

NSSD 1 STRATEGIC PRIORITY 4: BUILDING SUSTAINABLE COMMUNITIES		
Key Environmental Issue: Inefficient Spatial Planning and Urban Design; Inadequate Provision of Basic Services Including Water, Sanitation and Waste Management;	Integration into Mandeni SDF	
Rapid population growth and urbanisation increases pressures on Municipalities to sustainably supply services. A large number of poverty stricken people live in informal settlements which are detrimental to their health and well-being. Safe, clean and pleasant environments will need to be provided. Increased demand for development is placing pressure on the optimal use of land and the provision of sustainable services and infrastructure. Urban design does not optimise resources efficiency particularly in relation to electricity usage, water and sewer provision, waste management and accessibility of public transport. The lack of equitable and universal access to basic services such as effective waste removal and the provision of appropriate sanitation and water services impact on human health and well-being and result in a deterioration of the quality of life. Waste recycling initiatives are not easily accessible to the majority of people in the District.		
Sustainability Objective		
Environmentally sustainable communities are established where development is informed by social needs and the improvement of the quality of life and does not compromise the natural environment and cultural heritage.		
Sustainability Criteria		
Environmental sustainability and ecosystem goods and services are integrated into development planning.	Yes	
Sustainable municipal bulk service infrastructure and facilities are available, maintained and managed, to sustainably meet the needs of residents and business.	Partially	
All residents have appropriate, secure and affordable housing and access to basic services in order to meet their basic needs and to live with dignity.	Partially	
Communities vulnerable to environmental risk are identified and strategies are in place to minimise these risks.	Partially	

Environmental justice and equity must be pursued so as to ensure that environmental impacts do not unfairly discriminate against any person or community.	Partially
Community services, facilities, community parks and open spaces are accessible to all people.	Partially
An efficient, safe, integrated and convenient network of public transport, bicycle routes and pedestrian access is provided.	Partially
Safe, clean and pleasant environments are provided to protect and enhance human health and well-being and improve overall quality of life.	Yes
Resources use is minimised through energy efficiency, reduced water demand, efficient waste management and the provision of accessible public transport.	Partially
Cultural and natural resources and sense of place are protected and maintained.	Partially
Indigenous ecological and cultural knowledge is developed and integrated into planning and management processes.	Partially

NSSD 1 STRATEGIC PRIORITY 5: RESPONDING EFFECTIVELY TO CLIMATE CHANGE

Key Environmental Issue: Localised Poor Air Quality and Greenhouse Gas Emissions Contributing to Climate Change	Integration into SDF	Mandeni
Poor air quality issues due to improper waste management. In terms of waste disposal, there is a regulated landfill site which appears to be a private landfill site that operates in KwaDukuza Municipality. Mandeni does not own or operate its own landfill site. Residents have been dumping waste in unregulated areas. Gas emissions such as Methane are prevalent, resulting in poor soil and air quality. Fertilisers and pesticides used on agricultural land can contribute to poor soil, water and air quality. A decrease in natural capital diminishes the municipality's ability to sequester carbon and mitigate predicted climate change impacts.		
Sustainability Objective		
Air quality is significantly improved, Greenhouse gas concentrations are reduced and there is resilience to climate change within communities and ecosystems.		
Sustainability Criteria		

Ambient air quality standards for the protection of human health and well-being and natural systems are maintained.	No	
A low-carbon economy is achieved through energy efficiency, the use of alternative technology and reducing the dependence on fossil fuels.	No	
Greenhouse Gas emissions are reduced to levels in line with Cabinet approved targets.	No	
Natural systems are restored and maintained to be suitable for the sequestration of carbon and mitigate for climate change.	No	
Climate change adaptation strategies effectively build and sustain social, economic and environmental resilience to climate change.	Partially	

8.4.2 Strategic Environmental Assessment (SEA)

The Mandeni Municipality does not currently have a Strategic Environmental Assessment Plan in place. Through the development of the District Environment Management Framework Mandeni Local Municipality has been able to incorporate the key principles within this plan that are talking to the SEA into the Municipal SDF and Coastal Management Plan.

The development of the municipal SEA or incorporation of the principles of SEA into our planning mechanism will also give effect to the Municipal Planning and Performance Regulations (2001) that requires inter alia that *“a spatial development framework reflected in a municipality’s integrated development plan must contain a strategic assessment of the environmental impact of the spatial development framework”*.

