into account the other sectoral strategies, of which the most important is the Human Settlements Plan. Based on the data received, the existing network is evaluated to identify the impact that potential growth within the City will have on the existing water and sewer reticulation networks, as well as where potential upgrades to bulk services (bulk water and wastewater) will be required. Strategic long-term planning for water distribution infrastructure is undertaken through the water masterplan, which addresses the infrastructure requirements for the distribution of water, storage and capacity. Similarly, requirements for new and upgraded sanitation infrastructure are addressed in the masterplan. These masterplan models provide a picture of the current capacity and future requirements and inform the Pipe Replacement Programme for both water and sewer reticulation.

1.1.2 48-hour holding capacity

Similar to the Citywide pump station condition assessment, which was completed in 2021, an assessment is under way to identify water reservoirs across the City that require upgrading and/or refurbishment. Storage capacity for reservoirs is demand driven and, in most circumstances, the best engineering practice is to ensure that the reservoir that supplies a specific distribution zone caters for 48-hour storage. The reason for such a storage surplus is to ensure minimal supply disruption to the end-user during a water outage. However, this surplus storage is not always required. In certain instances, for example where a reservoir acts as a balancing reservoir (i.e. for temporary storage while water is pumped to another storage reservoir or directly into the reticulation system), 48-hour storage is not essential.

Braakkloof Reservoir has been identified as a critical piece of reticulation infrastructure to aid in the security of water supply to the 'deep south' (Muizenberg to Simon's Town). A single supply pipeline distributes water to that area and, in the event of a prolonged water outage, the area does not have sufficient storage to secure supply for the duration of the repair. The need for an additional Zevenwacht reservoir is also required due to the rapid development taking place in the surrounding areas. The three existing reticulation reservoirs are under strain and, in order to aid future development in this area, water security is essential. A bulk water project in the form of a new 100 Mℓ reservoir is being investigated, which would provide both redundancy within the bulk water system and address the 48-hour storage issue across region 2 (Somerset West up to Gordon's Bay). Approximately R95 million has been budgeted over the next 10 years to ensure that priority reservoirs are attended to, which will aid in water security across the city.

1.2 Bulk water

The National Department of Water and Sanitation (DWS), as the custodian of national water resources, is mandated, in consultation with the City of Cape Town and other stakeholders of the Western Cape Water Supply System (WCWSS), to develop and update a reconciliation strategy of water availability, including current and predicted future water requirements. The main components of the WCWSS include the City's Steenbras and Wemmershoek schemes and the Palmiet, Voëlvlei and Riviersonderend Berg government water schemes. From a total of 15 dams (DWS and City), including small groundwater schemes, raw water is treated to drinking water standards at 12 water treatment plants, ranging in capacity from 3 – 500 Mℓ/day with a combined capacity of 1 600 Mℓ/day. The treated water is conveyed to the City and adjacent municipalities by means of a 650 km network of pipelines and stored in 24 bulk supply reservoirs at strategic locations.

1.2.1 The new water programme (City of Cape Town Water Strategy)

The City will develop new, diverse supplies of water, including groundwater, water reuse and desalinated water in a cost-effective and timeous manner, with the intention of increasing resilience and reducing the likelihood of severe water restrictions in future. The City is committed to increasing supply by building affordable new capacity of approximately 300 Mℓ/day over the next 10 years, in a way that is adaptable and robust. This plan includes two desalination plants (along the Atlantic Seaboard), the use of groundwater from the Table Mountain Group Aquifer as well as the Cape Flats Aquifer, and reuse of treated effluent from Zandvliet WWTW. The 10-year programme includes plans for the use of treated wastewater to artificially recharge the Cape Flats Aquifer, and as a direct source of drinking water that will be blended with treated water supplied from the Faure water treatment plant. This is in keeping with the City's objective of creating a water-sensitive city that seeks to maximise integration of the urban water cycle that both builds resilience and protects Cape Town's sensitive natural ecosystems.

1.2.2 Bulk water augmentation scheme (BWAS) (refer map 6.4)

The motivation for implementation of the BWAS was to meet the peak growth in the City's water demand and mitigate the significant risk of water supply disruption. Currently, the only two water treatment plants (WTPs) that cannot shut down for any extended period are Voëlvlei WTP and Wemmershoek WTP. This fact, combined with the risk at Blackheath and Faure WTP, is the main driver for the implementation of BWAS as they are fed directly from Theewaterskloof Dam via the Riviersonderend (RSE) tunnel system. In the event of the tunnel failing or being out of operation for any extended period, the City would lose approximately 40% to 50% of its water treatment capacity as well as the ability to access approximately 45% of its current usable allocation of surface water resources. In addition to this, the City would lose its flexibility to manage the bulk water supply system and to draw preferentially from the different water resources. This is a gravity-based scheme and can be fed from either the Berg River Dam or the Theewaterskloof Dam. The Muldersvlei WTP, reservoir and subsequent pipeline, as well as the Spes Bona transfer reservoir, will provide significant flexibility and redundancy within the bulk water supply system.

In addition, a number of the water treatment works are over 40 years old and require sufficient downtime for periods of prolonged maintenance and refurbishment. New infrastructure will be planned and implemented to allow any of the WTPs operated by the City to be able to go offline for extended maintenance (one month or more). This may require integration with the existing Swartland water treatment works. The current design capacity (for peak week water demands) of the WTPs across the City is 1 655 Mℓ/d. However, actual usable peak week capacity is about 1 422 Mℓ/d due to the age of the infrastructure and other constraints. These constraints will be factored into the Bulk Water Masterplan and into the timing and phasing of future infrastructure and infrastructure upgrades. The masterplan will include a plan for how these water treatment plants are going to be returned to full capacity.

2. WASTEWATER AND SEWER RETICULATION

2.1 Wastewater (refer map 6.4)

There are 26 wastewater treatment facilities, namely 16 activated sludge WWTWs, three marine outfalls, four rotating bio-contactors, one trickling filter and two pond systems.

Land-based wastewater treatment works (WWTWs) are designed for a certain flow and pollution load capacity. The design pollution load capacity is the critical factor that determines the need for a capacity upgrade. This does not apply to the marine outfalls, which are designed on hydraulic (flow) capacity only. Marine outfalls remain an acceptable form of wastewater treatment for the foreseeable future.

WWTW-treated effluent compliance has declined over the last 10 years from close to 90% overall compliance with licence conditions to 80%. WWTW upgrade projects can include a capacity upgrade or a treatment process upgrade for existing treatment infrastructure, or both. All WWTW upgrade projects are implemented to (i) improve or maintain treated effluent quality and (ii) ensure sufficient treatment capacity for future growth.

Four of the City's large activated sludge WWTWs (Zandvliet, Potsdam, Macassar and Athlone) are currently undergoing capacity and process/infrastructure upgrade projects. The planned completion dates are 2023, 2026/27, 2027 and 2025 (phase 1) respectively. A capacity upgrade project for the Klipheuwel WWTW is also taking place, which will see the WWTW being replaced by a pump station to Fisantekraal.

Process/infrastructure upgrades are currently taking place at Cape Flats, Bellville, Fisantekraal, Wesfleur industrial and residential and Wildevoëlvlei.

The Borcherds Quarry WWTW is currently the only site that has a facility to accept delivery of imported faecal sludge and chemical toilet waste as well as tankered waste. The imported pollution load has an effect on the Borcherds Quarry WWTW, and growth in informality will require additional facilities at other WWTWs in future in order to reduce the imported load on Borcherds Quarry.

Millers Point, Oudekraal and Groot Springfontein serve specific resorts only, and there is no projected flow growth.

Currently, approximately 50 dry tons of primary sludge and 150 dry tons of waste-activated sludge are produced by the City's WWTWs. New and evolving legislation, working towards a circular economy and carbon footprint reduction, has necessitated more sustainable wastewater sludge treatment and disposal by the City. A regional approach has been adopted, and a total of three bio-solids beneficiation facilities are planned. The first regional facility will be located at the Cape Flats WWTW, and the second facility is a greenfields facility in the north of the city. The third is a future facility, to be provided when sludge production reaches a predetermined level. The bio-

solids beneficiation process will produce A1a bio-solids that can be used as fertiliser, recover nutrients from sludge liquors, and produce heat and electricity that will be used at the plant.

All these wastewater treatment facility upgrades are very expensive and will require substantial capital commitment over the next 10 to 15 years.

2.2 Sewer reticulation

The Western Cape drought has highlighted the importance of optimal water infrastructure. It is equally important to safely collect, convey and treat sewage to appropriate standards before releasing it into streams, rivers and vleis.

The combination of sewer pollution and low-quality treated effluent can have a severe impact on the city's inland water bodies. In areas of high density and increasing informality, frequent blocking of sewers with foreign objects results in sewer spills, creating a health hazard for communities.

The topography of the city requires a sewer network comprising a combination of gravity, pump stations and rising mains. The sewer infrastructure is exposed to a very corrosive environment that impacts on gravity mains pump stations, rising mains and associated network infrastructure. The abuse of the sewer network through vandalism and the disposal of foreign objects, combined with delayed maintenance, a low rate of pipe replacement as well as a lack of capacity in parts of the network aggravates the challenges.

Hydraulic capacity of sewer networks takes into account that there is a variation in flow rate over the course of the day, with peak flow occurring early morning and late afternoon and approximately 30% additional flow during rain events. Accommodating these peaks and rain events is part of the system design and creates a capacity buffer. Sewer upgrade projects are identified as soon as there is less than 30% additional peak capacity in any part of the network.

Sewer network projects are typically based on condition, capacity or both. Many projects to address constraints have been implemented, are under way or are planned across the city. They consist of network extension for new development, rehabilitation or replacement of sewer infrastructure as well as capacity increase. The guidance for capacity expansion is the sewer masterplan that is based on the latest long-term land use plan, which is updated periodically. Replacement and rehabilitation projects are based on age and condition assessments respectively.

2.2.1 Bulk sewers

The completed northern area sewer is both a condition improvement and capacity increase project that is expected to adequately serve areas to the east of Athlone WWTW as far as Tygerberg Hospital for the next 50 years.

The completed Cape Flats 3 sewer serves to divert sewerage from the Athlone catchment to the Cape Flats WWTW via the Bridge Town pump station. Since the Cape Flats 3 sewer is now in place, it is possible to rehabilitate Cape Flats 1 and 2, which are both up to 70% silted up with severely corroded manhole structures. The rehabilitation will take up to three years to complete.

The completed black-mac screening, pump station and diversion were used to divert sewerage from the Zandvliet WWTW catchment (overloaded) to the Macassar WWTW catchment. This was to improve the situation at Zandvliet in the early stages of the upgrade until Macassar started to show deterioration of its effluent. In the long term, it will provide flexibility between the two catchments.

The Milnerton, Montague Drive sewer was initiated because of multiple collapses along the heavily trafficked Montague Drive. This will be both a rehabilitation and capacity upgrade and will include the upgrade of Koeberg pump station and its rising main. This project will serve the areas of Century City, Montague Gardens, Joe Slovo Park and areas along Koeberg Road up to the Koeberg pump station over the next 50 years. The project is expected to be completed over the next three to four years.

The Philippi collector sewer rehabilitation project is as a result of multiple collapses. The project is in the design stage and is expected to be implemented over the next three to four years. This is likely to be a rehabilitation project and will serve the area bounding Old Lansdowne Road, Cape Flats Freeway and Old Faure Road.

The Gordon's Bay beachfront sewer project is being done in two phases. The first phase has been completed and the second is scheduled for completion by June 2025. The project is intended to divert sewerage to the new network and take pressure off the existing reticulation system. The Helderberg region is one of the rapidly developing areas of the city.

2.2.2 Pump stations

- The Gordon's Bay WWTW will be decommissioned in the future (currently flow controlled to keep effluent quality within standards) and all flow will be diverted to Macassar WWTW via a pump station at the Gordon's Bay works, rising to the Louwrens Rivier outfall sewer. The project is expected to be completed by late-2025.
- The Rietvlei pump station, just upstream of the Bellville WWTW, requires upgrading of its rising main and gravity system to accommodate developments in Bellville WWTW catchment east of the R300 to just north of the N1. This is a project that will take approximately three to four years.

In an attempt to address the aging pump station infrastructure, a rapid pump station condition assessment of just over 50% of city sewer pump stations was completed. The remaining pump stations are currently being assessed. This assessment gave rise to a priority pump station programme, which consists of a rolling list of 20 pump stations that will be updated (map 6.5).

2.2.3 Pipe replacement

Historically, the pipe replacement rate has been below standard. This has been identified as a key area for improvement in the coming five to 10 years and is an area of commitment for infrastructure investment. A pipe replacement programme has been developed using a number of parameters to prioritise segments of the network to be replaced.

