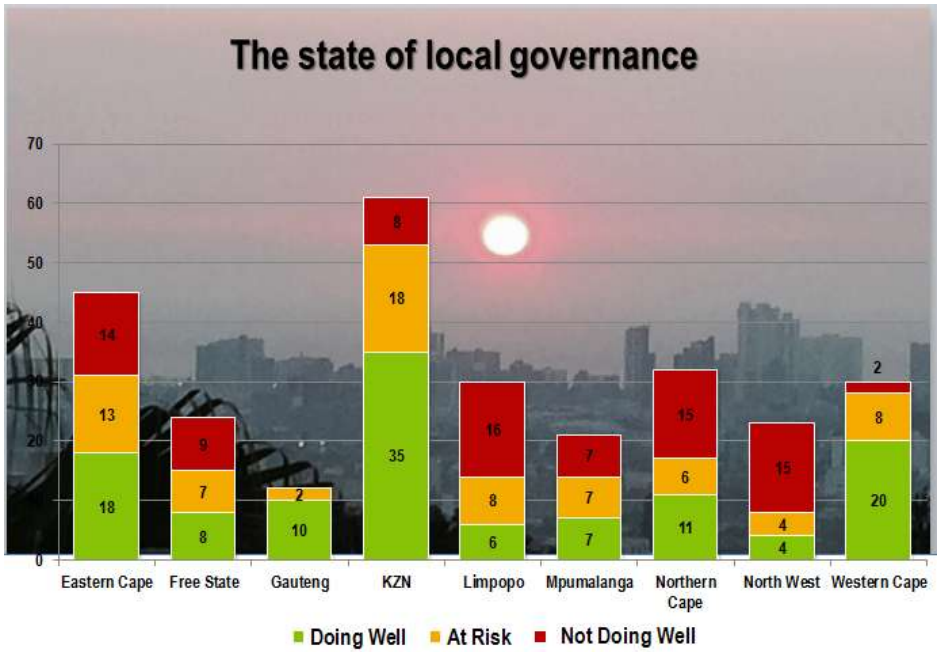
9.2 BACK TO BASICS (B2B) APPROACH

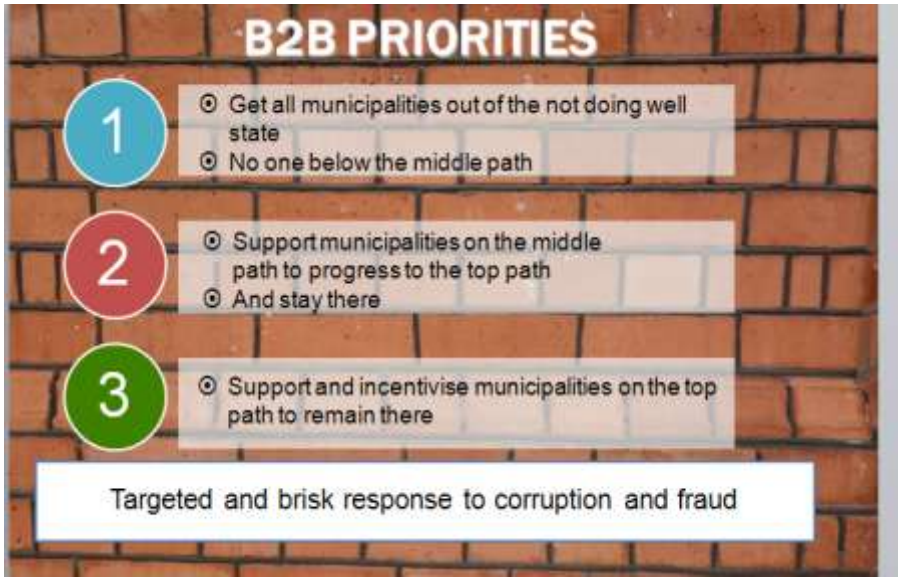
A Presidential Local Government Summit was convened on 18 September 2014 at the Gallagher Estate in Midrand, Johannesburg.

The purpose of the Summit was to introduce government and stakeholders to the 'Back to Basics' approach for Local Government. The impetus for the Summit was the need identified to improve the functioning of municipalities to better serve communities by getting the basics right.

The results of an assessment on the state of local government conducted by the National Department of Cooperative Governance and Traditional Affairs (COGTA) are shown below;



Of the thirty (30) municipalities in the Western Cape twenty (20) are doing well, eight (8) are at risk and two (2) are not doing well**.** Overstrand municipality is assed as doing well (6 March 2015, Provincial IDP Managers Forum).



How is the Back to Basics programme implemented?

- Create conditions for decent living by consistently delivering municipal services to the right quality and standard. This includes planning and delivery of infrastructure and amenities, maintenance and upkeep;
- *Each municipality to quarterly submit the performance monitoring and reporting template to COGTA on the work of municipalities as directed by the Back to Basics approach;* and
- Improve the political management of municipalities and be responsive to the needs and aspirations of local communities.

9.3 WESTERN CAPE JOINT PLANNING INITIATIVE (JPI)

Over the past three years, the WCG explored various ways of fostering intergovernmental planning, coordination and implementation through the IDP Indaba process. Lessons learned led to the introduction of an enhanced joint planning process, between provincial and local government in the Western Cape (*Source: WSP 2014- 2019)*

The joint planning process was approved in August 2014 at the Premier's Coordinating Forum, which brings together the WCG (Cabinet) and municipalities (Mayors). Its aim is to facilitate and achieve joint planning and joint delivery of the National Development Plan (Vision 2030), One-Cape 2040, the 5-year Medium Term Strategic Framework, the 5-year Provincial Strategic Plan and the municipalities' Integrated Development Plans.

In October 2014, the joint planning process was rolled-out throughout the province. Provincial departments met with municipalities in all five districts to identify long- and medium-term joint priorities for possible implementation within a municipal space. Further joint planning on some of the identified priorities is, however, required towards possible implementation once the initiatives have been examined in terms of provincial policies and strategies (*Source: WSP 2014- 2019)*.

The following JPI priorities were identified for the Overstrand municipality:

JPI Ref #	Municipality	Provincial strategic goal (PSG)	JPI	Agreed JPI Projects	Lead Department	Supporting Departments
JPI 1_009	Overstrand Municipality	PSG 1: Create opportunities growth and jobs	Economic Growth Initiatives	Promote economic growth and development by unlocking the potential in small scale fishing, aquaculture, agriculture and tourism sectors 1. LED Strategy (local and regional) 2. Tourism niche market development 3. PACA process	DEDAT	WESGRO DoA Overstrand Municipality Overberg District Municipality
JPI 1_048	Overstrand Municipality	PSG 5: Embed good governance and Integrated Service Delivery through partnerships	Governance (Integrated Planning and Budgeting)	Strengthen governance through meaningful public participation and efficient use of ICT technology 1. Revised Provincial Public Participation Framework	DLG	Overstrand Municipality

CHAPTER 9: ALIGNMENT OF NATIONAL AND PROVINCIAL DIRECTIVES

JPI Ref #	Municipality	Provincial strategic goal (PSG)	JPI	Agreed JPI Projects	Lead Department	Supporting Departments
JPI 1_056	Overstrand Municipality	PSG 4: Enable a resilient, sustainable, quality and inclusive living environment	Integrated Settlement Development	Improve the municipal bulk infrastructure to support further development 1. Long-term Housing programme	DLG	DTPW DEADP DHS Overstrand Municipality
JPI 1_078	Overstrand Municipality	PSG 4: Enable a resilient, sustainable, quality and inclusive living environment	Investment in Bulk Infrastructure	Improve the municipal bulk infrastructure to support further development 1. Infrastructure & Growth Plan	DLG	DEADP Overstrand Municipality
JPI 1_098	Overstrand Municipality	PSG 3: Increase Wellness, safety and reducing social ills	Social Initiatives	Enable social upliftment and well-being through early childhood development, education-, health- and youth life skills programmes 1. Improved education outcomes and performance 2. Entrepreneurial skills training	DoE	DEDAT DoHE Overstrand Municipality

