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The Spatial Development Framework (SDF)

7.1 Importance of SDF in Growth and Development Strategy (GDS)

The cornerstone of an effective GDS is a deep and thorough understanding of provincial endowments and assets, development potential and constraints, along with the forces shaping these and how they are changing over time. These should be spatially referenced, with the trend information being specifically important. The SDF provides the spatial information with regard to development potential and growth areas that will give effect to the implementation of the GDS.

The institutional arrangements and resource requirements to meet the challenges must be identified in the GDS, appreciating that some of the resources and capacities required, may reside in other government spheres. This should inform the difficult choices around resource allocation, usage and trade-offs (in the interests of maximising developmental impact).

The SDF is one of the main tools which is utilised, to ensure the eventual realization of the spatial vision and spatial objectives of the GDS2 and the Integrated Development Plan of the municipality. It is a key legislative mechanism to address the numerous developmental challenges of the District. A number of these challenges considered and interpreted by the SDF include:

- Integrating the urban spatial form created under apartheid to separate townships from economic areas;
- Addressing the services backlogs for the poorest of the poor and the market-related residential development property boom;
- Providing an effective and affordable district-wide public

transportation network that takes into account the reliance of the low-income communities on public transport (at a greater relative monthly cost) and conversely, the dependence of middle income communities on private modes;

- Balancing and facilitating market and public sector development in an effective and co-ordinated manner; optimising the use of existing resources;
- Determining and communicating reasonable and effective development policies and strategies;
- Investing in infrastructure in a cost-effective and proactive fashion whilst ensuring that historical backlogs are addressed.

7.2 Strategic Concept

In order to achieve the above spatial development objectives, the Sedibeng District Municipality proposes to manage spatial development in a manner that will focus on existing strengths and development opportunities, whilst addressing areas of critical need. Conceptually, this approach is labelled as:

Building on Urban and Rural Strengths

In essence, the conceptual approach acknowledges that the urban areas of greater Lesedi, Emfuleni and Midvaal and environs, are likely to be the focal points for significant economic growth and development within Sedibeng District over an extended period of time.

However, it is accepted that there is a dependency amongst a significant proportion of the residents of Sedibeng District on access to peri-urban and/or rural land for basic livelihood (i.e. survival or subsistence) purposes, and that this is likely to continue to be so, at least in the medium term (10 years).

Therefore, it is concluded that:

- It must be accepted that it is most rational and economically effective to focus higher order development investment (in infrastructure, housing and a diversity of economic enterprises) in the urban core areas.
- However, a proportion of the resources of the Sedibeng District



Municipality must also be targeted in areas of opportunity and areas of need in fringe rural and peri-urban areas, in order to upgrade existing settlements and create or facilitate new development opportunities in these areas.

7.3 Proposed Spatial Development Framework

The proposed Spatial Development Framework consists of various structuring elements, such as nodes, corridors and the open space network. These proposed developments are constrained and will have to be phased in accordance with the availability of engineering services and funding for key infrastructure. Due to the constraints with infrastructure four approaches are proposed, namely:

- **Consolidation:** This relates mainly to the urban centres and other nodes and development corridors that have been identified. These areas have good infrastructure and the aim is to consolidate and densify these areas. This will promote sustainable use of resources, efficiency and a focussed infrastructure programme. Maintenance of infrastructure and possible upgrade should be prioritised to ensure that these remain thriving nodes within the district.
- **Upgrading of existing settlements:** There is a large concentration of informal settlements in the district with large portions of the population earning below the minimum living levels and the majority of the population may be classified as poor. Engineering and social services should be provided to these areas to increase the standard of living of communities and to increase their access to opportunities.
- **Protection of environmental areas:** The area has various natural resources that need to be upgraded and protected. These resources for a sustainable open space system in the district and should be used as assets to attract tourists and other similar low intensity activities.
- **Support agricultural development:** The District has various areas with potential for commercial agriculture. These areas require support from the municipality to ensure maximisation of the potential such as linkages, transport modes, storage facilities, etc.

7.3.1 Nodes and Development Corridors

A hierarchy of nodes have been identified. At the District scale, two Primary Development Nodes are identified:

- Vereeniging CBD
- Vanderbijlpark CBD

In addition, three Secondary Development Nodes are proposed:

- Meyerton will be the primary node along the R59 corridor, with a mix of land uses. This area can accommodate heavy industries, large-scale manufacturing, commercial uses, retail, general business and urban residential uses.
- Heidelberg CBD, the economic and administrative centre of Lesedi. It's location on the N3 at the intersection of a number of provincial roads will ensure on-going growth and it will remain the main source of job opportunities in the municipal area. Further economic diversification and residential opportunities should be promoted here.
- N3 Zone of Opportunity, has been identified at the intersection of the R42 and the N3 for the purposes of mixed retail, commerce and service industries. The process of installing bulk services has commenced, with a planned retail shopping centre of approximately 13 000m² to be constructed.