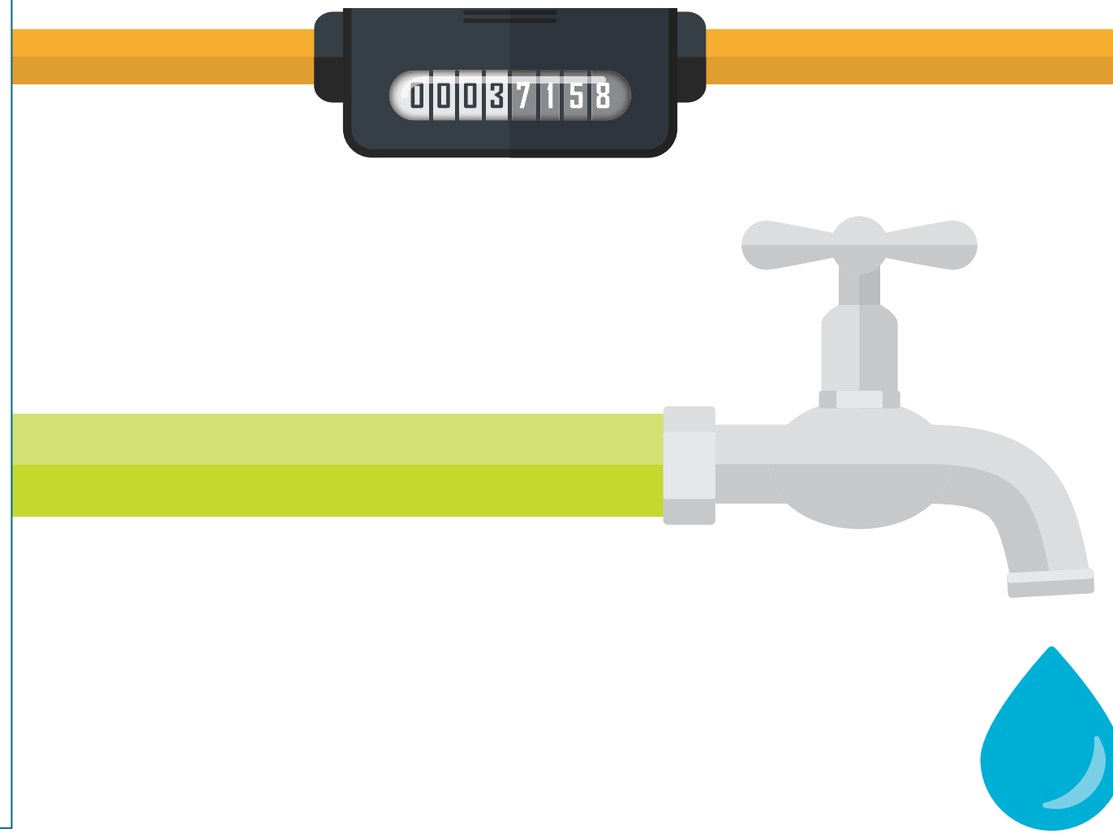
2.2.4 Development-related infrastructure upgrades

There are sewer reticulation infrastructure projects driven by Human Settlements projects that receive grant funding, but will significantly impact downstream infrastructure.

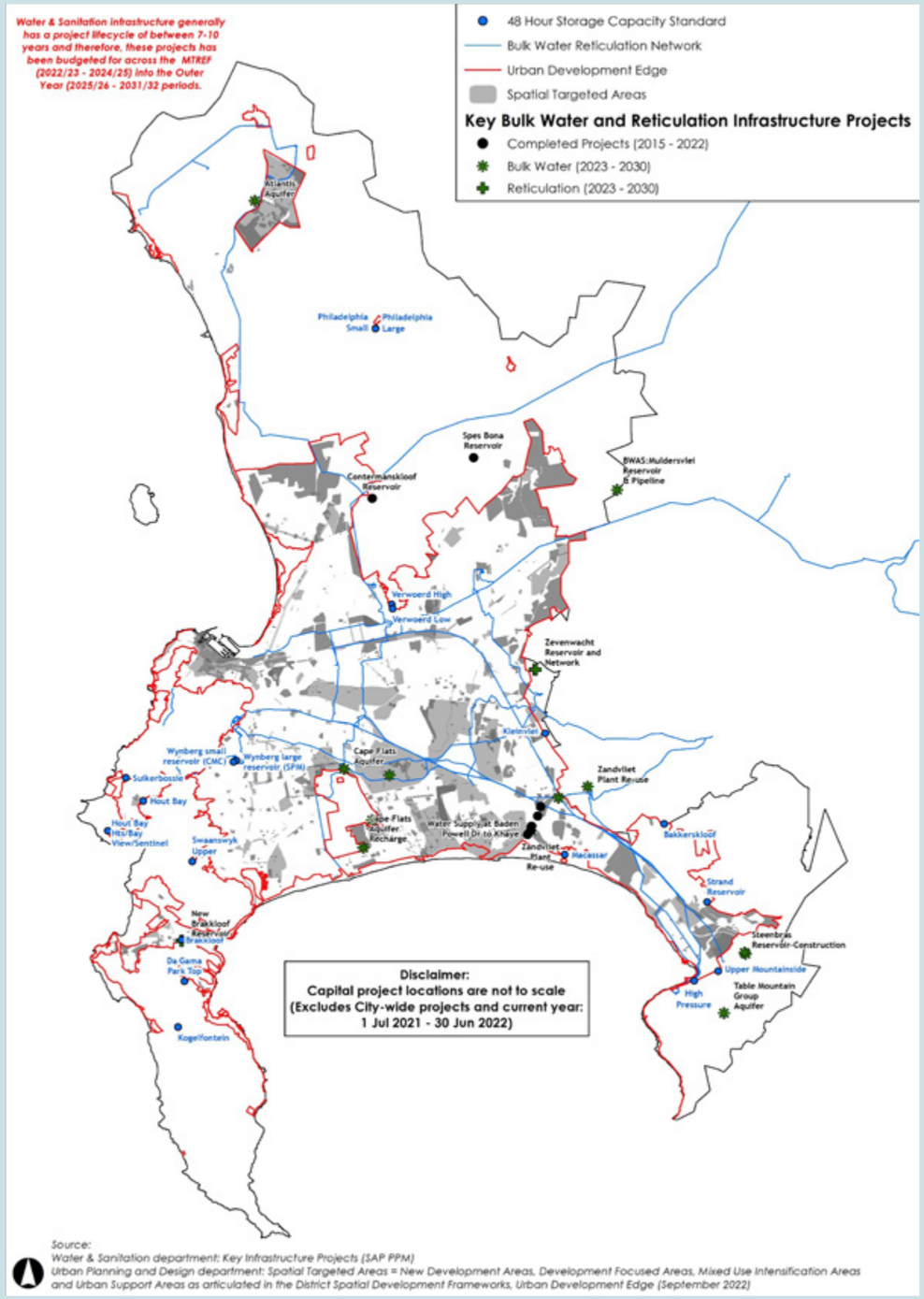
The Welmoed development (Penhill) project will consist of 8 000 households and likely16 000 backyarders over time. This development will fund a bulk sewer and reticulation reservoir. This project will be implemented over the next five years. The internal sewer network will cater for this backyarder tenant growth, ensuring it will not create capacity challenges in future.

The Kosovo development is an informal settlement upgrade that will develop in excess of 1 900 units and will include a second land parcel to relocate households to create space for the upgrade of the settlement. This development has generated grant funding to upgrade and modify the Spine Road bulk outfall sewer all the way to the Mitchells Plain WWTW.

The Airport precinct development is an informal settlement upgrade area south of the N2, directly opposite Cape Town International Airport. This project will be grant funded and will include the rehabilitation of the old landfill site on which the informal settlement exists. The sewerage generated from the site will require a bulk sewer to be installed up to the existing 1 050 mm bulk sewer along Klipfontein Road near Heideveld.

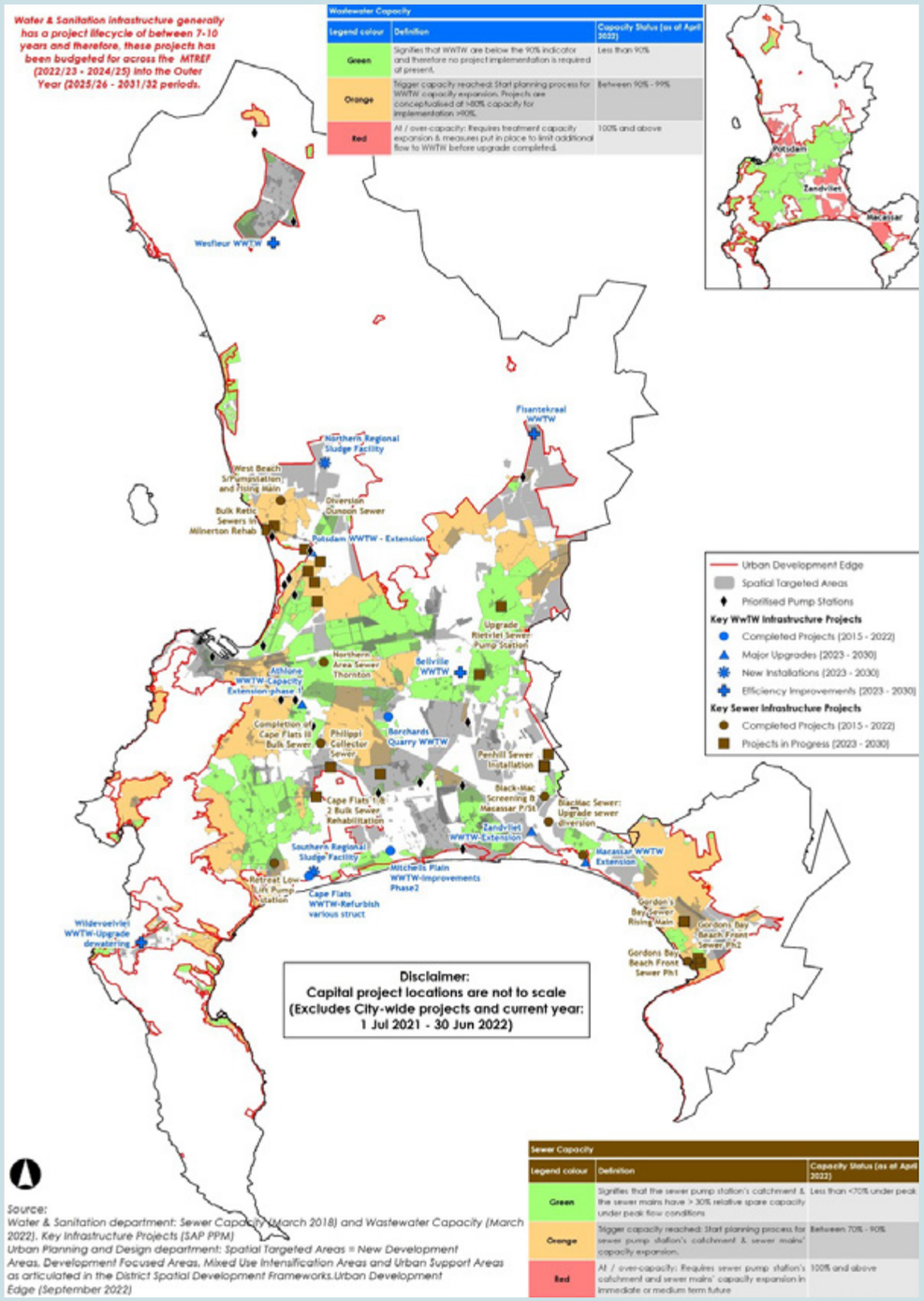


Map 6.4: Bulk water and water reticulation capacity (2020) and project pipeline



Source:
Water & Sanitation department: Key Infrastructure Projects (SAP PPM)
Urban Planning and Design department: Spatial Targeted Areas = New Development Areas, Development Focused Areas, Mixed Use Intensification Areas and Urban Support Areas as articulated in the District Spatial Development Frameworks, Urban Development Edge (September 2022)

Map 6.5: Wastewater and sewer reticulation capacity (2020) and project pipeline



Source:
Water & Sanitation department: Sewer Capacity (March 2018) and Wastewater Capacity (March 2022). Key Infrastructure Projects (SAP PPM)
Urban Planning and Design department: Spatial Targeted Areas = New Development Areas, Development Focused Areas, Mixed Use Intensification Areas and Urban Support Areas as articulated in the District Spatial Development Frameworks.Urban Development Edge (September 2022)

SECTOR: STORMWATER	IDP 2022-2027 PROGRAMME REFERENCE
	PROGRAMMES 2.1, 13.1

The City's Catchment, Stormwater and River Management Branch manages the strategic planning for the City's stormwater system, which includes the management of river systems and their drainage catchments in order to manage flood risk, improve inland water quality and optimise the harvesting of stormwater as a valuable water resource. Catchment and stormwater management infrastructure is vital to address public safety and improve water quality in Cape Town's waterways. There are a number of projects on the horizon that will positively impact on the Diep River, Kuils River, Lourens River, Soet River, Vygekraal River, Spaanschemat River, Prinskasteel River, Sand/Langevlei canal, Grootboschkloof River, Westlake River, Keyser River and Bayside canal.

Infrastructure projects to be undertaken can be categorised as follows.

3.1 New/replacement projects

The **Diep River catchment** currently has two priority projects, namely Doorenbach and Theo Marais canal. Doorenbach diversions are greywater diversions in a stormwater system to sewer system by means of diversion structures, separators and a gravity main to Potsdam WWTW in order to improve the water quality in the Diep River and Milnerton lagoon. The Theo Marais canal project aims to improve water quality in the Diep River and Milnerton lagoon. The project entails the design and construction of a treatment wetland and low-flow diversion (polluted runoff) to the Bayside canal.

In support of the **Lourens River flood alleviation project**, phase 2 of the project entails the design and construction of a bypass channel around the Somerset West CBD, which will protect the CBD and the vulnerable residential areas and communities along the river corridor from flooding during the 1:100-year flooding event. This project will free up development land (thereby creating economic opportunities) and prevent potential loss of life, damage to property and infrastructure, and economic loss due to flooding. The project is estimated to be completed by 2030 at an estimated cost of R530 million.

Macassar flood alleviation project – (R4,2 million in 2022/23, R1,6 million in 2023/24, R5,3 million in 2024/25) for the upgrade of the Macassar River corridor, bordered by Baden Powell Drive to the west and the N2 to the north. The project is vital to secure the safe conveyance of up to the 1:100-year flood event to alleviate flooding in the areas of Kramat, Sandvlei and Macassar. This is to ensure vulnerable communities are protected from loss of life and property and to free up land for development. Focus is also placed on the Kuils River corridor flood protection using natural or alternative methods to protect land from flooding and securing the land for development. This is a major project with a targeted completion date of 2028 at a cost of R470 million.

