i. PURPOSE OF THIS REPORT

The purpose of this report is to describe a revised Spatial Development Framework for the 2018 review of the municipality’s February 2011 approved Spatial Development Framework.

Note: This report comprises Volume 2 of the Overall 2018 Saldanha Bay Spatial Development Framework Report and hence starts at Section 5. Sections 1, 2, 3, and 4 are contained in Volume 1 which describes the Status Quo Report.

ii. PREPARATION OF THIS REPORT

After the inception stage was completed the introductory round of public participation was held between 30 May 2017 and 8 June 2017. Then a status quo report was prepared addressing policy, natural systems, socio economic trends, and the built environment.

The information in the status quo report, plus the feedback from the first round of public participation, and inputs from the Greater Saldanha Regional Implementation Framework (GSRIF) and its focus groups informed a Conceptual Development Framework (CDF) report. The CDF was then circulated to the public for comment via a second round of workshops as follows:

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOWNS</th>
<th>WARDS</th>
<th>VENUE</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 Oct 2017</td>
<td>Vredenburg, Green Village &amp; Langebaanweg,</td>
<td>Wards 2, 8, 9, 10, 13</td>
<td>Louwville Community Hall</td>
<td>15H00 – 19H00</td>
</tr>
<tr>
<td></td>
<td>Ongegund, Louwville, Witteklip</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 Oct 2017</td>
<td>Saldanha, Jacobsbaai, Daizville, Middelpos,</td>
<td>Wards 1, 3, 4, 5</td>
<td>Daizville Community Hall</td>
<td>15H00 – 19H00</td>
</tr>
<tr>
<td></td>
<td>White City</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 Oct 2017</td>
<td>Langebaan</td>
<td>Wards 6, 14</td>
<td>Langebaan Community Hall</td>
<td>15H00 – 19H00</td>
</tr>
<tr>
<td>31 Oct 2017</td>
<td>Paternoster</td>
<td>Ward 11</td>
<td>Paternoster Community Hall</td>
<td>15H00 – 19H00</td>
</tr>
<tr>
<td>1 Nov 2017</td>
<td>St. Helena Bay</td>
<td>Wards 11, 12</td>
<td>Sandy Point/ St. Helena Bay Community Hall</td>
<td>15H00 – 19H00</td>
</tr>
<tr>
<td></td>
<td>Laingville</td>
<td>Ward 7</td>
<td>Hopefield Community Hall</td>
<td>15H00 – 19H00</td>
</tr>
<tr>
<td>2 Nov 2017</td>
<td>Hopefield</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The CDF was also advertised in the press. The closing date for comments was 15 December 2017. Feedback received from this second round of public participation plus those received from other municipal and government line departments have been considered and, where appropriate, informed the proposals in the draft SDF report.

The Draft Spatial Development Framework was advertised between 22 November 2018 and 14 January 2019. Comments and feedback received from this round of advertising informed the Draft Spatial Development Framework. All comments received throughout the review process of the SDF as well as the responses to them is contained in Section 9.

iii. STRUCTURE OF THIS REPORT

This report is structured as follows (numbers 5-8 refers to the corresponding section in the SDF report):

5. Principles and Tools

These set out the basic tools and principles used to analyse the municipality and the settlements and make proposals in terms of national (Spatial Planning and Land Use Management Act (SPLUMA)), provincial (Land Use Planning Act (LUPA)) and municipal (Saldana Bay Municipality: By-Law on Municipal Land Use Planning) planning legislation.

They are also informed by the need to be practical so as to ensure economic development, employment creation and sustainability of the municipality’s long-term environmental assets including water, fishing and agricultural resources, and nature-based tourism.

6. Municipal and Settlement Proposals

6.1 Whole Municipality
6.2 Vredenburg
6.3 Saldanha
6.4 Langebaan
6.5 Paternoster
6.6 St Helena Bay
6.7 Jacobs Bay
6.8 Hopefield
6.9 Besaanskip Industrial Area
6.10 Green Village
6.11 Koperfontein

Each section is set out as follows:

- Aerial photograph.
- Analysis of settlement including reasons for its location, layout, environmental quality, and opportunities and challenges.
• Description of proposals in terms of environmental sustainability, new development areas, settlement restructuring, and heritage and urban design.
• This report may be downloaded at www.sbm.gov.za.

7. Implementation

7.1 Policies, Strategies and By-Laws
7.2 Strategy Integration
7.3 Municipal Spatial Development Strategy
7.4 Urban Growth Management Policy
7.5 Housing Policy
7.6 Enabling Projects for Spatial Development and Land Use Management
7.7 Configure and Align SBM Sector Plans and SDF
7.8 Monitoring, Evaluating and Revision Framework

8. Legislative Compliance

This section indicates how the report complies with the requirements for SDFs contained in SPLUMA and LUPA.

