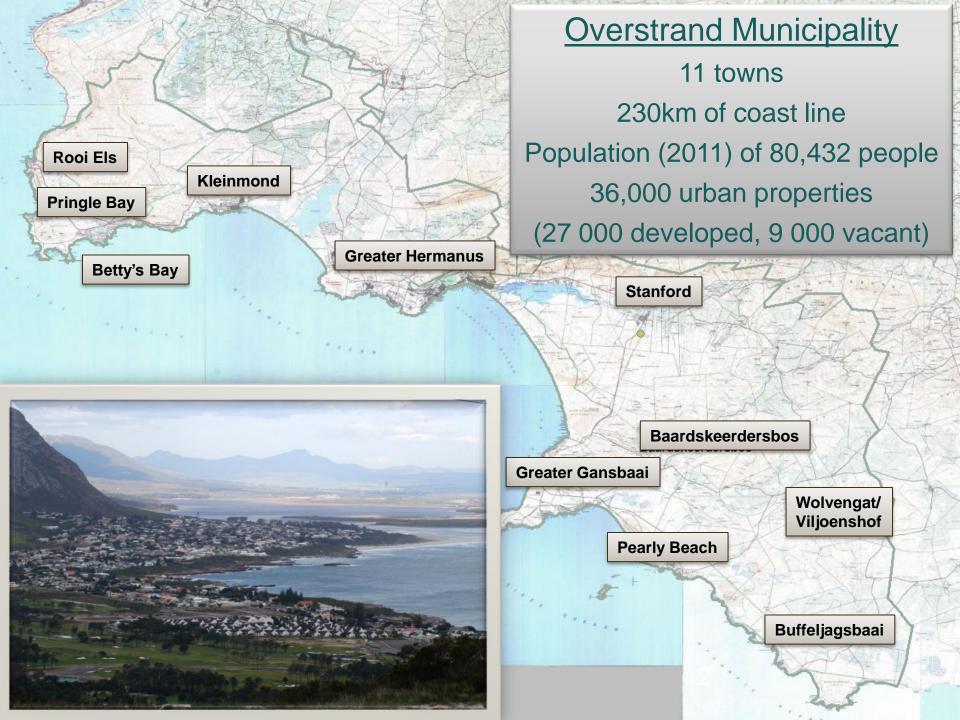


# Capital Budget for Municipal Infrastructure Projects

Stephen Muller
Director: Infrastructure and Planning
Overstrand Municipality

Whale Coast Development Forum – 10 February 2015



## Need for Infrastructure

- Urban expansion
- Urban densification
- Replacement of aging infrastructure

# LOCAL GOVERNMENT MUNICIPAL SYSTEMS ACT

Preamble

"to establish a simple and enabling framework for the core processes of planning, ... which underpin the notion of developmental local government"

# LOCAL GOVERNMENT MUNICIPAL SYSTEMS ACT

### <u>CHAPTER 5</u> INTEGRATED DEVELOPMENT PLANNING

Part 2: Contents of integrated development plans 26. Core components of integrated development plans.

(e) a <u>spatial development framework</u> which must include the provision of basic guidelines for a land use management system for the municipality;

# SDF Objectives

- To spatially reflect the <u>vision</u> of how the municipal area should develop and reflect the <u>desired spatial</u> <u>form</u> of the area
- To spatially integrate the strategies of the various sectors

• .....

## SDF General Requirements

- Provide direction aimed at creating integrated, sustainable and habitable regions, cities and towns.
- Comply with National and Provincial legislation (DFA, NEMA, CARA, CHRA, WA, etc.)
- Take account of environmentally sensitive areas including ecological processes
- Take account of heritage and culturally sensitive areas
- Address the direction of growth
- Inform public sector development and investment
- Identify areas where strategic interventions are required
- Consider the urban edge

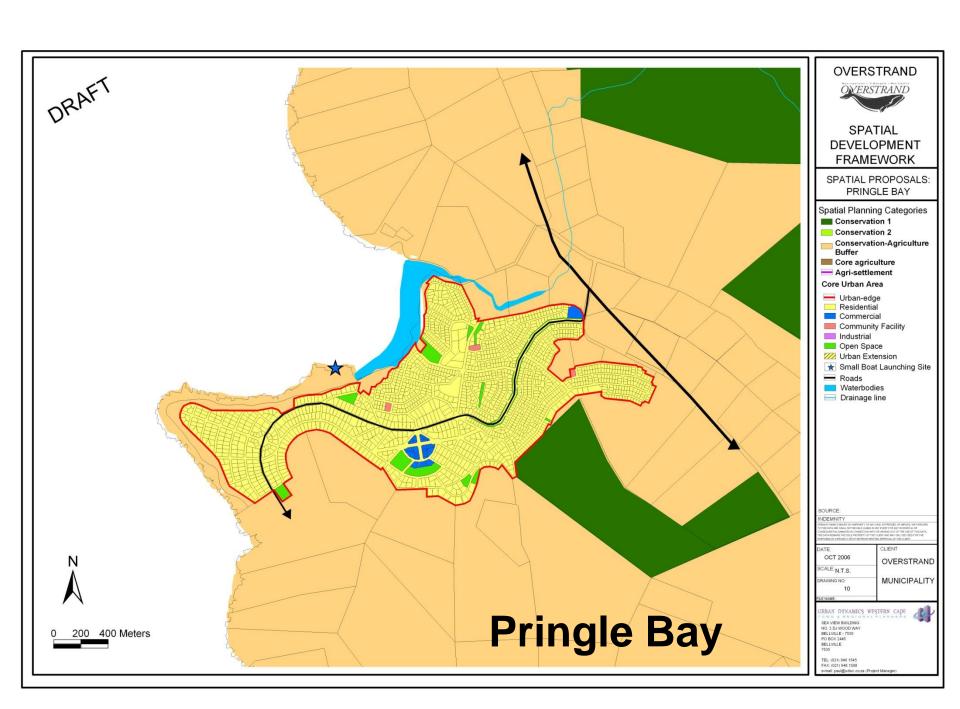
# SDF Special attention to the Urban Edge