Other projects include upgrades to the Soet River by means of a detention pond within the Soet River upstream of Nomzamo and Lwandle, which will reduce flood risk to the settlements, as well as Robert Sobukwe Road stormwater infrastructure upgrades, including a new stormwater pond (regional facility) along Stellenbosch Arterial Road.

The installation of litter traps within watercourses at various locations across the metro to trap and collect dumped and windblown litter, preventing the litter from reaching sensitive/recreational waterbodies and the coast, will also be implemented citywide.

3.2 Refurbishments

Vygekraal – design, EIA and construction project will cover repair and stabilisation of the river banks of the Vygekraal River between Vanguard Drive and Statice Heights, and create a river corridor through Nantes Park.

Stormwater dams – this is a safety upgrade of stormwater dams across the city (R1,7 million in 2022/23, R8,2 million in 2023/24, R16 million in 2024/25) from category I to category II stormwater dams. The project will implement the recommendations of the recent dam safety evaluations and the work will rehabilitate various elements of the stormwater dams, including spillways, embankments and outlet channels. This project is required to ensure compliance with the Water Act and applicable regulations, which in turn would produce safe and functional stormwater dams as well as reduce risk to human life and infrastructure due to dam failure. In addition, the work will provide some water quality improvement in the city's waterways.

A number of waterway rehabilitation projects in the Sand River catchment are under way under the Liveable Urban Waterway Programme. Projects will use nature-based and green infrastructure approaches to rehabilitate various river reaches, create wetland habitat, improve connectivity and biodiversity, repair erosion and enhance recreational and amenity facilities along the river corridors. The rivers include the Spaanschemat River, Prinskasteel River, Sand/Langevlei canal, Grootboschkloof, Westlake and the Keyser rivers.

3.3 Infrastructure expansion projects

Diep River – Erica Road outfall project to improve water quality in the Diep River and Milnerton lagoon. The project entails the design and construction of a litter trap and treatment of the existing wetland. Manenberg canal rehabilitation of the Vygekraal and Silverstream canals in Manenberg. Zandvlei canal rehabilitation/reconstruction of the outlet canal (reinforced concrete) from Zandvlei.

The **Geelsloot project**, which is the system between Avenue Irene and where it joins the underground system, has a number of subprojects that will be covered over a number of years with an estimated completion date of December 2027 and cost of R67,3 million. Other than the Geelsloot project, five additional projects named 3 to 7 will be put in place as the channel is severely eroded, putting private and City-owned infrastructure at risk, as well as being a health and safety risk due to deep, steep eroded embankments susceptible to collapse (up to 4 m deep in places).

The Soet River upgrade project will cover the following:

Onverwacht – upgrade of the existing stormwater drainage channel along Onverwacht Road, south of Broadway Boulevard; and includes the upgrading of the existing 2,4 m x 1,2 m rectangular culverts with additional 2,4 m x 1,2 m culverts.

21st Street – upgrade of the existing draining channel running north of 21st Street to convey up to and including the 1:50-year return period peak flow.

Detention pond and pipe upgrade – upgrade of existing detention pond and pipe.

Sir Lowry's Pass River – a 2,7 km river upgrade stretching from the N2 to False Bay and Gordon's Bay. The Sir Lowry's Pass River upgrade (R115 million in 2022/23, R91,2 million in 2023/24, R122,6 million in 2024/25), which is required to secure the safe conveyance of up to the 1:100-year flood event through the Firlands agricultural area and the 1:50-year flood event in the existing development areas in Gordon's Bay. Once completed, it will alleviate flooding and free up land for future development.

A number of canals will be enclosed to reduce levels of pollution and improve safety, namely the Netreg canal (Kalksteenfontein) and enclosure of the existing Bonteheuwel canal. Bokmakierie canal will be upgraded as well, however, the timing of these projects is to be confirmed.

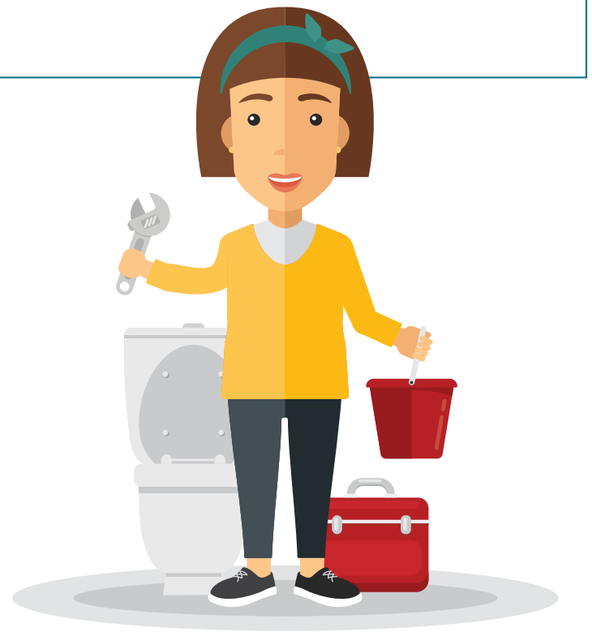
3.4 Liveable Urban Waterway Programme

The programme aims to rehabilitate various waterways (rivers, wetlands and canals) across the metro. The first phase of five projects are under way in the Sand River catchment (see above). Planning is under way to identify further waterways with potential for rehabilitation across the metro. The next phase of projects will focus on the Diep (South) River and Sand River canals in the Sand River catchment; and the Big and Little Lotus Rivers in the Zeekoe catchment. Other projects include the Adderley Street canals and fountain, and the Asanda wetland park.

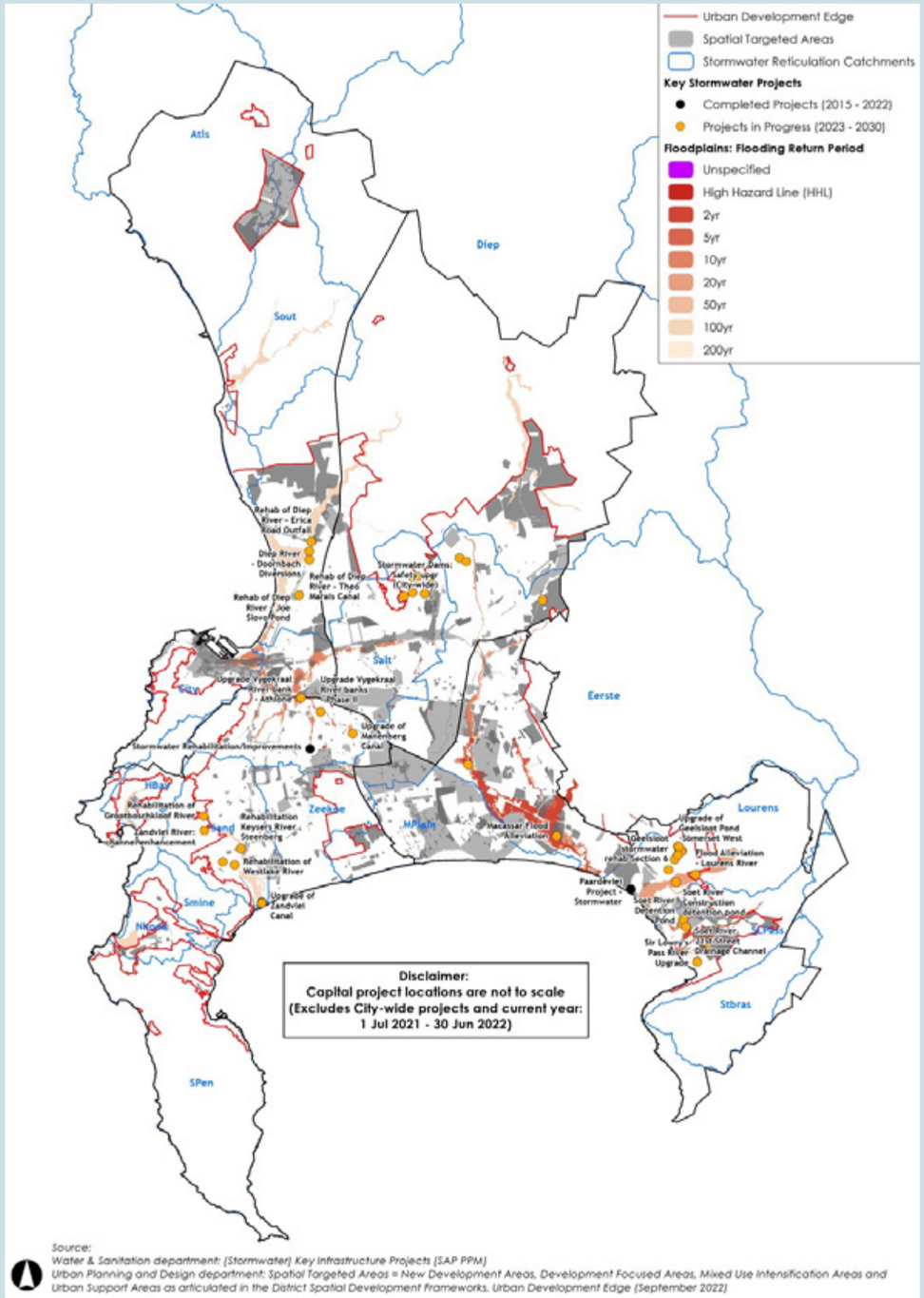
Lead and dependency: The LUW programme is a transversal programme and projects are developed and implemented by various departments.

Projects/proposals: Refer to maps 6.6.

Lead and dependency:
City's Water and Sanitation Department



Map 6.6: Stormwater risk areas and project pipeline



Source:
Water & Sanitation department: (Stormwater) Key Infrastructure Projects (SAP PPM)
Urban Planning and Design department: Spatial Targeted Areas = New Development Areas, Development Focused Areas, Mixed Use Intensification Areas and Urban Support Areas as articulated in the District Spatial Development Frameworks. Urban Development Edge (September 2022)

SECTOR: SOLID WASTE	IDP 2022-2027 PROGRAMME REFERENCE
	PROGRAMMES 4.1, 4.5-7

Approximately 4 400 tons of waste are generated daily in Cape Town, equating to approximately 1,6 million tons of waste per year.

The City provides a refuse collection service that includes 28 waste drop-off sites, two landfill sites, four transfer stations located at Athlone, Swartklip, Kraaifontein and Bellville, one composting plant and two integrated waste management facilities.

Modelling suggests that capacity will be reached at the Coastal Park landfill site in 2027, and at the Vissershok facility by 2039. Suitable land needs to be acquired for a new regional landfill, or these capacity challenges will be a major waste management constraint.

The long-term vision for Cape Town's waste management infrastructure is not only to provide basic services, but also to augment economic activity and minimise the effects of waste on human and environmental health. Integrated waste minimisation (IWM) and recycling are also significant components of Cape Town's Climate Change Action Plan.

IWM facilities are envisaged to become normalised within Cape Town's urban context, driven by investment in new infrastructure, proposed changes in legislation for green waste and recycling, and steps to ensure that waste collection services are not affected by the closure of landfill sites. Future public-private partnerships will likely see more integrated waste management within urban precincts, and this will contribute to more efficient and sustainable development. Key spatial risks to these goals include: insufficient new infrastructure to keep up with demand; challenges with land acquisition for a new landfill site; insufficient infrastructure and delays with the development of new infrastructure; and a lack of rail services to Vissershok landfill site due to illegal occupancy of the rail reserve.

Strategic intent

Build an efficient, effective, future-focused and sustainable solid waste service
- Drive necessary changes in the sector through continuous improvement
- Develop an agile workforce with requisite skills for a wider range of business processes
- Develop a resource and costing model that reflects the realities of a changing business
- Ensure our customers receive reliable and high-quality services that help them contribute to achieving citywide waste sector goals

Prepare for intensification and densification of the spatial form of the city
- Expand the footprint of drop-off facilities to be closer to a greater number of customers
- Improve location and capacity of transfer stations
- Deliver appropriate waste containment options

Extend the life of the existing landfill space to 2040 and develop a new regional landfill site
- Increase existing landfill space
- Invest in stimulating resource beneficiation
- Accelerate waste avoidance
- Develop a landfill site with 35 years of airspace

Improve infrastructure and asset management, and increase redundancies
- Enhance and deliver proactive maintenance
- Invest in asset protection
- Ensure spare capacity for times of disruption

Invest in the City's efforts to mitigate climate change and minimise the health impacts of waste management
- Maximise the opportunities to reduce green-house gases from waste streams and activities
- Ensure the protection of human and environmental health

2. Capital programmes

2.1 Major bulk infrastructure projects

Major bulk capital projects are directly aligned to the strategic intent as outlined above. These projects are to commence over the short term and continue until 2040. The key objectives of these projects are as follows:

- Extend the life of landfill sites or establish new ones
- Mitigate climate change
- Upgrade to support densification
- Build an efficient, effective, future-focused and sustainable waste management service
- Improve infrastructure and asset management