The primary reason for this legal requirement is to give effect to Chapter 5 of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) which deals with Integrated Environmental Management (IEM). The development of the Mandeni SEA will need to integrate the objective of IEM to feed into the next Mandeni SDF Review.

IEM is the key instrument of the National Environmental Management Act (NEMA). South Africa’s NEMA promotes the integrated environmental management of activities that may have a significant effect (positive and negative) on the environment. IEM provides the overarching framework for the integration of environmental assessment and management principles into environmental decision-making. It includes the use of several environmental assessment and management tools that are appropriate for the various levels of decision-making.

The aim of IEM is sustainability. The SEA is an accepted and widely used IEM tool to integrate sustainability considerations into policies, plans or programmes.

The aim of the evaluation is to confirm that the SDF is compliant with the MSA Regulations. And that it contributes positively towards sustainability in the institutional, economic, social and ecological dimensions across sectors.

As part of its environmental plans, the District is current finalising its Environmental Management Framework (EMF), a tool similar to the SEA. The EMF will assist in understanding the environmental assets within the District as well as recommending ways of preserving such assets. A number of environmental issues, which need to be managed, have been identified by the EMF, namely, biodiversity, connectivity, vegetation type, wetlands, rivers and estuarine systems within the area.

8.5 Monitoring and evaluation

OBJECTIVES	PERFORMANCE INDICATORS	MEANS OF VERIFICATION
Encourage strong and viable nodes	- Development of a land use scheme for the areas of Mandeni Town, Sundumbili, Isithebe as well as Utugela - Level of access and location of public facilities serving different communities in these nodes	Identify projects and assign budgets for each project in each node
Development of Social and Service Infrastructure	- Supply of potable water to all households within nodal areas; - Number of households with toilet facility; - Eradication of electricity backlogs - Number of households with solar-powered geysers and electricity connection - Frequency of waste collection in nodal areas and settlements - Provision of additional health facilities and maintenance of existing facilities - Frequency of mobile services to remote settlements; - Number of new health facilities	- Determination of standards for facility provision in nodal areas. - Improved access to water and sanitation services - Improved access to energy - Phased municipal waste collection services - Improved access to social facilities
Unlocking Economic Development	- Increased investment in terms of tourism, leisure and commercial within Mandeni - Number of new tourism facilities and products located in Mandeni. - Number of local people involved in local economic initiatives - Commercial & industrial development support. - Percentage increase in commercial land.	- Attract Private sector investment - Local Tourism development - Commercial & industrial development in nodal areas - Public-private partnerships for economic initiatives - SMME development

Continuum of Sustainable Human Settlements	- Finalisation and implementation of housing projects - Establishment of Land use scheme for Nodal areas - Development of a Local Area Plan including a densification strategy for Isithebe - Development of settlement plans for dense rural settlements. - Identification of appropriately located land for housing development and infill development.	Determination of standards for facility provision in different settlement types (urban, dense rural, dispersed rural).
sustainable environmental conservation and management	- Development of a Water Resource Management Strategy - Delineation of 1:50 years and 1:100 year flood-lines along the major rivers - Relocate settlements under high flood risk potential areas. . - Improved sanitation and waste management services in nodal areas. - Protection of the nature reserves - Application of carrying capacity standards to grazing land management. - Extent of land cleared of alien plants. - Rehabilitation and Protection of indigenous forests. - Inclusion of an Environmental Management overlay on Wall-to-wall scheme.	- Effective Water Resource Management - Delineation of flood risk areas - Establishment of Municipal Open Space System - Alien invasive plant management - Established programmes for clearing of invasive aliens through Working for Water, or other forms of rehabilitation e.g. through working for Wetlands, etc. - Established environmental management programs.
Regional Access and Road Network	- Number and location of roads upgraded. - Kilometres of roads upgraded. - Construction of new roads. - Number of high impact and catalytic projects located along development corridors. - Type and level of services provided to settlements located along development corridors.	- Upgrading of major access and arterial/link roads. - Improving access to the existing and growing settlements. - Location of development nodes along and at the intersection of key roads. - Focusing development projects on settlements located along highly accessible routes.
Protection of agricultural land	Identification and mapping of agricultural land with high potential.	- High potential agricultural land - Agricultural protection plans

