7.
WATER SERVICES DEVELOPMENT PLAN (IDP SECTOR INPUT REPORT) FOR 2017/18

1/1/6
H Blignaut (028) 3135047 Corporate Head Office
11 May 2017

1. Executive Summary

The purpose of this report is to table the final Water Services Development Plan (WSDP) for the 2017/18 financial year for approval by Council.

2. Service Delivery and Budget Implementation Plan - IGNITE

Directorate Infrastructure & Planning
Department Engineering Planning: Water Services

3. Compliance with Strategic Priorities

Provision of democratic, accountable and ethical governance
Provision and maintenance of municipal services
Creation and maintenance of a safe and healthy environment
The encouragement of structured community participation in the matters of the municipality
Promotion of tourism, economic and social development

4. Delegated Authority

None

5. Legal Requirements

Water Services Act (Act no. 108 0f 1997, sections 12 to 18)

6. Background/Discussion/Evaluation/Conclusion

Background

In terms of sections 12 to 18 of the Water Services Act, a municipality has to prepare a WSDP, as a sectoral plan to the Integrated Development Plan (IDP).

Council took cognisance of the Draft WSDP for 2017/2018 on 29 March 2017. The availability of the Draft WSDP for comment was subsequently advertised in the local newspapers. The period for submission of comments closed on 5 May 2017.

Copies of the document were placed at the various administrative offices and libraries. During this period it was also available for scrutiny on Overstrand Municipality's web site. The Draft WSDP was also sent for input to the relevant provincial government departments, as well as to all Overstrand Municipality's neighbouring water services authorities (i.e. municipalities), the Overberg Water Board, and the Breede Overberg Catchment Management Agency.

Discussion

No comment was received on the Draft WSDP for 2017/18.

The final WSDP document, which is tabled for approval by Council, is attached as Annexure A to this report.

Evaluation

No comment was received, and therefore no amendment of the Draft WSDP had to be considered.

Conclusion

The WSDP for 2017/18 can be submitted to Council for approval.

7. Financial Implications

None

8. Staff Implications

None

9. Comments from other Departments, Divisions and Administrations

None

10. Annexures

Annexure A: Water Services Development Plan 2017/18

RECOMMENDATION TO THE COUNCIL:

that the Water Services Development Plan for 2017/18 **be approved**.

RESPONSIBLE OFFICIAL : H BLIGNAUT

TARGET DATE FOR IMPLEMENTATION : 1 JULY 2017

ANNEXURE A1/120

OVERSTRAND MUNICIPALITY

Water Services Development Plan (WSDP) – IDP Water Sector Input Report

For IDP incorporation as directed by the Water Services Act (Act 108 of 1997)

FY 2017/2018

OVERSTRAND MUNICIPALITY

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OVERSTRAND MUNICIPALITY

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Version Control:

Status	Description	Date	Reference
Draft Documents	WSDP Documents for 2017-2022 (First Cycle): • WSDP-IDP Water Sector Input Report • eWSDP • Module 2: Base Data and Compliance Data • Module 3: Strategies	15/03/2017	Draft Documents
Approval	WSDP Documents for 2017-2022 (First Cycle): • WSDP-IDP Water Sector Input Report • eWSDP • Module 2: Base Data and Compliance Data • Module 3: Future Plans and Strategies	Will be submitted to Council 31/05/2017	Council Resolution for the approval will be forwarded by the Municipality to the DWS.

Prepared by:

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PROJECT 280850 - OVERSTRAND MUNICIPALITY'S WSDP FOR 2017-2022 (FIRST CYCLE)

REV	DESCRIPTION	ORIG	REVIEW	WORLEY-PARSONS APPROVAL	DATE	CLIENT APPROVAL	DATE
Draft	Draft issued for review	R Botha	JT Human		15/03/2017		15/03/2017
		Author	A Reviewer	Approval		Approval	
Final	Draft for Council Information	R Botha	JT Human		15/03/2017		15/03/2017
		Author	A Reviewer	Approval		Approval	
Final	Final for Council Approval	R Botha	JT Human		12/05/2017		12/05/2017
		Author	A Reviewer	Approval		Approval	

OVERSTRAND MUNICIPALITY

WSDP – IDP WATER SECTOR INPUT REPORT (EXECUTIVE SUMMARY)

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Section C: Water Services Existing Needs Perspective

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Section D: Water Services Objectives and Strategies

Section E: Water Services MTEF Projects

Section F: WSDP Projects

ABBREVIATIONS AND DEFINITIONS

AADD	Average Annual Daily Demand
ACIP	Accelerated Community Infrastructure Programme
ADWF	Average Dry Weather Flow
AMP	Asset Management Plan
ART	Anti-Retroviral Treatment
BDS	Blue Drop System
COD	Chemical Oxygen Demand
CRC	Current Replacement Cost
CRR	Cumulative Risk Ratio
CRU	Community Residential Units
CSI	Corporate Social Investment
DRC	Depreciated Replacement Cost
DTTC	Desmond Tutu Tuberculosis Centre
DWQ	Drinking Water Quality
DWS	Department of Water and Sanitation
ECD	Early Childhood Development
EHP	Emergency Housing Programme
EIA	Environmental Impact Assessment
EMIS	Education Management Information Systems
EMS	Environmental Management Services Section
EPHP	Enhanced People's Housing Process
EPWP	Expanded Public Works Programme
FET	Future Education Training
GAMAP	General Accepted Municipal Accounting Practice
GDIP	Green Drop Improvement Plan
GDP	Gross Domestic Product
GDPR	Regional Gross Domestic Product
GDS	Green Drop System
GRAP	Generally Recognized Accounting Practice
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
IDP	Integrated Development Plan
ILI	Infrastructure Leakage Index
IMQS	Infrastructure Management Query System
IRDP	Integrated Rural Development Program
ISP	Internal Strategic Perspective
km^2	Square Kilometre
LED	Local Economic Development
LGTAS	Local Government Turn Around Strategy
m	Metre
MAP	Mean Annual Precipitation
MAR	Mean Annual Runoff
MFMA	Municipal Finance Management Act
MISA	Municipal Infrastructure Support Agent

ABBREVIATIONS AND DEFINITIONS / Continue

Mℓ	Mega Litre
Ml/a	Mega Litre per Annum
MLSS	Mixed Liquor Suspended Solids
MTEF	Medium-Term Expenditure Framework
MTREF	Medium Term Revenue Expenditure Framework
NGO	Non-governmental organization
NRW	Non-Revenue Water
NWRS	National Water Resource Strategy
ODM	Overberg District Municipality
OMAF	Overstrand Municipal Advisory Forum
OREIA	Overstrand Rehabilitation & Educational Institute for Adolescents
ORIO	Netherlands Facility for Infrastructure Development
PAT	Progress Assessment Tool
PDA	Previously Disadvantage Area
PDD	Peak Daily Demand
PRV	Pressure Reducing Valve
RBIG	Regional Bulk Infrastructure Grant
RDP	Reconstruction and Development Programme
RSA	Republic of South Africa
RUL	Remaining Useful Life
SALGA	South African Local Government Association
SAMRAS	South African Municipal Resource Administration System
SANS	South African National Standard
SCADA	Supervisory Control and Data Acquisition
SCM	Supply Chain Management
SDBIP	Service Delivery and Budget Implementation Plan
SDF	Spatial Development Framework
TMG	Table Mountain Group
TSS	Total Suspended Solids
TWL	Top Water Level
VAT	Value Added Tax
VIP	Ventilated Improved Pit
WCNCB	Western Cape Nature Conservation Board (South Africa)
WDM	Water Demand Management
WMA	Water Management Area
WSA	Water Services Authority
WSDP	Water Services Development Plan
WSP	Water Services Provider
WTP	Water Treatment Plant
WTW	Water Treatment Works
WWTP	Waste Water Treatment Plant
WWTW	Waste Water Treatment Works