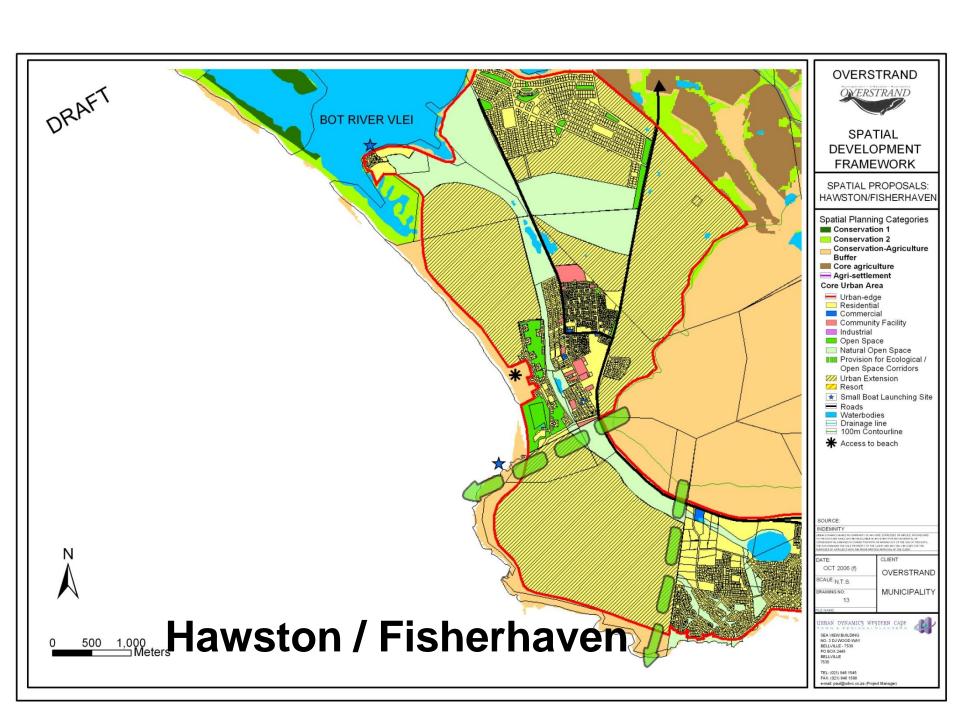
Limit urban sprawl

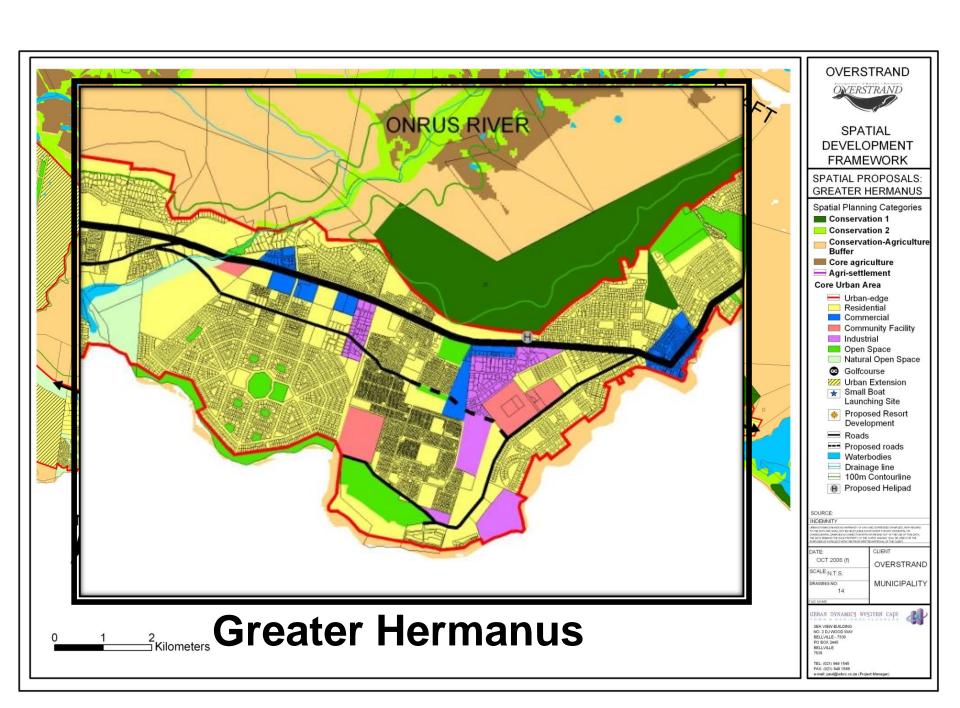
Strengthen existing networks and increase existing capacity

- Promote urban <u>densification</u>
- Promote integration redress apartheid planning
- Protect sensitive vegetation and ecological systems and corridors
- Protect heritage resources and landscape assets
- Provide adequate space for efficient urban growth and infrastructure provision and planning in the towns that have the <u>recognized growth potential</u>

Provide new infrastructure









# OVERSTRAND MUNICIPAL GROWTH MANAGEMENT STRATEGY





DRAFT TECHNICAL REPORT
May 2010



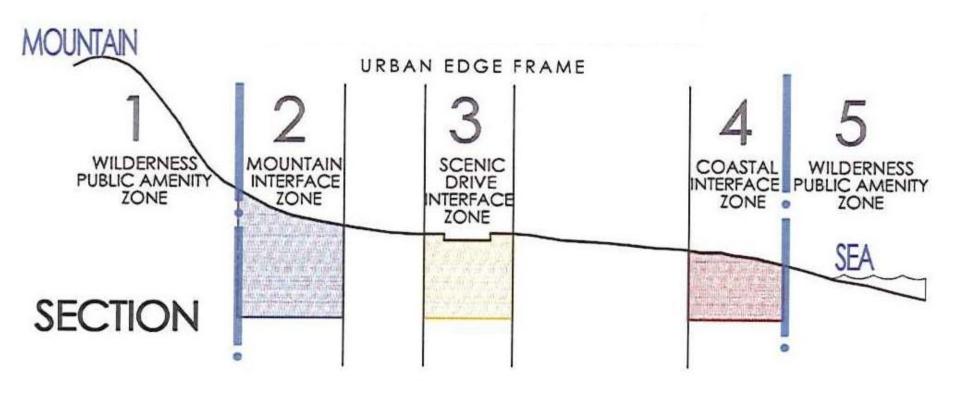




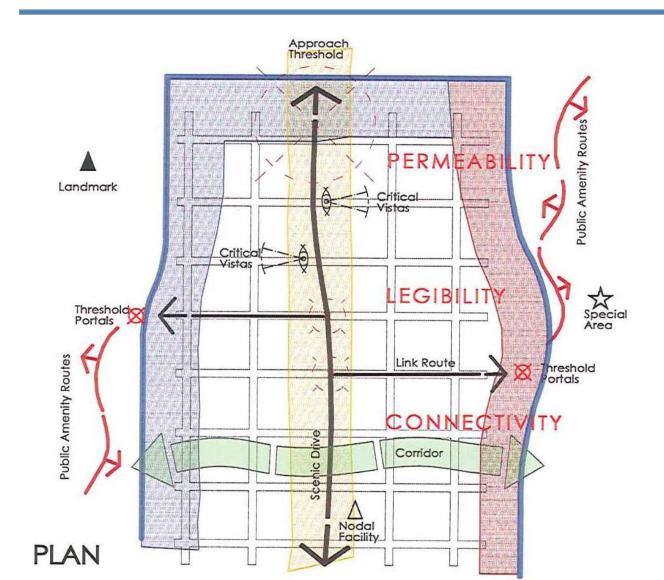
## Overall Objective

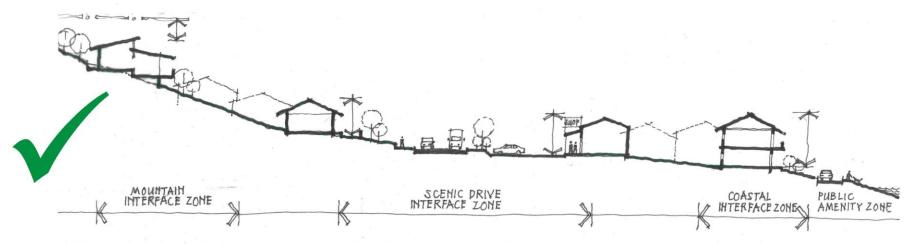
To provide a set of appropriate, area specific policy guidelines which can be used by the Council to proactively direct and manage growth through the implementation of <u>urban densification</u> and related measures in a manner that is sensitive to the character of the various towns and settlements within the Overstrand Municipality.