	• Size and use of high potential agricultural land. • Scheme clauses designed to protect high potential agricultural land. • Introduction of land use controls for agricultural land. • Initiatives to promote agriculture. • Direct support to land reform projects.	Agricultural development support
Sustainable Spatial Planning System	• Number of LAP's prepared • Number of approved settlement plans • Generation of new spatial data • Improved GIS system and data • Accepted norms and standards for site sizes. • Identified factors that should be considered when allocating land for different land uses. • Spatial identification and coding of rights allocated. • Register of land rights holders • Improved capacity and understanding of spatial information by Traditional leadership	• Development of Local Area Plans for development nodes • Developing settlement plans • Mapping of settlements within each izigodi • Development of Guidelines for land Allocation • Training and Capacity Building of Traditional leaders

8.6 Regional strategies for Ilembe DM Municipalities

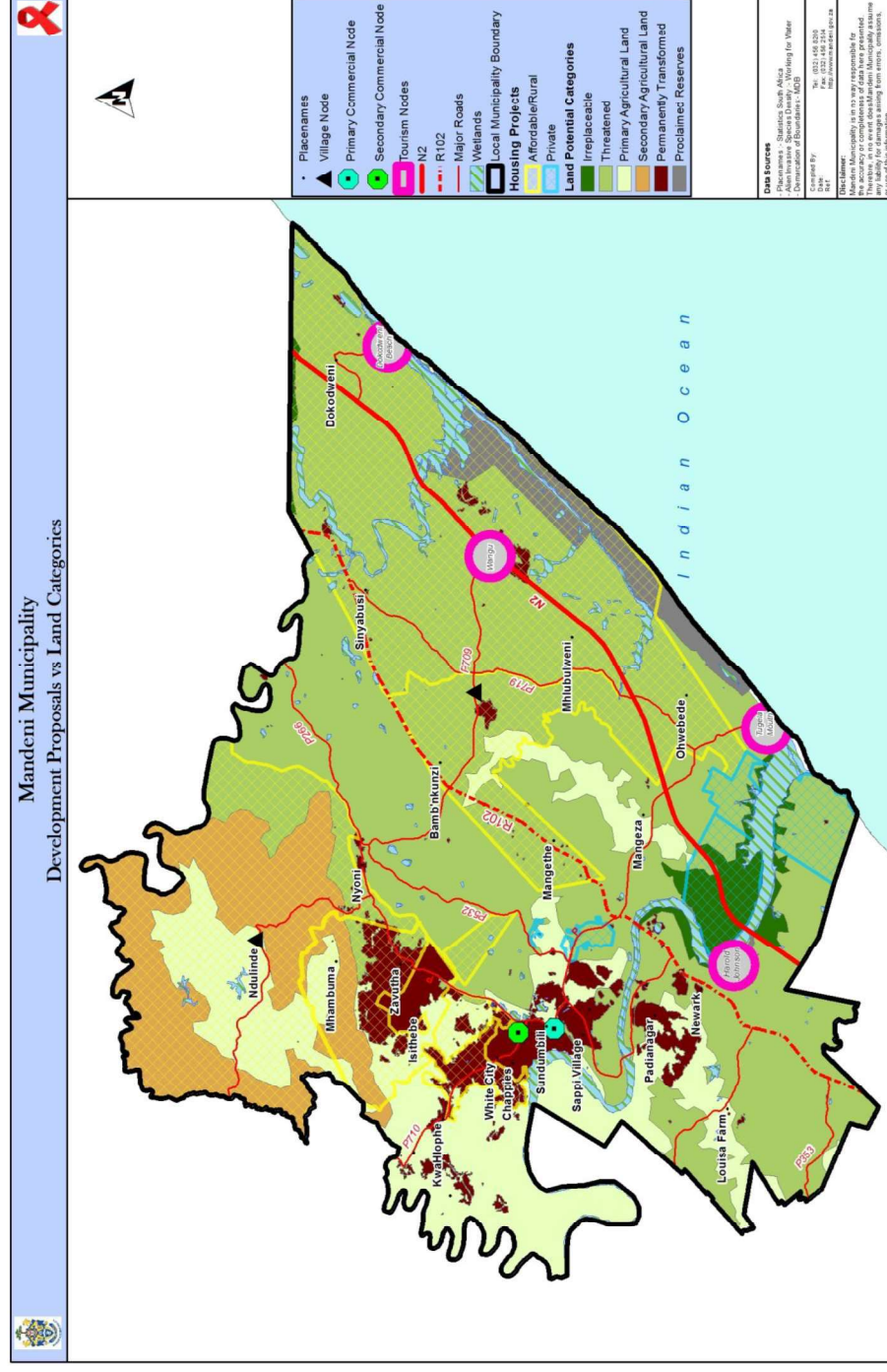
	EXISTING	SHORT-TERM	MEDIUM-TERM	LONG-TERM
		Triggers		
Development Areas	NA	• Ballito N2 Area Expansion • Rural Town (re)development, e.g. Ndwedwe, Maphumulo and Bamshela • Driefontein Development Area • Infill of existing laid-out areas including Gledow, Grootville and Coastal Towns	• New and Upgraded Rural Towns • Aerropolis Establishment • Major Coastal Resort Town (s) Established	• Other Coastal Resort Towns • Other Industrial
Infrastructure Development	NA	• Major rural linkages • Addressing Bulk Water (North Coast Pipeline)	• R102 Upgrading • Addressing Bulk Water (further capacity incl. desalination) • N3 Link Road to Pietermaritzburg • Western Bypass (Tonga to KwaDukuza)	• N3 Link Road to Pietermaritzburg • Western Bypass (KwaDukuza to Mandeni)
Institutional Triggers	NA	• District / Enterprise Ilembe Adopts 2050 Plan • Re-demarcation Approved	• Achieving Metropolitan Status • Tertiary Education Institution	
Economic Triggers	NA	• Agri- hub Development • Co-generation Projects by sugar and timber industries • Compensation Flats Industrial • Establishment of Nature Areas with tourism impact • Major Industry attracted (e.g. motor vehicle manufacturer)	• Green energy industry establishment • Industrial Extension for Isihebe • Industrial Clusters along R102	• Balance of Industrial Clusters along the R102 • Industrial Clusters on / or near intersections with Western Bypass