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KEY TERMS

TERM	INTERPRETATION
Basic Water Supply Facility	The infrastructure necessary to supply 25 litres of potable water per person per day supplied within 200 metres of a household and with a minimum flow of 10 litres per minute (in the case of communal water points) or 6 000 litres of potable water supplied per formal connection per month (in the case of yard or house connections).
Basic Water Supply Service	The provision of a basic water supply facility, the sustainable operation of the facility (available for at least 350 days per year and not interrupted for more than 48 consecutive hours per incident) and the communication of good water-use, hygiene and related practices.
Basic Sanitation Facility	The infrastructure necessary to provide a sanitation facility which is safe, reliable, private, protected from the weather and ventilated, keeps smells to the minimum, is easy to keep clean, minimises the risk of the spread of sanitation-related diseases by facilitating the appropriate control of disease carrying flies and pests, and enables safe and appropriate treatment and/or removal of human waste and wastewater in an environmentally sound manner.
Basic Sanitation Service	The provision of a basic sanitation facility which is easily accessible to a household, the sustainable operation of the facility, including the safe removal of human waste and wastewater from the premises where this is appropriate and necessary, and the communication of good sanitation, hygiene and related practices.
Climate Change	Changes in climatic conditions due to natural causes or to anthropogenic (man-made) effects such as emissions of greenhouse gases, e.g. carbon dioxide, nitrous oxide, and methane, from industry, transport, farming and deforestation, that are expected to have significant consequences for rainfall and water availability on earth.
CRC	The cost of replacing the service potential of an existing asset, by reference to some measure of capacity, with an appropriate modern equivalent asset. GAMAP defines CRC as the cost the entity would incur to acquire the asset on the reporting date.
DRC	The replacement cost of an existing asset after deducting an allowance for wear or consumption to reflect the remaining economic life of the existing asset.
Global Warming	The increase in the average surface temperatures across the globe, usually measured over long periods of time; reported to have increased by 1°C over the past hundred years.
IDP	A municipal plan as defined in the Municipal Systems Act.
National Water Resource Strategy 2	Sets out how we will achieve the following core objectives: • Water supports development and the elimination of poverty and inequality. • Water contributes to the economy and job creation, and • Water is protected, used, developed, conserved, managed and controlled sustainably and equitably.

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TERM	INTERPRETATION
Re-use	Utilisation of treated or untreated wastewater for a process other than the one that generated it. For instance, the re-use of municipal wastewater for agricultural irrigation. Water re-use can be direct or indirect, intentional or unintentional, planned or unplanned, local, regional or national in terms of location, scale and significance. Water re-use may involve various kinds of treatment (or not) and the reclaimed water may be used for a variety of purposes.
RUL	The time remaining over which an asset is expected to be used.
Water Balance	The regulation or rationalisation of human activity to match the sustainable local water supply, rather than base, or a process of balancing water supply and demand to ensure that water use does not exceed supply.
WSA	A WSA is any municipality that has the executive authority to provide water services within its area of jurisdiction in terms of the Municipal Structures Act 118 of 1998 or the ministerial authorisations made in terms of this Act. There can only be one water services authority in any specific area. Water services authority area boundaries cannot overlap. Water services authorities are metropolitan municipalities, district municipalities and authorised local municipalities.
WSDP	A plan for water and sanitation services in terms of the Water Services Act.
WSP	A Water services provider is • Any person who has a contract with a WSA or another WSP to sell water to, and/or accept wastewater for the purpose of treatment from that Authority or Provider, who is usually a bulk water services provider); or • Any person who has a contract with a WSA to take responsibility for providing retail water services to one or more consumers within a specific geographic area; or • A WSA that provides either or both of the above services itself.
WC	The minimisation of loss or waste, the care and protection of water resources and the efficient and effective use of water.
WDM	The adaptation and implementation of a strategy or a programme by a water institution or consumer to influence the water demand and usage of water in order to meet any of the following objectives: economic efficiency, social development, social equity, environmental protection, sustainability of water supply and services and political acceptability.

WSDP – IDP Water Sector Input Report (Executive Summary)

Introduction

Every WSA has a duty to all customers or potential customers in its area of jurisdiction to progressively ensure efficient, affordable, economical and sustainable access to water services that promote sustainable livelihoods and economic development.

Sections 12 and 13 of the Water Services Act (Act No 108 of 1997) place a duty on WSAs to prepare and maintain a WSDP, as part of the process of preparing an IDP. The DWS has developed a new eWSDP website to assist WSAs with the WSDP process and to provide a framework for the capturing of the data. The business elements included in the website and also addressed in detail in the two Modules of Overstrand Municipality's WSDP are as follows:

- Administration
- Demographics Profile
- Service Levels Profile
- Socio Economic Background Profile
- Water Services Infrastructure Profile
- Operation and Maintenance Profile
- Associated Services Profile
- Water Resources Profile
- Conservation and Demand Management Profile
- Financial Profile
- Institutional Arrangements Profile
- Social and Customer Service Requirements Profile
- Needs Development Plan

The 2017-2022 WSDP (First Cycle) of Overstrand Municipality consists of the following documents.

- 2017/2018 WSDP-IDP Water Sector Input Report (For Council approval and Public Participation Process)
- eWSDP: Base data and an overview and assessment of the status of information and strategies on a WSA level.
- Module 2: Base Data and Compliance Data.
- Module 3: Strategies.

The primary instrument of planning in the water services sector is the WSDP. The following principles apply to the WSDP, as taken from the Strategic Framework for Water Services (2003):

- All WSAs must develop a WSDP.
- A new plan must be developed every five years and the plan should be updated as necessary and appropriate in the interim years.
- The WSDP must be integrated with the IDP of the municipality, as required in terms of the Municipal Systems Act.
- The WSDP must integrate water supply planning with sanitation planning.

- The WSDP must integrate technical planning with social, institutional, financial and environmental planning. The planning of capital expenditures must also be integrated with the associated operation and maintenance requirements and expenditures.
- The WSDP must be informed by the business plans developed by water services providers and with the plans of any regional water services providers, as relevant.
- The plan must take into account the impact of HIV/Aids on future water demand.
- The WSDP must integrate with the catchment management strategy.
- The planning process must take into account the views of all important stakeholders, including communities, through a consultative and participatory process. Every effort must be made to ensure the adequate and meaningful participation of women in consultation forums.
- The draft plan must be made available for public and stakeholder comment and all comments made must be considered when preparing the final plan.
- The contents of the WSDP must be communicated to all important stakeholders, including the DWS.
- A WSA must report annually and in a public way on progress in implementing the plan.

The purpose of this report is to provide relevant and summarised WSDP inputs for incorporation into Overstrand Municipality's IDP process and is structured as follows:

Section A: Status Quo Overview: Provides a summarised overview of the water services status quo in terms of the water services functional business elements as aligned to the WSDP framework.

Section B: State of Water Services Planning: Presents the status of- and references the water services planning within Overstrand Municipality.

Section C: Water Services Existing Needs Perspective: Gives an overview of Overstrand Municipality's assessment and interpretation of its water services, with specific focus on problem definition statements.

Section D: Water Services Objectives and Strategies: Outlines the 5-year water services objectives and strategies as developed through the WSDP process for incorporation in terms of the IDP and aligned to the water services functional business elements.

Section E: Water Services MTEF Projects: The agreed water services projects for the medium-term expenditure framework and inclusive of funding sources.

Section F: WSDP Projects: Presents the projects identified during the WSDP process in order to meet the water services strategies of Overstrand Municipality, as aligned to the outflow from the situation analysis per water services business element.

SECTION A: STATUS QUO OVERVIEW

Business Element 1: Administration

Section 14 of the Water Services Act requires that the WSA must take reasonable steps to bring its draft WSDP to the notice of a number of different stakeholders so that they have the opportunity to comment on it. Section 15 of the Act requires that the WSA must supply a copy of the WSDP to the Minister of Water and Sanitation, Minister of Provincial and Local Government, the relevant Province and all neighbouring WSAs.

The 2017-2022 (First Cycle) WSDP will be distributed to the public as part of the IDP public participation process. The draft WSDP will also be distributed to all the neighbouring WSAs for their comments. All relevant comments received on the draft WSDP will be included in the final WSDP.

Business Element 2: Demographics

Overstrand Municipality falls within the newly established Breede-Gouritz Water Management Area (WMA). The Municipality consists of thirteen (13) individual wards, and is the only WSA within this municipal area and is also the WSP. Overstrand Municipality commenced with a 15 years contract with Veolia Water Solutions & Technologies South Africa (Pty) Ltd on the 1st of November 2015 of which the main purpose is to effectively and efficiently operate and maintain the bulk water services infrastructure with emphasis on driving efficiencies and to provide appropriate skills and expertise. Overstrand Municipality however remains the WSA and WSP with direct accountability to the community. Overstrand Municipality's Management Area includes the following towns and ***Water Distribution Systems***:

- Rooi Els, Pringle Bay, Betty's Bay – ***Buffels River System***

  The towns of Rooi Els, Pringle Bay and Betty's Bay obtain their bulk water from the Buffels River Dam.

- Kleinmond – ***Kleinmond System***

  Kleinmond is supplied from the Palmiet River. The weir and inlet in the river is currently being upgraded. The "Dorpsfontein" and a borehole (1998), located 300m to the east of the fountain, are used as additional sources.

- Fisherhaven, Hawston, Vermont, Onrus, Sandbaai, Zwelihle, Mount Pleasant, Hermanus – ***Greater Hermanus System***

  The Greater Hermanus area is supplied with bulk surface water from De Bos Dam and bulk groundwater from the Gateway-, Camphill- and Volmoed Well Fields. Final effluent from the Hermanus WWTW is currently re-used for irrigation purposes.

