managed. The continued increase in the price of electricity and chemicals for purification has contributed to the cost of delivering the service. The water usage block tariff has been structured for a basic affordable tariff for up to 30 kl per household per month. Punitive tariffs are in place for excessive water consumption.

11.2 Gaps and Strategies

Capital Budget: The water supply systems in most of the Municipalities are under increasing threat of widespread failure, due to inadequate rehabilitation and maintenance of the networks. This is also the case in Overstrand Municipality's Management Area with 33.4% of the water infrastructure and 53.7% of the sewerage infrastructure which has been consumed. This is placing considerable strain on Overstrand Municipality's maintenance operations. The real solution is for the Municipality to continue with their current commitment towards a substantial and sustained programme of capital renewal works (Rehabilitation and Maintenance of the existing infrastructure).

The replacement value of the water infrastructure that is expected to come to the end of its useful life over the next 20 years is around R931.1 million (an average of R46.6 million per year) and for sewerage infrastructure the value is R278.8 million (an average of R13.9 million per year). The renewals burden is set to continue to increase sharply over the next 15 years, as is currently the case. Water and sewerage infrastructure assets with a total current replacement value of about R799.0 million and R252.4 million will be reaching the end of their useful life over the next 10 years and will need to be replaced, rehabilitated or reconstructed.

It is therefore important for the Council to continue with their current committed capital renewal programme and to increase the budgets allocated towards the maintenance and rehabilitation of the existing infrastructure. The extent to which each type of water and sewerage infrastructure asset has been consumed was previously summarised. The Municipality's dedicated renewal programmes need to target the poor and very poor assets. If this is not done, there is a risk that the ongoing deterioration will escalate to uncontrollable proportions, with considerable impact on customers, the economy of the area and the image of Overstrand Municipality.

Overstrand Municipality's implementation strategies with regard to capital funds are as follows:

- To focus strongly on revenue collection, because most of the funds for the water and sewerage capital projects are from Overstrand Municipality's own funding sources. Actively implement the Customer Care, Credit Control and Debt Collection Policy in order to minimize the percentage of non-payment of municipal services.

- To identify all possible sources of external funding over the next number of years to assist Overstrand Municipality to address the bulk infrastructure backlogs that exist in the various towns and to ensure adequate rehabilitation and maintenance of the existing infrastructure.

- Develop IAMPs for all water and sewerage infrastructure, which will indicate the real replacement values, the service life of the assets and the funds required to provide for adequate asset replacement.

- Overstrand Municipality will start with the investigation of alternative ways of providing the services. Business Process Re-engineering reviews will be undertaken to identify both more efficient and cost-effective ways of delivering services.

Operational Budget: 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.

An IAMP is necessary that optimises maintenance activities, appropriate to its specific needs and the local environment, and identifies the systems and resources required to support this. A regime of planned preventative maintenance should be established for all infrastructure assets classified as critical and important in the Asset Register. A maintenance management system was recently established, which 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.

It is important to note that the maintenance budget requirements are going to increase over the next twenty years in real terms, in line with the envisaged pace of development and the upgrading of the bulk infrastructure. It is estimated that the budget requirements will double over this period.

Overstrand Municipality's implementation strategies with regard to operational budgets are as follows:

- Develop an IAMP, which will indicate the real replacement values and service lives of the assets and the funds required to provide for adequate operation and maintenance of the infrastructure.
- The new depreciation charges will have to form part of the operating budget and subsequent tariffs, linked to a ring-fenced asset replacement fund.
- Water services operational surpluses have to be allocated to essential water services requirements.

Tariff and Charges: The table below gives an overview of the block step water tariffs of Overstrand Municipality (Vat Excluded), with some comments on the specific blocks.