Finally, additional Tertiary Development Nodes are proposed to function as local service centres and to support the agricultural sector.

- Vischkuil/Endicott, which is an emerging node in the N17 corridor to the west of Devon/Impumelelo, closer to Springs.
- Devon/Impumelelo, which is the second largest node in Lesedi and is situated in the N17 corridor on the north-eastern edge of the municipality;
- The Nampak/Everite area: This node is situated at the gateway of the R59 corridor and should therefore be protected in terms of the type of uses and aesthetic appearance. Light industrial uses, mini-factories, offices, warehouses and commercial uses are proposed for this node.
- Sebokeng, the proposed node is situated coincidental to the hospital and taxi ranking facilities. For all intents and purposes, it shows all the characteristics of an activity node in the making. It currently comprises an agglomeration of various complementary land uses such as health, commercial, retail and light industrial

activities. Further, it is located along the most important and busiest road in the area (Moshoeshoe Road), and is also close to an active rail line. If the node is to be developing as hoped, the current land use must be supplemented with formal retail and banking facilities.

- **Evaton:** This node is situated adjacent to the Golden Highway. Apart from providing retail and commercial facilities this node could also accommodate community facilities like a post office, clinic and police station. The proximity of the node to the Golden highway and Moshoeshoe Roads suggest that a public transport facility would be particularly appropriate.

Development corridors are development areas that are situated adjacent to transport routes, and thus do not have a specific boundary. Mixed use development is encouraged in these areas as the road infrastructure provides visibility and accessibility, infrastructure and opportunities for public transport infrastructure. Three such corridors have been identified, namely:

a | Along the R59 between Meyerton and Vereeniging

The R59 and the rail line that runs adjacent to it, forms a natural opportunity for a corridor. In fact, previous studies have recognized it for this potential. However, because of the underlying geology and relative remoteness from the largest population concentrations in the area we would recommend that it only enjoy partial development. The siting of industrial activities, which are incompatible with residential land uses, would be ideal. Generally speaking, the best opportunities lie to the west of the R59, especially when one considers the industry type that is recommended. The existing local road running to the west of the R59 is ideally situated to serve as a frontage road and provide direct access to potential development sites.

b | N17 Freeway

The N17 Freeway is located within the northern section of the Lesedi Local Municipality and creates a link between Gauteng and Mpumalanga Province. Although the R29 Road (between Endicott AH and Devon) runs parallel to the N17, the distance between these roads is too far to provide an effective development corridor. It is proposed that development nodes be established at the intersection of the R42/N17

and R550/N17. These development nodes could act as catalysts for the development of Endicott/Vischkuil and Impumelelo / Devon.

c | N3 Freeway

The development focus along the N3 freeway should be a combination of Nodal development and corridor development in order to maximize investment opportunities. The existing accesses and entrances to the N3 with the R23, R42 and the R550 should be strengthened by nodal development. Apart from the frontage (visual impact) along the N3 between the respective nodal areas which should be utilized (subject to available areas) for “clean” service industries, the development strip between the N3 and the R103 presents the ideal opportunity for the establishment mixed land uses, with the focus on industries, office parks and manufacturing. This area could become the new locality for investors, which are dependent on the Gauteng/Kwazulu Natal and Free State link.

7.3.2 Environmentally Sensitive Areas

The principle is to ensure sustainable development into the future where natural resources are protected for future generations. In order to promote a healthy environment to live and work in, a well-defined open space network is required where conservation-worthy or sensitive natural features require protection. The following zones are proposed for rehabilitation and protection:

- Suikerbosrand Nature Reserve
- Alice Glockner Nature Reserve
- Vaal River and Vaal Dam
- Klipriver

Preferred outcomes in this element include managed land use practices (where limited development appropriate to the environment could be permitted) and the demarcation of restricted conservation areas. These areas will add value to the area, not only as natural resources, but will function as tourist and recreational spaces for the community.



Mixed use high density development should be promoted along selected stretches of these corridors, in support of the public transport function and to extend economic activity into the township areas.