- Stanford – ***Stanford System***

  Stanford is supplied with bulk water from the high discharging Stanford Spring, generally known as "Die Oog" (the Eye), which was previously the sole source of supply of potable water to the town and the greater area. Two Kouevlakte boreholes were also drilled during 2010/2011 and a new bulk pipeline was constructed the following year in order to connect the boreholes to the existing network.

- De Kelders, Gansbaai, Kleinbaai, Franskraal – ***Greater Gansbaai System***

  The water sources of Gansbaai, De Kelders, Kleinbaai and Franskraal are integrated with each other through the bulk water supply distribution system. In the past specific sources were utilised for specific areas, but due to peak supply limitations of underground resources during peak seasons, the system has become completely integrated. Bulk water supply to the Greater Gansbaai system is from the Franskraal and Kraaibosch dams and the Klipgat water sources, which consist of a spring in the De Kelders caves and a spring at Stanfords Bay. Final effluent from the Gansbaai WWTW is currently re-used for irrigation purposes.

- Pearly Beach – ***Pearly Beach System***

  Pearly Beach is supplied from seven springs located in the mountains some 6km from Pearly Beach. The water from the springs is kept in storage at the Pearly Beach Dam. A Service Level Agreement is also in place for the supply of 0.26 Ml/d from the Koekemoer Dam free of charge to the Municipality.

- Baardskeerdersbos – ***Baardskeerdersbos System***

  Bulk water supply to Baardskeerdersbos is from two boreholes. Baardskeerdersbos previously received their bulk water from the Boskloof Stream, but all current bulk water supply to the area and in the future will be from the boreholes.

- Buffeljags Bay – ***Buffeljags Bay System***

  Bulk water supply to Buffeljags Bay is from a borehole.

The most significant challenges, from a Water Services perspective are the augmentation of the existing water sources for Hermanus, the replacement and upgrading of the old water and sewerage infrastructure to accommodate development, the operation and maintenance of the new WTWs and WWTWs in a sustainable manner, the provision of sustainable basic services to informal settlements and to ensure the provision of basic services to households located on privately owned farms. Strategies and action plans will need to be developed and implemented, in collaboration with farm owners, in order for the Municipality to fulfil its legal obligations and responsibilities as WSA, with regard to the provision of basic services once clear and practical policy guidelines are made available from the DWS and funding is made available.

Physical Perspective:

Climate change: In terms of adapting for climate change, water systems will need to be more robust and new / alternative sources of supply may need to be found. Increased skills will be required from water managers and long-term water projections are required. Although an overall decrease in rainfall is generally not forecasted, increased variability in the climate and frequency of extreme events, as well as increased temperature and wind could have an impact on water sources, particularly surface waters.

It is necessary for WSAs to develop climate response strategies and include these in their WSDPs, implement WC/WDM and reduce levels of NRW. Water-related climate change adaptation and mitigation planning should be incorporated into all WSDPs and IDPs. The implementation of WC/WDM is a critical element of adapting to climate change. This must be implemented by all water sector institutions and water users, and should include the optimisation of dam and groundwater operation, as well as the reduction of physical water losses and the introduction of water-efficient appliances and processes.

It is therefore advisable for Overstrand Municipality that a conservative approach be followed regarding the management of water sources. It is proposed that the following approach be adopted to mitigate and adapt to the impacts of climate change:

- All resources, especially surface water resources, need to be re-evaluated, especially where demand is close to the safe one in twenty year yields. It is therefore important to establish assurance of supply levels of all water sources;
- increase assurance of supply of the water resources by ensuring that there is at least 10% additional capacity (headroom), when considering the maximum 24 hour demand on the peak month of the year;
- do not undertake new developments unless a proper investigation of the implication on water sources and sustainability in the long term has been undertaken;
- vigorously implement WDM measures, especially in terms of the following:
  - increased water efficiency
  - frequent monitoring of the water supply system, from the sources to the consumers; and
  - regular and adequate system maintenance and repairs.
- Diversify water resources, e.g. surface water, groundwater, wastewater re-use and sea water desalination.

Floods: One of the climate change threats in some parts of the Western Cape is the likelihood of floods with greater intensity and longer term impacts. There is likely to be increases in the severity and unpredictability of weather patterns. Flooding and storms are predicted which could have devastating effects on agricultural production.

Natural Environment:

The stretch of coastline includes three remarkable blue flag beaches, namely Kleinmond, Grotto and Hawston. The Grotto beach also received the prestigious international "Blue Flag" award. The Management Area also includes the Kogelberg Biosphere Reserve which is only one of two such areas in the Republic. It is commonly referred to as the heart of the Cape floral kingdom as roughly one fifth of all known fynbos species occurs here.

The Environmental Management Section of Overstrand Municipality strives towards sustainable environmental management by means of environmental good practice. Accordingly, the section strives to coordinate, plan and manage all human activities in a defined environmental system to accommodate the broadest possible range of sustainable short and long term environmental, social and economic development objectives. The mission of the section is to promote the use of sound environmental management principles to ensure a healthy environment within the Overstrand Municipality.

Demographic Perspective:

Economics: The economy in Overstrand grew by 3.1% on average between 2005 and 2015. Tourism is a major economic driver in the area and its popularity as a holiday destination results in a fourfold increase of its population over the holiday seasons. This influx places a great strain on the existing municipal services.

Social: The HDI has risen from 0.714 in 2011 to 0.739 in 2015, it weakened slightly between 2014 and 2015. Social indicators that have moved in a positive direction include the increasing access to basic services, decreasing poverty intensity, below district average informal dwellers, good education achievements, decreasing TB patients, and lower teenage pregnancies, among others. Indicators that are of concern include the increasing indigent households, high proportion of people without income, increasing income inequality, rising poverty headcount, and high ART patient loads, among others (Municipal Economic Review and Outlook 2016)

Regional Perspective:

The 2015 Socio-Economic Profile for the Overstrand Municipality includes the following conclusions from their socio-economic analysis (Western Cape Government, Provincial Treasury).

- Overstrand ranks second in terms of population size within the Overberg District with a figure of 86 711 people in 2015. The total number of households in Overstrand Municipality is estimated to be 28 892 in 2015.
- Overstrand residents has a literacy rate of 87.5% and a matric pass rate of 86.4% in 2014.
- Poverty remains a challenge with 19.3% of the households earn less than R400/month in 2011 and a per capita income of R33 082.
- A high learner dropout rate which is particularly concerning given the low employment opportunities on offer for semi- and unskilled workers.
- The majority of schools in the Overstrand municipal area were at the end of 2014 no fee schools; the proportion of no fee schools has increased marginally from 70.58% in 2012 to 70.60% in 2014.
- The presence of FET colleges is encouraging as it can potentially absorb the high number of high-school dropouts and offer alternative education and training opportunities.
- Overstrand has a teenage birth rate of 6% which was the lowest in the District and a termination of pregnancy rate of 12.4% which was higher than the District's average of 7%.
- By the end of March 2015, Overstrand's ART patient load increased to 2 948, administered from four treatment sites.
- Overstrand municipal area outperforms the District in terms of access to water, sanitation and refuse. Access to electricity is slightly below the District average access levels.
- Overall, Overstrand Municipality appears to be affected by drug-related crime and residential burglaries.
- Overstrand comprised 34% of the GDPR and 33% of the employment in the District in 2013. Overstrand has been able to post strong real GDPR growth, averaging 5.4% per annum between 2005 and 2013.

- The industry structure of the regional economy reveals a notably bigger share of the finance, insurance, real estate and business services, wholesale and retail trade, catering and accommodation and manufacturing.

- Overstrand experienced net job losses in the agriculture, manufacturing, construction and other sectors. Conversely, the commercial services and general government and CSP services sectors experienced net employment, allowing a positive overall net employment of 1 437 in the municipal area.

- Overstrand experienced an increase in labour demand in the categories of highly skilled, skilled and informal employment; semi- and unskilled sector on the other hand registered a decrease in demand.

- Overstrand has a Wi-Fi access level of 37.4%. Increased access, readiness and usage of internet would offer greater potential for economic growth in the Municipality. There is also Wi-Fi provided by the provincial government in each of the wards in the municipal area.

The 2015/2016 population of Overstrand Municipality was established by applying an annual growth rate of 4.04% to the 2011 Census population figures. The annual population growth percentages for the individual towns were agreed with the Municipality during January 2014. The current estimated population figures and the annual population growth percentages used in this WSDP-IDP Water Sector Input Report are aligned with the figures used in DWS's National GeoDatabase, which forms the baseline for the WSDP Guide Framework.