CHAPTER 10

SECTORAL PLANS

The following sectoral plans/polices are approved and in place:

SECTOR PLAN/POLICY	STATUS	Note
Water Services Development Plan (WSDP)	Approved	Attached as Annexure 1, (Reviewed in 2014/15)
Water Master Plan (WMP)	Approved	
Sewerage Master Plan (SMP)	Approved	
Integrated Transport Plan (ITP)	Approved	Attached as Annexure 3
Integrated Waste Management Plan (IWMP)	Approved	Attached as Annexure 2, (Draft 2015/16)
Electricity Distribution Master Plans (EDMP)	Approved	
Disaster Management Plan (DMP)	Approved	Attached as Annexure 4 (Reviewed 22/03/2013)
Spatial Development Framework (SDF)	Approved	
Integrated Development Framework (IDF)	Approved	Status of IDF attached as Annexure 5
Growth Management Strategy (GMP)	Approved	
Environmental Plan (EP)	Approved	Attached as Annexure 6
Air Quality Management Plan (AQMP)	Approved	Attached as Annexure 7
Pavement Management Plan (PMP)	Approved	
Gravel Road Management System (GRMS)	Approved	

Note: The initial adopted dates are cited, and not reviewed dates.

SECTOR PLAN/POLICY	STATUS
"Toegang tot Inligting"/ Access to information	Approved, reviewed annually
Additional Dwelling Units and Accommodation for Farm workers	Approved, 26 Sept 2008
Administration of Immovable Property Policy	Approved, 27 Aug. 2008
Appointment of an Acting Municipal Manager	Approved,
Asset Management Policy	Approved, 24 June 2009
Audit Committee Charter	Approved, 29 June 2005
Borrowing policy	Approved, 27 June 2012
Budget policy	Approved, 4 May 2011
Contract management policy	Approved, 29 May 2013
Customer Care, Credit Control and Debt Collection Policy	Approved, 30 June 2006
Delegation of Powers and Duties Policy	Approved, 27 Feb 2006
Electronic communications policy	Approved, 25 Aug 2010
Emerging contractor / service provider Development policy & implementation plan	Approved, 23 Sept 2014
Employment Equity Plan	Approved, 26 Nov 2008
Employment Equity Policy	Approved, 26 Nov 2008
Expanded Public Works programme policy	Approved, 23 Sept 2014
External Communication Policy	Approved, 9 Feb 2009
Firearm Policy	Approved, 25 Nov 2009
Fire Hazards management policy	Approved, 26 Nov 2013
Fleet Management Policy	Approved, 28 May 2008
Fraud Prevention Plan	Approved, 26 Nov 2008
Funding & Reserves policy	Approved, 4 May 2011
Gifts policy for officials	Approved, 28 June 2011
Grant-In-Aid Policy	Approved, 27 May 2009
HIV/AIDS Policy	Approved, 1 Sept 2009
Housing Plan	Approved and reviewed annually

SECTOR PLAN/POLICY	STATUS
Housing selection policy for beneficiaries in ownership-based subsidy project	Approved, 25 June 2014
ICT information security policy	Approved, 25 June 2010
ICT Steering Committee Charter and Policies	Approved, 25 Aug. 2010
Incapacity: ILL Health / Injury Policy	Approved, 26 Nov 2008
Indigent Policy	Approved, 30 June 2004
Investment Policy	Approved, 27 May 2009
Language Policy	Approved, 26 Nov 2008
Leave Policy	Approved, 26 Nov 2008
Legal Representation Policy	Approved, 26 Nov 2008
Local Labour Promotion Programme (LLPP)	Approved, 25 Aug 2010
Long term financial planning and implementation policy	Approved, 29 May 2013
Low Cost Housing : Priority Rating	Approved, 29 April 2009
Maintenance Management policy	Approved, 31 Aug 2011
Municipal Residence Policy	Approved, 26 May 2010
Occupational Health and Safety Policy	Approved, 27 Oct 2010
Payday Policy	Approved, 28 Nov 2000
Payment of Acting Allowances of Section 56 Managers	Approved, 27 Aug 2008
Performance Management Framework (PMF)	Approved, 25 June 2014
Performance Management System – Implementation Policy	Approved, 26 Nov 2008
Petty Cash Policy	Approved, 26 may 2010
Plot Clearing Policy	Approved
Project Grey Power	Approved, 27 Aug 2008
Rates Policy	Approved, 31 March 2008
Records Management Policy	Approved, 23 Sept 2009
Recruitment and Selection Policy	Approved, 23 Sept 2009
Retirement Planning Policy	Approved, 26 Nov 2008
Rewards and Incentives Policy	Approved, 26 Nov 2008
Risk Management Policy	Approved, 25 Nov 2009

SECTOR PLAN/POLICY	STATUS
Risk Management Strategy	Approved, 25 Nov 2009
Rules of order regulating the conduct of meetings of the Council of the Overstrand Municipality	Approved, 15 March 2004
Scarce Skills Policy	Approved, 27 Aug 2008
Section 53 of the Municipal Systems Act (Roles and Responsibilities of each Political Structure, Political Office Bearer and Municipal Manager)	Approved, 25 Sep 2008
Sexual Harassment Policy	Approved, 26 Nov 2008
Smoking Control in the Workplace Policy	Approved, 26 Nov 2008
Staff Succession Planning Policy	Approved, 25 June 2014
Study Aid Policy for Employees	Approved, 25 Aug 2010
Substance Abuse: Alcohol and Drug Policy and Procedure Policy	Approved, 26 Nov 2008
Success planning and career pathing	Approved, 25 June 2014
Supply Chain Policy	Approved, 28 May 2008
Swimming beach cleaning policy	Approved, 3 Dec 2014
Tariff Policy	Approved, 31 May 2006
Task Policy	Approved, 27 Oct 2010
Telephone Policy	Approved, 23 Sept 2009
Travel and Subsistence policy	Approved, 10 Dec 2004
Travel policy for councillors	Approved, 26 June 2013
Unauthorized Absence policy	Approved, 26 Nov 2008
Uniform and Protective Clothing policy	Approved, 26 Nov 2008
Virement policy	Approved, 26 May 2010
Ward committee Rules	Approved, 4 June 2003
Work Outside the Municipality's Service Policy	Approved, 26 Nov 2008

Note: The current ward committee policy will be revamped into a Public Participation (PP) policy by December 2015.

OVERSTRAND MUNICIPALITY
WATER SERVICES DEVELOPMENT PLAN FOR 2014/2015

EXECUTIVE SUMMARY

FINAL DOCUMENT
MAY 2014

OVERSTRAND MUNICIPALITY

P O Box 20
Hermanus

7200

Tel: +27(28) 313 8000

Ref 280850KD0

Compiled by:
WorleyParsons RSA (Pty) Ltd
ABN 61 001 279 812
Contact person: JT Human
31 Allen Drive, Loevenstein 7530
Bellville 7530 PO Box 398, Bellville 7535
South Africa
Telephone: +27 (0)21 912 3000
Facsimile: +27 (0)21 912 3222
email: jaco.human@worleyparsons.com
www.worleyparsons.com