Infrastructure				
Water	Existing system	- Planned area can be supplied with water in terms of current planning - Supporting dams have been identified	- Bulk services plans need to be augmented - Servicing Reservoirs to be identified	- Bulk services plans need to be augmented - Servicing Reservoirs to be identified
Sanitation	Existing system is close to capacity	New regional sewerage treatment facilities identified	New regional sewerage treatment facilities identified	New regional sewerage treatment facilities identified
Solid Waste	Existing system	- Existing facility can serve Short-term growth - Recycling to be promoted	Additional sites to be identified	Additional sites to be identified
Electricity	Existing supply system is limited, needs upgrading	- Plans are in place for increased reticulation - But not in alignment with IDM	- Plans are in place for increased reticulation - But not in alignment with IDM - Sustainable energy developments to be promoted.	- Plans are in place for increased reticulation - But not in alignment with IDM
Transportation	Existing system	- R102 upgraded to a 2+2 configuration - Connect DTP to P100 to enhance Access to Ndwedwe - Improve interchanges along the N2	- Rail service intensified - N2 upgraded to 3+3 configuration - Western Bypass connection to Kwadukuza - Ndwedwe far outer west Collector initiated as 1+1 road	- R614 upgraded - Isonono / Ndwedwe Road connected and upgraded - Western Bypass connected Kwadukuza to Mandeni
Residential				
Residential Consolidation /Infill	Existing Development	- Nodal Corridor - Groutville - Gledhow - Current DFA's	NA	NA
		- Rural Towns Mandeni - Maphumulo	NA	NA

		- Ndwedwe - Ntunjambili - Bhamshela Tugela			
Expansion / Greenfields	NA	Coastal Towns - Ballito - Blythedale - Zinkwazi - Skeas Rock	Coastal Towns - Nonoti Tugela Mouth	Coastal Towns - Nonoti Tugela Mouth	
		- Nodal Corridor - Stanger - Darnall	- Nodal Corridor - Stanger - Darnall - Shakaskraal - Umdlali	- Nodal Corridor - Village expansion to lateral mini-corridors	
		- Rural Towns - Mandeni - Maphumulo - Ndwedwe	- Rural Towns - Ndwedwe- Nsuze - Maphumulo-Phambele - Isonono New town - Mandeni extension	- Rural Towns Mandeni Sundumbili - Maphumulo - Ndwedwe	
Industry					
New Industrial	NA	- Compensation Flats - Stanger - Clusters along R102	- Clusters along R102 - Extension to Sundumbili	Clusters along Western Bypass	
Nodes/ Centres					
Expansion	Existing	- Core Centres consolidated to small Regional Size - Nodal Corridor Centres to N'hood level - Ndwedwe to Hub Rural Service Centre - Maphumulo to Hub Rural Service Centre	- Core Centres to Regional Size - Nodal Corridor Centres consolidated as N'hood level centres - Ndwedwe to Neighbourhood level Centre - Maphumulo to Neighbourhood Centre Mandeni consolidated as Neighbourhood level Centre	- Core Centres consolidated as Regional Size - Nodal Corridor Centres consolidated at N'hood level - Ndwedwe consolidated as Neighbourhood level Centre - Maphumulo consolidated as Neighbourhood Centre	