The table below gives an overview of the population and households and the water and sanitation service level categories in Overstrand Municipality's Management Area.

Table A.1: Water services overview

Settlement Type	2011/12		2015/16		Water category										Sanitation category									
	Households	Population	Households	Population	Adequate: Formal	Adequate: Informal	Adequate: Sahred Services	Water resources needs only	O&M needs only	Infrastructure needs only	Infrastructure & O&M needs	Infrastructure, O&M & Resource need	No Services: Informal	No Services: Formal	Adequate: Formal	Adequate: Informal	Adequate: Sahred Services	Water resources needs only	O&M needs only	Infrastructure needs only	Infrastructure & O&M needs	Infrastructure, O&M & Resource need	No Services: Informal	No Services: Formal
URBAN																								
Metropolitan Area					Adequate			Below RDP					None		Adequate			Below RDP					None	
Sub-Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Formal Town					Adequate			Below RDP					None		Adequate			Below RDP					None	
Buffels River	1,158	2,297	1363	2,703	✓		✓								✓		✓							
Kleinmond	2,351	5,101	2638	5,801	✓		✓								✓		✓							
Greater Hermanus	14,256	41,884	17261	51,024	✓		✓								✓		✓							
Stanford	1,379	4,325	1552	4,884	✓		✓								✓		✓							
Greater Gansbaai	3,251	7,698	4345	10,958	✓		✓								✓		✓							
Pearly Beach	314	363	527	1,138	✓		✓								✓		✓							
Baardskeerdersbos	39	122	40	124	✓										✓									
Buffeljags Bay	33	147	34	150	✓										✓									
Sub-Total	22,781	61,937	27,759	76,783	8	0	6	0	0	0	0	0	0	0	8	0	6	0	0	0	0	0	0	0
Townships					Adequate			Below RDP					None		Adequate			Below RDP					None	
Sub-Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Informal Settlements					Adequate			Below RDP					None		Adequate			Below RDP					None	
Greater Gansbaai	1,407	5,628	1,293	5,172		✓										✓								
Greater Hermanus	1,362	5,448	1,328	5,312		✓										✓								
Kleinmond	382	1,528	379	1,516		✓										✓								
Stanford	114	456	106	424		✓										✓								
Pearly Beach	171	684	0	0		✓										✓								
Sub-Total	3,436	13,744	3,106	12,424	0	5	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
Working towns & service centres					Adequate			Below RDP					None		Adequate			Below RDP					None	
Sub-Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-Total: (Urban)	26,217	75,681	30,865	89,207	8	5	6	0	0	0	0	0	0	0	8	5	6	0	0	0	0	0	0	0
RURAL																								
Rural / Farming					Adequate			Below RDP					None		Adequate			Below RDP					None	
Overstrand Rural	1,794	4,727	1,909	5,029	✓		✓							✓	✓		✓							✓
Sub-Total	1,794	4,727	1,909	5,029	1	0	1	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	1
Informal Settlements					Adequate			Below RDP					None		Adequate			Below RDP					None	
Sub-Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-Total (Rural)	1,794	4,727	1,909	5,029	1	0	1	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	1
TOTAL	28,011	80,408	32,773	94,236	9	5	7	0	0	0	0	0	0	1	9	5	7	0	0	0	0	0	0	1

The Community Survey of 2016 from Statistics South Africa estimate the 2016 population for Overstrand Municipality at 93 466 persons and the permanent households at 35 739, at an average household size of 2.6 persons per household.

The Growth Potential Study 2014, of the Western Cape Government determined the growth potential and socio-economic needs of settlements in the Western Cape using quantitative data (e.g. factors relating to socio-economic, economic, physical-environmental, infrastructure and institutional aspects). The table below gives an overview of the growth potential indicators for the towns in Overstrand Municipality's Management Area, as included in the Growth Potential Study.

Table A.2: Growth potential indicators for the towns in Overstrand Municipality's Management Area (Settlement Level Classification)

Indicator	Buffels River	Kleinmond	Greater Hermanus	Stanford	Greater Gansbaai	Pearly Beach	Baards-keerders-bos	Buffeljags Bay
Absolute socio-economic needs	Very Low	Low	High	Low	Medium	Very Low	-	-
Proportional socio-economic needs	Very Low	Low	Low	High	Medium	High	-	-
Human capital index	Very High	Medium	High	Medium	Medium	Medium	-	-
Economic index	Medium	Medium	High	Medium	Medium	Low	-	-
Physical index	Medium	High	Medium	Medium	High	Medium	-	-
Infrastructure	Very High	Very High	Very High	Medium	High	Low	-	-
Institutional	High	High	Very High	High	High	Medium	-	-

The total housing demand in the Overstrand municipality mainly consists of the people living in informal settlements as well as the number of backyard dwellers.

Business Element 3: Service Levels

All the formal households in the urban areas of Overstrand Municipality's Management Area are provided with water connections inside the erven. Informal areas are supplied with shared services as an intermediary measure. Overstrand Municipality is committed to ensure that private landowners provide at least basic water and sanitation services to those households in the rural areas with existing services below RDP standard once clear and practical policy guidelines are made available from the DWS and funding is made available.

The table and graph below give an overview of the water service delivery access profile in Overstrand Municipality's Management Area.

Table A.3: Residential water services delivery access profile: Water

Census Category	Description	Year 0 FY2015/16		Year -1 FY2014/15		Year -2 FY2013/14	
		Nr	%	Nr	%	Nr	%
	WATER (ABOVE MIN LEVEL)						
Piped (tap) water inside dwelling/institution	House connections	34,264	80%	33,910	80%	33,145	79%
Piped (tap) water inside yard	Yard connections	5,300	12%	5,300	12%	5,300	13%
Piped (tap) water on community stand: distance less than 200m from dwelling/institution	Standpipe connection < 200 m	3,137	8%	3,219	8%	3,361	8%
	Sub-Total: Minimum Serivce Level and Above	**42,701**	**100%**	**42,429**	**100%**	**41,806**	**100%**
	WATER (BELOW MIN LEVEL)						
Piped (tap) water on community stand: distance between 200m and 500m from dwelling/institution	Standpipe connection: > 200 m < 500 m	21	0%	21	0%	21	0%
Piped (tap) water on community stand: distance between 500m and 1000m (1km) from dwelling /institution	Standpipe connection: > 500 m < 1 000 m	8	0%	8	0%	8	0%
Piped (tap) water on community stand: distance greater than 1000m (1km) from dwelling/institution	Standpipe connection: > 1 000 m	5	0%	5	0%	5	0%
No access to piped (tap) water	No services	49	0%	49	0%	49	0%
	Sub-Total: Below Minimum Service Level	**83**	**0%**	**83**	**0%**	**83**	**0%**
	Total number of households	**42,784**	**100%**	**42,512**	**100%**	**41,889**	**100%**

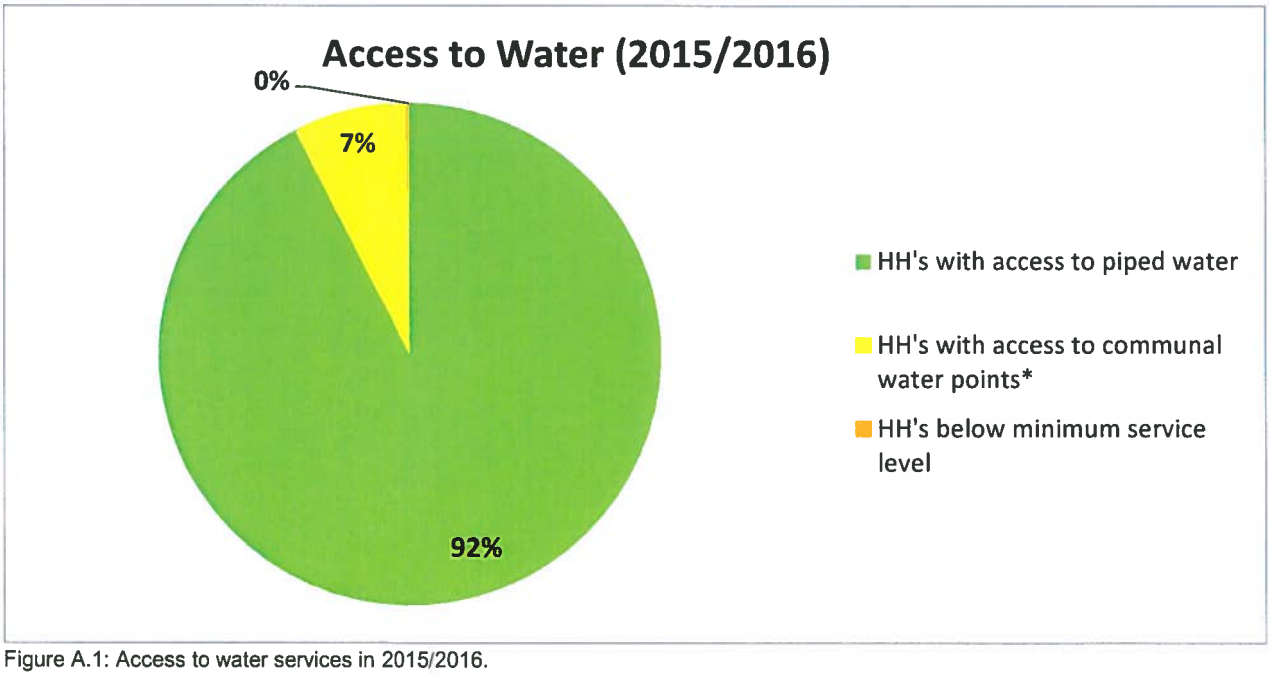


Figure A.1: Access to water services in 2015/2016.