OVERSTRAND MUNICIPALITY

EXECUTIVE SUMMARY

WATER SERVICES DEVELOPMENT PLAN FOR

2014/2015

List of Tables

ABBREVIATIONS AND DEFINITIONS

ACIP	Accelerated Community Infrastructure Programme
AMP	Asset Management Plan
BDS	Blue Drop System
CBO	Community Based Organisation
COD	Chemical Oxygen Demand
CRC	Current Replacement Cost
DMO	Destination Marketing Organisation
DRC	Depreciated Replacement Cost
DWA	Department of Water Affairs
EC	Electrical Conductivity
EHP	Environmental Health Practitioners
EIA	Environmental Impact Assessment
EMS	Environmental Management Services
GAMAP	General Accepted Municipal Accounting Practices
HL	Higher Level
IAMP	Infrastructure Asset Management Plan
IDP	Integrated Development Plan
ILI	Infrastructure Leakage Index
KPI	Key Performance Indicator
l/s	Litres per second
LED	Local Economic Development
LL	Lower Level
m^3/a	Cubic metre per year
MAP	Mean Annual Precipitation
MAR	Mean Annual Runoff
MBH	Monitoring Borehole
Ml	Mega litre
Ml/d	Mega litre per day
MP	Master Plan
NGO	Non-Governmental Organisations
O&M	Operation and Maintenance
OMAF	Overstrand Municipal Advisory Forum
OREIA	Overstrand Rehabilitation and Educational Institute for Adolescents
ORIO	Dutch Grant Facility for Infrastructure Development
P&G	Preliminary and General
PAT	Progress Assessment Tool
PDD	Peak Daily Demand
PRV	Pressure Reducing Valve
PS	Pump Station
RBIG	Regional Bulk Infrastructure Grant
RDP	Reconstruction and Development Programme
RPMS	Regulatory Performance Management System
RUL	Remaining Useful Life

SANS	South African National Standards
SDBIP	Service Delivery Budget Implementation Plan
SDF	Spatial Development Framework
SFWS	Strategic Framework for Water Services
SMME	Small Medium Micro Enterprise
TMG	Table Mountain Group
TWL	Top Water Level
WC/WDM	Water Conservation / Water Demand Management
WCNCB	Western Cape Nature Conservation Board
WDM	Water Demand Management
WSA	Water Services Authority
WSDP	Water Services Development Plan
WSP	Water Services Provider
WTW	Water Treatment Works
W_2RAP	Wastewater Risk Abatement Plan
WWTW	Waste Water Treatment Works

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 $1^{o}C$ 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.

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.

EXECUTIVE SUMMARY

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. The business elements included in the guidelines and addressed in detail in the three 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 2014/2015 WSDP of Overstrand Municipality consists of the following documents.

- Executive Summary document (For Council approval and Public Participation Process)
- Module1: Overview and assessment of the status of information and strategies on a WSA level.
- Module 2: Detailed information: Enabling factors compliancy supportive information.
- Module 3: Future plans and strategic supportive information.

The primary instrument of planning in the water services sector is the WSDP. The following principles apply to the WSDP:

- 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 DWA.
- A WSA must report annually and in a public way on progress in implementing the plan (Water Services Audit Report).

1. CRITICAL DEVELOPMENTS AND ASSOCIATED FACTORS THAT IMPACTS OUR AREA FOR THE IMMEDIATE FUTURE

1.1 Urban versus Rural Backlogs

There is no basic water and sanitation services backlog in the urban areas of Overstrand Municipality's Management Area. The 2011 Census data however indicated that there are still some households on the farms in the rural areas with existing service levels below RDP standard. Overstrand Municipality is however committed to work with the private landowners in order to ensure that basic services are provided to these households by the private landowners.

The Municipality's biggest challenge is to address the housing backlog in the urban areas and to ensure that the necessary bulk infrastructure is in place in order to meet the future demands. Various bulk infrastructure capital projects were completed over the last number of years in order to ensure that the bulk water services infrastructure can meet the future demands for the various towns.

Adequate funds also need to be allocated to essential rehabilitation and maintenance of the existing infrastructure in addition to the need to extend services to poor communities as both are priorities which need to be addressed. The existing infrastructure is in a relative good state and therefore it is important for the Municipality to maintain the existing public investment. Overstrand Municipality is committed to allocate adequate funds for the rehabilitation and maintenance of their existing infrastructure. Such maintenance is however in competition with the need to extend services to the poor communities. The Municipality realises that the lack of adequate maintenance of existing assets could result in the total collapse of such service, with enormous economic consequences.

1.2 Reliance on Water Resources Available and Bulk Infrastructure

Overstrand Municipality investigated and implemented various augmentation options over the last few years for the various towns in order to meet the projected future water demands. A detail investigation was done of the water resources for the area from Rooi Els to Kleinmond and the recommendations from the Study will be implemented.

The Gateway, Camphill and Volmoed Well fields were developed by Overstrand Municipality as additional groundwater resources for the greater Hermanus Area. A detail feasibility study was also completed for the re-use of treated effluent from the Hermanus WWTW. Both the Preekstoel WTW and the Hermanus WWTW were upgraded with funding support from the DWA's Regional Bulk Infrastructure Grant.

New bulk supply pipelines were constructed for Stanford in order to connect the two newly drilled boreholes to the existing water reticulation network. The viability of irrigating the sports fields with treated effluent from the Stanford WWTW was also investigated.

A new Reverse Osmosis Filtration WTW was constructed in De Kelders in order to fully utilise the Klipgat and Grotte resources and improve the quality of the water. A new Pearly Beach WTW was also constructed.

Two new boreholes will be commissioned soon for the augmentation of Baardskeerdersbos' existing surface water source, as well as a new ultra filtration WTW at Baardskeerdersbos.

1.3 Links between Water Supply and Sanitation

The Water and Sewer Master Plans of Overstrand Municipality are linked to their SDF. The future development areas were identified as part of the SDF. Bulk water and sewer infrastructure and water and sanitation services are balanced with land usage and development planning. All service delivery is done in accordance with the availability of water and the capacities of the WTWs and WWTWs that are in place or that will be implemented.

1.4 Limited Implementation and Operating Capacity in Some Municipalities

Overstrand Municipality is currently busy with a Section 78 Investigation to review their current bulk water services delivery mechanism. The focus of the Section 78 assessment is how to optimise service delivery to the Overstrand community. The current debate is whether current arrangements can address the service delivery and community needs effective and efficiently in the longer term, given the expansion and upgrade of the WTWs and the WWTWs.

The municipal staff at a technical, operations and management level is continuously exposed to training opportunities, skills development and capacity building in an effort to create a more efficient overall service to the users. Overstrand Municipality will also continue with their mentoring role for operators, ensuring an adequately trained and classified workforce with dedicated training programmes for supervisors and operators. Budgets need to be established to address the shortfall of skilled staff, rethink methods to retain qualified personnel and plan for succession and clear career paths for experienced staff. With such a program a source of specific resources of skilled operators, technicians and managers will be established.

1.5 Available funding

The estimated Capital Budget for Water and Sewerage Infrastructure are R26.8 million for 2014/2015, R39.28 million for 2015/2016 and R44.51 million for 2016/2017. Overstrand Municipality will also continue with the sourcing of all possible external sources of funding for their capital projects. An Asset Management Plan needs to be developed from the available Asset Register, which will indicate the real replacement values and service lives of the assets and the funds required to provide for adequate asset replacement.

1.6 Affordability of Service Levels (Operation and Maintenance Costs)

Both Water and Sanitation Services are currently managed by Overstrand Municipality in a financially sustainable manner. The Municipality operates a step water tariff system with drought tariffs that can also be implemented. The sewer tariffs are also linked to the water consumption. A surplus was generated from both the Water and Sewerage Services during the last three financial years.

1.7 Growing Backlog in Refurbishment of Existing Infrastructure

Overstrand Municipality has been one of the more proactive municipalities in the Western Cape Province in responding to the call from many quarters to improve the management of municipal infrastructure assets. An Infrastructure Asset Register is in place for all water and sanitation infrastructure. The depreciated replacement costs were calculated for the entire infrastructure, which indicated that 33.4% of the value of the water infrastructure has been consumed and 53.7% of the value of the sewerage network has been consumed.

It is essential for Overstrand Municipality to protect their assets by ensuring that an Infrastructure Asset Management Plan is developed and implemented. This plan is based on the principle of preventative maintenance in order to ensure that, as far as this is practical, damage to assets is prevented before it occurs. Assets must be rehabilitated and / or replaced before the end of their economic life and the necessary capital funds must be allocated for this purpose.