7.3.3 Human Settlements

These settlements should be differentiated into areas where planning has progressed sufficiently to confirm an area's status as a Settlement Zone, and areas where such planning is still required (termed Potential Settlement Zones)

- Bophelong
- West Side Park
- Leeuwkuil
- Tsepong Phase 3
- Boiketlong
- Vlakfontein
- Evaton West Ext 11

7.3.4 Mobility and Accessibility

Although some of the major roads provide opportunities for development and thus have been classified as development zones, the region requires linkages and roads where the main function of the road will remain to increase mobility and accessibility. Mixed use high density development should be promoted along selected stretches of these corridors, in support of the public transport function and to extend economic activity into the township areas.

- (a) Moshoeshoe Road
- (b) Barrage Road, between Vereeniging and Vanderbiljpark.
- (c) K174, Extension of Barrage Road to the N1.
- (d) General Hertzog Boulevard (Three Rivers).
- (e) Johannesburg Road / Adams Street (Evaton)
- (f) R82
- (g) R57 from the N1 Southwards
- (h) R29 Route
- (i) R549 Route
- (j) R103 Route
- (k) R550 Route
- (l) Heidelberg Road (Ratanda)

Specific attention should be given to the proposed east-west linkages throughout the district, especially the routes to the north. These routes will create better accessibility and connectivity to the region. The north-south R82 route is particularly relevant as it currently has the status of a

mobility spine, but it is envisaged that it needs to become a development corridor in the future.

27°45'0"E 28°0'0"E 28°15'0"E 28°30'0"E 28°45'0"E



Sedibeng District Municipality Spatial concept

General overview of study area indicating the current and proposed future development areas

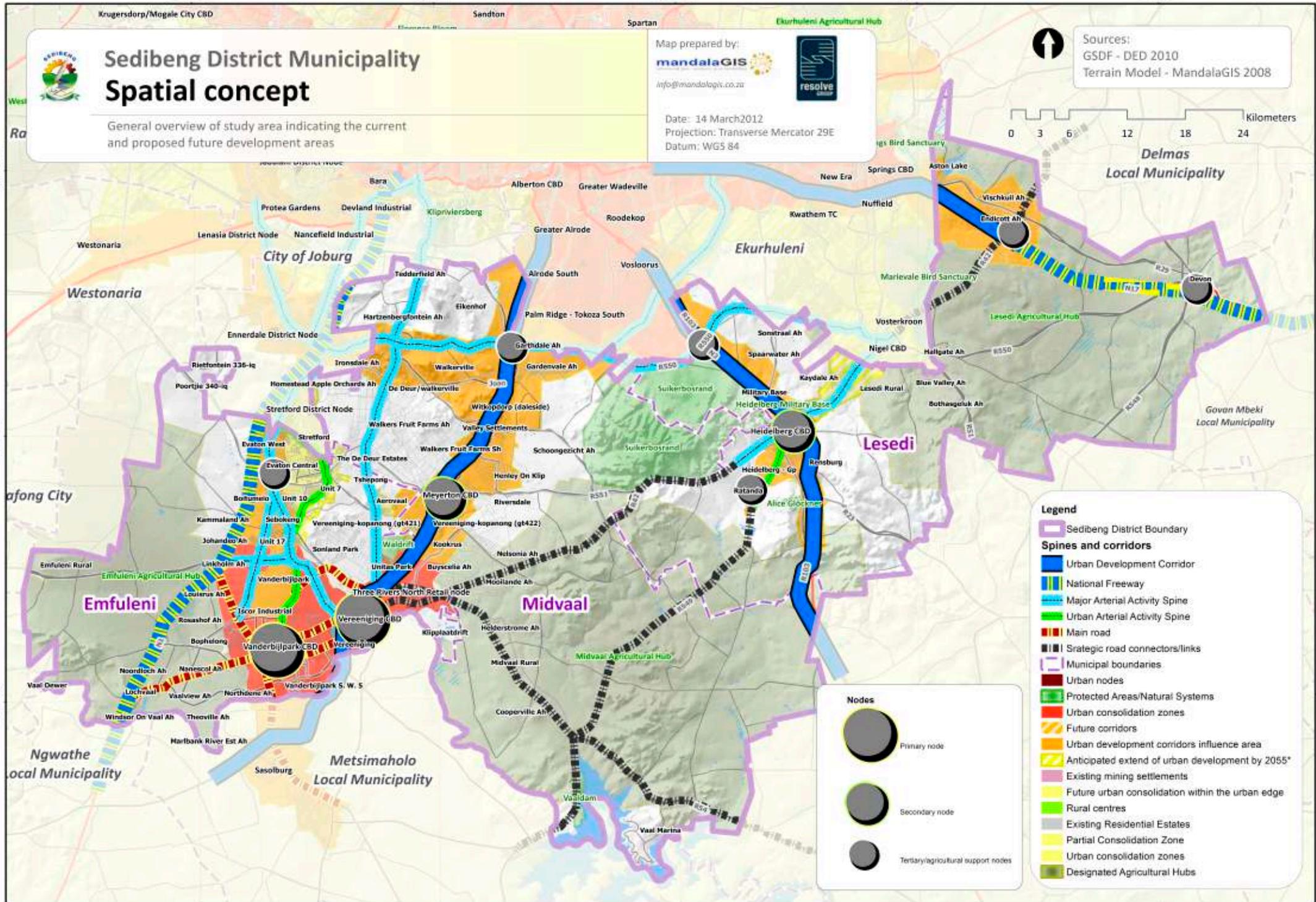
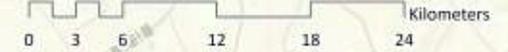
Map prepared by:
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Date: 14 March 2012
Projection: Transverse Mercator 29E
Datum: WGS 84