9. Public Participation

This section describes the public participation processes that was held as well as the methods of advertising of the Final Draft SDF. It also lists the government departments who submitted comments as part of the final advertising process.
5. **PRINCIPLES AND TOOLS**

The principles and tools described in Section 5 and the Proposals, see Section 6, are informed by the following strategies which facilitate the SPLUMA principles (Chapter 2, Section 7), see Section 2.1.1 Volume 1 as follows:

<table>
<thead>
<tr>
<th>SPLUMA PRINCIPLE</th>
<th>STRATEGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) SPATIAL JUSTICE</td>
<td>Promote access to well located land close to major transport routes and employment opportunities particularly in Louvville and Witteklip, Vredenburg; Diazville, Saldanha, around Sea Breeze Park in Langebaan and Laingville, St Helena Bay.</td>
</tr>
<tr>
<td>(b) SPATIAL SUSTAINABILITY</td>
<td>Integrate the findings of the Environmental Management Framework and the Biodiversity Offset Study into the Spatial Development Framework proposals.</td>
</tr>
<tr>
<td>(c) EFFICIENCY</td>
<td>Locate development areas so as to make use of existing resources and infrastructure in the existing urban settlements to the greatest extent possible. Rapid Development Areas (RDAs) are an important tool in this regard. (Rapid Development Areas is where more intense land use activities can be supported, e.g. along Voortrekker Road in Vredenburg.)</td>
</tr>
<tr>
<td>(d) SPATIAL RESILIENCE</td>
<td>Do not overly detail SDF proposals so as to retain flexibility in spatial plans, policies and land use management.</td>
</tr>
</tbody>
</table>
| (e) GOOD ADMINISTRATION | i. Ensure SDF proposals are simple, easy to implement and not overly detailed.  
ii. Promote transparency with a two phase public participation strategy including Open House meetings in the municipality’s settlements at which the proposals were comprehensively presented and periods in which to submit comments was conducted. |

---

In addition the following national and provincial legislative guidelines and policies have informed the SDF proposals.

<table>
<thead>
<tr>
<th>Legislation, Policy Guidelines</th>
<th>Legislation, Policy Guidelines Reference</th>
<th>SDF Report Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPLUMA (DRDLR)</td>
<td>Sec 1</td>
<td>• See Table 5.1 opposite</td>
</tr>
</tbody>
</table>
| NDP (Office of the Presidency) | Chapter 8 Special Intervention Areas | • Section 6.1.6 – Municipal Wide SDF  
• Section 6.10 – Besaansklip Industrial Area including IDZ |
| NEMA EMF Regulations 2010 (DEA) | Section 5 | • Volume 1 – Status Quo Report Sections 3.2 and 3.3  
• Volume 2 – SDF Proposals Sections 6.1.6 and 6.9 |
| LUPA (WC DEA&DP) | Chapter 3 Sections 13 and 15 | • Drafts were submitted to provincial and national departments for their comments which have been received and addressed as appropriate.  
• Alignment with surrounding SDFs was investigated in Section 2.6 (Volume 1 Status Quo report) and proposals made in section 6.1.6, particularly with respect to biodiversity conservation and open space linkages to the Berg River Estuary. |
| Integrated Urban Development Framework (IUDF) (COGTA) | Section 4 and 2 | • Volume 2: SDF Proposal Section 6 |
| Western Cape Biodiversity Spatial Plan (WC BSP) (CapeNature, DEA&DP) | | |

---

Table 5.1 Strategies to implement SPLUMA principles

Table 5.2 National and Provincial Legislative Guidelines informing the SDF Proposals
5. PRINCIPLES AND TOOLS

This section describes the principles and tools that will be applied to the proposals for the towns in Saldanha Bay Municipality and the SPLUMA principles and strategies that they address, see Table 5.1.

### Link to SPLUMA Principles
Where relevant the proposals in sections 6.1 to 6.11 will be cross-referenced to these principles to indicate how they comply.