Maintenance activities have been increasingly focused on reactive maintenance as a result of the progressive deterioration and failure of old infrastructure. Consequently, there has been dilution of preventative maintenance of other infrastructure. A regime of planned preventative maintenance should be established for all infrastructure assets classified as critical and important in the Asset Register. Consideration is being given to the establishment of a maintenance management system to enable Overstrand Municipality to better manage its risks, and more effectively plan and prioritise the wave of renewals that are going to be required over the next 20 years.

1.8 Major Economic Development

Investing in infrastructure creates an enabling environment for economic growth and is an important precondition for sustainable growth. Although Overstrand Municipality has a potential for growth at much higher rates, failure to ensure adequate rehabilitation and maintenance of the existing infrastructure poses a serious threat to the local economy. The deterioration of water and sewerage networks and rapid development, which is not always matched by growing capital expenditure, can further exacerbate the situation. Overstrand Municipality therefore needs to continue with the rehabilitation and maintenance of their existing infrastructure in order to ensure the medium to long term sustainability of the existing infrastructure.

1.9 Associated Population Growth and Water Demand

Overstrand Municipality's average annual population growth over the period 2001 to 2011 was 3.73%. The detail future water demand projection models for each of the distribution systems were updated as part of the WSDP process. The Municipality also actively implements their WDM Strategy and various WDM activities in order to reduce their current percentage of non-revenue water as far as possible and to keep the future water demand as low as possible. Overstrand Municipality is also currently busy with the implementation of various augmentation options, in order to meet the future demands of the various towns.

2. 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.

The 2014/2015 WSDP was made available to the public as part of the IDP public participation process. The draft WSDP was also distributed to all the neighbouring WSAs for their comments. All relevant comments received on the draft WSDP were included in the final WSDP.

Community Participation: The Municipality has two distinct structures through which formalised public participation with its communities takes place i.e.

- Ward Committees as well as
- The Overstrand Municipal Advisory Forum (OMAF)

The Vision and Mission statements of Overstrand Municipality are as follows:

Table 2.1: Vision and Mission Statement of Overstrand Municipality
VISION STATEMENT
"To be a centre of excellence for the community"
MISSION STATEMENT
"Creation of sustainable communities by delivering optimal services to support economic, social and environmental goals in a politically stable environment"

3. DEMOGRAPHICS

3.1 Status Quo

Overstrand Municipality falls within the Breede-Gourtiz Management Area and covers areas such as Rooi Els, Pringle Bay, Betty's Bay, Kleinmond, Greater Hermanus, Stanford, Greater Gansbaai, Pearly Beach, Baardskeerdersbos, Buffeljags Bay and the farms in the rural areas.

The most significant challenges, from a Water Services perspective are the augmentation of the existing water sources, the replacement and upgrading of old 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.

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.

By protecting water resources, a system that is more resilient to the impact of climate change, such as floods and droughts will be ensured. In addition, a healthy functioning ecosystem can assist in mitigating some of the impacts of climate change on society. For example, well-functioning wetlands can minimise the impacts of floods and ensuring good riparian habitat can provide shading and minimise evaporation from the water resources. Groundwater aquifers can provide safe storage of water for use, if they are protected and not over-abstracted or polluted, for example, by untreated effluent.

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.

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.

An Environmental Management Services Section (EMS) was created to advise Council on environmental concerns. The EMS section addresses the concerns of environmental management policy, public participation, scientific decision support and compliance with the provisions of Environmental Legislation. This focus will guide and promote continual improvement in the management of the natural environment within the municipal region.

Demographic Perspective:

Economics: Overstrand Municipality was the fastest growing Municipality in the Overberg Region, growing at 6.8% per annum over the period 2000 – 2011 (Real GDPR growth rate). Overstrand- and Theewaterskloof Municipality have the largest municipal economies and combined accounted to close to 70% of the region-wide GDPR in 2011. Most of the economic activity is presently occurring in Hermanus with Gansbaai showing all the signs of fast growing economic activity. Manufacturing, wholesale and retail trade; catering and accommodation and finance and business services are the most important economic sectors.

The Overstrand Municipality's economy has shown positive growth signs in the past five years. It can be described as healthy and with great economic potential surpassing other municipalities in the region. This growth happened against the backdrop of the economic downturn and does not neglect the fact that some sectors suffered in the period.

There are two dominant features of the local economy that merit high level attention. First, the future of the Overstrand economy cannot be separated from the region's natural heritage. The physical beauty of the area is its single biggest asset, but the natural resource base may also limit growth if resources are not effectively managed. In Overstrand the economy and its ecology are inseparable. Overstrand Municipality has a fairly diversified economy and a great potential for tourism.

The second is the highly racialised and geographically concentrated poverty of the area. Economic forces (e.g. the decline in fishing and the seasonality of tourism and agriculture) impact negatively on the semi-skilled and unskilled workforce of Overstrand, while the growth sectors have benefited mainly the wealthy. In migration of poor and unskilled people to the area is associated with rising rates of poverty and inequality. Other than the formal safety nets of grants, the poor depend on informal work (construction) or on the third economy of illegal livelihoods (e.g. abalone poaching).

Social: The key human development issues facing the Municipality include poverty and unemployment. People migrating to the Overstrand have far reaching implications for the Municipality as it has a major effect on the economy. In-migration of people has an impact on the provision of housing and services, unemployment, poverty and the economy in general.

3.2 Gaps and Strategies

The six key strategies that should underpin all spatially related decision making in the Overstrand Municipality's Management Area, as included in Overstrand Municipality's Spatial Development Framework, are as follows:

Table 3.2.1: Six key strategies that should underpin all spatially related decision making (SDF)

Spatial Development Strategy	Strategy
Managing Population Growth and In-migration	Adopt a selective "supply driven" approach by only providing for housing growth and related community facilities in the urban areas where the highest potential for sustained economic growth exists.
Housing Strategy	Eliminate the current subsidised housing backlog through the implementation of a co-ordinated housing supply plan. Ensure that the overall provision of land for housing makes provision for a

Table 3.2.1: Six key strategies that should underpin all spatially related decision making (SDF)	
Spatial Development Strategy	**Strategy**
	balanced mix and range of housing types for all income groups.
Bulk Service Infrastructure Provision	Compile a co-ordinated bulk infrastructure supply provision policy which prioritises the implementation of bulk infrastructure based on the municipality spatial development concept – Growth Management Framework.
Initiate – Place specific key economic development projects / drivers	Stimulate economic growth and development linked to the comparative locational advantage. Municipality must identify and actively facilitate key catalyst projects in conjunction with strategic partnerships with business / investors.
Priority areas for biodiversity conservation	All public owned land that is of high conservation importance is to be included in a formal municipal reserve network. The mechanism being to establishing contract nature reserves negotiated in conjunction with the WCNCB conservation stewardship programme, providing legally binding guidelines for land-use.
Rural development strategy	Demarcate Rural Development Areas (RDAs) to ensure that non-agricultural development outside urban areas is managed and promoted in a sustainable manner.

The concept of using a Growth Management Strategy to promote the longer term sustainability of the municipal area and its sub-region is strongly supported by the Overstrand Municipality's Council. The Growth Management Strategies for the various areas identifies and discusses the factors that affect densification within the context of the Overstrand Municipal Area and include the proposed strategies and associated policies. Recommendations were also made in the Growth Management Strategies regarding the proposed densification priority areas for the next five years and the strategic actions required achieving the implementation thereof.