Sources:
GSDf - DED 2010
Terrain Model - MandalaGIS 2008



Legend

- Sedibeng District Boundary
- Spines and corridors**
 - Urban Development Corridor
 - National Freeway
 - Major Arterial Activity Spine
 - Urban Arterial Activity Spine
 - Main road
 - Strategic road connectors/links
 - Municipal boundaries
 - Urban nodes
 - Protected Areas/Natural Systems
 - Urban consolidation zones
 - Future corridors
 - Anticipated extend of urban development by 2055*
 - Existing mining settlements
 - Future urban consolidation within the urban edge
 - Rural centres
 - Existing Residential Estates
 - Partial Consolidation Zone
 - Urban consolidation zones
 - Designated Agricultural Hubs

Nodes

- Primary node
- Secondary node
- Tertiary/agricultural support nodes

27°45'0"E 28°0'0"E 28°15'0"E 28°30'0"E 28°45'0"E

The strategy for spatial development cannot on its own ensure the success of the implementation of the SDF. The spatial strategy is supported by various other strategies and programmes which is part of a co-ordinated and integrated package to ensure that investments and programmes form the basis of longer-term growth and development and that it supports a proper hierarchy of settlements.

7.4 Key Spatial Projects

The key spatial projects do not constitute a full list of all interventions and developments that will be undertaken in the area. It rather highlights those priority interventions with either the highest catalytic impact, highest legacy value, or which are critical to the future growth of the area. These projects can also be depicted in relation to the spatial development and does not include the policy and regulatory interventions required. All the projects are not necessarily public sector initiatives, but may require government support and facilitation to the private sector. Some of them are identified as key flagship projects of GDS2, but all of them are critical for implementation through the IDPs:

- Establishment of Vaal Logistical Hub initiative
- Sedibeng Regional Sewer Scheme
- Ensure the development of the R59 Corridor
- Savanna City
- Klipriver Business Park and Graceview
- Sicelo Precinct
- Meyerton Waste Treatment Works
- Implementation of the Dlomo Dam Development
- Implementation of the Evaton Eastern Precinct Development
- Heritage Precincts
- Zone of Opportunity
- Heidelberg Showground Industrial Township.
- Transnet Bulk Liquid Terminal.
- Southern Gateway Logistics Hub.
- Integrated Medical Facility.
- Obed Nkosi Housing Development.

7.5 Conclusion

The strategy for spatial development cannot on its own ensure the success of the implementation of the SDF. The spatial strategy is supported by various other strategies and programmes which is part of a co-ordinated and integrated package to ensure that investments and programmes form the basis of longer-term growth and development

and that it supports a proper hierarchy of settlements.

It also requires that there must be a certain level of intervention with decision-making and implementation to ensure a deliberate move towards a more functional and optimal spatial pattern for the municipality, also creating sustainable settlements. The extent in which financial and institutional resources are mobilised, will undoubtedly have a major impact and could result in a meaningful change in the existing spatial pattern towards a more natural settlement pattern for the future.

A very high level of co-ordination and joint prioritisation is required with respect to all these strategies to ensure support of the geographic locations of the agreed to macro spatial plan. Minimum requirements for service provision to all communities must exist, but priority settlements must be identified for better levels of services to create the economic threshold, which is required for sustainable development.