2.2 Land requirements

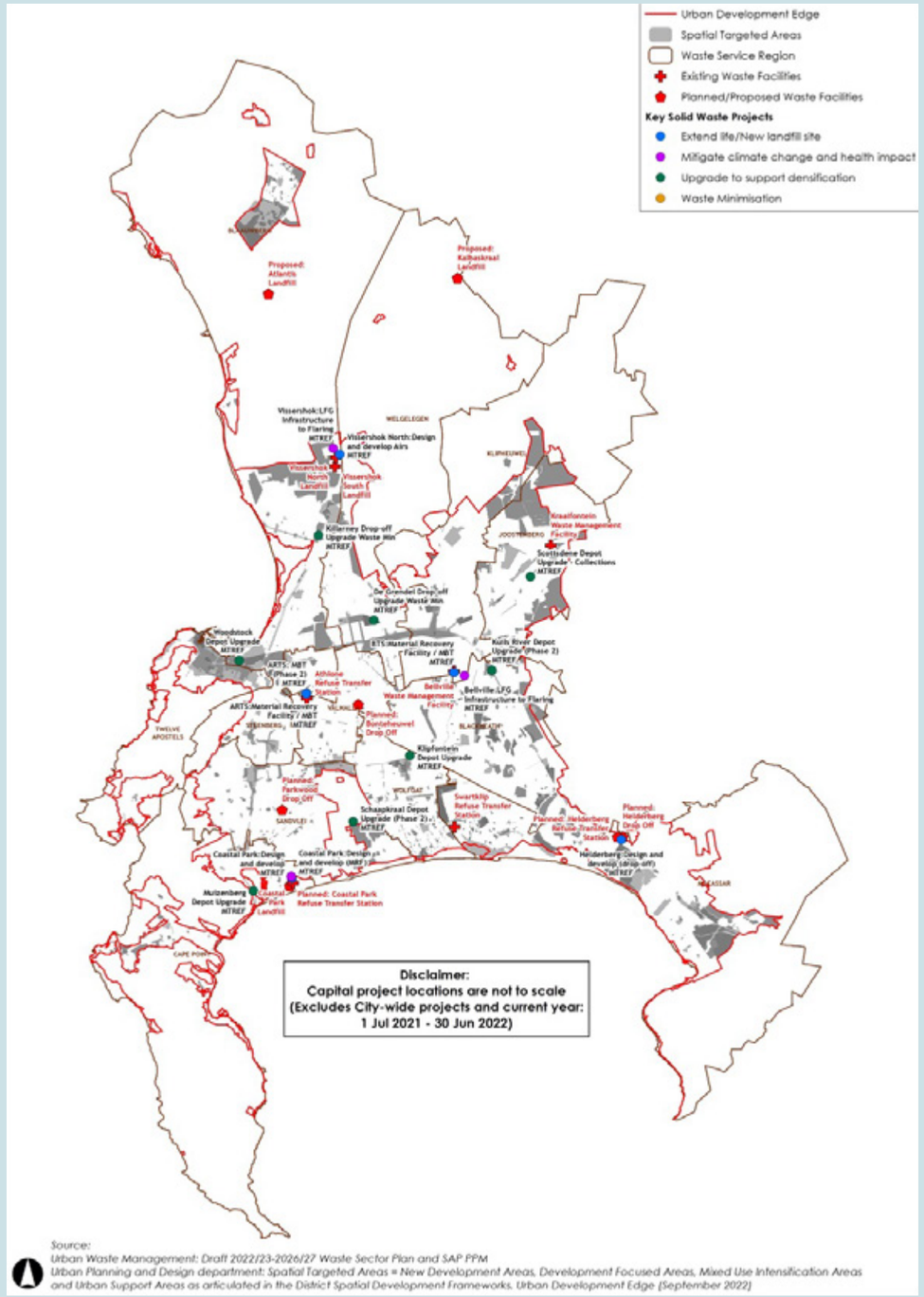
The actual land needed to be developed for a new regional landfill site still needs to be identified, although the proxy candidate site identified is in Kalbaskraal. The establishment of the site is projected to cost R300 million. The process will also need to include an extensive EIA assessment.

The City's cleansing branch also requires additional land for the development of new depots. Currently, the Parow depot of Area Central is experiencing significant space constraints and there is a need to source land for the development of a new cleansing depot to replace the Parow facility. The land being considered is registered to the City of Cape Town, so no procurement processes or expense will be incurred.

Projects/proposals: See map 6.7.

Lead and dependency:
City's Urban Waste Management Department

Map 6.7: Solid waste services and project pipeline



Source:
Urban Waste Management: Draft 2022/23-2026/27 Waste Sector Plan and SAP PPM
Urban Planning and Design department: Spatial Targeted Areas = New Development Areas, Development Focused Areas, Mixed Use Intensification Areas and Urban Support Areas as articulated in the District Spatial Development Frameworks. Urban Development Edge (September 2022)

6.6 MONITORING AND EVALUATION

The MSDF's key purpose is to provide policy direction regarding the appropriate nature, form, scale and location of development within the metro in order to shape future spatial growth and development. It is proposed that these aspects of development are to be monitored and evaluated in order to assess progress towards achieving the desired end state of Cape Town becoming a more spatially integrated and inclusive city. The focus of the proposed MSDF/DSDFs monitoring and evaluation (M&E) framework will therefore be on measuring progress in terms of restructuring the abovementioned aspects of the built and natural environment.

The following section details the DSDFs/EMFs M&E framework as a component of the Urban Planning and Design Department's overarching framework for spatial data and M&E.

Urban planning and design (UP&D) framework for spatial data and M&E overview

The MSDF/DSDFs M&E framework is an output based off three interrelated components of Urban Planning and Design's departmental overarching framework for spatial data and M&E as illustrated below.

- **Spatial data and indicator framework (SD&IF)** – the primary component and output, comprising a core set of indicators, based on available data, to enable meaningful spatial trend analysis across various spatial units of analysis. The spatial data and indicator framework has been embedded into the M&E framework and provides the core indicators to be monitored.
- **Framework for M&E –** a framework has been developed that is underpinned by the three key spatial strategies of the City's SDFs, with the main objective of guiding where and what development is appropriate. The core set of indicators developed as part of the abovementioned SD&IF will be monitored to determine the type, form and location of development in relation to the MSDF/DSDF objectives.
- **Performance management –** cognisance was taken of the department's performance management requirements.

The components of the framework for M&E that have been applied to the MSDF/DSDFs are detailed below.

Monitoring

Within the context of spatial planning, performance indicators describe the extent to which a policy is achieving its aims and objectives. Best practice suggests that a well-formulated indicator framework should form the basis for effective M&E.

In order to answer the question, 'what is happening?', monitoring involves collecting, analysing and reporting on datasets. Core indicators have been identified and developed in terms of the MSDF objectives (i.e. type of development, urban form and location):

- Urban development intensification (densification and diversification)
- Spatial location of public investment (completion and spatial spread of public projects)
- Urban extent (urban footprint and urban edge)
- Protection of natural assets (BioNet and agriculture)

Evaluation

The evaluation and assessment component attempts to provide answers to the questions, 'why have the changes happened?' and 'are we doing the right thing?'.

Spatial trends analysis requires longer-term time series to be meaningful and assess if the spatial policy is influencing urban development. For purposes of assessing why certain spatial trends are occurring in terms of the indicators monitored, it is proposed that a process of evaluation be undertaken as part of future MSDF/DSDF reviews.

Broader indicators that assist in understanding the drivers of change are required to justify why spatial trends occur and why spatial policy is successful or unsuccessful in managing development in line with its policy objectives and associated guidelines.

Spatially targeted areas in the MSDF/DSDFs, where the trends monitored require further evaluation, are to be determined and could include:

- Spatial transformation areas
  - Urban inner core
  - Incremental growth and consolidation areas
  - Discouraged growth areas
  - Critical natural areas

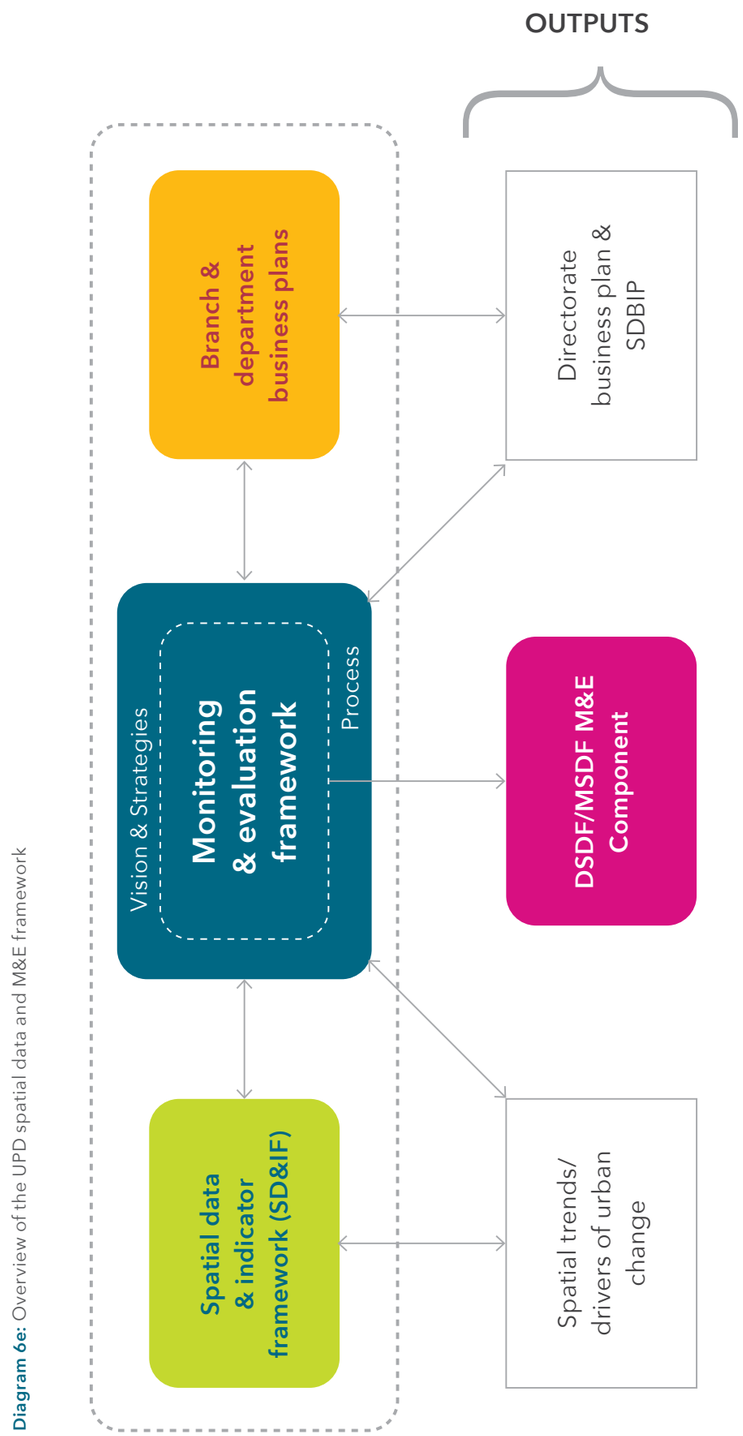


Diagram 6e: Overview of the UPD spatial data and M&E framework

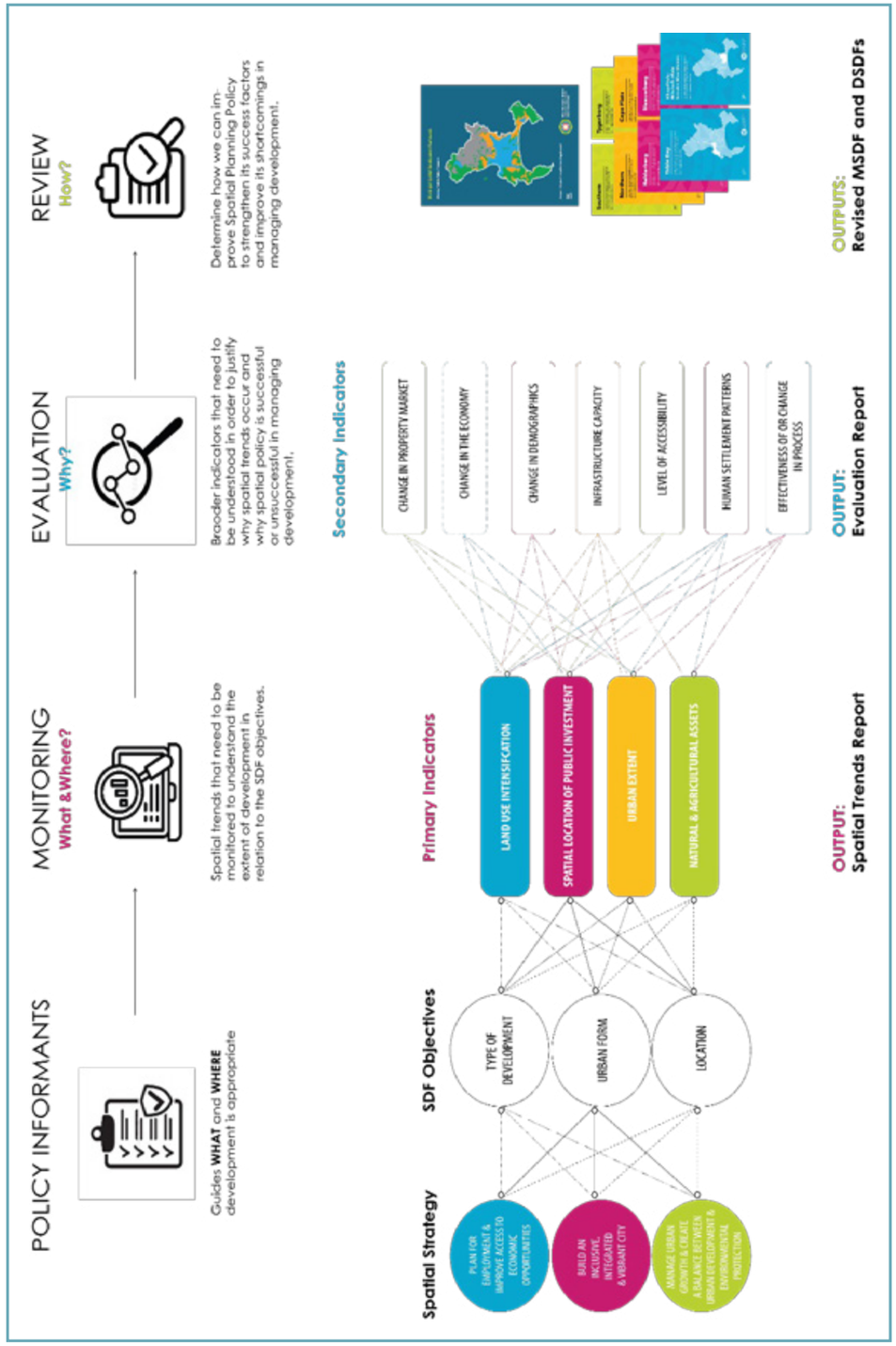


Diagram 6f: Monitoring and evaluation frameworks for the MSDF and DSDFs

- ✓ Integration zones, development corridors and nodes (i.e. spatial planning categories)

Review

Answers the questions, 'so what?' and 'what is the way forward?'. The review component aims to identify the implications for the MSDF/DSDFs and provide recommendations in terms of future MSDF reviews.