4. SERVICE LEVELS

4.1 Status Quo

The current (2012/2013) residential water and sanitation service levels in Overstrand Municipality's Management Area are estimated as follows:

Table 4.1.1: Residential water and sanitation service levels										
Service Level	**Buffels River**	**Kleinmond**	**Greater Hermanus**	**Stanford**	**Greater Gansbaai**	**Pearly Beach**	**Baards-keerdersbos**	**Buffeljags Bay**	**Farms**	**Total**
WATER SERVICE LEVELS										
Basic Need (RDP)	0	0	0	0	0	0	0	0	83	83
Housing Need (No Services)*	0	0	72	0	0	0	0	0	0	72
Housing Need (Communal Services)*	0	377	1 272	115	1 570	0	0	0	0	3 334
Adequate	3 198	3 898	16 060	1 537	4 441	670	64	29	1 712	31 609
Total	**3 198**	**4 275**	**17 404**	**1 652**	**6 011**	**670**	**64**	**29**	**1 795**	**35 098**
SANITATION SERVICE LEVELS										
Basic Need (RDP)	0	0	0	0	0	0	0	0	270	270
Housing Need (No Services)*	0	0	72	0	0	0	0	0	0	72
Housing Need (Communal Services)*	0	377	1 272	115	1 570	0	0	0	0	3 334
Adequate	3 198	3 898	16 060	1 537	4 441	670	64	29	1 525	31 422
Total	**3 198**	**4 275**	**17 404**	**1 652**	**6 011**	**670**	**64**	**29**	**1 795**	**35 098**

Note: * Informal areas with no services or communal services, exclude backyard dwellers on formal erven

4.2 Gaps and Strategies

As a priority it is the responsibility of Overstrand Municipality to make sure that adequate and appropriate investments are made to ensure the progressive realisation of the right of all people in its area of jurisdiction to receive at least a basic level of water and sanitation services. Whilst the provision of basic water services is the most important and immediate priority, WSAs are expected to provide intermediate and higher levels of services (for example, water on-site) wherever it is practical and provided it is financially viable and sustainable to do so.

Water and Sanitation Service Level Policies for Overstrand Municipality are not yet in place, but the service levels to be provided by the Municipality to the consumers in their Management Area are however addressed in the Municipality's Water Services By-laws. All water and sanitation services provided by Overstrand Municipality to consumers within the Municipal Management Area are linked to the Municipality's Tariff Policy and Rates Policy and poor households are incorporated through Overstrand Municipality's Indigent Policy.

The large number of residents in the lowest income groups (living in informal areas) places a major challenge on Overstrand Municipality to provide suitable housing. Overstrand Municipality works towards providing all households in the towns with a water connection inside the erf and connecting all households to a waterborne sanitation system.

All the formal households in the urban areas of Overstrand Municipality's Management Area are provided with water connections on the property (Higher level of service). Communal standpipes and ablution facilities are provided in the informal areas as temporary emergency services. Overstrand Municipality takes note of the fact that communal standpipes represent probably the weakest part of a network's water supply services. Standpipes are often constructed in ways that cannot withstand excessive use (and abuse) and often neglected in terms of operation and maintenance adversely affecting the health of its already vulnerable and poor users. Communal standpipes are also used by poor households who normally don't pay for water. Therefore a contract was awarded for the maintenance of these facilities.

Overstrand Municipality is committed to support the private landowners as far as possible with regard to addressing the basic water services backlog that might still exist on the farms in the rural areas. Overstrand Municipality is however faced with various challenges with regard to the provision of services on private owned land in a financial sustainable manner (enabling the ongoing operation of services and adequate maintenance and rehabilitation of the assets), which include the following:

Free basic water policy:

- The provision of the infrastructure (facilities) necessary to provide access to water to all households in a sustainable and economically viable manner.
- The development of subsidy mechanisms which benefit those who most need it.

Free basic sanitation policy:

- Provision of the most appropriate sanitation facility to the poor household.
- Health and hygiene promotion must be provided in a co-ordinated manner and must be properly managed and adequately funded if free basic sanitation is to become a reality. This requires close collaboration between the EHPs of the Overberg District Municipality responsible for environmental health and Overstrand Municipality.
- Subsidising the operating and maintenance costs. If the basic service is to be provided free to the poor then Overstrand Municipality must ensure that the costs of providing the service are covered by the local government equitable share and / or through cross-subsidies within Overstrand Municipality's Management Area.

The ownership of water services assets may be in the hands of the person owning the land where an "on-site" water or sanitation facility is provided to a household. There is no legal impediment to the use of government grants to fund infrastructure for a poor household on private land not owned by that household, provided that the intermediary (the private land owner) makes a financial contribution (This is because the intermediary becomes the owner of the infrastructure once it is installed). Government is looking at specific policies with regard to the appropriate level of contribution.

The clinics and hospitals in Overstrand Municipality's Management Area have adequate and safe water supply and sanitation services. All the schools in Overstrand Municipality's Management Area also have adequate and safe water supply and sanitation services. It is important for the schools in Overstrand Municipality's Management Area to focus on Water Demand Management activities and for Overstrand Municipality to support the schools with a WDM programme.

5. SOCIO ECONOMIC BACKGROUND

5.1 Status Quo

The 2001 Census recorded the population in the Overstrand Municipality's Management Area at 55 770 (19 082 Households) and the 2011 Census data recorded the population at 80 430 (28 011 Households). The population of Overstrand Municipality is currently estimated at approximately 87 030 persons for 2012/2013.

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 demand projection models for each of the water distribution systems. The estimated current population and the population growth rates for the various distribution systems are summarised in the table below.

Table 5.1.1: 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 2012/2013		Number of Residential Consumer Units for 2012/2013 + HH in Informal Areas
		Popula-tion	Number of Households	Persons / Household		Popula-tion	Number of Households (Permanent)	
Buffels River	4.15%	2 306	1 158	1.99	5.00%	2 542	1 277	3 192
					4.15%	2 501	1 257	
Kleinmond	2.50%	6 634	2 733	2.43	3.00%	7 038	2 896	3 435 + 377 = 3 812
					2.50%	6 970	2 868	
Greater Hermanus	4.45%	46 856	15 618	3.00	5.50%	52 152	17 384	13 701 + 1 344 = 15 045
					4.45%	51 119	17 040	
Stanford	2.65%	4 797	1 493	3.21	4.50%	5 238	1 632	1 119 + 115 = 1 234
					2.65%	5 055	1 575	
Greater Gansbaai	4.89%	13 319	4 658	2.86	5.50%	14 824	5 183	4 166 + 1 570 = 5 736
					4.89%	14 653	5 123	
Pearly Beach	2.11%	1 042	485	2.15	6.00%	1 171	545	659
					2.11%	1 086	505	
Baardskeerdersbos	0.05%	103	39	2.64	0.50%	104	39	63
					0.50%	104	39	
Buffeljags Bay	1.56%	5 373	1 827	2.94	0.50%	73	29	29
					0.50%	73	29	
Farms					1.56%	5 469	1 860	*1 860*
TOTALS	**3.73%**	**80 430**	**28 011**	**2.87**	**4.96%**	**88 611**	**30 845**	**31 630**
					4.02%	**87 030**	**30 296**	

Overstrand Municipality had the highest number of households 4 585 in 2011 in the Overberg Region that received no income. The number of indigent households in Overstrand Municipality increased from 5 727 in September 2012 to 6 423 in August 2013. The number of people employed grew from 18 619 in 2001 to 27 260 in 2011, which represents an average annual increase of 3.89%. The overall unemployment rate increased from 22.7% to 23.3% over the same period. Overstrand Municipality plays a key role in assisting organisations delivering services to the most vulnerable groups in its communities.

A Housing Strategy is in place and the main vision of the Strategy is to not only eradicate the current housing backlog, but to develop and plan for future integrated communities and settlements that would be able to sustain the growing needs for housing in such a way that all people will benefit from the housing developments.

The biggest economic growth sectors over the period 2000 - 2011 were Finance, insurance, real estate and business services (10.8%), Transport, storage and communication (9.5%) and Construction (8.1%). The Overstrand economy has improved over the last few years and has experienced significant growth within specific sectors which is assisted with job creation. Tourism growth indicated positive signs, with growth in the number of visitors and attendance in locally organized events such as festivals.

5.2 Gaps and Strategies

Social: The Department of Communication at the Municipality through the Grant-in-Aid provides financial assistance to qualifying organisations. The LED Department assists the youth through the creation of employment opportunities and skills development projects. The Junior Town Council assists in rolling out additional projects and programmes to the youth.