		Mandeni to Neighbourhood level Centre		Mandeni consolidated as Neighbourhood level Centre
New	NA	Rural Villages to Satellite Rural Service Centres	- Rural Villages consolidated as Satellite Rural Service Centres - Nonoti as Neighbourhood centre - Isonono as Neighbourhood Centre	Long-Term nodes on WesternBypass

Map 41: Proposed Developments VS Land Capability



Source: Mandeni GIS

9. CAPITAL INVESTMENT FRAMEWORK

KZN291 Mandeni - Supporting Table SA36 Detailed capital budget

Municipal Vote/Capital project R thousand	R e f	Program/Project description	Pr o j e c t n u m b e r	ID P G o a l c o d e	Asset Class	Asset Sub- Class	GPS co- ordinates	Tot al Pr o j e c t E s t i m a t e	Prior year outcomes		2018/19 Medium Term Revenue & Expenditure Framework			Project information	
									Aud ited Out co me 201 6/17	Curre nt Year 2017/ 18 Full Year Forec ast	Bud get Year 201 8/19	Bud get Year 201 9/20	Bud get Year +2 2020/ 21	War d locat ion	New or rene wal
Parent municipality: <i>List all capital projects grouped by Municipal Vote</i> Vote 4 - Community and Social Services	4	Retention: Construct 1 multi-purpose Hall in Ward 13 Professional Fees: Construct 1 multi-purpose Hall in 5 Construction Fees: Construct 1 multi-purpose Hall in 5 Retention : Construction of the Chappies Sports field Recreational Play Park Facilities for Children in Ward 4 Retention : Construction of Sidewalks in Ward 4		CS SD 01	Community Facilities	Halls	29°7'36.912 "S; 31°23'35.09 4"E 29°6'45.839 "S; 31°21'5.141 "E 29°6'45.839 "S; 31°21'5.141 "E 29°7'52.461 "S; 31°21'5.141 "E				114	-	5.558	13	New
				CS SD 02	Community Facilities	Halls	29°7'52.461 "S; 31°21'5.141 "E								
				CS SD 03	Community Facilities	Halls	29°7'52.461 "S; 31°21'5.141 "E								
				CS SD 04	Sport and Recreation Facilities	Outdoor Facilities	29°11'11.63 9"E								
				CS SD 05	Sport and Recreation Facilities	Outdoor Facilities	29°11'11.63 9"E								
				CS SD 06	Roads Infrastructure	Roads	31°23'44.23 3"E 29°51.737" S; 31°24'41.84 6"E								

4. Projects that fall above the threshold values applicable to the municipality as in regulation 13 of the Municipal Budget and Reporting Regulations must be listed individually. Other projects by programme by Vote
5. Correct to seconds. Provide a logical starting point on networked infrastructure.