The existing residential water service levels in Overstrand Municipality's Management Area are estimated as follows:

Table A.4: Residential water service levels (Residential Consumer Units)

Service Level	Buffels River	Kleinmond	Greater Hermanus	Stanford	Greater Gansbaai	Pearly Beach	Baardskeer-dersbos	Buffeljags Bay	Farms	Total
No Water Services	0	0	0	0	0	0	0	0	49 [2)]	49
Below RDP: Infrastructure Upgrade	0	0	0	0	0	0	0	0	0	0
Below RDP: Infrastructure Extension	0	0	0	0	0	0	0	0	34 [3)]	34
Below RDP: Infrastructure Refurbishment	0	0	0	0	0	0	0	0	0	0
Below RDP: O&M Needs	0	0	0	0	0	0	0	0	0	0
Below RDP: Water Resource Needs	0	0	0	0	0	0	0	0	0	0
Below RDP: Infrastructure and O&M Needs	0	0	0	0	0	0	0	0	0	0
Below RDP: Infrastructure, O&M and Water Resource Needs	0	0	0	0	0	0	0	0	0	0
Total Basic Need (RDP)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**83**	**83**
Below Housing Interim [4)]	0	0	0	0	0	0	0	0	0	0
Adequate Housing Permanent [5)]	0	379	1 328	106	1 293	0	0	0	0	3 106
Total Housing Need	**0**	**379**	**1 328**	**106**	**1 293**	**0**	**0**	**0**	**0**	**3 106**
Standpipes	0	0	0	0	0	0	0	0	31	31
Yard Connections [6)]	6	282	3 623	482	625	39	0	0	243	5 300
House Connections [1)]	3 316	3 553	18 305	1 156	5 034	1 254	64	30	1 552	34 264
Total Adequate	**3 322**	**3 835**	**21 928**	**1 638**	**5 659**	**1 293**	**64**	**30**	**1 826**	**39 595**
Total Residential Consumer Units for the Municipality	**3 322**	**4 214**	**23 256**	**1 744**	**6 952**	**1 293**	**64**	**30**	**1 909**	**42 784**

Notes:

1) Number of residential consumer units for urban areas for 2015/2016, as taken from the financial system.

2) Census 2011: Number of households with no access to piped (tap) water 49

3) Census 2011: Number of households with communal services (200m – 500m) 21, (500m – 1000m) 8 and (>1000m) 5.

4) Below Housing Interim in the above table is the number of shacks in informal areas without basic water services.

5) Adequate Housing Permanent in the above table is the number of shacks in informal areas with communal water services, as confirmed by the Municipality (June 2016).

6) Estimated number of backyard dwellers, as agreed with the Municipality during January 2014, as part of DWS's Backlog Eradication Strategy process.

The table and graph below give an overview of the sanitation service delivery access profile in Overstrand Municipality's Management Area.

Table A.5: Residential water services delivery access profile: Sanitation							
Census Category	Description	Year 0 FY2015/16		Year -1 FY2014/15		Year -2 FY2013/14	
		Nr	%	Nr	%	Nr	%
	SANITATION (ABOVE MIN LEVEL)						
Flush toilet (connected to sewerage system)	Waterborne	24,099	56%	23,757	56%	22,818	54%
	Waterborne: Low Flush	4,100	10%	4,100	10%	4,100	10%
Flush toilet (with septic tank)	Septic tanks / Conservancy	11,182	26%	11,170	26%	11,344	27%
Chemical toilet	Non-waterborne (above min. service level)	5	0%	5	0%	5	0%
Pit toilet with ventilation (VIP)		27	0%	27	0%	27	0%
Other		3,106	7%	3,188	7%	3,330	8%
	Sub-Total: Minimum Serivce Level and Above	**42,519**	**99%**	**42,247**	**99%**	**41,624**	**99%**
	SANITATION (BELOW MIN LEVEL)						
Pit toilet without ventilation	Pit toilet	12	0%	12	0%	12	0%
Bucket toilet	Bucket toilet	68	0%	68	0%	68	0%
Other toilet provision (below min. service level	Other	119	0%	119	0%	119	0%
No toilet provisions	No services	66	0%	66	0%	66	0%
	Sub-Total: Below Minimum Service Level	**265**	**1%**	**265**	**1%**	**265**	**1%**
	Total number of households	**42,784**	**100%**	**42,512**	**100%**	**41,889**	**100%**

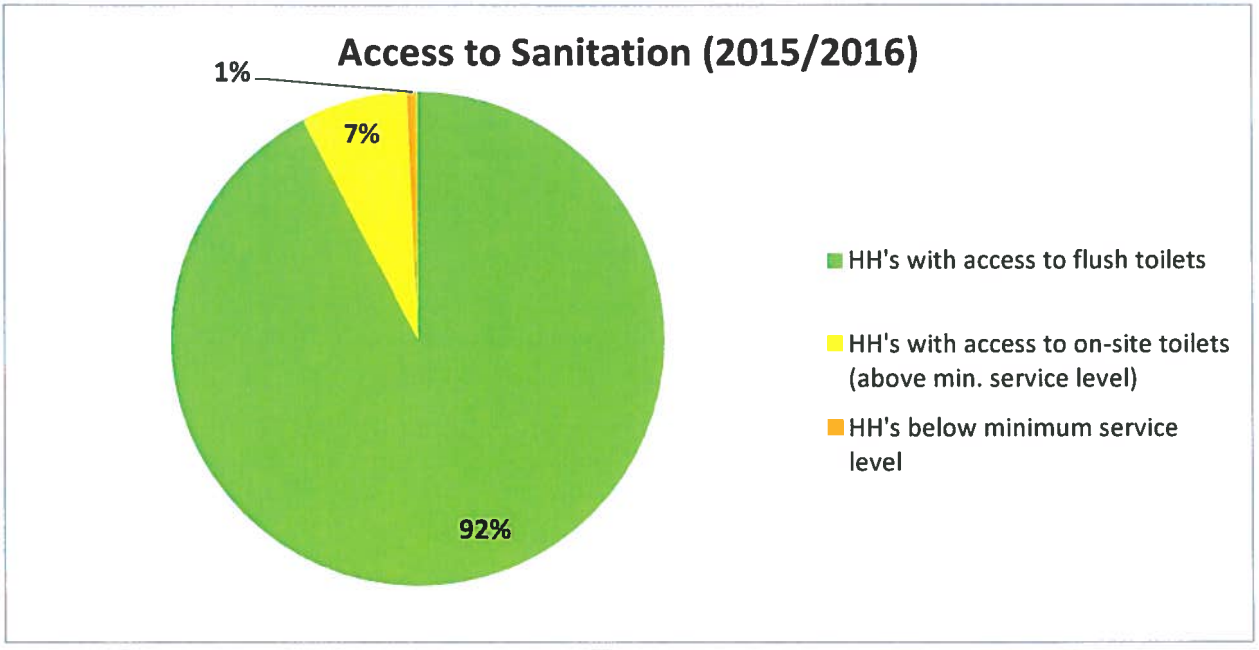


Figure A.2: Access to sanitation services in 2015/2016

The existing residential sanitation service levels in Overstrand Municipality's Management Area are estimated as follows:

Table A.6: Residential sanitation service levels (Residential Consumer Units)