The Overstrand Rehabilitation & Educational Institute for Adolescents (OREIA) is a registered NGO that aims to establish an adolescent rehabilitation centre in the municipal area that will focus on counselling services, rehabilitation and education facilitation and skills development. The project is in conceptual phase and managed by external role-players, with the Hawston Secondary School as a project partner.

A Sustainable Primary Healthcare Facility is planned in the Gansbaai area by the Desmond Tutu Tuberculosis Centre (DTTC), Facility of Health Services, at the University of Stellenbosch. The project is in the planning phase and the municipality is considering making land available at a nominal rate, due to the significant social benefits that can be derive from the project.

Apart from the challenge to facilitate more housing developments, there is also the challenge to integrate these areas with areas of opportunities to work, facilities and affordable service delivery. A detailed action plan has been set in place to reduce the backlog and address the current and future housing need. This Housing Strategy Five-Year Plan will incorporate several housing programmes, each focused on and addressing different needs. Overstrand Municipality also compiled a comprehensive Five Year Human Settlement Strategy to guide and improve housing development and delivery within the Municipality.

Economic: The need to work together is increasingly becoming critical and important to building up the economic future, including the quality of life of its inhabitants. The Municipality realizes and recognises the importance of putting LED as one of its key strategic objectives thus giving adequate attention to economic development and constantly deal with the impact of the changing economic climate. The economic challenges highlighted in the 2014/2015 IDP and the actions to address these challenges are summarised in the table below:

Table 5.2.1: Economic Challenges and Actions to address these challenges

Challenge	Actions by Overstrand Municipality
High level of unemployment	Implement municipal capital projects through EPWP principles and facilitate an environment that will attract sectors with high value that produce good jobs that are long-term and support industries that yield employment opportunities.
Co-operation with private sector	Introduce activities that build co-operation with the private sector – clarify roles and implementation of joint projects aimed at improving the economy.
Seasonality	Cape Whale Coast support and recommend the hosting of Events and Festivals during low season. Special fly-in travel packages have been offered to the Gauteng and Free State markets to promote local Events during the winter months. Advertisements in national newspapers to promote the Cape Whale Coast during winter.
Skills and educational levels unequal	Implement joint programmes with other spheres of government and NGOs focusing on skills development, learnerships and promotion of early childhood development.
Skewed Gini-co-efficiency	Work with the private sector and other spheres of government to improve income levels through quality

Table 5.2.1: Economic Challenges and Actions to address these challenges	
Challenge	**Actions by Overstrand Municipality**
(gap between rich and poor)	jobs, education and entrepreneurship.
Restrictive environmental considerations	Co-operation between the municipality, responsible government department and the community and introduction of appropriate planning methods.
Inward focus economy, attracting few provincial and national focus enterprises.	Conductive business environment taking into consideration business needs – effective and efficient systems to do business in the area.
Financial and investment support programmes	Understanding the eco-system of entrepreneurs and financiers to better understand the types of companies suited for the area and which are not. Tapping into government development incentives.

Overstrand Municipality's approaches towards growing the Local Economies are comprehensively addressed in the 2014/2015 IDP and the section below just summarise the main key focus areas:

- Promotion of shared values;
- Link between the environment and the economy;
- Encouraging business growth;
- Servicing new and retaining existing enterprises;
- Stakeholder management and engagement;
- Promoting economic development;
- Skills and capacity development;
- Sustainable urban development including potential of towns; and
- Export and direct investment

6. INFRASTRUCTURE

6.1 Status Quo

Overstrand Municipality is responsible for the operation and maintenance of all the water and sewerage infrastructure summarised in the table below.

Table 6.1.1: Water and Sewerage infrastructure for which Overstrand Municipality is responsible	
Component	**Description of the main functional tasks**
Dams (5)	Bulk raw water storage.
Bulk supply pipelines (71 km)	Bulk water supply to urban areas.
WTW: Buffels River	Chemical dosing (Alum and Soda Ash), flocculation, sedimentation, filtration (Rapid gravity sand filters), stabilization (Soda Ash) and disinfection (Chlorine Gas).
WTW: Disakloof (Not in use)	Filtration (Rapid gravity sand filters) and disinfection (Chlorination).
WTW: Kleinmond	Chemical dosing (Alum and Lime), flocculation, sedimentation, filtration (Rapid gravity sand filters), stabilization (Soda Ash) and disinfection (Chlorine Gas).
WTW: Preekstoel	Chemical dosing (Alum, Poly-electrolyte and Lime), flocculation, sedimentation, filtration (Rapid gravity sand filters), stabilization (Lime) and disinfection (Cl Gas or HTH Granules as back-up).
WTW: Hermanus Groundwater (Temporary)	Pre-oxidation, chemical dosing (Caustic Soda and Potassium Permanganate) and disinfection (Chlorine Gas).
WTW: Preekstoel Biofilter Plant	Biofiltration of iron and manganese from groundwater.
WTW: Franskraal	Chemical dosing (Alum, Poly-electrolyte, Soda-Ash), flocculation, sedimentation, filtration (Rapid gravity sand filters), disinfection (Cl Gas) and stabilization (Soda-Ash).
WTW: De Kelders	Reverse Osmosis Plant and Disinfection (Chlorine Gas). The plant was commissioned in 2011/2012.
WTW: Pearly Beach	Ultra Filtration and disinfection (Cl Gas)

Table 6.1.1: Water and Sewerage infrastructure for which Overstrand Municipality is responsible	
Component	**Description of the main functional tasks**
WTW: Baardskeerdersbos	Filtration (Pressure sand filters) and disinfection (Cl Gas). New ultra filtration plant is under construction.
WTW: Buffeljags Bay	Disinfection (Cl gas)
Water Reticulation (709 km)	Water distribution to consumers
Potable Water Pump stations (23)	Ensure adequate pressure and supply to specific areas
Reservoirs (44)	Balancing peak demands and providing some emergency storage
Water Towers (1)	Ensure adequate pressure for high lying areas, balancing peak demands and providing some emergency storage.
Sewer Reticulation (346 km)	Collecting sewerage
Sewer Pump Stations (40)	Pumping sewerage to WWTWs
WWTWs (5)	Activated Sludge Systems at Kleinmond, Hawston, Hermanus and Stanford. Nereda system at Gansbaai.

A new oxidation pond WWTW is planned 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.

Water Infrastructure: The current and depreciated replacement cost of the water infrastructure of Overstrand Municipality is summarised in the table below (June 2013):

Table 6.1.2: CRC and DRC of the water infrastructure			
Asset Type	**CRC**	**DRC**	**% DRC/CRC**
Dams	R 19 799 712	R 7 457 459	37.7%
Boreholes	R 19 968 474	R 2 922 590	14.6%
Monitoring Boreholes	R 2 620 410	R 1 224 412	46.7%
Bulk Water Pipelines	R 112 318 262	R 75 979 958	67.6%
Pump Stations	R 30 635 014	R 20 851 400	68.1%
Reservoirs	R 143 346 185	R 70 544 837	49.2%
Water Reticulation Pipelines	R 507 272 851	R 399 471 844	78.7%
Consumer Connections	R 247 919 000	R 237 379 386	95.7%
Buffels River WTW	R 41 355 727	R 33 290 289	80.5%
Kleinmond WTW	R 15 384 719	R 13 078 887	85.0%
Preekstoel WTW	R 123 357 558	R 26 869 340	21.8%
Franskraal New WTW	R 32 879 243	R 7 082 465	21.5%
Franskraal Old WTW	R 46 544 546	R 6 275 690	13.5%
Buffeljags Bay WTW	R 99 275	R 14 584	14.7%
Baardskeerdersbos WTW	R 75 903	R 15 180	20.0%
Pearly Beach WTW	R 907 754	R 154 412	17.0%
Stanford WTW	R 99 075	R 19 815	20.0%
De Kelders WTW	R 12 017 612	R 301 568	2.5%
Totals	**R 1 356 601 325**	**R 902 934 116**	**66.6%**

The above table means that 33.4% of the value of the water supply network has been consumed.