<table>
<thead>
<tr>
<th>Informant</th>
<th>Narrative</th>
<th>Relevant SPLUMA Principle (see table 5.1 opposite)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Appropriate Walking Distance</td>
<td>Walking distance should be the prime measure of accessibility in an urban settlement.</td>
</tr>
<tr>
<td>5.2</td>
<td>Functional Integration</td>
<td>If at least 50% of all the functions residents require are within walking distance this reduces the need and time required to travel. This will accord with the PSDF (2014) Guiding Principles of Spatial Justice, Spatial Efficiency, Accessibility, Quality and Liveability (PSDF, 2014, p.22)</td>
</tr>
<tr>
<td>5.3</td>
<td>Socio-economic Integration and Interface</td>
<td>If the complete socio-economic cross-section of residents are within walking distance of each other the first four SPLUMA principles will be achieved.</td>
</tr>
<tr>
<td>5.4</td>
<td>Socio-economic Gradient</td>
<td>Urban areas should be set out so that they attract investment.</td>
</tr>
<tr>
<td>5.5</td>
<td>Intensification of Nodes and Corridors</td>
<td>Strategic intensification of activities along higher order routes will promote stronger business thresholds, greater employment and more efficient transport and infrastructure provision. Rapid Development Areas where more intense land use activities can be supported, e.g. along Voortrekker Road in Vredenburg, are an important tool in this regard.</td>
</tr>
<tr>
<td>5.6</td>
<td>Nodes and Intersections</td>
<td>Higher order facilities and more intense activities should be clustered in nodes and intersections as these have higher levels of accessibility and therefore make activities and facilities more viable.</td>
</tr>
<tr>
<td>5.7</td>
<td>Urban Edge</td>
<td>The urban edge restrains outward lateral growth thereby limiting urban sprawl and helps protect important environmental resources such as Critical Biodiversity Areas and agricultural land.</td>
</tr>
<tr>
<td>5.8</td>
<td>Off-grid Infrastructure</td>
<td>Where necessary off grid infrastructure should be promoted so as to reduce the demands on the municipality’s finances, infrastructure and natural resources, particularly in out of town locations.</td>
</tr>
<tr>
<td>5.9</td>
<td>Spatial Management of River Corridors</td>
<td>Development along river corridors should be set back from ecological corridor boundaries and face onto it so as to promote safety and surveillance and enable these corridors to have multiple uses.</td>
</tr>
<tr>
<td>5.10</td>
<td>Complete Streets Approach to Transport Planning</td>
<td>Roads and streets should be planned so that their spatial, economic and social benefits, in addition to their transport benefits, are maximised.</td>
</tr>
<tr>
<td>5.11</td>
<td>Street Cross-section Options</td>
<td>See 5.10 above.</td>
</tr>
<tr>
<td>5.12</td>
<td>Service / frontage roads as an important device for economic development along mobility routes</td>
<td>See 5.10 above.</td>
</tr>
<tr>
<td>5.13</td>
<td>Mining Rehabilitation</td>
<td>Mining rehabilitation plans and proposed after uses should form part of the land use management system and be guided by spatial development framework proposals.</td>
</tr>
<tr>
<td>5.14</td>
<td>Wind and Solar Farm Siting Principles</td>
<td>Location and layout of these facilities should not detract from tourism assets such as scenic landscapes nor negatively impact on environmental resources.</td>
</tr>
<tr>
<td>5.15</td>
<td>Guidelines for the Management of Development on Mountains, Hills and Ridges</td>
<td>Location and layout of development should not detract from tourism assets such as scenic landscapes nor negatively impact on environmental resources.</td>
</tr>
</tbody>
</table>
5.1 APPROPRIATE WALKING DISTANCE

- Walking distance should be the primary measure of access to decide whether activities are conveniently near or far from one another.
- Prioritise well located vacant land within 1 to 2kms of urban centres and areas of opportunity.
- Locate future residential areas within walking distance of urban centres where space permits.

(source: Towards an Urban Renaissance (Urban Task Force, 1999))
5.2 FUNCTIONAL INTEGRATION

- Aim for a spatial transformation plan that proposes 50% of all urban destinations within walking distance of where people live;
- Define a single uniting structure of nodes and corridors between town and township;
- Encourage a supporting densification pattern and infrastructure provision.

(source: adapted from Towards an Urban Renaissance (Urban Task Force, 1999))
5.3 SOCIO-ECONOMIC INTEGRATION AND INTERFACE

- Locate all future subsidy housing within walking distance of nodal centre where space permits;
- Promote gap housing within up-market and subsidy housing;
- Identify opportunities for infill, redevelopment; and,
- Take into account the nature of the spatial interfaces between communities of different levels of living.