6.7 METRO PLANS AND POLICIES TO BE REVISED

The following policies will be reviewed or rescinded over the next cycle.

- ✓ Scenic Drive Network Management Plan 2003
- ✓ Scenic Drive Network Management Plan Review 2014 Phase 1
- ✓ Veldfire Policy (also known as the natural interface study veldfire-related planning guidelines)
- ✓ Inner City Fire Policy
- ✓ Densification Policy 2012

6.8 MSDF REVIEW PERIOD AND TIMEFRAMES

The MSDF will be subject to a detailed review in association with the 2022-2027 IDP (post-2027) and a high-level annual review. The information gathered as part of the annual review will highlight and build up a list of what needs to be addressed as part of the MSDF amendment to be adopted with the next five-year term-of-office IDP.

Chapters 1-6 and technical supplement A contain the statutory elements of the MSDF. Any significant change in the structuring elements as reflected in chapters 3-5 of the MSDF may trigger an amendment of the MSDF..

- ✓ The review of the delineation of the urban development and coastal edge is estimated to be required only every five years preceding the approval of the new term-of-office IDP.

In terms of the transversal implementation of the MSDF, the Land Use Model needs to be updated from 2023 onwards once the new valuation roll is available. From there it will feed into the engineering masterplan reviews, sector plan reviews and annual report of the IPDF.

All applications received prior to Council approval for the 2023 MSDF will be evaluated in terms of the 2018 Council-approved document.

This report should be read together with:

- ✓ Technical supplements B-G;
- ✓ DSDFs – especially implementation chapters and maps; and
- ✓ The UDE and CE report that accompanies the Council approval. It contains the recommendations regarding development ideas located in the discouraged growth areas as received during the DSDF, MSDF and IDP processes (2019-2022).

7. TECHNICAL SUPPLEMENT A: MSDF POLICY GUIDELINES

The 2022 MSDF policy guidelines have been updated to reflect the following:

- ✓ Alignment of MSDF policy with the sustainable development goals (as indicated in chapter 5) and SPLUMA development principles (as indicated in chapter 4).
- ✓ Changes and updates informed by the technical amendments from the DSDFs, the Municipal Planning By-law (MPBL) and other recently approved City policies and strategies.
- ✓ Policies that have not yet been approved, but are well advanced in terms of public engagement and technical rigour, and will play a part in ensuring the outcomes of the MSDF.
- ✓ Strategic intent for applicants and case officers.
- ✓ Implementation and investment guidance for the public sector.
- ✓ Proposals outlined in chapters 5 and 6 of this MSDF.
- ✓ The implementation of the three spatial strategies.

7.1 THE PURPOSE AND USE OF POLICY GUIDELINES

Policy details at the MSDF level are generally broad. Where applicable, they are interpreted in detail, and given effect in the DSDFs. This approach ensures that the policy is responsive to the context of each district. It is therefore valuable to cross-reference with the DSDFs for specific interpretation. In addition, all land use management decisions should be guided by the subdistrict development guidelines in the relevant DSDFs/EMFs.

The purpose of the policy statements is to provide guidelines regarding the appropriate nature, form, scale and location of development. Different users of the MSDF should therefore use the policy guidelines to inform their processes, for example:

a. The applicant is required to consider and respond to applicable guidelines and demonstrate consistency with the spatial plans (MSDF, DSI).

b. The case officer will refer to these guidelines as one of the decision informants when assessing land use applications.

c. The sector departments of the City and other spheres of government must consult the policy statements when reviewing their plans to assess the degree of alignment with the aims and objectives of the MSDF. These policy statements, read together with the implementation plan (chapter 6) will provide sectors with the direction, location and intent of existing and future development.

d. Interested and affected parties, including civic and community organisations, would use the policy statements as a primary reference for the approaches and ambitions used by the City to shape future spatial growth and development.

7.2 CONSISTENCY WITH THE MSDF

In the consideration of consistency with the MSDF, the following legislative parameters are to be considered: SPLUMA (2013), section (42); the Western Cape LUPA (2015), section (19); and the Municipal Planning By-law (2015).

Section 42 of SPLUMA sets outs parameters the Municipal Planning Tribunal should consider in deciding an application. These include:

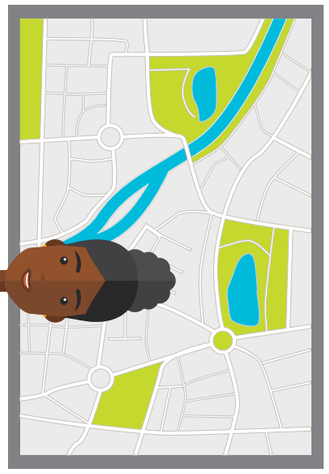
- ✓ SPLUMA development principles;
- ✓ The norms and standards measures designed to protect and promote sustainable use of agricultural land;
- ✓ Take into account public interest, the constitutional transformation imperatives and related duties of the state, facts and circumstances relevant to the application, rights and obligation of those affected; and
- ✓ Take into account the impact of engineering services, social infrastructure and open space requirements, and timeframes.

Section 99(1)(b) of the MPBL stipulates that a land development application must be refused if it is not in compliant or consistent with the MSDF. Deviation from the MSDF will only be permissible if site-specific circumstances justify such deviation. An applicant will be required to provide site-specific motivations support of a request to deviate from the MSDF and the policy statements and address potential triggers that may result in the deviation from the MSDF, prior to a decision by the Municipal Planning Tribunal.

LUPA section 19 provides definition clarity regarding the difference between compliance or consistency with, and deviation from spatial development frameworks.

- ✓ If a SDF **specifically provides for** the utilisation/development of land as proposed in a land use/land development application, then the proposed utilisation/development is regarded as complying with that SDF.
- ✓ If a SDF **does not specifically provide for** the utilisation/development of land as proposed in a land use/land development application, then the proposed utilisation/development is not in conflict with the purpose of the relevant designation in the SDF, and then the utilisation/development proposal is regarded as being consistent with that SDF.
- ✓ If the proposed utilisation or development of land proposal does not comply with and is not consistent with the relevant designation for the utilisation of land in an applicable SDF, then the proposed utilisation/development deviates from that SDF.

Table A1a offers clarity on the types of information flags that could be used for early determination of inconsistency and therefore may require site-specific motivation for a deviation from policy. Table A1b offers suggestions on the issues to be considered, but are not to be used in determination of consistency with the MSDF as spatial policy.



7.3 SPATIAL INFORMATION IN THE MSDF TO BE USED FOR DETERMINING CONSISTENCY

Apart from other stipulations in SPLUMA and LUPA above, which may determine inconsistency, table A1a highlights spatially depictable principles and should be considered with table 4.3 of the MSDF.

Land development proposals (as defined in the MPBL Development Management Scheme), which are located within the urban development edge and landward of the coastal edge as well as classified as a new development area (per the details of the DSDFs), will be consistent with the MSDF, assuming subdistrict guidelines in the DSDF be considered and due processes be followed in terms of NEMA, LUPA, and the Subdivision of Agricultural Land Act, Act 70 of 1970 (where applicable and after consideration of the City's application for the UDE to be the urban area in terms of NEMA).

Land development proposals (defined as per the MPBL Development Management Scheme), which are located outside the urban development edge, would not necessarily be inconsistent with the MSDF, but specific processes will be required.

All land development proposals seaward of the coastal edge should be approached under the guidance of the Coastal Management Branch, Department Environmental Management, Directorate Spatial Planning and Environment.

Table A1a is only applicable if, during pre-application consultation and the NEMA process, an application's impacts on the following layers have not and cannot be mitigated to the satisfaction of the delegated authority.

Table A1a: Spatial layers to be considered if consistency is questioned

Key spatial layers to be considered	Technical lead, referrals to external departments	Key legislation apart from MSDF and DSDFs and used by the delegated authority	Mandatory pre-submission meeting[45]	Motivate site-specific circumstances for deviation from the MSDF in terms of the MPBL[46]	Advertise the inconsistency and deviation in terms of this layer of information[47]	Specific studies required
Agricultural areas of significance (map 5c)	Western Cape Provincial Department of Agriculture: Head of Department responsible for land use comment[48]	Subdivision of Agricultural Land Act, Act 70 of 1970 Western Cape Government Department of Agriculture (DOA): Land Use Planning Guidelines for Rural Areas, 2019	Yes	Yes, only if not resolved via pre-submission consultation, NEMA and LUPA processes – assuming those processes preceded the MPBL application process and contained adequate specialist studies to provide evidence of site-specific motivation.	Area of agricultural significance	May include agricultural soil quality and potential
Areas designated as core 1 biodiversity (map 5b) and not identified as a new development area (NDA) in the DSDFs[49] or areas designated as critical natural areas (map 5d)	City's Department of Environmental Management, Biodiversity and compliance in association with provincial Department of Environmental Affairs and Development Planning (DEA&DP)	NEMA, Bioregional Plan	Yes		Core 1 biodiversity critical natural areas	May include various specialist studies as per NEMA
Areas designated as discouraged growth areas (map 5d)	MSDF and DSDF teams, WCG DEA&DP (if required)	SPLUMA, LUPA DOA: Rural Development Guidelines	Yes			
Areas situated seaward of the coastal edge (maps 5a and d)	WCG DEA&DP and City's Coastal Management Department	Integrated Coastal Management Policy	Yes		Discouraged growth area	
Under the 1:50-year floodline (map 5a)	City's Stormwater Management Department	Floodplain and River Corridor Management Policy	Yes		Coastal edge 1:50-year floodline	
Residential and community use developments located in the 65 dBA noise contour lines (map 5a)	City's Environmental Health Department	SANS, MPBL	Yes		65 dBA noise contour	
0-5 km around Koeberg Nuclear Power Station (map 5a)	City's Development Management Department	Section 158 of the DMS	Yes		5 km PAZ	Procedures as per the DMS
	City's Development Management Department, National Nuclear Regulator, Eskom					
Any outright contradictions to policy statements 1-26	SDF and DSDF teams	MSDF	Yes		Policy <number>	Unlikely but could be determined
Rezoning away from GI1 and GI2 zonings if not identified as a mixed-use intensification area in the DSDFs and if restrictive title deed conditions are available or if all employment-generating land uses are eliminated[50]	SDF and DSDF teams	LUPA section 39(5) DSDFs	Yes		Wording will be determined by restrictive title deed	May include risk assessment report relating to proximity to major hazardous installations

45 In terms of section 71(d) of the MPBL, inclusive of MSDF and DSDF representatives.

46 In terms of sections 9(1), 71(h) and (k) of the MPBL.

47 In terms of section 9(3) of the MPBL in any public notification process. "Application for <name of land use> that is inconsistent with the MSDF designation for <list layer name>.."

48 In terms of sections 53(1)(c) and section 86(1)(b) of the MPBL and section (7) of LUPA.

49 The MSDF does not confer or take away rights.

50 The MSDF does not confer or take away rights.

Table A1b: Spatial layers in the MSDF to be used for information and procedural direction only and not consistency determinations

Key spatial layers to be considered	Technical lead, referrals to external departments	Key legislation apart from MSDF and DSDFs and used by the delegated authority	Mandatory pre-submission meeting	Motivate site-specific circumstances for deviation from the MSDF in terms of the MPBL[51]	Advertise the inconsistency and deviation in terms of this layer of information[52]	Specific studies required
Within a HPOZ (map 5f) or an area under investigation	City's Department of Heritage Management and Heritage Western Cape	National Heritage Resources Act	Yes, may include separate processes to the MPBL DMS	No requirement in terms of the MSDF	Not required for MSDF	Refer to heritage legislation
Heat island and sea-level rise risk zones (map 5e)	City's Climate Change Department, City's Coastal Management Department	Coastal By-law, Resilience Strategy, Climate Action Plan	Yes, may include mitigation or adaptation recommendations during early design			Refer to Climate Change Department
Green infrastructure network (map 5g)	City's Environmental Management Department	Bioregional Plan				Refer to Environmental Management Department

51 In terms of sections 9(1), 71(h) and (k) of the MPBL.

52 In terms of section 9(3) of the MPBL in any public notification process: "Application for <name of land use> that are inconsistent with the MSDF designation for <list layer name>.."

7.4 POLICY GUIDELINES

The policy guideline tables below provide a guide for consideration of land development assessments of development applications and preparation of sector plans, lower-order spatial plans, detailed policies, guidelines and implementation plans. These must be read in conjunction with chapters 4 and 5.

The policy guidelines are predicated on the development principles in SPLUMA and are intended to provide a consistent framework for land development[53] in spatial planning and land use management systems. This is to ensure inclusive, equitable and efficient spatial planning and land use management systems that achieve the City's desired urban-form-premised inward growth.

53 Refers to the erection of buildings or structures on land, or the change of use of land, including township establishment rules.