# Conceptual Structuring Framework Management Zones

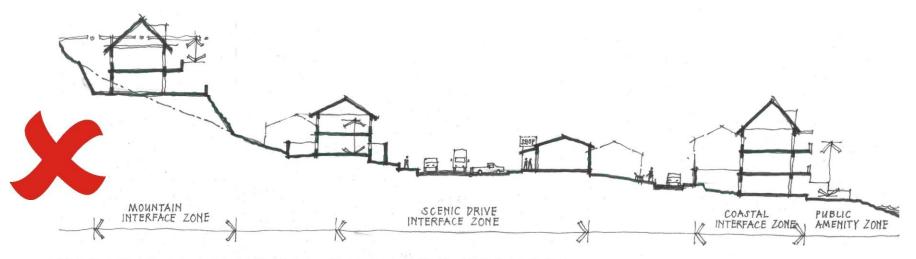


# Conceptual Structuring Framework Management Zones

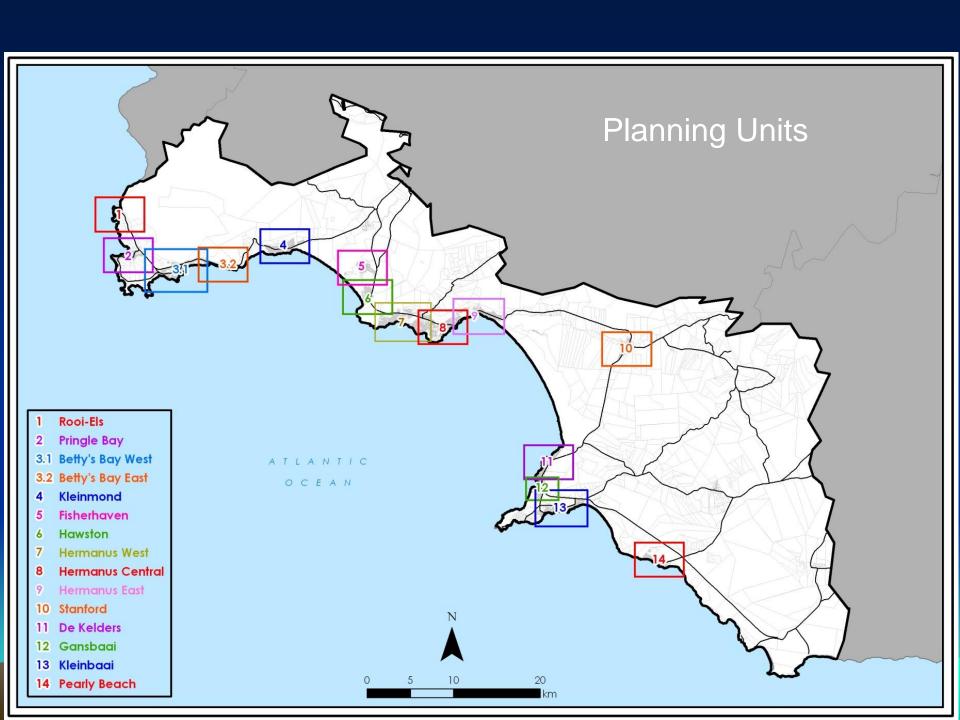




### DESIRABLE FORM OF DEVELOPMENT



UNDESIRABLE FORM OF DEVELOPMENT



URBAN EDGE: MOUNTAIN LEGIBILITY: CONNECTIVITY NODAL DEVELOPMENT: The ridgeline forming part of The positive urban qualities of A range of public planning The proposed northern bypass The existing open spo the Fernkloof Nature Reserve legibility and permeability in and design interventions are in the central district will create ground Hoy's Kop ne the central area need to be retained required in Zwelihle to provide positive a range of development opportunities at the entrance to the town forms a conserved and enhanced to dramatic natural green gateway. This and enhanced. The proliferation of gated villages which limit interconnecpublic places and spaces and intewhich will require urban design guideurban encroachment into the threshold should be retained by restricting gration with the broader spatial structure. lines to ensure a positive contribution its possible connection into the Station area redevelopment. T development to the south of the R43. tivity and access should be curtailed. Densification measures which meet these to the public realm. Densification related No intensification of the built form should objectives should thus be considered. to these nodes could thus be considered. green corridors linking Zwel (OPPORTUNITY) be considered along this sensitive mountain interface. (CONSTRAINT) (OPPORTUNITY coastline around the milkwe An integrating activity or development spine along Swardam Road, linking the The possibility of an integrating developshould be explored.(CONST ment spine along Swartdam/Road will SCENIC LINK ROUTE: R43 to the coastline should be investirequire similar planning and design guide-A by-pass through the norgated. (OPPORTUNITY) lines to ensure public and private benethem section of the central fits. Densification adjacent to a possible district should relieve some pressure on activity spine could achieve these ends. the market square and enable the retention of its historic character. OPPORTUNITY) Careful design intervention is required to provide points of opportunity along this route, for example behind the old synagogue and adjacent to the taxi rank. Densification of nodes linked to the bypass but set back from the coastal edge could thus be considered. TOPPORTUNITY) URBAN EDGE COASTAL the existing character of the coastal walkway needs to be protected and enhanced by the control of new developments facing immediately onto it. (CONSTRAINT)
No departures should be permitted to allow extra bulk or height in the historic core area. Consideration should be given to a restriction in height to two storeys in the proposed conservation area to the north of Marine Drive. No gated security B villages should be permitted in the zone between Main Road and the coastal walkway and further subdivisions should be prohibited. (CONSTRAIN) SENSITIVE CONSERVATION AREA THE CBD: Development controls and guidelines are required to ensure the retention of the historic character of the proposed con-B servation area and that new development is appropriate in terms of massing, scale and architectural treatment. Alternative development nodes should be identified, possibly related to the area behind the old synagogue and the station site.(CONSTRAINT) **B**2 0 100 200 400 600



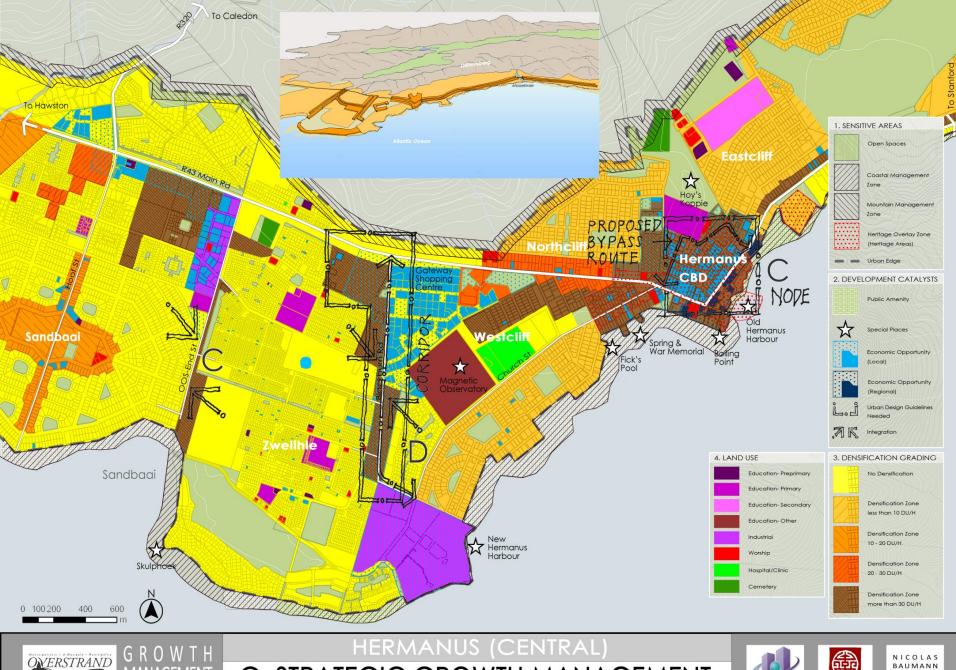
GROWTH MANAGEMENT STRATEGY HERMANUS (CENTRAL)