[source: Towards an Urban Renaissance (Urban Task Force, 1999)]
5.4 SOCIO-ECONOMIC GRADIENT

• Where possible, Human Settlement projects should not be targeted at a single income group exclusively, e.g. BNG or site and service (S+S), but should endeavour to include at least a GAP housing and top structure BNG component even if only comprising 10% or 20% of the units;

• Where possible market housing should be included in projects as well;

• Arrangement of housing for various income groups should be according to the principle of the socio-economic gradient with higher end of market closest to main routes so as to promote an urban character that is conducive to investment and upgrading; and,

• To further address this key issue serious consideration must be given to the design of the interface between them.
5.5 INTENSIFICATION OF NODES AND CORRIDORS

- Sensitively intensify development opportunities in apparently developed but often under-developed, well located urban areas paying attention to urban quality;
- Promote sensitive infill and redevelopment along main routes in well located precincts;
- Show sensitivity towards existing heritage buildings; and,
- Enhance the street experience through landscaping and building design quality in new developments.
5.6 NODES AND INTERSECTIONS

Three levels of hierarchy of urban nodes should be recognised containing business and community facilities which should be clustered together as far as possible to provide satisfactory access and clustering of activities:

- **TERTIARY**: Technikons, hospitals, courts, multi-purpose centres, regional or metropolitan transport interchanges, museums, art galleries, indoor sports complexes, regional shopping centres;
- **SECONDARY**: high schools, day care centres, hospitals, libraries, sports and community halls, sports fields;
- **PRIMARY**: primary schools, crèches, clinics, bus and mini-bus taxi stops; and,

These nodes should be located at accessible intersections; the higher the node order, the greater should be the volume of passing traffic and trade.

(source: GSRSIF, P13)
5.7 URBAN EDGE

The urban edge alignment should be reviewed to ensure that:

- Sufficient protection is given to land requiring conservation, inter alia, agricultural land, critical bio-diversity areas;

- Compaction rather than expansion of urban settlements is encouraged to promote public and non-motorised transport modes where appropriate;

- Urban Edges should provide sufficient land for the development of the needs of the area for about 20 years, given the current growth rate, and should be extended only after infill land and under-developed land is fully developed within the current urban edge; and,

- The urban edge should only be revised based on actual need and once all the existing under or unutilized vacant land has been developed.

Infill, Densification and the Suburbs

It is clear that significant infill and densification is required in order to restructure the settlements in the Municipality.

Well located land should be identified to contribute to this important goal.

NOTES:

- “town cramming”, i.e. developing all available public open space, often just because it is municipal owned should be avoided.

- Provision should be made to future urban quality with well maintained parks and river corridors surrounded by higher density development.

(source: Towards an Urban Renaissance (Urban Task Force, 1999))
5.8 OFF-GRID INFRASTRUCTURE

(a) Sanitation System based on sustainable principles

- SA settlements are increasingly facing services affordability and availability of supply challenges.

- Off-grid infrastructure should be promoted to the greatest extent possible in these situations while giving consideration to their impact on municipal revenues.

- Sustainable Urban Drainage Strategy (SUDS) principles should be incorporated in stormwater management proposals.

(b) Solar Energy Generation for off-grid energy generation

(c) Rainwater harvesting for sustainable use of water

(source: Bioclimatic Housing, 2008)
Keep ploughing and urban development at least 32m from river or wetland banks or beyond river corridor and flood setback lines as prepared by fresh water ecologists or hydrological engineers;

Ensure development faces onto, and not away from, rivers and public open space corridors and parks;

This should be achieved by lining these river and open space corridors with trails, maintenance tracks, or single sided roads onto which development faces; and,

No development should be permitted in the 1:100 floodline (Sec 144 NWA, 36/98).
5.10 COMPLETE STREETS APPROACH TO TRANSPORT PLANNING

- All modes of transport:
  - Pedestrian;
  - Cycle;
  - Bus and taxi;
  - Private motor vehicles;
  - Trucks;
  - and Kerb-side formal and informal businesses
- Tree planting and beautification to be considered as part of a single integrated system in the design of streets in towns and townships.

- NMT facilities to be developed on an incremental basis.