Table A2: Spatial strategy 1: Policy guidelines, strategic and implementation intent

SPATIAL STRATEGY 1: PLAN FOR INCLUSIVE ECONOMIC GROWTH AND IMPROVE ACCESS TO ECONOMIC OPPORTUNITIES	
Substrategy 1.1: Promote inclusive, sustainable, shared economic growth and development	
Policy 1: Plan for the alignment, sequencing and implementation of infrastructure programmes to secure confidence and certainty for private and public sector investment.	
Strategic intent	**P1.1** Plan for the implementation of proactive budgeting and upgrading of bulk, link and reticulation networks supporting the spatial transformation areas (STAs) investment rationale, sector plans and infrastructure planning and delivery framework.
Policy 2: Support and encourage investment (public and private) through the uptake of available incentives to encourage and facilitate inclusive economic growth.	
Strategic intent	**P2.1** Encourage decision making that directs appropriate investment in support of the following three available financial incentives to maximise employment benefits by supporting inward investment in well-located nodes: • Urban development zone (UDZ), Income Tax Act, Act 58 of 1962 • Special economic zone (SEZ), Special Economic Zones Act, Act 16 of 2014 • Manufacturing Investment Incentives Policy (2018)
Implementation intent	**P2.2** Leverage development potential through spatially targeted mechanisms within the DMS, such as overlay and base zones, heritage exemption zones, and UDZ incentives to support inward inclusive growth within the urban inner core. **P2.3** Implement a streamlined application process by providing development management applicants with better information flow on active applications and, where possible, gather information from applicants (feedback) to enhance City planning. This will also serve to reduce inefficiencies in the application process. **P2.4** Prioritise the sequencing and implementation of new bulk infrastructure provision in accordance with the MSDF and DSDFs, prioritising areas where high levels of certainty exist for land development to enable or accelerate inclusive economic growth. This relates specifically to the urban inner core, where well-located development supports the existing and emerging public transport system that is unencumbered by infrastructure capacity issues. **P2.5** Maximise the impact of fiscal and spatially targeted mechanisms and incentives, such as the urban development zone, to support the City's spatial transformation policy objectives underpinning mixed-use models for housing development. These include opportunities for mixed-scale economic activity to reduce reliance on private transport. **P2.6** Continue to streamline and adapt regulatory processes to facilitate investment in formal and informal development processes.
Policy 3: Introduce land use policy reform and mechanisms that will support the development and growth of small businesses and township economies (both formal and less formal).	
Strategic intent	**P3.1** Ensure land development applications support access to informal economic sectoral activity and small businesses in highly accessible areas. Where existing informal trading areas or markets are located, these are supported by the provision of: • basic services (including increased waste collection services) and amenities to support informal economic activity and reduce negative externalities associated with unregulated business activity; • services such as hard landscaping and structures for precinct/urban management to create transit supportive environments and public realm; and • ablution facilities, waste collection/recycling, streetlights, water and electricity connections and storage facilities.
SPATIAL STRATEGY 1: PLAN FOR INCLUSIVE ECONOMIC GROWTH AND IMPROVE ACCESS TO ECONOMIC OPPORTUNITIES	
Substrategy 1.1: Promote inclusive, sustainable, shared economic growth and development	
Implementation intent	**P3.2** Ensure that spatial planning, urban design process and land use systems adequately make provision for informal economic-sectoral activity and small businesses. **P3.3** Encourage and incentivise the establishment and growth of formal small businesses, and the incremental and voluntary formalisation of existing informal businesses through appropriate application of the Development Management Scheme (DMS). **P3.4** Encourage proactive identification and preparation of facilities in the DSDFs' socially vulnerable areas for the clustering of informal economic activities and small business benefits, in consultation with the participants. **P3.5** Optimise public transport nodes to enhance the economic performance of the City by maximising employment creation opportunities for both formal and informal economic sectors. **P3.6** Plan for an improved and quality public realm that accommodates informal economic activities through innovation, creativity and uniqueness of the local areas and maximisation of commuter mobility.
Policy 4: Prioritise and promote inclusive economic growth through innovation and sustainable industrialisation and ensure the preservation of well-located[54], well-established[55] and well-performing[56] industrial areas.	
Strategic intent	**P4.1** Discourage the re-purposing of general industrial 1- and 2-zoned land within the urban inner core. These industrial nodes and precincts contribute to economic growth through primary and secondary value chains, such as maritime cluster, boat building industry and port activities.
Implementation intent	**P4.2** Update ECAMP as the basis for an evidence-led approach to the spatially targeted performance monitoring of economic indicators to support place-based land use policy guidelines and interventions**.** **P4.3** Actively support and encourage employment-rich manufacturing industries in well-performing economic areas, or where the potential exists to boost manufacturing contribution to regional economy.
Policy 5: Promote Cape Town as a globally competitive, diversified and productive city that supports a consolidated regional economy.	
Strategic intent	**P5.1** Land use decision making to consider the leveraging of large-scale economic investments in airport precincts and supporting transport infrastructure, with employment-generating land uses. **P5.2** Support land use intensification of land uses at CTIA and the Cape Winelands Airport that enhance Cape Town's aviation-enabled competitive advantage. Maintain a network of airfields used for civil aviation purposes, such as Morningstar.

54 Located within the urban inner core and accessible to public transport infrastructure designated as employment stations.

55 Firmly established as a metro-industrial township due to historical existence and investment in supporting bulk and economic infrastructure such as airports and ports and include Airport Industria, Paarden Eiland, Ndabeni and Parow Industria

56 Refers to industrial areas with high potential due to locational advantage, efficiency and contribution to productive industrial sectors.

SPATIAL STRATEGY 1: PLAN FOR INCLUSIVE ECONOMIC GROWTH AND IMPROVE ACCESS TO ECONOMIC OPPORTUNITIES	
Substrategy 1.1: Promote inclusive, sustainable, shared economic growth and development	
Implementation intent	**P5.3** Decision making on land development proposals in areas subject to cross-municipal-boundary urban development pressure to ensure relevant consideration to longer-term implications of urban growth (i.e. increased peripheral land demand for urban development and bulk infrastructure investment). **P5.4** Decision making on land development proposals to take into consideration operational and economic cost benefits to the City as service provider, the affordability of services to future occupants and practicalities of regional service provision (such as disaster risk management, firefighting, ambulance and emergency services). This implies the consideration of the impact of a potential development on the coherency and consolidated nature of spatial assets that underpin the regional economy (i.e. areas of agricultural significance; terrestrial and coastal natural resources; cultural and scenic landscapes; surface and groundwater sources; minerals and construction materials; and air quality). **P5.5** Support and prioritise the reconfiguration of inter- and intra-regional freight and logistics networks to reduce externalities and the costs of doing business. Support the regional development potential of CTIA and Cape Town. **P5.6** Encourage intergovernmental relations to support Cape Town's contribution to regional initiatives for the release and assembly of strategically located land and to meet regional infrastructure needs
Substrategy 1.2: Integrate land use, economic activities and transport planning that support the sustainable operation of the public transport network	
Policy 6: Plan and prioritise for the expansion of the public transport network in support of the integrated public transport network and the **City's Integrated Transport Plan (CITP)**	
Strategic intent	**P6.1** The assessment of land development proposals and decision making should include the following as relevant considerations: • Ensure adequate provision is made for public transport routes and facilities in the layout, including universal access aligned to the City's approved **Universal Access Policy**. • Proposed land development layouts should facilitate access to public transport provision, inclusive of e-hailing services. • Built form and scale of land use must respond appropriately (in terms of density and land use mix) to existing and proposed public transport and station locations. • Access and safety for all, particularly women, children, persons with disabilities and older persons are prioritised. • Provision of opportunities for park-and-ride facilities (including shared parking opportunities), subject to local assessments and transport planning. • Location and design of stations allow for future extension that can accommodate additional capacity and ancillary functions, such as retail or social facilities.
Implementation intent	**P6.2** Prioritise collaboration with other spheres of government to ensure the safe and reliable operation of public transport. **P6.3** Facilitate and implement projects to support the IPTN in terms of: • routing public transport services according to the public transport route alignment spatial planning principles; • ensuring safe and convenient movement between modes at transport interchanges; and • maintaining quality, landscaped public spaces and facilities in public transport reserves and on adjacent land. **P6.4** Improve integration of all forms of transport, including innovative transport models (e.g. e-hailing and electronic vehicles), with an emphasis on integrating informal minibus taxis with rail, bus, cycling and walking routes.

Substrategy 1.2: Integrate land use, economic activities and transport planning that support the sustainable operation of the public transport network	
Policy 7: Plan and implement a sustainable, high-quality and human-scale public realm in and around transit precincts. These precincts should prioritise legibility and accessibility to all, inclusive of universal access and non-motorised transport facilities and a public environment that is vibrant, inclusive and safe.	
Strategic intent	**P7.1** Encourage land development proposals that plan for high-quality public realms, ensure human-scaled design for universal access (UA) and non-motorised transport (NMT) facilities, and enhance safety, mobility and accessibility for pedestrians, cyclists and vulnerable people. **P7.2** Plan, prioritise and timeously implement road safety improvements and the creation of pedestrian zones, especially in areas with high pedestrian volumes. **P7.3** Plan for the improvement and maintenance of universal access and NMT facilities along non-motorised transport routes and desire lines (where feasible) in existing built environments. Ensure these are catered for in new developments, especially along routes that will generate high pedestrian and cyclist volumes. **P7.4** Land development proposals to prioritise provision and enhancement of universal access and non-motorised transport, including: • existing pedestrian and cycle desire lines and routes; • access routes to public transport facilities, such as public transport routes, stops, stations and public transport interchanges (PTIs); • access routes to public facilities such as schools, clinics, hospitals; • access routes to major employment and shopping (commercial) areas along development routes, along bus rapid transit (BRT) routes, in civic precincts, and in urban nodes, high-intensity recreation and tourism strips; and • informal trading areas focusing on fresh produce, other consumables and local crafts.
Implementation intent	**P7.5** Collaborate with the private sector to implement the **City's NMT Strategy** and CITP in support of a universally accessible city.
Policy 8: Support a strategic approach to parking allocations to encourage use of public transport.	
Strategic intent	**P8.1** Land development decision making to ensure relevant consideration of the City's Parking Policy for parking provision, management, and regulation and enforcement. **P8.2** Encourage the multifunctional design and use of parking areas (inside and outside of buildings) to be sufficiently flexible to allow for conversion to alternative uses over time. **P8.3** Encourage planting of suitable additional trees within parking areas to adapt to climate change by creating more shade and reducing heat, without compromising parking operational requirements.
Implementation intent	**P8.4** Manage parking supply by supporting parking ratios based on the available and planned modes of public transport (proximity, frequency, quality), spatial integration objectives (nodes, corridors, routes) and socioeconomic characteristics (car ownership levels). **P8.5** Implement reductions in parking requirements in urban nodes, mixed use areas and development corridors deemed to be well served by public transport, in accordance and alignment with the City's Parking Policy, the DMS, the DSDFs and other applicable policies. **P8.6** Periodically review and update the minimum off-street parking requirements for standard areas, PT1 areas and PT2 areas as specified in the DMS. Align with the City's goals related to encouraging modal shift, carbon reduction and increased resilience. **P8.7** Maximise development potential through overlay and base zones, heritage exemption zones, affordable housing incentives, etc. **P8.8** Apply reduced off-street parking requirements where demand is lower due to limited vehicle ownership and use, as well as in areas where public transport is available.

Substrategy 1.2: Integrate land use, economic activities and transport planning that support the sustainable operation of the public transport network	
Policy 9: Plan for the incremental land use intensification and diversification in support of inward growth predicated on the public transport infrastructure as outlined in table 5.6 – differentiated intensification guidelines.	
Strategic intent	**P9.1** Plan for phasing of contextually appropriate land use diversification and intensification along development corridors and nodes, and informed, prioritised and phased bulk engineering infrastructure provision. **P9.2** Where the intensity of development along transport routes conflicts with access requirements of the class of road, road access management plans will be required. **P9.3** Plan for value creation in the phased planning of land developments to generate sustainable revenue and ensure sustainable operations and service delivery. **P9.4** Plan for the proactive enhancement of development rights in station precincts that are subject to visual impact (heritage or scenic areas) and the impacts of predicted sea-level rise.
Implementation intent	**P9.5** Ensure aligned prioritisation, programming and implementation of bulk engineering infrastructure to support inward growth and appropriate land uses along transit corridors. **P9.6** Support efforts of regional retail centres to diversify their land use offerings to more sustainable mixed-use precincts.
Policy 10: Leverage and support the optimisation of ports and harbours as important economic drivers and coastal access points.	
Strategic intent	**P10.1** Encourage decision making that supports increased port efficiencies and functionality by ensuring land development proposals contribute towards job-generating activities supported by the City's investment in public transport, and reduce conflict and congestion in and around the Port of Cape Town and other smaller harbours. **P10.2** Encourage decision making that supports complementary economic land use activities within the vicinity of ports and harbours, such as the boat building industry, freight and logistics sectors. **P10.3** Minimise the environmental impact of the port and harbours and their future development on the surrounding natural and physical resources, and adjacent port activities. **P10.4** Decision-making considerations should be given to sustainable and environmentally friendly freight impact management (accessing and egressing).
Implementation intent	**P10.5** Support appropriate land use development to increase efficiencies and infrastructure development, including the future development of the Port of Cape Town, Belcon and 'Kraaicon' sites. This is to enable them to deal with freight logistic requirements while not compromising the City's objectives, such as other commercial, leisure and tourism uses of Cape Town's marine environment around, and adjacent to, the port. **P10.6** Optimise well-located land such as Belcon, Culemborg and Port gateway precinct sites for intermodal freight facilities with a metropolitan and functional region relevance. **P10.7** Ensure that the design of future developments around the Belcon site does not compromise freight logistics and distribution, but simultaneously recognises and facilitates the City's overall strategic objectives. **P10.8** Work with the National Port Authority (NPA) to ensure the **Port Development Framework Plan** contains a balanced approach between growth and development aspirations and operational requirements for landside development, as well as the equitable sharing of the impact costs. **P10.9** The City and Transnet to support planning for optimisation of well-located land. **P10.10** The City, WCG, NPA and neighbouring municipalities should encourage an appropriate freight balance between the ports of Cape Town and Saldanha. This should be ensured via cross-border planning between stakeholders. **P10.11** Support the building of sustainable port operations to reduce climate impacts through programmes such as the **World Ports Sustainability Program**.