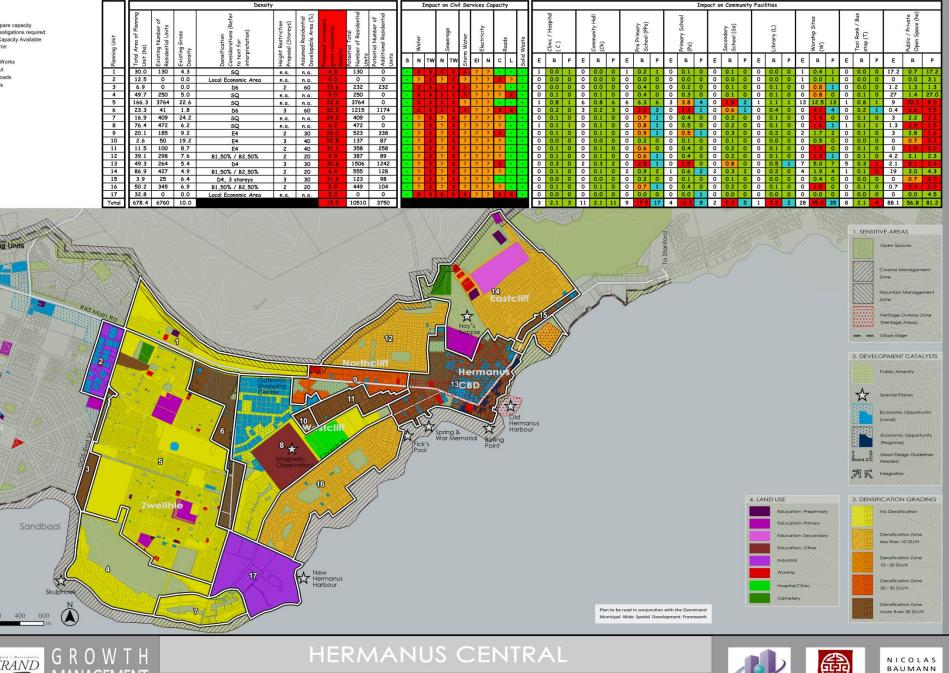


G. STRATEGIC GROWTH MANAGEMENT INTERVENTIONS (MAY 2010)





NICOLAS BAUMANN URBAN CONSERVATION & PLANNING





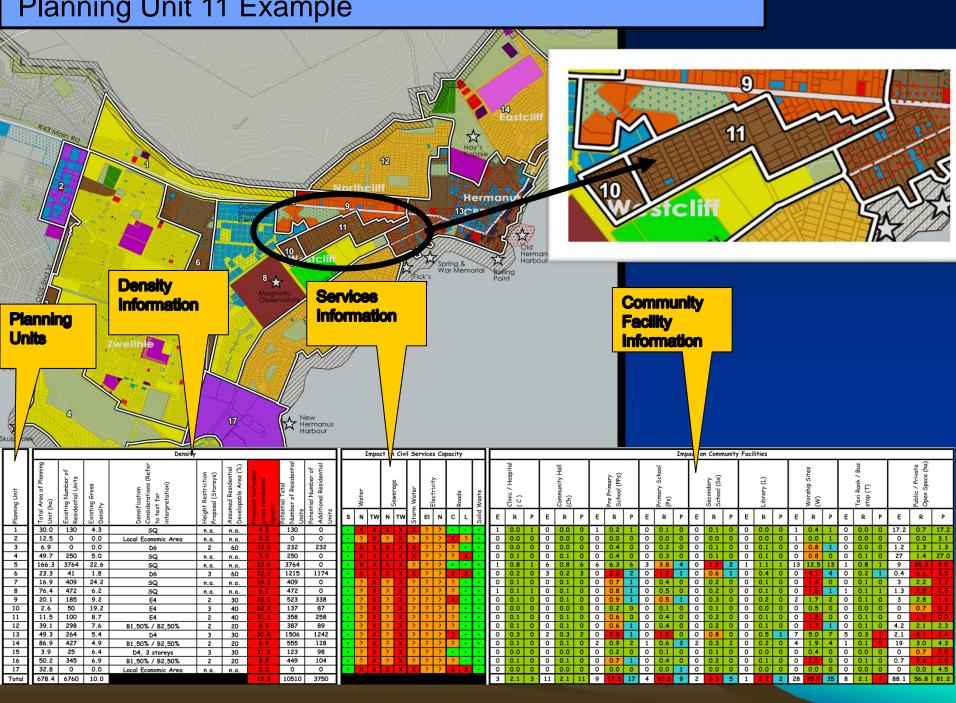






NICOLAS BAUMANN URBAN CONSERVATION & PLANNING

### Planning Unit 11 Example



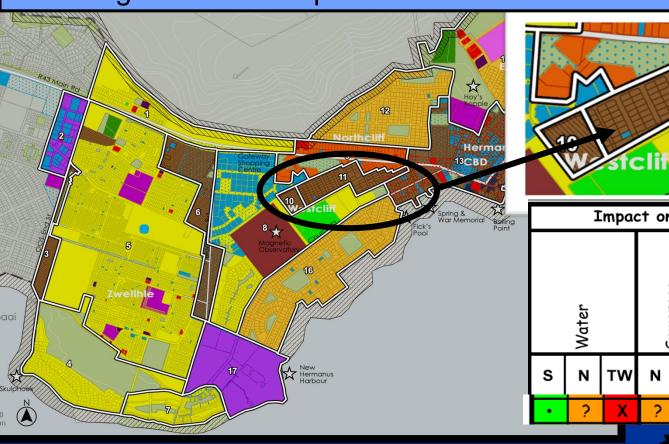
#### Planning Unit 11 Example Herma 13CBD Density Total Area of Planning Number of Residential Considerations (Refer Additional Residential Developable Area (%) Assumed Residential Potential Number of Existing Number of Proposed increased Height Restriction Proposal (Storeys) Residential Units gross residential Gross interpretation) Potential Total Densification Planning Unit to text for Unit (ha) Existing ( Density density Units Units 100 8.7 31.1 358 258 E4 40 130 0 232 250 3764 1215 409 472 523 137 358 387 1506 0 0 232 0 0 1174 0 0 338 5Q 11.5 100 8.7