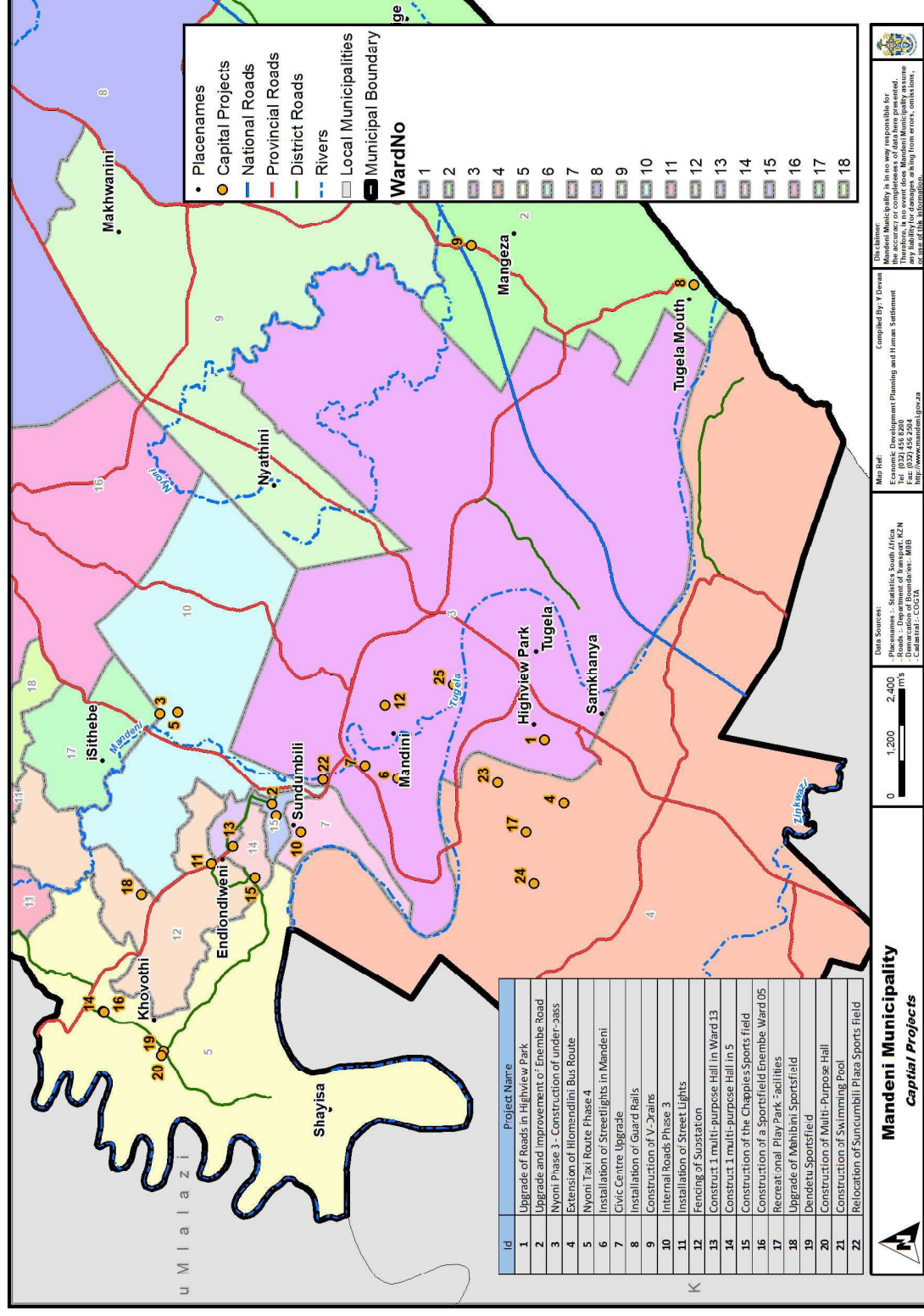
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6. Distinguish projects approved in terms of MFMA section 19(1)(b) and MRRR Regulation 13

KZN291 Mandeni - Supporting Table SA37 Projects delayed from previous financial year/s

Municipal Vote/Capital project		Ref.	Project name	Project number	Asset Class 3	Asset Sub-Class 3	GPS co-ordinates 4	Previous target year to complete Year	Current Year 2017/18		2018/19 Medium Term Revenue & Expenditure Framework		
R thousand		1,2	Project name	Project number	Asset Class 3	Asset Sub-Class 3	GPS co-ordinates 4	Year	Original Budget	Full Year Forecast	Budget Year 2018/19	Budget Year +1 2019/20	Budget Year +2 2020/21
Parent municipality: List all capital projects grouped by Municipal Vote													
TECHNICAL SERVICES													
Vote 6 - Public Safety													
Entities: List all capital projects grouped by Municipal Entity													
Entity Name Project name													

Spatial Reference to Municipal Capital Investment



10 Conclusion

This document represents the outcomes of Phase 4 and 5 of the Development of the Spatial Development Framework for Mandeni Municipality, and in addition to the Status Quo Report, contains strategies for spatial reconstruction of the Municipality and direction of future growth within the municipality. The information contained in this report has been subject to perusal of stakeholders for adoption by Council, May 2018.

The information presented in this document should be verified by the Mandeni Municipality to ensure that the analyses in the subsequent phases are based on valid and reliable information.

Any person with an interest in or comments to this study may contact the Municipality using the following info;

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