Table A3: Spatial strategy 2: Policy guidelines (strategic and implementation intent)

SPATIAL STRATEGY 2: MANAGE URBAN GROWTH, AND CREATE A BALANCE BETWEEN URBAN DEVELOPMENT, FOOD SECURITY AND ENVIRONMENTAL PROTECTION	
Substrategy 2.1: Enhance the city's unique natural assets, valuable heritage resources, scenic routes and destination places representative of Cape Town's diverse cultures.	
Policy 11: Identify, conserve and manage heritage resources and cultural landscapes.	
Strategic intent	**P11.1** The assessment of land development proposals and decision making that affects proclaimed heritage resources as relevant considerations to decision making: • Promote the conservation of heritage resources (including structures, townscapes, streetscapes and landscapes) in an authentic state, as far as possible, in order to retain their heritage significance. • Carefully consider new development in historical precincts, or cultural landscapes, in relation to scale, form, placement and architectural 'language' (massing, articulation, colour and texture) so as not to detract from the significance of the precinct or landscape. • Carefully consider the impact of new development on accessibility of heritage resources from the public realm, extending to the mountain and sea; promote the incorporation of intangible heritage and the receiving social context when introducing new development.
Implementation intent	**P11.2** Maintain and update the City's heritage inventory. **P11.3** Provide information on types, quality and value of heritage resources to promote evidence-based decision making. **P11.4** Identify areas where heritage exemptions could be considered (using the Parow heritage exemption as a basis for replication). **P11.5** Optimise heritage resources as an asset to support economic and social development and a tool to integrate communities. **P11.6** Encourage sustainable use of heritage sites to promote urban regeneration so they contribute further to the economy and enrich the quality of urban life. **P11.7** Promote access to heritage resources, and enable and promote local heritage tourism initiatives through the protection and conservation of destination places and special cultural and heritage areas.
Policy 12: Provide for cultural and social practices and events to promote spatial justice and spatial integration.	
Strategic intent **Maps 5f and g**	**P12.1** Support land development proposals and decision making that incorporate the conservation and management heritage resources, including cultural landscapes and agriculture-rural landscapes.
Implementation intent	**P12.2** Develop places of memory, with particular attention to under-represented heritage, e.g. living heritage and intangible heritage.
Policy 13: Protect and enhance scenic routes and places of scenic value, including destination places, cultural landscapes and agriculture-rural landscapes celebrating all of Cape Town's diverse culture.	
Strategic intent **Maps 5f and g**	**P13.1** The assessment and decision making pertaining to land development proposals and decision making within scenic routes should consider the existing cultural-natural landscape and be informed by the Scenic Drive Network Management Policy, Urban Design Policy, Outdoor Advertising By-law (2013) and relevant considerations within applicable DSDF development guidelines. **P13.2** Living heritage and cultural practices (e.g. initiation sites) should be consultatively addressed, and inputs included into spatial planning processes and development plans, where applicable.

SPATIAL STRATEGY 2: MANAGE URBAN GROWTH, AND CREATE A BALANCE BETWEEN URBAN DEVELOPMENT, FOOD SECURITY AND ENVIRONMENTAL PROTECTION

Substrategy 2.1: Enhance the city's unique natural assets, valuable heritage resources, scenic routes and destination places representative of Cape Town's diverse cultures.

Policy 14: Provide efficient access to destination places where potential exists, especially in or near areas of high social need in support of economic inclusivity and spatial integration.

Strategic intent **Maps 5f and g**	**P14.1** The assessment of land development proposals should consider the protection and enhancement of existing and potential destination places and prioritise public access as relevant considerations within decision making.
Implementation intent	**P14.2** Ensure destination places are effectively managed to conserve their special qualities by: • planning for unused or underutilised areas of social and cultural significance in an appropriate manner that will contribute positively towards creating and strengthening an integrated sense of place; and • ensuring contextually appropriate land use and urban management is in place that will guide and enhance the urban character and tourist economy of an area. **P14.3** Prioritise the value creation and improvement of multifunctional public spaces, especially in previously disadvantaged and underserved areas, and urban support areas identified in the DSDFs. **P14.4** Maintain the City's heritage graded areas and proactive identification of heritage exemption areas.

Substrategy 2.2: Facilitate land development to enhance the city's energy independence and efficiency by investing in renewable energy.

Policy 15: Enable resource-efficient land development by leveraging the protection of renewable resources to improve cohesion between natural environmental resources and inclusive economic growth.

Strategic intent	**P15.1** Encourage land development within the existing built fabric that promotes energy efficiency, including retrofitting, urban design principles that consider heating, cooling and lighting and, where possible, explore the opportunity to use renewable energy. **P15.2** Encourage land development within the Atlantis special economic zone for green technologies in support of sustainable use of renewable resources for inclusive economic growth; and increase innovation in green technology industry. **P15.3** Promote low-carbon development, such as small-scale embedded generation, accessible mass transit and higher densities. This should be in line with the TOD spatial framework and encourage efficient urban form, accessible non-motorised transport networks, appropriate mix of land uses, and inward growth and development. **P15.4** Support forward planning and land development that seek to incorporate waste diversion and recycling into plans and infrastructure.
Implementation intent	**P15.5** Support land development proposals that encourage net-zero carbon performance of all new city offices/buildings in Cape Town by 2030 and encourage retrofitting of existing buildings to align with the commitment to a net-zero city by 2050. **P15.6** Incorporate aquifer restoration and protection, ecological infrastructure and green infrastructure requirements into spatial planning, development and landscape design strategies and policies. **P15.7** Ensure development reduces the burden of the city's waste disposal systems and reduces carbon emissions in support of a circular economy.

Substrategy 2.3: Appropriately protect the citizens of Cape Town from risk areas and activities.

Policy 16: Direct urban growth away from risk areas and activities.

Strategic intent *Note: Risk areas are either already determined through proclamations/law or specialist studies, or will be determined as part of the EIA processes or pre-submission consultation processes, and include both man-made and natural risks.* **See maps 5a and 5e**	**P16.1** Discourage inappropriate land development in mining blasting zones, servitudes, heavy or noxious industrial zones, major hazardous installations, solid waste disposal and wastewater treatment and transfer sites, cemeteries or areas subject to regular flooding or flood risk, sea-level rise risk areas or related buffer areas. **P16.2** Pre-application consultations are mandatory for all urban development proposals between 55 dBA – 80 dBA noise contours (current and proposed). Runways must be within the framework of restrictions in terms of SANS 10103: 2008 as well as any applicable height restrictions. **P16.3** Ensure development applications adhere to risk mitigation measures and maximum design efficiency in accordance with SANS10103 and the National Building Regulations Act. **P16.4** Decision making and conditions of approval related to risk or its mitigation must comply with regulations in terms of the Occupational Health and Safety Act or other applicable legislation or Council-approved policies. **P16.5** Future dualling of the planned Cape Town International Airport (CTIA) single realigned runway to be a key consideration. • Proposed development must balance economic benefits with noise impact on existing and potential informal or formal residential development, as well as on a range of social infrastructure such as clinics, schools, elder-care facilities and halls. **P16.6** Land development at, or close to, an airport or airfield that is incompatible with any existing or potential future aviation rights will not be supported (table 8 – development directives). **P16.7** Land development proposals within the precautionary action zone (PAZ) and urgent protection action zone (UPAZ) will be subject to MPBL provisions in section 158: specific provision: Koeberg restriction area overlay zoning. **P16.8** Any new nuclear power station, nuclear waste facility and associated infrastructure being developed in Cape Town must be located on the Eskom Holdings SOC Limited-controlled area at the Koeberg site. • Its exclusion zones must be smaller than, or equal to, the existing KNPS precautionary action zone (PAZ) and urgent protection action zone (UPAZ).
Implementation intent	**P16.9** Support the CTIA to continue providing the national and international aviation function to a limit that is determined by its manageable impact on surrounding land uses (noise impacts). The City, ACSA and other aviation/airport operators to consistently engage for long-term noise monitoring and mitigation measures with the objective to reduce health risks related to an inner-city airport. **P16.10** Promote the development of economic activities in the CTIA catchment area through appropriate land use planning frameworks and infrastructure development. **P16.11** Investigate the suitability of the current medium-term and planned long-term accommodation of the general aviation function of the airports/airfields and consider noise impacts even in the absence of declared noise contours. **P16.12** Continued engagement between the City and ACSA (especially in the review of the CTIA masterplan) to ensure that the envisioned future role of CTIA is flexible enough to cater for the City's vision to upgrade informal settlements and construct infill housing on land near the airport, as well as other economic and social development projects. **P16.13** Support complementary and appropriate land development at the Cape Winelands Airport that will contribute to the efficiency of CTIA in terms of general aviation and related uses.

Substrategy 2.3 : Appropriately protect the citizens of Cape Town from risk areas and activities.	
Policy 17: Discourage further urban growth in risk areas – includes fire, flooding, heat exposure, poor air quality and noise pollution.	
Strategic intent	**P17.1** Direct urban growth away from climate risk areas, where possible. Where this is not possible, special attention should be given to the inclusion of risk mitigation and climate adaptation design interventions in both new development, redevelopment, or changes to existing land uses.
Implementation intent	**P17.2** Decision making should take into consideration appropriate mitigating conditions of approval to address risks associated with climate hazards and other risks including, but not limited to, the following: • At the urban/natural interface, implement removal of invasive alien plant species, provision of fire breaks, and the use of fire-resistant building materials and methods in order to reduce fire risk. • Discourage additional densification and infill land development in areas known to be flood prone unless additional flood management infrastructure is in place to accommodate the additional densities and cumulative impacts on stormwater management and reticulation networks. • Ensure that land development decision making takes into account the need for additional active or passive cooling measures to ensure occupant comfort and avoid health risks associated with heat islands. Implementation of heat island mitigation measures including, but not limited to, tree planting, shading, landscaping, green roofs, and the use of cool surfaces must be demonstrated. • Ensure the conservation, maintenance and restoration of coastal dunes, floodplains, wetlands, river corridors and riparian habitats in order to ensure that the green infrastructure function that these perform in terms of flood attenuation and climate change risk reduction is conserved.
Substrategy 2.4: Appropriately manage land development impacts on natural resources, green infrastructure and critical biodiversity networks.	
Policy 18: Increase efforts to protect and enhance natural resources such as biodiversity networks and agricultural/ rural land at all levels of government in partnership with the public and the private sector.	
Strategic intent	**P18.1** Support inward growth, the protection of critical natural assets and the protection of areas of agricultural significance through the implementation of the urban development edge. **P18.2** Protect agricultural areas and existing farmed areas from urban encroachment, and support urban agriculture to promote food security and mitigate increased food prices. **P18.3** Land development proposals and decision making to consider biodiversity connectivity, and the protection and reinforcement of existing critical natural assets and biodiversity linkages, where possible.
Implementation intent	**P18.4** Consolidate existing conservation and protected areas, especially where they provide buffering from climate change impacts. **P18.5** Proactively plan and manage areas within and beyond the urban development edge and prevent urban encroachment and unlawful land use in agricultural areas. **P18.6** Implement the Bioregional Plan to assess the impact of urban development on biodiversity areas and threatened species. **P18.7** Support operational requirements of biodiversity areas to ensure their ongoing value in green infrastructure networks.

Substrategy 2.4: Appropriately manage land development impacts on natural resources, green infrastructure and critical biodiversity networks.	
Policy 19: Plan for and mitigate the impacts of urban development on water resources and encourage water-sensitive urban design responses.	
Strategic intent	**P19.1** The assessment of land development proposals and resulting decision making should consider that land development should not unduly compromise the freshwater and groundwater ecosystems, especially highly productive aquifers, aquifer recharge areas and discharge areas, groundwater protection zones, river systems and wetlands. This is especially relevant in smallholding areas where unlawful/non-agriculturally related land uses tend to settle. **P19.2** Ensure that land developments comply with recommendations in the City's Stormwater Management Policy regarding the treatment and management of stormwater at source, and are incorporated as conditions of approval.
Implementation intent	**P19.3** Improve water quality by identifying appropriate interventions along the watercourse to purify water and prevent or filter pollutants. **P19.4** Research development parameters to protect aquifer recharge and water sources.
Policy 20: Promote risk-averse and sustainable land development along the coast, in accordance with the coastal development edge.	
Strategic intent	**P20.1:** No land development should be permitted beyond the coastal edge line (seaside). **P20.2:** Ensure adequate mitigation measures are applied in existing developed areas that are at risk of coastal processes, to retreat (restore to natural area), improve maintenance (e.g. dune or seawall rehabilitation), or redevelop appropriately to improve protection of key infrastructure and enhance recreation and tourism amenities (e.g. new seawall promenade). **P20.3** The assessment of land development proposals and decision making should be guided by the following: • **Climate Change Strategy** • **Floodplain and River Corridor Management Policy** • **Design and Management Guidelines for a Safer City** • **Integrated Coastal Management Policy** and Coastal Economic Spatial Strategic Framework (on approval); • DSDF development guidelines that provide locally specific context related to erosion, accretion, storm surges and/or sea-level rise. **P20.4** In the assessment of land development proposals within the vicinity of the coast, or in areas with risks that may be exacerbated by climate change or sea-level rise, and adjacent to river outlets, decision making should consider: • New land developments, including both greenfield areas and brownfield areas, as well as additional development on an already developed site, must be planned and designed to incorporate sustainable urban drainage systems generally in accordance with the **City's Stormwater Management of Urban Stormwater Impacts Policy**. **P20.5** Promote coastal nodal development as per the configuration of the coastal edge. **P20.6** Use applicable coastal and land use guidelines to assess all land-based activities associated with aquaculture.