**A** Neighbourhood Main Street – residential area, convenience shopping, business, flats above shops

**B** Neighbourhood Connector – links a number of neighbourhoods

**C** Neighbourhood Residential – woonerven, residential access street

**D** Industrial – primarily accommodate freight trucks, should connect directly to regional highway network

**E** Shared streets - primarily pedestrianized streets in busy areas through which vehicles can crawl

(source: Boston Complete Streets Guidelines, 2013)
5.11 STREET CROSS-SECTION OPTIONS

Class 3 cross-section to enable continuous access alongside mobility route

Class 4 high street cross section (internal routes)

Bus / taxi / business route

NMT and trading route

(Source: CNdV Africa)
5.12 SERVICE / FRONTAGE ROADS AS AN IMPORTANT DEVICE FOR ECONOMIC DEVELOPMENT ALONG CLASS 2, 3 AND 4 MOBILITY ROUTES

- Mobility lanes to be protected between intersection where possible
- Parking to be accessed from frontage roads where possible

1. Mobility lanes to be protected between intersection where possible
2. Parking to be accessed from frontage roads where possible
3. 1 may share with pedestrians and cycles
4. Tree root barriers may be required <1.5m
5. Pedestrian barrier on centre median

(source: CNdV Africa)
5.13 MINING REHABILITATION

- Quarrying, mining permits and prospecting licenses should not be issued unless the after-use has been clearly identified and endorsed by the relevant authorities;

- During the exploitation phase the land should be shaped and rehabilitated, including the stockpiling of topsoil, to facilitate the after-use; and,

- Mining within Critical Biodiversity Areas should be discouraged.

(source: CNdV africa; Frances Baard DSDF, 2010)
The report (Western Cape, 2006) highlighted the following site factors as being important:

- **Slope**
  Slope is a critical factor that influences numerous aspects of the design of wind farms. These include:
  i. Wind Potential – slopes up to a certain gradient that are orientated towards prevailing wind directions tend to augment average wind speeds;
  ii. Visibility – wind farms on slopes will have increased visibility;
  iii. Road layout and design – slopes need to be considered in road layout to reduce the erosion potential of road run-off and rockfall and landslide potential;
  iv. Tower foundation design – this needs to consider falls across the tower platform; and,
  v. Revegetation – steep road verges and cuts will require revegetation to reduce sedimentation from run-off.

- **Geology**
  Wind turbines impose large loads on tower foundations and hence highly stable underlying geology is essential. The existence of bedrock, subterranean voids and possible seismic activity needs to be investigated.

- **Soils**
  The erosion potential of wind farms sites is determined by the combination of soils and climatic factors. Soil types need to be considered as these influence road construction and re-vegetation.

- **Rainfall**
  Rainfall is a further factor that influences erosion and sedimentation that result in possible habitat and vegetation degradation. The rainfall of a specific site has a direct bearing on the road run-off, and runoff from steep slopes.

- **Surface Hydrology and Groundwater**
  The hydrology of specific sites is influenced by all the factors set out above. Hydrology must be dealt with in detail as it is a critical determinant of ecosystem health. The design of roads and the treatment of run-off from roads and disturbed surfaces must consider the reduction of sedimentation and elimination of erosion potential into any river, stream or wetland systems on the project site. Geohydrology (groundwater) is an aspect of the hydrology of a site. It influences foundation design and the retention of wetland integrity if any are associated with the site.

- **Vegetation**
  At the regional level, sensitive vegetation types linked to valuable landscape types should ideally have been eliminated.

However, at the site level, a detailed vegetation assessment should be carried out if the proposal is not in an agriculturally disturbed area (either crops or pasture land) to ensure that no rare species exist on the project site.

The vegetation assessment should include location and condition of:
- Extent of disturbed or alien vegetation
- Extent of any natural vegetation
- Indigenous and endemic species
- Rare and threatened species

- **Terrain Stability**
  Terrain stability is an important design determinant that is a function of slope, underlying geology, soil type and rainfall and usually requires specialist inputs. The design process typically has the following stages:
  i. Determination of rainfall data for the site (including extreme weather conditions)
  ii. Determination of slopes by gradient classes
  iii. Determination of natural watercourses
  iv. Determination of rocky areas
  v. Determination of soil type and permeability
  vi. Determination of areas of potential erosion
  vii. Determination of areas with high water table
  viii. Terrain stability directly influences the design of tower and transmission pylon foundations and the design of service roads.
5.15 GUIDELINES FOR THE MANAGEMENT OF DEVELOPMENT ON MOUNTAINS, HILLS AND RIDGELINES: WESTERN CAPE PROVINCIAL GOVERNMENT

See Operational Guideline, Reference E12/2/P approved by Minister on 29 August 2001.

These guidelines address the following:

- Setting out the framework for decision-making regarding development in mountainous areas, hills and ridges;

- Defining the decision-making criteria that will be applied to control development on mountains, hills and ridges, with the key objective of preventing inappropriate development;

- Clarifying the requirements for development proposals on mountains, hills and ridges;

- Assisting other organs of state, within the context of co-operative governance, to fulfil the requirements of Section 24(1) of NEMA when dealing with activities that require authorisation or permission by law; and,