Service Levels	Buffels River	Kleinmond	Greater Hermanus	Stanford	Greater Gansbaai	Pearly Beach	Baardskeer-dersbos	Buffeljags Bay	Farms	Total
No Sanitation Services	0	0	0	0	0	0	0	0	66 [3]	66
Below RDP: Infrastructure Upgrade	0	0	0	0	0	0	0	0	204 [4]	204
Below RDP: Infrastructure Extension	0	0	0	0	0	0	0	0	0	0
Below RDP: Infrastructure Refurbishment	0	0	0	0	0	0	0	0	0	0
Below RDP: O&M Needs	0	0	0	0	0	0	0	0	0	0
Below RDP: Water Resource Needs	0	0	0	0	0	0	0	0	0	0
Below RDP: Infrastructure and O&M Needs	0	0	0	0	0	0	0	0	0	0
Below RDP: Infrastructure, O&M and Water Resource Needs	0	0	0	0	0	0	0	0	0	0
Total Basic Need (RDP)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**270**	**270**
Below Housing Interim [5]	0	0	0	0	0	0	0	0	0	0
Adequate Housing Permanent [6]	0	379	1 328	106	1 293	0	0	0	0	3 106
Total Housing Need	**0**	**379**	**1 328**	**106**	**1 293**	**0**	**0**	**0**	**0**	**3 106**
No Waterborne (VIP)	0	0	0	0	0	0	0	0	27	27
Waterborne Low Flush	0	0	4 100	0	0	0	0	0	0	4 100
Septic Tanks	2 792	789	0	136	747	354	64	30	1 612	6 524
Conservancy	530	330	1 398	10	2 124	266	0	0	0	4 658
Waterborne	0	2 716	16 430	1 492	2 788	673	0	0	0	24 099
Total Adequate [2]	**3 322**	**3 835**	**21 928**	**1 638**	**5 659**	**1 293**	**64**	**30**	**1 639**	**39 408**
Total Residential Consumer Units for the Municipality	**3 322**	**4 214**	**23 256**	**1 744**	**6 952**	**1 293**	**64**	**30**	**1 909**	**42 784**

1) Total for Septic Tanks and Conservancy tanks in Urban Areas according to Municipal information for June 2016 for "Developed Sites Septic Tanks (SE8D)"

2) Include Backyard dwellers

3) Census 2011: Number of households with no toilet facility 66.

4) Census 2011: Number of households with existing buckets 68, chemical toilets 5, pit toilets without ventilation 12 and "other" 119.

5) Below Housing Interim in the above table is the number of shacks in informal areas without basic sanitation services.

6) Adequate Housing Permanent in the above table is the number of shacks in informal areas with communal ablution facilities, as confirmed by the Municipality (June 2016).

Overstrand Municipality's Directorate Community Services regularly count the number of households in the informal areas. The municipality renders basic services in terms of potable water, sewer infrastructure (toilets), and cleaning services to all informal settlements. Toilet facilities and potable water taps are provided according to the following national ratios, namely:

- Water: 1:25 families
- Toilets: 1:5 families

The current number of households in the informal areas, with access to communal basic services, is 3 106.

The number of households with communal services in the informal areas and the number of households per facility type are summarised in the table below (June 2016).

Table A.7: Communal service levels in the informal areas

Area	Informal Settlement	No. of Households	Number of Toilets	Household / Toilet	Number of Taps	Households / Tap
Stanford	Die Kop	106	16	6.6	6	17.7
Kleinmond	Overhills	379	102	3.7	21	18.0
Gansbaai	Mashakhane	1 183	269	4.4	38	31.1
	Beverly Hills	95	24	4.0	13	7.3
	Buffeljachts	15	8	1.9	2	7.5
Hawston	Erf 170	11	4	2.8	2	5.5
Zwelihle	Tsepe-Tsepe	220	40	5.5	6	36.7
	Serviced Sites	79	22	3.6	3	26.3
	Thambo Square / Zipunzana	398	55	7.2	9	44.2
	Asazani	65	13	5.0	6	10.8
	Mandela Square	200	44	4.5	9	22.2
	New Camp	55	12	4.6	5	11.0
	Transit Camp	300	115	2.6	18	16.7
Total		**3 106**	**724**	**4.3**	**138**	**22.5**

The number of user connections in each user sector, for the various distribution systems in Overstrand Municipality's Management Area, is as follows:

Table A.8: Number of consumer units in each user sector for the last three financial years

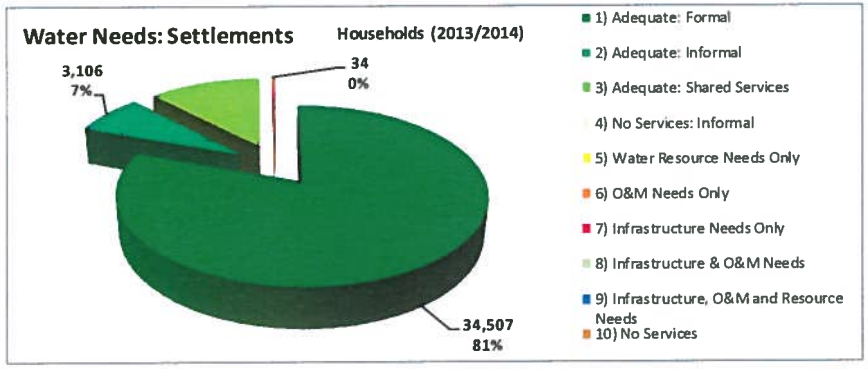
Distribution System	Residential	Commercial	Industrial	Other	Total
2013/2014 (Average over period December 2013 – June 2014)					
Buffels River	3 226	109	0	37	**3 372**
Kleinmond	3 523	265	0	64	**3 852**
Greater Hermanus	17 647	833	32	324	**18 836**
Stanford	1 137	49	2	14	**1 202**
Greater Gansbaai	4 950	225	4	220	**5 399**
Pearly Beach	1 076	5	0	10	**1 091**
Baardskeerdersbos	63	0	0	3	**66**
Buffeljags Bay	29	0	0	3	**32**
TOTALS	**31 651**	**1 486**	**38**	**675**	**33 850**
2014/2015 (Average over period July 2014 – June 2015)					
Buffels River	3 264	106	0	36	**3 406**
Kleinmond	3 533	264	0	65	**3 862**
Greater Hermanus	18 168	904	31	325	**19 428**
Stanford	1 147	53	2	14	**1 216**
Greater Gansbaai	4 962	225	4	188	**5 378**
Pearly Beach	1 221	5	0	7	**1 234**
Baardskeerdersbos	63	0	0	3	**66**
Buffeljags Bay	30	0	0	4	**34**
TOTALS	**32 388**	**1 557**	**37**	**642**	**34 624**
2015/2016 (Average over period July 2015 – June 2016)					
Buffels River	3 316	110	0	31	**3 457**
Kleinmond	3 553	263	0	64	**3 880**
Greater Hermanus	18 305	999	32	308	**19 644**
Stanford	1 156	54	2	17	**1 229**
Greater Gansbaai	5 034	228	4	198	**5 464**
Pearly Beach	1 254	4	0	7	**1 265**
Baardskeerdersbos	64	0	0	3	**67**

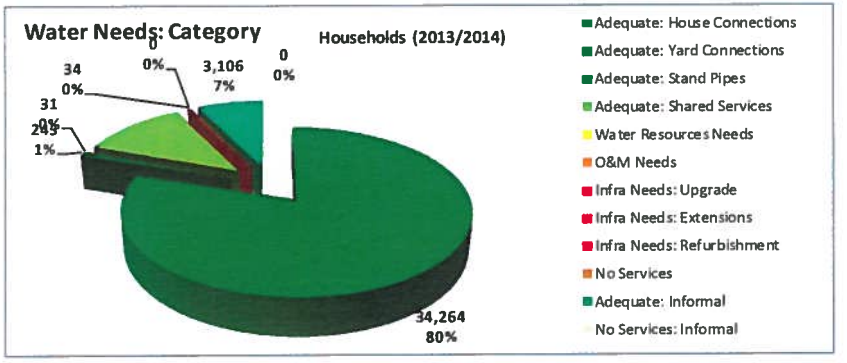
Table A.8: Number of consumer units in each user sector for the last three financial years					
Distribution System	**Residential**	**Commercial**	**Industrial**	**Other**	**Total**
Buffeljags Bay	30	0	0	6	**36**
TOTALS	**32 712**	**1 658**	**38**	**634**	**35 042**

Table A.9: Total number of consumer units per town and percentage growth from 2013/2014 to 2015/2016				
Distribution System	**Annual Growth % 13/14 – 15/16**	**15/16**	**14/15**	**13/14**
Buffels River	1.25%	3 457	3 406	3 372
Kleinmond	0.36%	3 880	3 862	3 852
Greater Hermanus	2.12%	19 644	19 428	18 836
Stanford	1.12%	1 229	1 216	1 202
Greater Gansbaai	0.60%	5 464	5 378	5 399
Pearly Beach	7.68%	1 265	1 234	1 091
Baardskeerdersbos	0.75%	67	66	66
Buffeljags Bay	6.07%	36	34	32
TOTALS	**1.75%**	**35 042**	**34 624**	**33 850**