The following table gives an overview of the remaining useful life by facility type for the water infrastructure (CRC):

Table 6.1.3: RUL by facility type for the water infrastructure (CRC)					
Asset Type	**0 – 5 yrs**	**5 – 10 yrs**	**10 – 15 yrs**	**15 – 20 yrs**	**> 20 yrs**
Remaining Useful Life					
Dams	R 80 000	R 225 000	R 426 594	R 316 234	R 18 751 884
Boreholes	R 1 119 199	R 1 655 640	R 2 510 852	R 661 815	R 14 020 969
Monitoring Boreholes	R 150 000	R 1 150 000	R 0.00	R 0.00	R 1 320 410

Table 6.1.3: RUL by facility type for the water infrastructure (CRC)					
Asset Type	**0 – 5 yrs**	**5 – 10 yrs**	**10 – 15 yrs**	**15 – 20 yrs**	**> 20 yrs**
Bulk Water Pipelines	R 0.00	R 50 567 593	R 9 966 955	R 3 448 611	R 48 335 103
Pump Stations	R 4 638 715	R 18 537 318	R 2 501 929	R 936 846	R 4 020 207
Reservoirs	R 2 408 224	R 14 506 400	R 15 884 797	R 30 811 846	R 79 734 918
Water Reticulation Pipelines	R 0.00	R 362 865 043	R 25 618 431	R 0.00	R 118 789 377
Consumer Connections	R 221 991 000	R 25 928 000	R 0.00	R 0.00	R 0.00
Buffels River WTWs	R 0.00	R 33 720 452	R 601 352	R 149 849	R 6 884 074
Kleinmond WTW	R 2 281 194	R 9 563 824	R 253 925	R 197 492	R 3 088 285
Preekstoel WTW	R 5 640 097	R 27 430 020	R 2 386 466	R 25 731 147	R 62 169 828
Franskraal New WTW	R 1 363	R 9 568 880	R 7 692 791	R 0	R 15 616 209
Franskraal Old WTW	R 4 351 854	R 172 669	R 426 594	R 870 042	R 40 723 388
Buffeljags Bay WTW	R 0.00	R 69 997	R 0.00	R 0.00	R 29 278
Baardskeerdersbos WTW	R 0.00	R 75 903	R 0.00	R 0.00	R 0.00
Pearly Beach WTW	R 176 450	R 0.00	R 731 304	R 0.00	R 0.00
Stanford WTW	R 0.00	R 99 075	R 0.00	R 0.00	R 0.00
De Kelders WTW	R 0.00	R 50 000	R 0.00	R 0.00	R 11 967 612
Totals	**R 242 838 095**	**R 556 185 814**	**R 69 001 991**	**R 63 123 882**	**R 425 451 543**

The average water asset renewal needs over the next 10 years is R79.902 million per year and the reinvestment required is R242.838 million in the first 5 years and R556.186 million in the second 5 year period.

The following table gives an overview of the age distribution by facility type for the water infrastructure (CRC):

Table 6.1.4: Age distribution by facility type for the water infrastructure (CRC)					
Asset Type	**0 – 5 yrs**	**5 – 10 yrs**	**10 – 15 yrs**	**15 – 20 yrs**	**> 20 yrs**
Age distribution by Facility Type					
Dams	R 92 780	R 0.00	R 771 932	R 305 000	R 18 630 000
Boreholes	R 17 989 671	R 863 889	R 830 485	R 0.00	R 284 430
Monitoring Boreholes	R 0.00	R 0.00	R 1 320 410	R 0.00	R 1 300 000
Bulk Water Pipelines	R 11 188 709	R 11 624 495	R 0.00	R 13 085 419	R 76 419 639
Pump Stations	R 5 137 232	R 2 582 544	R 11 338 795	R 1 149 612	R 10 426 832
Reservoirs	R 20 209 940	R 7 750 650	R 9 197 312	R 6 033 451	R 100 154 833
Water Reticulation Pipelines	R 45 595 483	R 7 372 680	R 26 649 008	R 25 339 749	R 402 315 932
Consumer Connections	R 0.00	R 0.00	R 0.00	R 0.00	R 247 919 000
Buffels River WTW	R 2 599 775	R 5 683 902	R 284 396	R 0.00	R 32 787 654
Kleinmond WTW	R 267 410	R 0.00	R 253 925	R 0.00	R 14 863 385
Preekstoel WTW	R 80 211 457	R 18 865 087	R 3 515 356	R 4 495 693	R 16 269 967
Franskraal New WTW	R 32 877 880	R 1 363	R 0.00	R 0.00	R 0.00
Franskraal Old WTW	R 37 695 007	R 8 849 539	R 0.00	R 0.00	R 0.00
Buffeljags Bay WTW	R 99 275	R 0.00	R 0.00	R 0.00	R 0.00
Baardskeerdersbos WTW	R 75 903	R 0.00	R 0.00	R 0.00	R 0.00
Pearly Beach WTW	R 785 870	R 0.00	R 121 884	R 0.00	R 0.00
Stanford WTW	R 99 075	R 0.00	R 0.00	R 0.00	R 0.00
De Kelders WTW	R 12 017 612	R 0.00	R 0.00	R 0.00	R 0.00
Totals	**R 266 943 079**	**R 63 594 149**	**R 54 283 501**	**R 50 408 924**	**R 921 371 671**

Sewerage Infrastructure: The current and depreciated replacement cost of the sewerage infrastructure of Overstrand Municipality is summarised in the table below (June 2013):

Table 6.1.5: CRC and DRC of the sewerage infrastructure			
Asset Type	**CRC**	**DRC**	**% DRC/CRC**
Sanitation Pump Stations	R 65 287 917	R 32 423 019	50%
Sewer Reticulation Pipelines	R 325 000 751	R 86 339 462	27%

Table 6.1.5: CRC and DRC of the sewerage infrastructure			
Asset Type	**CRC**	**DRC**	**% DRC/CRC**
Sewer Consumer Connections	R 177 085 000	R 169 556 705	96%
Septic Tanks	R 99 028	R 1 981	2%
Ablution Blocks	R 155 636	R 3 891	3%
Stanford WWTW	R 13 572 411	R 6 689 362	49%
Hermanus WWTW	R 79 855 551	R 18 373 328	23%
Hawston WWTW	R 10 857 652	R 5 062 663	47%
Kleinmond WWTW	R 9 095 887	R 2 806 754	31%
Gansbaai WWTW	R 28 061 815	R 6 958 920	25%
Betty's Bay – Conservancy Tanks	R 281 000	R 20 919	7%
Klipfontein – Conservancy Tank	R 146 335	R 29 267	20%
Totals	**R 709 498 984**	**R 328 266 270**	**46.3%**

The information in the previous table means that 53.7% of the value of the sewerage infrastructure has been consumed.

The following table gives an overview of the remaining useful life by facility type for the sewerage infrastructure (CRC):

Table 6.1.6: RUL by facility type for the sewerage infrastructure (CRC)					
Asset Type	**0 – 5 yrs**	**5 – 10 yrs**	**10 – 15 yrs**	**15 – 20 yrs**	**> 20 yrs**
RUL					
Sanitation Pump Stations	R 26 352 975	R 10 313 343	R 7 745 326	R 1 165 425	R 19 710 848
Sewer Reticulation Pipelines	R 0.00	R 0.00	R 0.00	R 0.00	R 325 000 751
Sewer Consumer Connections	R 158 565 000	R 18 520 000	R 0.00	R 0.00	R 0.00
Septic Tanks	R 0.00	R 0.00	R 0.00	R 0.00	R 99 028
Ablution Blocks	R 0.00	R 0.00	R 0.00	R 0.00	R 155 636
Stanford WWTW	R 3 329 140	R 3 095 027	R 1 921 677	R 447 067	R 4 779 501
Hermanus WWTW	R 6 536 085	R 9 425 211	R 6 304 735	R 2 816 939	R 54 772 581
Hawston WWTW	R 3 319 880	R 46 900	R 3 083 638	R 32 500	R 4 374 734
Kleinmond WWTW	R 0.00	R 3 063 806	R 847 675	R 0.00	R 5 184 406
Gansbaai WWTW	R 3 058 783	R 6 772 326	R 2 085 000	R 0.00	R 16 145 706
Betty's Bay – Conservancy Tanks	R 0.00	R 0.00	R 0.00	R 0.00	R 281 000
Klipfontein – Conservancy Tank	R 0.00	R 0.00	R 0.00	R 0.00	R 146 335
Totals	**R 201 161 863**	**R 51 236 612**	**R 21 988 051**	**R 4 461 931**	**R 430 650 528**

The asset renewal needs for the sewerage infrastructure assets over the next 10 years is R25.240 million per year. The reinvestment required is R201.162 million in the first 5 years and R51.237 million in the second 5 year period.