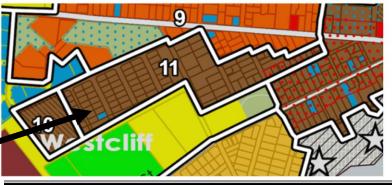
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#### Planning Unit 11 Example 13CBD Density Total Area of Planning Number of Residential isiderations (Refer Additional Residential Developable Area (%) Assumed Residential Potential Number of Existing Number of Proposed increased Height Restriction Proposal (Storeys) Residential Units gross residential erpretation) Existing Gross Potential Total nsification Planning Unit ext for Unit (ha) Density density Units ပ္ပ 4 11.5 11 100 8.7 358 258 **E4** 2 40 31.1 FORMS **INTERVENTIONS** 5Q n.a. 60 n.a. n.a. 60 n.a. n.a. 30 40 20 30 20 n.a. **E3** BLOCK DEVELOPMENT

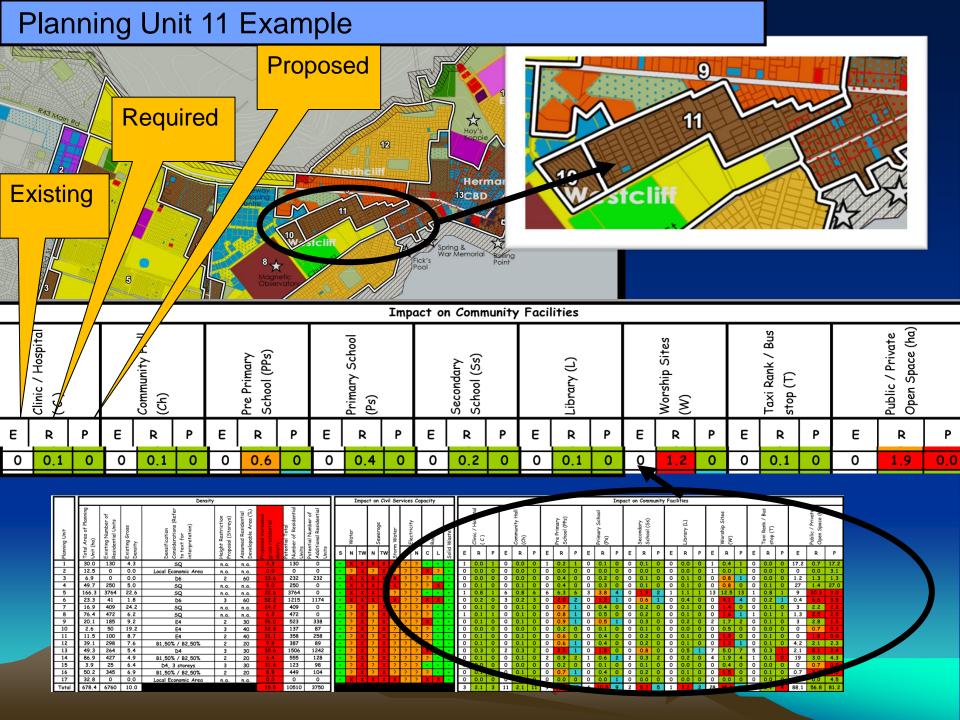
### Planning Unit 11 Example





	I	mpa	ct on	Civi	l Ser	vices	s Cap	oacit	у	
	Water			afn.lawac	Storm Water	Flortnicity	دافرا العالم العالم العالم	Doods	Space.	Solid Waste
s	N	TW	N	TW	Storr	EI	N	С	C L	
•	?	Х	?	Х	?	?	?	?	٠	•

_																																						
П	$\neg$	Density Impact on Civil Services Capacity					Impact on Community acilities																															
	ing Unit	Area of Planning (ha)	ing Number of lential Units	ing Gross ity	sification iderations (Refer ext for rpretation)	nt Restriction Isal (Storeys)	med Residential lopable Area (%)	sed increased residential ty	ntial Total per of Residential	ntial Number of tional Residential		Wate	Sewerage	n Water	Electricity	Roads	Waste		Clinic / Hospital ( C )		Community Hall (Ch)		Pre Primary School (PPs)		Pr ry School (Ps)		Secondary	School (58)		Library (L)		Worship Sites	(A)		Taxi Rank / Bus stop (T)		Public / Private Open Space (ha)	
	Plann	Tota Unit	Exist	Exist	Dens Consi to te inter	Heigh	Assu	Prop gross densi	Potes Numi Units	Potes Addi:	s	N T	V N T	Stor M	EI N	С	r Solid	Ε	R	PΕ	R	P E		PΕ	R	Р	E R	Р	Е	R	P E	R	Р	Ε	R	P E	R	P
	1	30.0	130	4.3	5Q	n.a.	n.a.	4.3	130	0	1	ХХ	X :	( X	? ?			1	9	1 0	0.0	0	0.2	1 0	0.1	0	0 0.1	1 0	0	0.0	0 1	0.4	1	0	0.0	0 17.	2 0.7	17.2
	2	12.5	0	0.0	Local Economic Area	n.a.	n.a.	0.0	0	0		? X	?	( ?	? ?	Х	? •	0	0	0 0	0.0	0	0.0	0 0	0.0		0.0	0	0	0.0	0 1	0.0	1	0	0.0	0 0		3.1
	3	6.9	0	0.0	D6	2	60	33.6	232	23		ХХ	X :	( X	? ?	?		0	0.	0 0		0 0	0.4	0 0	0.2	0	0 0.1	l O	0	0.1	0 0	0.8	1	0	0.0	0 1.3		1.3
	4	49.7	250	5.0	<i>5</i> Q	n.a.	n.a.	5.0	250		1	X X	X :	K X	? ?	?	χ .	0	0.1	0	0.1	0 0	0.4	0 0	0.3	0	0 0.1	l O	0	0.1	0 0	0.8	0	0	0.1	0 27	1.4	27.0
	5	166.3	3764	22.6	5Q	n.a.	n.a.	22.6	3764		1 -	ХХ	X :	?	? ?			1	0.8	6	0.8	6 6	6.3	6 3	3.8	4	0 1.5	2	1	1.1		3 12.5	5 13	1	0.8	1 9		9.0
	6	23.3	41	1.8	D6	3	60	52.2	1215	1 4	1	X X	X :	K X	? ?	X :	χ .	0	0.2	0 3	0.2	3 0	2.0	2 0	1.2	1	0.0	1	0	0.4	0 0		4	0	0.2	1 0.4	4 6.6	3.5
	7	16.9	409	24.2	5Q	n.a.	n.a.	24.2	409		1 🗔	? X	?	?	? ?	?		0	0.1	0 0	0.1	0 0	0.7	1 0	0.4	0	0 0.2	2 0	0	0.1	0 (		0	0	0.1	0 3	2.2	2.2
	8	76.4	472	6.2	5Q	n.a.	n.a.	6.2	472		1	? X	?	( ?	? ?	?		1	0.1	1 0	0.1	0 0	0.8	1 0	0.5	0	0 0.2	2 0	0	0.1	0 (	1.6	1	1	0.1	1 1.3	3 2.5	2.5
	9	20.1	185	9.2	E4	2	30	26.0	523	3	1 🗔	? X	?	( ?	? ?	Х		0	0.1	0 0	0.1	0 0	0.9	1 0	0.5	1	0 0.3	3 0	0	0.2	0 2	2 1.7	2	0	0.1	0 3	2.8	1.6
	10	2.6	50	19.2	E4	3	40	52.8	137	8	1	? X	?	( ?	? ?	?		0	0.	0 0	0.0	0 0	0.2	0 0	0.1	0	0 0.1	l O	0	0.0	0 0	0.5	0	0	0.0	0 0	0.7	0.3
	11	11.5	100	8.7	E4	2	40	31.1	358	25	1	? X	?	( ?	? ?	?		0	Q	0 0	0.1	0 0	0.6	0 0	0.4	0	0 0.2	2 0	0	0.1	0 (	1,2	0	0	0.1	0 0	1.9	0.0
	12	39.1	298	7.6	B1,50% / B2,50%	2	20	9.9	387	89	1	? X	?	( ?	? ?	?		0		0 0	0.1	0 0	0.6	1 0	0.4	0	0 0.8	2 0	0	0.1	0 (	1.3	1	0	0.1	0 4.3	2 2.1	2.3
	13	49.3	264	5.4	D4	3	30	30.6	1506	1242	V -	? X	?	( ?	? ?	Х		0	.3	0 2	0.3	2 0	2.5	1 0	1.5	0	0 0.8	0	0	0.5	1 7	5.0	7	5	0.3	1 2.:	1 8.1	2.4
	14	86.9	427	4.9	B1,50% / B2,50%	2	20	6.4	555	128	. ·	? X	?	( ?	? ?	?		9/	0.1	0 0	0.1	0 2	0.9	2 1	0.6	2	2 0.3	3 2	0	0.2	0 4	1.9	4	1	0.1	0 19	3.0	4.3
	15	3.9	25	6.4	D4, 3 storeys	3	30	31.6	123	98		? X	?	( ?	? ?				0.0	0 0	0.0	0 0	0.2	0 0	0.1	0	0 0.1	1 0	0	0.0	0 (	0.4	0	0	0.0	0 0	0.7	0.0
	16	50.2	345	6.9	B1,50% / B2,50%	2	20	8.9	449	104		2 X	?	( ?	? ?	?		6	0.1	0 0	0.1	0 0	0.7	1 0	0.4	0	0 0.2	2 0	0	0.1	0 (	1.5	0	0	0.1	0 0.7	7 2.4	0.0
	17	32.8	0	0.0	Local Economic Area	n.a.	n.a.	0.0	0	0		X	X :	( X	? ?	X :	X C	0	0.0	0 0	0.0	0 0	0.0	0 0	0.0	1	0.0	0 0	0	0.0	0 (	0.0	0	0	0.0	0 0	0.0	4.5
	Total	678.4	6760	10,0				15,5	10510	3750	1							3	2,1	3 11	2,1	11 9	17.5	17 4	10.5	9	2 5.3	5	1	3,2	2 2	8 35.0	35	8	2,1	4 88.	1 56.8	81.2