Table A.10(a): Residential water services delivery adequacy profile (Water)

Water Categorisation	Number of settlements	FORMAL																		INFORMAL			
		Adequate								Water Resource needs		O & M Needs		Infrastructure Needs						No services		Adequate		No services	
		House Connections		Yard Connections		Stand Pipes		Shared Services						Upgrades		Extensions		Refurbishment							
		HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%
1	9	34,264	100%	243	100%																				
2	5																					3,106	100%		
3	7					31	100%	5,057	100%																
4	0																								
5	0																								
6	0																								
7	0															34	100%								
8	0																								
9	0																								
10	1																			49	100%				
Total Household Interventions required		34,264		243		31		5,057		0		0		0		34		0		49		3,106		0	

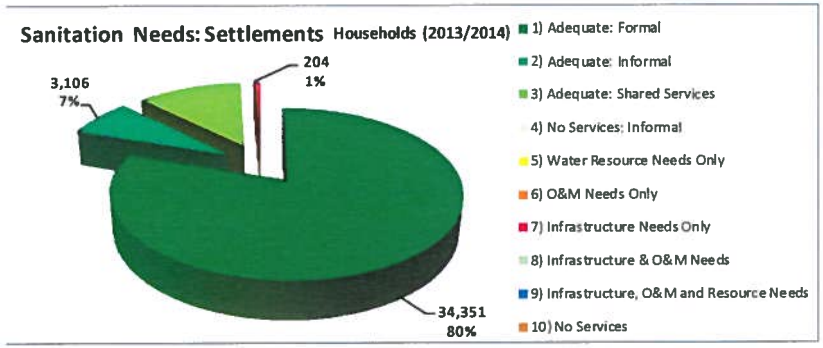


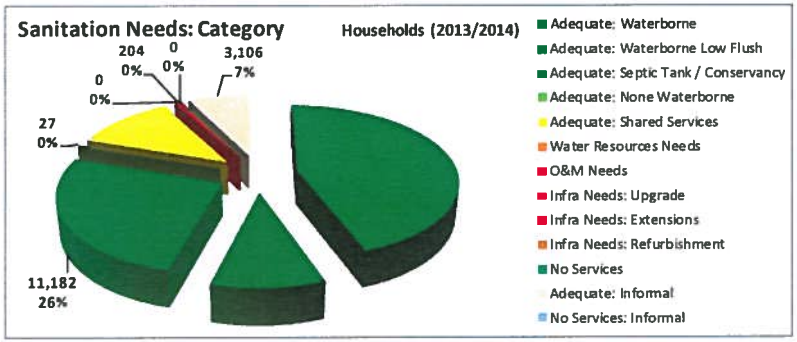


1	Adequate	3	Adequate: Shared services	5	Water Resources Needs **Only**	7	Infrastructure Needs **Only**	9	Infrastructure, O&M & Resource Needs
2	Adequate: Informal	4	No Services: Informal	6	O & M Needs **Only**	8	Infrastructure& O&M needs	10	No Services

Table A.10(b): Residential water services delivery adequacy profile (Sanitation)

Water Categorisation	Number of settlements	FORMAL																				INFORMAL			
		Adequate										Water Resource needs		O & M Needs		Infrastructure Needs				No services		Adequate		No services	
		Waterborne		Waterborne Low flush		Septic Tank/ Conservancy		None Waterborne		Shared Services						Upgrades		Extensions		Refurbishment					
		HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%	HH	%
1	9	19,042	100%	4,100	100%	11,182	100%	27	100%																
2	5																					3,106	100%		
3	7									5,057	100%														
4	0																								
5	0																								
6	0																								
7	0															204	100%								
8	0																								
9	0																								
10	1																			66	100%				
Total Household Interventions required		19,042		4,100		11,182		27		5,057		0		0		204		0		0		66		3,106		0	





1	Adequate	3	Adequate: Shared services	5	Water Resources Needs **Only**	7	Infrastructure Needs **Only**	9	Infrastructure, O&M & Resource Needs
2	Adequate: Informal	4	No Services: Informal	6	O & M Needs **Only**	8	Infrastructure & O&M needs	10	No Services

Business Element 4: Socio Economic

The 2001 Census recorded the population in the Overstrand Municipality's Management Area at 55 770 persons (19 082 Households) and the 2011 Census data recorded the population at 80 408 persons (28 011 Households). The population of Overstrand Municipality is currently estimated at approximately 94 235 persons for 2015/2016.

Due to the high levels of uncertainty projecting the current and future population of Overstrand Municipality it was decided to include a **high** and **low** estimate in the WSDP. The high growth percentages were however used in the future water requirement projection models for each of the water distribution systems. The low growth percentages were as agreed with the Municipality during January 2014. The estimated current population and the population growth rates for the various distribution systems are summarised in the table below.

Table A.11: Estimated current population and population growth rates

Distribution System	Historical Population Growth per year (2001 – 2011)	Census 2011			Future Population Growth per year (2011 Onwards)	Projections for 2015/2016		Number of Residential Consumer Units for 2015/2016 + HH in Informal Areas
		Popula-tion	Number of Households	Persons / Household		Popula-tion	Number of Households (Permanent)	
Buffels River	4.15%	2 297	1 158	1.98	5.00%	2 792	1 408	3 316
					4.15%	2 703	1 363	
Kleinmond	2.50%	6 629	2 733	2.43	3.00%	7 461	3 076	3 553 + 379 = 3 932
					2.50%	7 317	3 017	
Greater Hermanus	4.45%	47 332	15 618	3.03	5.50%	58 636	19 348	18 305 + 1 328 = 19 633
					4.45%	56 336	18 589	
Stanford	2.65%	4 781	1 493	3.20	4.50%	5 701	1 780	1 156 + 106 = 1 262
					2.65%	5 308	1 658	
Greater Gansbaai	4.89%	13 326	4 658	2.86	5.50%	16 509	5 771	5 034 + 1 293 = 6 327
					4.89%	16 130	5 638	
Pearly Beach	2.11%	1 047	485	2.16	6.00%	1 322	612	1 254
					2.11%	1 138	527	
Baardskeerdersbos	0.05%	122	39	3.13	0.50%	124	40	64
					0.50%	124	40	
Buffeljags Bay	1.56%	147	33	4.45	0.50%	150	34	30
					0.50%	150	34	
Farms		4 727	1 794	2.63	1.56%	5 029	1 909	*1 909*
TOTALS	**3.73%**	**80 408**	**28 011**	**2.87**	**4.99%**	**97 724**	**33 978**	**37 727**
					4.04%	**94 235**	**32 775**	

A summary of the recent changes in various social indicators in the Overberg District is given in the table below (Municipal Economic Review and Outlook 2016).

Table A.12: Social indicators in the Overberg District

Indicator	Overberg District	Overstrand	Cape Agulhas	Theewaters-kloof	Swellendam
GDP growth (2005 – 2015)	3.6%	3.1%	5.9%	2.8%	3.9%
Population growth (2011 – 2016)	11.0%	16.2%	9.0%	7.7%	12.0%
HDI (2011 – 2015)	Increase	Increase	Increase	Increase	Increase
Indigent households (2014 – 2015)	Increase	Increase	Increase	Decrease	Increase
Households with no income (2016)	12.6% of total	Above ODM average	Below ODM average	Below ODM average	Below ODM average
Gini coefficient (2013 – 2015)	Increase	Increase	Decrease	Increase	Decrease
Poverty headcount (2011 – 2016)	Decrease	Increase	Increase	Increase	Decrease
Poverty intensity (2011 – 2016)	Decrease	Decrease	Increase	Increase	Increase
Informal dwelling (2016)	13.6% of total dwellings	Below ODM average	Above ODM average	Above ODM average	Below ODM average

Table A.12: Social indicators in the Overberg District					
Indicator	Overberg District	Overstrand	Cape Agulhas	Theewaters-kloof	Swellendam
Access to water (2011 – 2016)	Increase	Increase	Increase	Increase	Increase
Access to electricity (2011 - 2016)	Increase	Increase	Increase	Increase	Increase
Access to sanitation (2011 – 2016)	Increase	Increase	Increase	Increase	Increase
Access to refuse removal (2011 – 2016)	Increase	Increase	Increase	Increase	Increase
No schooling (2016)	3% of total population	Below ODM average	Below ODM average	Above ODM average	Above ODM average
Grade 12 or higher certificate (2016)	37.6% of total population	Above ODM average	Below ODM average	Below ODM average	Below ODM average
ART patient load (2013 – 2015)	Increase	Increase	Increase	Increase	Increase
No of TB patients (2013 – 2015)	Decrease	Decrease	Increase	Increase	Decrease
Immunisation coverage (2013 – 2015)	Below WC average	Above ODM average	Below ODM average	Above ODM average	Below ODM average
Birth weight (2013 – 2015)	Below WC average	Below ODM average	Equal WC average	Above ODM average	Above ODM average
Teenage pregnancies (2013 – 2015)	Above WC average	Below ODM average	Above WC average	Above ODM average	Above ODM average

The sectors that contributed the most to Overstrand's employment in 2015 were as follows:

- Wholesale and retail trade, catering and accommodation at 31.2%.
- Finance, insurance, real estate and business services at 16.3%.
- Community, social and personal services at 13.6%.