Substrategy 2.4: Appropriately manage land development impacts on natural resources, green infrastructure and critical biodiversity networks.	
Implementation intent	**P20.7** Conserve natural areas seaward of the coastal edge. **P20.8** Preserve and enhance public access to the coast. **P20.9** Maximise amenity opportunities with minimum disturbance to the coastal environment and processes. **P20.10** Development of coastal infrastructure must be situated or developed in such a way that it does not compromise the functional integrity of the coastal environment and that such infrastructure is not exposed to risk from coastal processes. **P20.11** Enhance coastal defences, where needed, using a green infrastructure approach, where appropriate. **P20.12** Futureproof, rehabilitate and maintain remaining natural coastal 'green' infrastructure (i.e. dunes, estuaries) as the most effective means to mitigate the impact of climate change-induced pressures such as sea-level rise and storm surges.
Policy 21: Support food security and ensure food-sensitive planning that supports the food system value chain from production, processing, and distribution to access, consumption and waste management.	
Strategic intent	**P21.1** Create access to land opportunities in support of urban food security interventions in spatial planning, urban design and land use processes to: • protect and enhance natural resources such as agricultural land to support inclusive economic growth and food security; • enhance access and availability to reduce food insecurity and address low nutrition levels amongst vulnerable communities; • promote the creation and conservation of food security assets (including informal trading zones, fresh produce markets, community kitchens, food processing facilities, healthy food outlets, agricultural areas, urban grazing sites, food transport and processing nodes, food waste recycling facilities, etc.) as priority objectives as far as possible, in order to retain and enhance their contribution to achieving food security and local circular economies; • carefully consider new developments in food-insecure precincts, or vulnerable subdistricts, in relation to scale, form and placement of new developments (malls, fast-food outlets, transport nodes and housing, etc.) so as to ensure that new developments do not exacerbate food insecurity by undermining existing food security assets of the precinct or landscape; • extend and optimise trading space allocations for micro-enterprises and informal traders around transit nodes as an asset to support economic opportunities for food-insecure residents; • work to restrict the spread of obesogenic food environments by limiting development applications and trading permits of high-risk foods around sensitive sites such as schools and ECD centres; • encourage adaptive use of food trading nodes and urban food markets to promote urban regeneration and tourism, while contributing further to the enrichment of local economies and enrich the quality of urban life; and support urban food security and food system initiatives such as urban agriculture that are linked to other economic activities, provide livelihoods to vulnerable communities, and meet direct household consumption needs.
Implementation intent	**21.2** Support access to evidence-based planning by improving data accuracy, analysis information and communication to respond to food security interventions and adopt spatial planning processes that protect and enhance food security assets, agricultural areas, viable farmed areas and horticultural areas from urban encroachment. Support the inclusion of community-generated data into the evidence-based planning that inform food-sensitive urban planning. Ensure engagement with community food forums as a means of collaboratively assessing food data and securing community inputs into City budgeting and planning cycles. **21.3** Subdivision of agricultural land is discouraged and consolidation of agricultural land is supported. **21.4** Land development applications should be considered based on the principles and anticipated outcomes in table 4.2. **21.5** Vacant land and other underutilised state-owned assets centrally located to food insecure communities should be made available and accessible to communities for food-related activities such as urban farming, community feeding schemes, and other food production activities of community value. This could include unused land within schools, community centres and around municipal assets and will be subject to the landowner's agreement with intended users.

Substrategy 2.4: Appropriately manage land development impacts on natural resources, green infrastructure and critical biodiversity networks.	
Policy 22: Plan and adopt a proactive planning approach to mining resources.	
Strategic intent	**P22.1** Land development decision making to consider the protection of important mining resource areas, such as rock and stone mining, as well as specific mineral deposits and surrounding buffer zones to permit future extraction with adequate mitigation measures. **P22.2** Only uses related to the extraction of materials and farming activities will be supported within the extraction areas. **P22.3** Decision making to ensure post-mining remediation of land and potential co-located uses (e.g. renewable energy generation). **P22.4** All land development application authorisations required in mineral extraction areas should include NEM: PAA (environmental authorisation) that addresses matters of on-site rehabilitation and controls during operations, a mining licence from the national Department of Mineral Resources and Energy, and the MPBL application, where a consent approval is required under the agricultural zoning. **P22.5** All land development applications must be accompanied by an approved mining licence issued by the Department of Mineral Resources and Energya nd the environmental authorisation (national Department of Forestry, Fisheries and the Environment (DFFE) or provincial DEA&DP as per competent authority).

Table A4: Spatial strategy 3: Substrategies, policy guidelines (strategic and implementation intent)

SPATIAL STRATEGY 3: BUILDING AN INCLUSIVE, INTEGRATED, VIBRANT AND HEALTHY CITY	
Substrategy 3.1: Encourage integrated settlement patterns.	
Policy 23: Support the integrated intensification and diversification of land uses in identified areas, supportive of inward spatial growth, economically and incrementally.	
Strategic intent	**P23.1** Support integrated land uses and higher-density residential development in targeted new development areas (NDAs) and development focus areas (DFAs) identified in the DSDFs. **P23.2** Ensure urban growth towards a more integrated and accessible city by supporting appropriate urban development and land use intensification within the urban inner core and incremental growth areas. Decision making that considers inward, contextually appropriate, transit-supportive land use intensification as guided by the differentiated intensification guidelines (table 5.6). **P23.3** Encourage and support inclusive economic growth and appropriate intensification of industrial and commercial activities within the hierarchy of nodes identified in the MSDF and DSDFs. **P23.4** Support incremental land use intensification provided by the Municipal Planning By-law to secure a second and third dwelling unit per single residential zoning 1: conventional housing (SR1). Zoned erven including development of small-scale rental units (micro-developments, backyard dwellings/additional informal dwellings) as an additional use within the single residential zoning 2: incremental housing (SR2), based on the availability of bulk infrastructure capacity. • These unit plans must adhere to the City's menu of prototypical building plans (to be developed) and approved in terms of the National Building Regulations • See sections 25A and 25B respectively of the MPBL
Implementation intent	**P23.5** Prioritise implementation of bulk engineering programmes to support the proposed and planned higher-density residential development in targeted new development areas (NDAs) and development focus areas (DFAs). • Utilise the spatial transformation areas (STAs) as the primary spatial targeted mechanism of the spatial prioritisation framework, informing budget allocations to secure the requisite infrastructure for infill and intensification initiatives. **P23.6** Maximise the potential and diversity of use of publicly owned land identified in the underdeveloped and partially developed land inventory (UPDLI), and at scale via the Catalytic Land Development Programme (CLDP).

SPATIAL STRATEGY 3: BUILDING AN INCLUSIVE, INTEGRATED, VIBRANT AND HEALTHY CITY	
Substrategy 3.1: Encourage integrated settlement patterns.	
Policy 24: Ensure land development contributes to the safety and healthy wellbeing for all.	
Strategic intent	**P24.1** Assess land development decisions against the consideration of all current and future costs to all parties for the provision of social infrastructure. • Sections 100(3) and (4)a of the MPBL provide for the stipulation of conditions relating to the provision of social infrastructure/community facilities, including play equipment, street furniture, childcare, clinics, sports fields, elder care, indoor sports facilities or community halls. **P24.2** Ensure that additional social amenities (where required) are included as part of the land development proposals and conditions of approval, and are reflected in the affected City department's budgeting, inclusive of capital and operational costs, implementation and sector plans (especially for areas earmarked as urban support areas (USAs) in the DSDFs). **P24.3** Ensure land development contributes to place making by applying principles and guidelines of the City's **Urban Design Policy** and the **Design and Management Guidelines for a Safer City** as relevant considerations to decision making. **P24.4** Support and encourage land development that makes provision for the multifunctional use of social facilities, places for cultural practices, recreational spaces and public institutions. This contributes towards increased efforts to ensure accessible and equitable distribution of social facilities. **P24.5** Ensure the implementation of the **City's Universal Access Policy (2014)** by ensuring land development contributes to transit-supportive social infrastructure and amenities to enable access for all to high-quality public transport and accommodate special-needs users.
Implementation intent	**P24.6** In pursuance of P24.1 and P24.2, in partnership with the provincial departments, other state entities and the private sector, work towards the realisation of the level 1 – 5 'integrated' and optimised clustered civic nodes/service nodes[57]. **P24.7** Plan and prioritise for the adequate provision of cemetery space, addressing burial demand as well as encouraging alternatives to in-ground burial, such as crematoriums.
Substrategy 3.2: Continue to transform the apartheid city.	
Policy 25: Support and enable programmes to enhance and facilitate access to land and housing supply in Cape Town, acknowledging that access to well-located social and community facilities and well-functioning public open spaces are important for redress and integration.	
Strategic intent	**P25.1** Support and facilitate structural reform to increase housing supply, diversified typologies and encourage mixed tenure in efforts to increase supply to the affordable housing sub-markets. **P25.2** Support precinct-based affordable housing delivery mechanisms and collaborate with the private sector in public realm improvements and precinct management. **P25.3** Support the development and formalisation of human settlements in heritage exemption areas.

[57] Clustered civic nodes consider the current and projected needs of the population regarding the provision, distribution and design of social facilities and recreational spaces

Substrategy 3.2: Continue to transform the apartheid city.	
Implementation intent	**P25.4** Develop a consolidated land pipeline (CLP) to secure and transform land that is strategic in location, underutilised or vacant, and owned by the state. • The suitability of land parcels to be evaluated to secure accommodation and economic opportunities, in particular for lower-income households and communities. • As a database and resource informing the CLP, the underdeveloped and partially developed land inventory (UPDLI) will be continuously updated and used as primary informant. **P25.5** Promote regeneration and refurbishment of well-located underutilised sites for affordable housing where appropriate, ensuring sufficient provision of supporting amenities, e.g. parks, schools, health facilities. **P25.6** Evaluate the medium- and long-term cost benefits of land parcels identified within the CLP via a due diligence assessment. • This can be done with the use of the evidence-based Spatial Costing Tool (SCOT) and any other tools or models as may be appropriate. **P25.7** Support the development of affordable housing through the implementation of the prioritised human settlement development areas (PHSDAs) with the objective to increase the supply of additional rental and titled housing in well-located areas for households otherwise excluded from the formal property market. **P25.8** Increase residential supply through the development of mixed income, diversified tenure and higher-density housing in the urban inner core, within new development areas (NDAs) and development focus areas (DFAs) identified in the DSDFs, acknowledging the need for intensified use and high-quality open spaces and community facilities. **P25.9** Support the regularisation of existing building activities, and the regulation of new building activities, within areas typically designated as LFTE (less formal township establishments) through the provisions of the MPBL single residential zoning 2: incremental housing (SR2). **P25.10** In pursuance of P25.6, identify infrastructure upgrade programmes for social and utility infrastructure and design codes to support communities where infrastructure provision has been exceeded, given the increases in population density.
Policy 26: Transform and integrate historically marginalised areas and informal settlements into spatially integrated neighbourhoods that enable economic and social opportunities for residents.	
Strategic intent	**P26.1** Support land development proposals that advance inclusive economic growth and sustainable livelihoods in existing and new townships. • The City can support applicants through proactive zoning of land and providing a supportive public realm and open space system. **P26.2** Support the planning and inclusion of SMMEs, micro-enterprises and informal traders around higher-order activity generators (urban nodes, public institutions and public transport interchanges) that attract high levels of pedestrian traffic and include urban management for these precincts. • See section 30 of the MPBL that considers informal trading within erven zoned single residential zoning 2: incremental housing (SR2). **P26.3** Support land development that encourages collaborative planning and implementation partnerships with the community, private sector investment and the clustering of public facilities, institutions, and government and non-governmental organisation offices in urban support areas (USAs) and vulnerable areas. **P26.4** Support the coordination of public and private sector development initiatives in spatially targeted areas (corridors, nodes, DFAs, USAs) and areas of economic potential that are accessible to public transport. **P26.5** Plan for the activation of less formal economic activities within the public environment. • This includes improvements of movement routes, the provision of public facilities, the management of informal trade, facilitation and availing of trading areas and the provision of basic infrastructure and services that create social gathering places or places to trade (including ablutions, cleaning areas, storage areas, water, waste removal, and shelter).

Substrategy 3.2: Continue to transform the apartheid city	
Implementation intent	**P26.6** Support proactive planning and upgrading of existing informal settlements that are located on land suited to urban development, with financial and technical assistance and prioritising investment in basic service infrastructure for these areas. **P26.7** Implement the **Directives for the Planning, Design and Implementation of Human Settlement Projects in Cape Town** (April 2016, or as amended). **P26.8** Where prevailing densities prevent the upgrading of an area, support the de-densification to alternative land suitable for settlement of residents. Land acquisition by the City should be prioritised for this purpose and the land pipeline envisaged in Policy 9 (Plan for the incremental land use intensification and diversification in support of inward growth predicated on the public transport infrastructure as outlined in table 5.6 – differentiated intensification guidelines) needs to reflect the changing circumstances. **P26.9** Prioritise public health, safety measures and design around areas where informal trading and other informal activities are common and within informal settlements. • This needs to involve upgrading the public environment to mitigate natural hazards and man-made risks, ensuring adequate access for emergency services, regular fire breaks and the provision of public lighting in high-crime areas. **P26.10** Support regulatory reforms that reduce barriers to access for SMMEs and micro-developers by proactively increasing the scope of land use rights along appropriate corridors, or structuring routes, e.g. by utilising overlay zones in appropriate areas. **P26.11** Where housing (or appropriate land for housing) cannot immediately be made available, the City will: • provide services to informal settlements/additional dwellings/backyard circumstances in line with the City's Human Settlements Strategy focused on in-situ upgrading; and • partner with beneficiary communities and NGOs to provide technical advice (e.g. local planning support offices) and materials; consider alternative forms of tenure security; enhance skills to ensure more appropriate foundations and structures are developed, as well as layouts that ensure access roads for the provision of services. This may include alternative building materials.

TABLE OF MAPS

NOTES

CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Making progress possible. Together.