# Growth Management Strategy Summary of Results

		Curren	t Units		Propose	d
Town	Area	Units	Density	Density	Total Units	Additional Units
Hangklip	1,061	4,863	4.6	5.1	5,415	552
Kleinmond	556	3,741	6.7	10.9	6,072	2,331
Greater Hermanus	3,461	18,445	5.3	9.8	33,752	15,307
Stanford	287	1,389	4.8	9.8	2,804	1,415
Greater Gansbaai	2,890	6,245	2.2	8.6	24,732	18,487
Pearly Beach	211	1,716	8.1	12.4	2,621	905
Total	8,467	36,399	4.3	8.9	75,396	38,997



## What can be achieved in 20 years?

- The Growth Management Strategy
  - 39 000 units to fully develop the Overstrand area

- Expected development in the next 20 years
  - Government
  - Private sector

## What can be achieved in 20 years?

### Government

- Subsidized housing programs for the poor
- Human Settlements Development Plan
- 13 projects for 6 892 units
- Will require subsidies of R718m
- If implemented in 20 years
  - 345 units per year
  - R36m per year

# Overstand Municipality Number of building plans approved for new houses



## What can be achieved in 20 years?

• Government = 6 900 units

Private Sector = 8 400 units

• Total in 20 years = 15 300 units

This is 39% of the target of 39 000 units

## Cost to implement the Water Master Plan 20 year plan (Rm)

Area	Sources	Treatment	Reticulation (Pipes, pumps and reservoirs)	Total	
Buffels River System	3.0	5.0	9.0	17.0	
Kleinmond	0.0	0.0	3.0	3.0	
Greater Hermanus	0.0	110.0	45.8	155.8	
Stanford	0.0	0.0	2.4	2.4	
Greater Gansbaai	0.0	50.0	37.0	87.0	
Pearly Beach	0.0	0.0	1.4	1.4	
Total	3	165	99	267	

## Cost to implement the Sewerage Master Plan 20 year plan (Rm)

Area	Reticulation (Pipes and pumps)	Treatment	Total		
Buffels River	57.1	0.0	57.1		
Kleinmond	12.4	8.0	20.4		
Greater Hermanus	29.8	15.0	44.8		
Stanford	5.3	7.0	12.3		
Greater Gansbaai	50.9	12.0	62.9		
Pearly Beach	9.2	10.0	19.2		
Total	165	52	217		

# Cost to implement Electrical Master Plans (Rm)

Area	Master Plan Period	Projected 20 years
Greater Gansbaai	10 year	139.8
Greater Hermanus	15 year	163.9
Kleinmond	5 year	50.1
Tota	354	

### Roads Infrastructure

Aroo	Paved	Roads	Gravel	Roads	То	tal	%
Area	km	%	km	%	km	%	Gravel
Hangklip/ Kleinmond	92	20%	88	57%	180	29%	49%
Hermanus	233	50%	33	21%	266	43%	12%
Stanford	17	4%	6	4%	23	4%	26%
Gansbaai	122	26%	28	18%	150	24%	19%
Total	464	100%	155	100%	618	100%	25%

155km @ R1,000,000/km = R155m

### Condition of assets

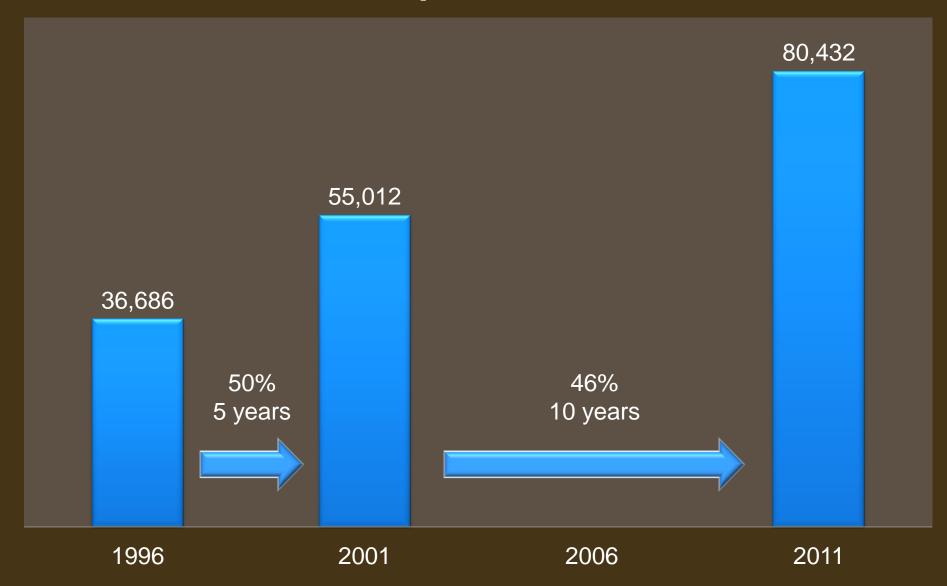
Service	CRC	Condition										
Service	(Rm)	Very poor	Poor	Fair	Good	Very Good						
Roads	919	9	92	221	276	322						
Noaus	919	1%	10%	24%	30%	35%						
Water	1 156	682	91	80	153	150						
water	1,156	59%	8%	7%	13%	13%						
□ atvia al	901	107	17	188	417	173						
Electrical	901	12%	2%	21%	46%	19%						
Sanitation	600	149	34	40	296	92						
Sanitation	609	24%	6%	7%	49%	15%						
Total	3,585	947	234	529	1,142	737						
%	100%	26%	7%	15%	32%	21%						
		1,1	81	529	1,878							
		33	3%	15%	52%							