Between 2004 and 2015 almost every economic sector in Overstrand grew positively in terms of GDPR, except for the agriculture, forestry, and fishing sector and mining and quarrying sector. Almost all the economic sectors are showing positive growth after the recession, except for the agriculture, forestry and fishing sector and the construction sector. The transport, storage and communication sector showed the highest recovery at 4.4% (2009-2015). Although the Overstrand's economy experienced a contraction between 2008 and 2009, it has experienced a positive average growth rate of 2.3% between 2009 and 2015. The most robust sector in Overstrand is the transport, storage and communication sector, which experienced the highest economic growth during the recession, averaging at 4.1%.

Business Element 5: Water Services Infrastructure Management (Infrastructure)

The bulk water and sewerage infrastructure for which the operation and management functions were outsourced to an external Contractor from 1 November 2015 are as follows:

- Water Sources: Five (5) dams, one (1) river abstraction, Seventeen (17) boreholes and three (3) springs.
- Bulk Water Infrastructure: Nine (9) WTWs, nineteen (19) water pump stations, forty four (44) reservoirs and seventy eight (78) km of bulk water pipelines.
- Bulk Wastewater Infrastructure: Five (5) WWTWs, thirty six (36) sewer pump stations and forty five (45) km of bulk sewer pipelines.

The table below gives an overview of the major water infrastructure components, for the various distribution systems, in Overstrand Municipality's Management Area.

A.13: Existing main water infrastructure (Resources and WTWs)

Water Distribution System	Bulk Supply	WTWs and Treatment Processes	
	(Resources)	WTW (Capacity in Ml/d)	Processes
Buffels River	Buffels River Dam	Buffels River (5.500)	Chemical dosing (Aluminium Sulphate and Soda Ash), flocculation, sedimentation, filtration (Rapid gravity sand filters), stabilization (Soda Ash) and disinfection (Chlorine Gas)
Kleinmond	Palmiet River, Kleinmond Borehole & Dorpsfontein Spring	Kleinmond (5.800)	Chemical dosing (Aluminium Sulphate and Soda Ash), flocculation, sedimentation, filtration (Rapid gravity sand filters), stabilization (Soda Ash) and disinfection (Chlorine Gas).
Greater Hermanus	De Bos Dam and Gateway, Camphill and Volmoed wellfields	Preekstoel (28.000)	Chemical dosing (Aluminium Sulphate, Sodium Aluminate, Poly-electrolyte and Lime), flocculation, sedimentation, filtration (Rapid gravity sand filters), stabilization (Lime) and Disinfection (Chlorine Gas)
		Groundwater (10.000)	Biological WTW for iron and manganese removal by contact filtration, Caustic Soda dosing and Aeration
Stanford	Stanford Spring and two Kouevlakte Boreholes	-	Disinfection (Sodium Hypochlorite)
Greater Gansbaai	Franskraal and Kraaibosch Dams	Franskraal (6.500)	Chemical dosing (Aluminium Sulphate, Caustic Sodium Aluminate, Soda Ash), flocculation, sedimentation, filtration (Rapid gravity sand filters), disinfection (Chlorine Gas) and stabilization (Soda Ash)
	Klipgat Fountain and De Kelders Caves Fountain.	De Kelders (1.600)	Ultrafiltration plus Reverse Osmosis Plant and disinfection (Sodium Hypochlorite)
Pearly Beach	Pearly Beach Springs and Koekemoer Dam	Pearly Beach (1.440)	Ultrafiltration Modules from Memcor, Chemical dosing (Sudfloc K300), Carbon filters and disinfection (Sodium Hypochlorite)
Baardskeerdersbos	Two Boreholes	Baardskeerdersbos (0.185)	pH adjustment, oxidation, settling, ultrafiltration and disinfection (Sodium Hypochlorite).
Buffeljags Bay	Borehole	-	Disinfection (Chlorine Tablets)

A.14: Existing main water infrastructure (Reticulation, pump stations and reservoirs)

Water Distribution System	Water Distribution Networks		Number of Water PS		Reservoirs and Water Towers	
	Bulk	Internal	Raw Water	Potable Water	Number of Reservoirs & Water Towers	Total Storage in Ml
	km	km	Number of PS	Number of PS		
Buffels River	14.255	124.610	-	4	6	5.767
Kleinmond	-	75.130	3	-	3	8.100
Greater Hermanus	38.295	324.795	-	5	21	38.836
Stanford	5.565	27.910	-	2	2	2.750
Greater Gansbaai	19.200	127.980	3	2	10	11.050
Pearly Beach	12.420	30.205	-	2	2	2.295
Baardskeerdersbos	0.525	5.315	-	1	1	0.150
Buffeljags Bay	-	0.475	-	-	1	0.096
Total Overstrand	**90.260**	**716.420**	**6**	**16**	**46**	**69.044**

The table below gives an overview of the major sewerage infrastructure components, for the various drainage systems, in Overstrand Municipality's Management Area.

A.15: Existing main sewerage infrastructure

Sewer Drainage Systems	WWTWs and Treatment Processes			Sewer Drainage Network		Number of Sewer PS
	Hydraulic Capacity	Organic Capacity	Treatment Processes	Rising	Gravity	
	Ml/d	kg COD/d		km	km	
Buffels River	-	-	-	-	-	-
Kleinmond	2.000	1 400	Kleinmond Activated Sludge System	7.100	28.700	5
Greater Hermanus	1.000	800	Hawston Activated Sludge System	32.500	252.800	32
	12.000	9 000	Hermanus Activated Sludge System			
Stanford	0.500	350	Stanford Activated Sludge System	1.600	20.800	2
Greater Gansbaai	2.000	3 600	Gansbaai Nereda System	3.100	15.400	5
Pearly Beach	0.259	To be confirmed	Eluxolweni Oxidation Pond System	0.500	5.200	2
Baardskeerdersbos	-	-	-	-	-	-
Buffeljags Bay	-	-	-	-	-	-
Total Overstrand				**44.800**	**322.900**	**46**

A new oxidation pond WWTW was constructed at Eluxolweni in Pearly Beach. Rooi Els, Pringle Bay, Betty's Bay, Fisherhaven, De Kelders, Kleinbaai, Franskraal and Pearly Beach are not currently serviced by a sewer reticulation system. The towns of Kleinmond, Hawston, Hermanus, Stanford and Gansbaai are partially serviced by a sewer system.

Asset Management: An Asset Management Policy, with the following key elements, is in place:

- Statutory and Regulatory Framework / Responsibilities and Accountabilities
- Financial Management / Internal Controls / Management of Control Items
- Management and Operation of Assets / Classification and Components
- Accounting for Assets / Financial Disclosure

The Asset Management Section consists of three staff members and forms part of the Expenditure and Asset Management Division within the Finance Directorate. The costing module on the SAMRAS Management Information System is utilized to cost all new asset components up to completion there-of. This approach was deployed over the past year with great success. Regular Asset counts are conducted in accordance with the prescriptions of the Asset Management Policy. Information regarding Asset Register updates in respect of disposals, adjustments, review of useful life etc. is based on submissions by user departments in accordance with the procedures in place. Management envisages that the Asset Register will be hosted on software specifically developed for this purpose (currently on Excel) and more to full adherence to GRAP requirements.

Water Infrastructure: The current replacement cost and depreciated replacement cost of the water infrastructure of Overstrand Municipality is summarised in the table below (June 2016):

Table A.16: Current Replacement Cost and Depreciated Replacement Cost of the water infrastructure - June 2016

Asset Type	CRC	DRC	% DRC / CRC
Dams	R14 705 474	R6 197 481	42.1%
Boreholes	R11 619 334	R8 660 092	74.5%
Bulk Water Pipelines	R147 559 584	R58 910 916	39.9%
Pump Stations	R49 260 105	R26 621 741	54.0%
Reservoirs	R121 288 796	R64 321 953	53.0%
Water Reticulation Pipelines	R677 888 127	R302 145 668	44.6%
Buffels River WTW	R13 813 820	R6 640 612	48.1%
Kleinmond WTW	R27 568 183	R15 294 135	55.5%
Preekstoel WTW	R78 510 492	R73 100 541	93.1%