The following table gives an overview of the age distribution by facility type for the sewerage infrastructure (CRC):

Table 6.1.7: Age distribution by facility type for the sewerage infrastructure (CRC)					
Asset Type	**0 – 5 yrs**	**5 – 10 yrs**	**10 – 15 yrs**	**15 – 20 yrs**	**> 20 yrs**
Age distribution by Facility Type					
Sanitation Pump Stations	R 9 400 522	R 8 989 753	R 40 072 064	R 1 834 582	R 4 990 996
Sewer Reticulation Pipelines	R 30 083 999	R 10 486 660	R 24 370 068	R 244 119 120	R 15 940 905
Sewer Consumer Connections	R 0.00	R 0.00	R 0.00	R 0.00	R 177 085 000
Septic Tanks	R 99 028	R 0.00	R 0.00	R 0.00	R 0.00
Ablution Blocks	R 155 636	R 0.00	R 0.00	R 0.00	R 0.00
Stanford WWTW	R 2 564 059	R 2 455 468	R 4 292 840	R 135 600.00	R 4 124 445

Table 6.1.7: Age distribution by facility type for the sewerage infrastructure (CRC)					
Asset Type	**0 – 5 yrs**	**5 – 10 yrs**	**10 – 15 yrs**	**15 – 20 yrs**	**> 20 yrs**
Age distribution by Facility Type					
Hermanus WWTW	R 52 075 649	R 2 988 540	R 12 677 531	R 2 176 320	R 9 937 512
Hawston WWTW	R 1 401 479	R 0.00	R 9 456 173	R 0.00	R 0.00
Kleinmond WWTW	R 1 442 644	R 7 155 568	R 497 675	R 0.00	R 0.00
Gansbaai WWTW	R 20 258 872	R 824 059	R 2 813 084	R 0.00	R 4 165 800
Betty's Bay – Conservancy Tanks	R 281 000	R 0.00	R 0.00	R 0.00	R 0.00
Klipfontein – Conservancy Tank	R 146 335	R 0.00	R 0.00	R 0.00	R 0.00
Totals	**R 117 909 223**	**R 32 900 048**	**R 94 179 434**	**R 248 265 622**	**R 216 244 658**

The age of 30.5% of the sewerage infrastructure assets is greater than 20 years.

6.2 Gaps and Strategies

The Water and Sewer Master Plans (July 2012) for the various distribution and drainage systems in Overstrand Municipality's Management Area recommends upgrades of the water and sewer reticulation networks to the values indicated in the tables below in the foreseeable future in order to accommodate development and population growth according to the SDF.

Table 6.2.1: Summary of the future water and sewer infrastructure requirements for Overstrand Municipality, as included in the latest Water and Sewer Master Plans			
Zone / Area	**Water Infrastructure**	**Sewerage Infrastructure**	**Total**
Buffels River System	R23 060 000	R146 334 000	R169 394 000
Kleinmond	R7 838 000	R31 811 000	R39 649 000
Greater Hermanus	R117 491 000	R76 307 000	R193 798 000
Stanford	R6 179 000	R13 686 000	R19 865 000
Greater Gansbaai	R94 831 000	R130 367 000	R225 198 000
Pearly Beach	R3 731 000	R23 498 000	R27 229 000
Total	**R253 130 000**	**R422 003 000**	**R675 133 000**

Note: 2011 Values, which include P&Gs, Contingencies and Fees, but exclude EIA studies, registration of servitudes and / or land acquisition and VAT.

WATER TREATMENT WORKS INFRASTRUCTURE

Buffels River WTW: Under normal circumstances the plant is operated below its design capacity, and is only in operation for 8 hours per day. There is therefore considerable spare capacity available by operating the plant for longer duration per day, and no capacity increase will be required for the foreseeable future. The WTW received two consecutive Blue Drops (2011 and 2012). The recommendations included in the 2013 Process Audit Report were as follows:

- A Maintenance Logbook must be kept on site reflecting the "Plant Man" software information applicable to the Buffelsrivier WTW.
- Chemicals for coagulation are not dosed evenly over the full width of the inflow water stream. Distribution troughs are required to ensure instantaneous mixing of chemicals with all incoming water.
- A chlorine audit must be arranged, which will indicate whether the chlorine facilities comply with the legal requirements. The audit must include training, chlorine building, dosing equipment, safety equipment, chlorine handling, procedures to display signage and internal transport and emergency showers.
- All personnel handling chlorine must have undergone appropriate accredited chlorine handling training.

Kleinmond WTW: The plant operates well within its design capacity. The Kleinmond WTW is generally operated and maintained satisfactorily. The distribution system received a Blue Drop award in May 2012. The recommendations included in the 2013 Process Audit Report were as follows:

- A Maintenance Logbook must be kept on site reflecting the "Plant Man" software information applicable to the Kleinmond WTW.
- The existing Operation and Maintenance Manual must be kept on site and followed meticulously.
- Frequent cleaning of lime dosing equipment is required.
- A chlorine audit must be arranged, which will indicate whether the chlorine facilities comply with the legal requirements. The audit must include training, chlorine building, dosing equipment, safety equipment, chlorine handling, procedures to display signage and internal transport and emergency showers.
- All personnel handling chlorine must have undergone appropriate accredited chlorine handling training.

Preekstoel WTW: The WTW was upgraded from 24 Ml/d to 28 Ml/d during the 2011/2012 financial year. A new 10 Ml/day biological WTW for iron and manganese removal was also constructed at the Preekstoel WTW during the 2012/2013 financial year, in order to treat the newly developed groundwater sources and to increase the overall treatment capacity for the Greater Hermanus to 38 Ml/d. The distribution system received a Blue Drop award in May 2012. The recommendations included in the 2013 Process Audit Report were as follows:

- A Maintenance Logbook must be kept on site reflecting the "Plant Man" software information applicable to the Preekstoel WTW.
- The existing Operation and Maintenance Manual is outdated and must be adapted to describe present operation procedures, e.g. separate treatment De Bos and borehole water.
- Incident management procedures and contact list must be displayed on site.
- Construction work and associated disruptions negatively reflects on the overall appearance. Special care must be taken to avoid permanent damage.
- Chemicals for coagulation are not dosed evenly over the full width of the inflow water stream. Distribution troughs are required to ensure instantaneous mixing of chemicals with all incoming water.
- Frequent cleaning of lime dosing equipment is required.
- Dosing pipeline for Potassium permanganate leaks frequently and requires proper maintenance.
- A chlorine audit must be arranged, which will indicate whether the chlorine facilities comply with the legal requirements. The audit must include training, chlorine building, dosing equipment, safety equipment, chlorine handling, procedures to display signage and internal transport and emergency showers.
- All personnel handling chlorine must have undergone appropriate accredited chlorine handling training.

Stanford WTW: The raw water complies with SANS 0241:2011 standards. A new chlorination facility was however constructed in order to eliminate potential risks, which includes a telemetry connection to the Franskraal WTW. The recommendations included in the 2013 Process Audit Report were as follows:

- A Maintenance Logbook must be kept on site.
- The Operation and Maintenance Manual must be updated and the Manual must be present on site.