# Cost to implement four Master Plans 20 year plans (Rm)

Service	New	Replace (75% of VP & P)	Total	Per year
Water	267	598	865	43
Sewerage	217	151	368	18
Electrical	354	95	449	22
Roads	255	76	331	17
Total	1,093	919	2,012	101

<sup>&</sup>quot;Prediction is difficult, especially about the future"

## Overstrand Municipality Population



## Overstrand Municipality Population

Rank by % population growth

2001 to 2011

South Africa = 7th of 234 local munics

(1 Gamagara, 2 Musina, 3 Bitou, 4 Steve Tshwete, 5 Swartland, 6 Midvaal)

Western Cape = 3 of 25

(1 Bitou, 2 Swartland)

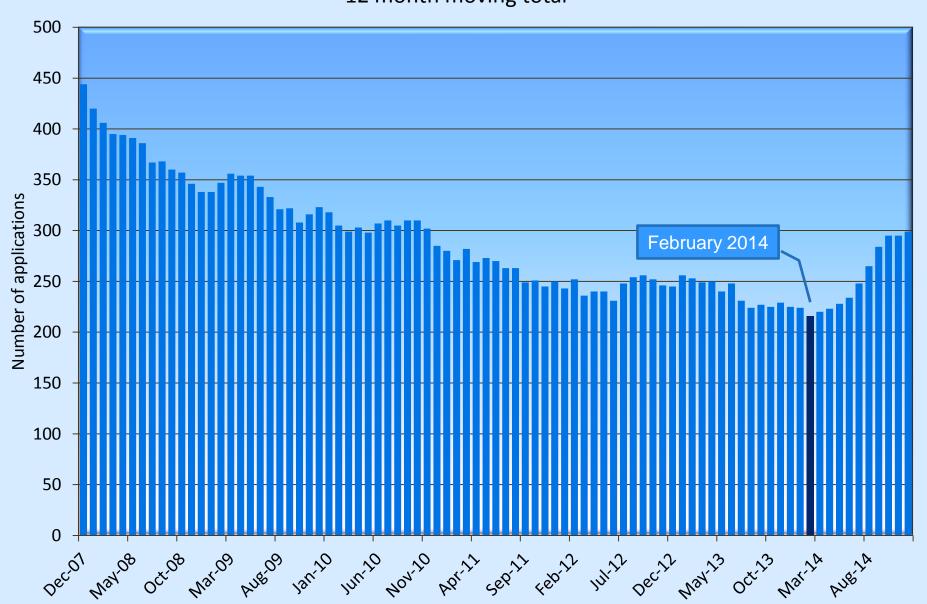
1996 2001 2006 2011

132

Overstand Municipality

Number of Town Planning Applications Received

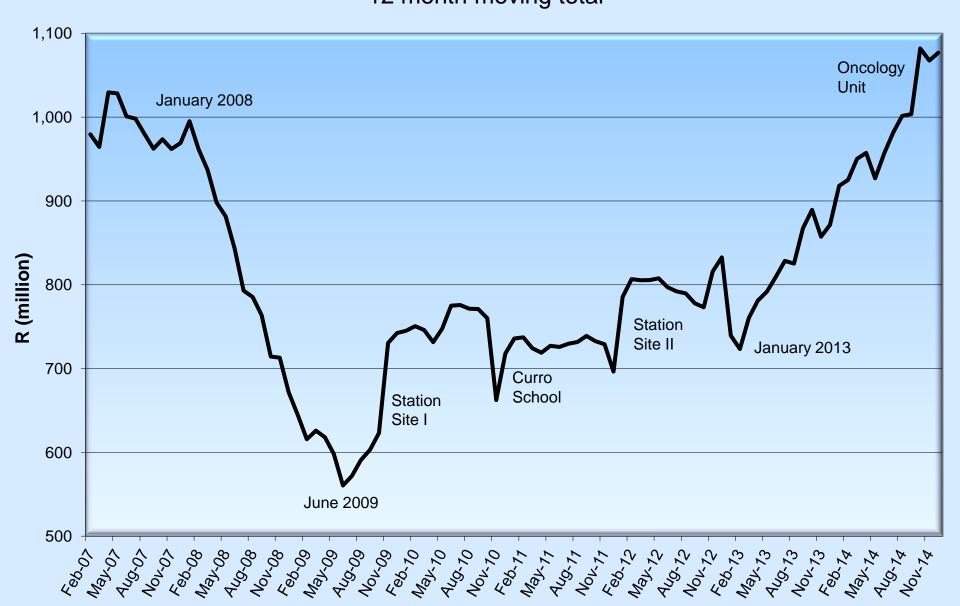
12 month moving total



Overstand Municipality

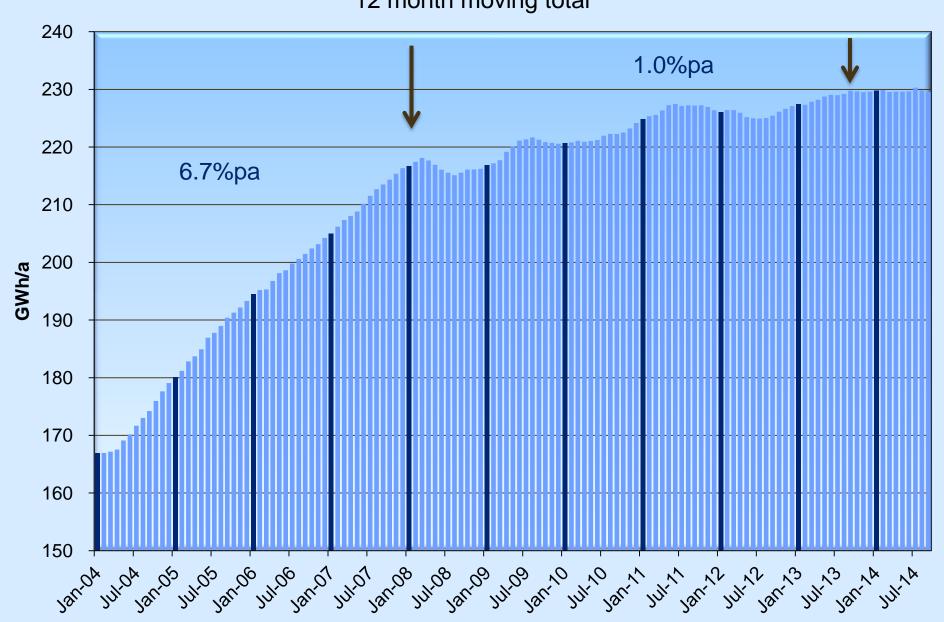
Value of Building Plans Approved

12 month moving total

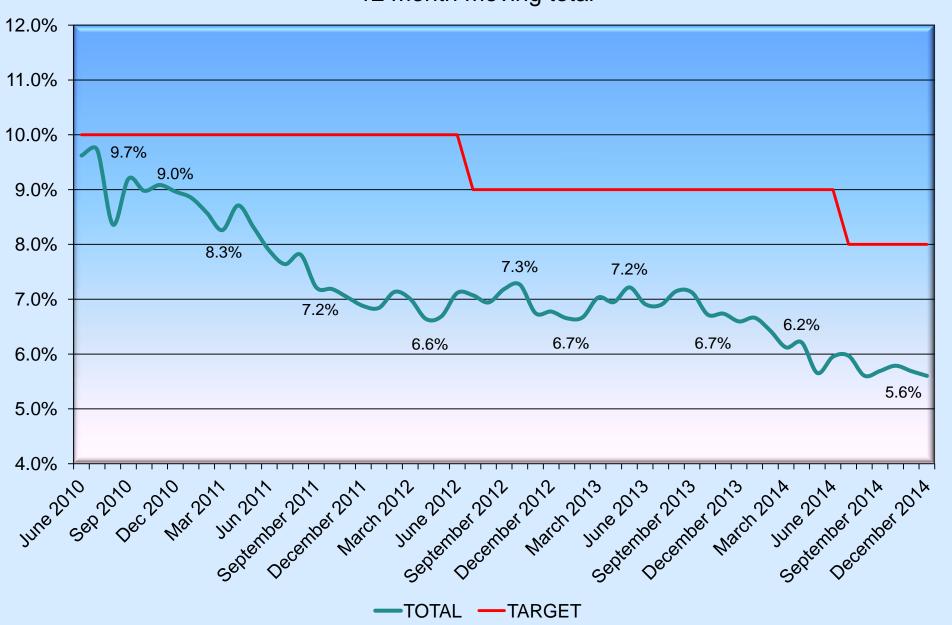


## Overstand Municipality Total energy purchased from ESKOM

12 month moving total

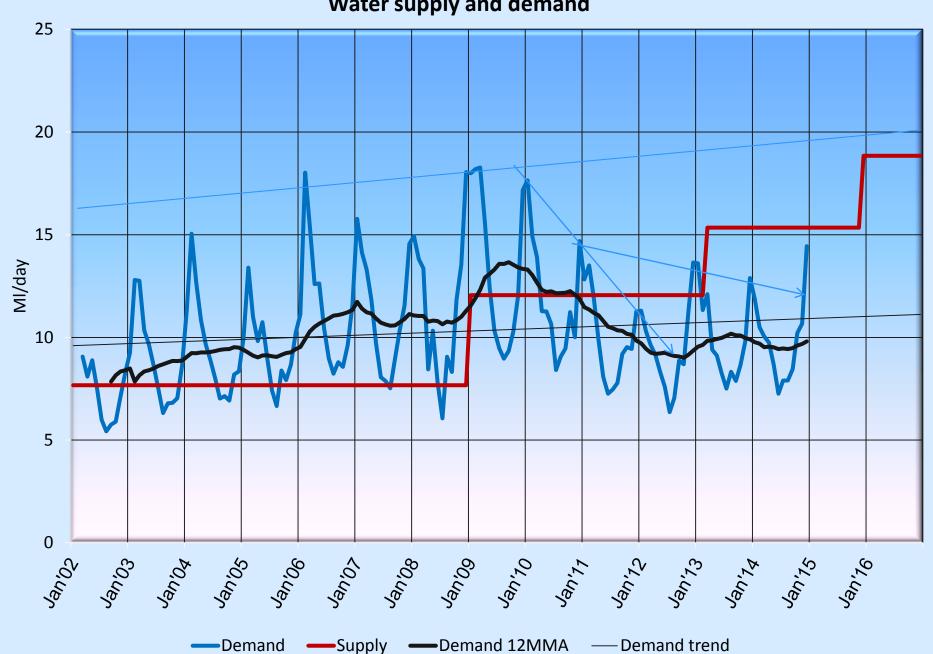