Table 11.2.1: Comments on Overstrand Municipality's step block water tariff system

Block (Kl / month)	12/13	11/12	10/11	Comments
0 - 6	R0-00	R0-00	R0-00	Free Basic Water
7 - 20	R7-46	R7-02	R6-48	Low volume use
21 - 30	R12-00			Typical use volume, including garden irrigation
31 - 60	R18-60	R17-55	R16-20	Above average use, including garden irrigation
61 - 100	R25-18	R23-69	R21-60	Wasteful use and / or severe garden irrigation
> 100				Significant waste and / or unnecessary garden irrigation

OM will continue with the implementation of their step block tariff system for water services. Wasteful or inefficient use of water is discouraged through increased tariffs. Overstrand Municipality also started in 2010/2011 with the implementation of volumetric sewerage tariffs. The 2012/2013 general residential sewerage tariff is R8-77 per kl per unit per month (Based on 70% of maximum 50 kl water usage). The quantity of wastewater discharged from the industrial consumers into Overstrand Municipality's sewer system needs to be metered and the quality needs to be monitored regularly by Overstrand Municipality.

The following tariff structure characteristics should remain in Overstrand Municipality's Structure in order to ensure efficient water use.

- Maintain a rising block tariff structure.
- Keep number of blocks in the tariff to a minimum. One block to address free basic water (the first step) and another to address the "cut-off" volume where consumers are discouraged to use water above this monthly volume (highest block) are required. In addition another three blocks could be used to distinguish between low users, typical use or high water use.
- The volumetric steps should be kept the same for all the areas within Overstrand Municipality's Management Area.
- The cost of water in the maximum step should severely discourage use in this category. The volumetric use for the highest category could be 60 kl/month, above which residential water use could be considered to be wasteful or unnecessary. Garden use requiring in excess of this volume should be reduced in accordance with xeriscape practices.

The tariff codes of Overstrand Municipality were reviewed to differentiate between residential, commercial and industrial users. These codes can be further reviewed so that distinction can also be made between user types for Municipal Usage (e.g. parks, sports, fire fighting, etc.). A code should also be used to uniquely describe the water usage by schools.

12. WATER SERVICES INSTITUTIONAL ARRANGEMENTS

12.1 Status Quo

Overstrand Municipality acts as both WSA and WSP to the consumers in their Municipal Management Area and therefore does not manage other WSPs. A comprehensive set of Water Services By-laws are in place for Overstrand Municipality's Management Area. The By-laws cover the provision of services for water supply, sanitation and industrial effluent.

The IDP is the Municipality's single most strategic document that drives and directs all implementation and related processes. The Municipality's budget is developed based on the priorities, programmes and projects of the IDP, after which a Service Delivery Budget Implementation Plan (SDBIP) is developed, to ensure that the organisation actually delivers on the IDP targets.

The SDBIP is the process plan and performance indicator / evaluation for the execution of the budget. The SDBIP is being used as a management, implementation and monitoring tool that assists and guide the Executive Mayor, Councillors, Municipal Manager, Senior Managers and the community. The plan serves as an input to the performance agreements of the Municipal Manager and Directors. It also forms the basis for the monthly, quarterly, mid-year and the annual assessment report and performance assessments of the Municipal Manager and Directors.

At a technical, operations and management level, municipal staff is continuously exposed to training opportunities, skills development and capacity building in an effort to create a more efficient overall service to the users. Submissions were also made to the DWA for the classification and registration of the Process Controllers and Supervisors at the various plants. A skills audit is conducted during each year, which leads to various training programmes in order to wipe out skills shortages and to provide employees with the necessary capacity. A Workplace Skills Plan for 2013/2014 is in place.

12.2 Gaps and Strategies

Overstrand Municipality is committed to develop a new WSDP every five years and to update the WSDP as necessary and appropriate in the interim years. The Municipality will also continue to report annually and in a public way on progress in implementing the plan (Water Services Audit), as part of Overstrand Municipality's Annual Report.