Overstand Municipality
Electricity losses
12 month moving total

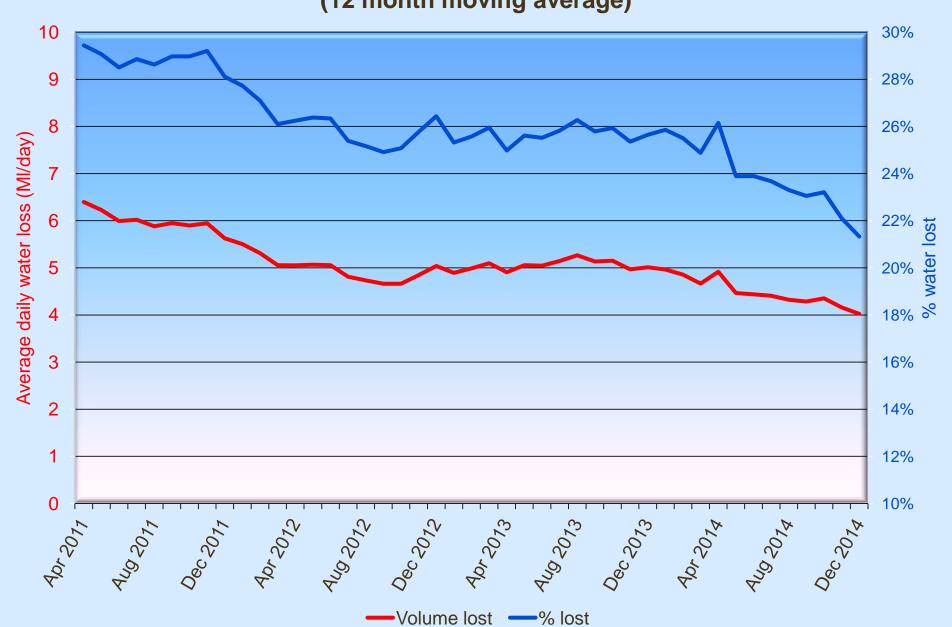


#### Overstrand Municipality: Greater Hermanus

#### Water supply and demand



## Overtrand Municipality Water losses (12 month moving average)



Overstand Municipality **Electricity and Water** (12 month moving total)



## Sources of Funding

- Municipal Infrastructure Grant
  - -2014/15 = R20.7m
- Regional Bulk Infrastructure Grant
- External Loans
- Surplus
- Bulk Infrastructure Contribution Levies
- Sale of Assets

### Conclusion

#### The budget is a balancing act between:

Needs of the 11 communities

Rooi Els, Pringle Bay, Betty's Bay, Kleinmond, Greater Hermanus, Stanford, Greater Gansbaai, Pearly Beach, Baardskeerdersbos, Viljoenshof

- Sectoral needs
  - Water, Sewerage, Electricity, Waste, Roads, Transport, Storm water, Community facilities, ICT, Fleet
  - Maintain / rehabilitate / renew / replace / new
- Forward Planning and Actual Growth
- Available funding / affordability / sustainability

## Thank you