It is important for Overstrand Municipality to report annually on the KPIs as listed in the SFWS, included in DWA's Water Services Regulation Strategy and required by DWA's RPMS. The RPMS is one of the programmes under DWA's Directorate Water Services Regulation. The DWA is changing the manner in which they regulate WSAs by becoming more proactive in their processes. A new risk- and incentive based process will be followed, which will focus on the four strategic areas of financially viable business, Customer Satisfaction, Effective Institution and Technical Efficiency.

Overstrand Municipality's current water services are delivered by way of an internally operated and managed mechanism. Overstrand Municipality is currently busy with a Section 78 Investigation to review their current bulk water services delivery mechanism for the following reasons:

- The expansion of its operations and addition of WTWs and WWTWs that materially impacts on the operational responsibility of the municipality. This triggered a s78 process (Section 77(a)(i) of the Municipal Systems Act indicates that a Section 78 Assessment should be done when a municipal service is upgraded, extended or improved upon). Highly skilled experienced personnel are needed to operate the new plants due to the technology being used. Currently Service Level Agreements are in place with Contractors to operate three of the plants;

- The overall treatment capacity of the existing WTWs was increased from 42.75 Ml/d to 58.84 Ml/d, which is an increase of 37.6 %. The overall treatment capacity of the existing WWTWs was increased from 12.8 Ml/d to 17.5 Ml/d and will be further increased to 20.3 Ml/d in the medium term, which is an increase of 58.6%;

- The Municipality's key focus currently is that of re-active maintenance and the preventative maintenance is lacking behind, because of the limited budgets for preventative maintenance; and

- To give effect to the obligation to take progressive steps to ensure that municipal services are delivered as effectively and efficiently as possible, in the interests of the community being served.

The focus of the Section 78 assessment is on 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 Occupational Health and Safety Act contain provisions directing employers to maintain a safe workplace and to minimize the exposure of employees and the public to workplace hazards. It is therefore important for Overstrand Municipality to compile a Legal Compliance Audit of the WTWs and WWTWs in Overstrand Municipality's Management Area, which will provide the management of Overstrand Municipality with the necessary information to establish whether the Municipality is in compliance with the legislation or not.

It is important for Overstrand Municipality to allocate adequate funding for the rehabilitation and maintenance of the existing infrastructure and all forward planning for new infrastructure should be guided by the Water and Sewer Master Plans.

Overstrand Municipality will continue with their mentoring role for operational personnel ensuring an adequately trained and classified workforce with dedicated training programmes for supervisors and operational personnel. Budgets need to be established to address the shortfall of skilled personnel, 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 operational personnel, technicians and managers will be established.

The training of Overstrand Municipality's personnel involved in the management of water and sanitation services is the most important factor that determines the ability of Overstrand Municipality to deliver safe and reliable water and to treat the effluent at the WWTWs to an acceptable standard. Training of all staff involved in water supply and sanitation services on matters related to treatment processes and quality monitoring and control is essential because their actions (or failure to act) will have a major impact on the well-being of the communities and the environment.

Overstrand Municipality will continue to actively focus on training, which requires the identification of trainers (from senior operators / officers / professional ranks) for the development and facilitation of courses which relate to specific organizational knowledge and systems requirements. Overstrand Municipality's internal reports such as the Water Safety Plan, Wastewater Risk Abatement Plan, Operation and Maintenance Manuals and this WSDP contains some information on which the courses can be based. This will assist Overstrand Municipality's Human Resource Department in general and the skills development facilitator in particular to develop and implement effective workplace skills plans relevant to Human Capacity Development requirements.

13.SOCIAL AND CUSTOMER SERVICE REQUIREMENTS

13.1 Status Quo

A comprehensive Customer Services and Complaints system is in place at Overstrand Municipality and the Municipality has maintained a high and a very consistent level of service to its urban water consumers. Help-desks were developed at all the municipal administrations with the objective to assist customers. Disabled people are supported to do business from the help-desks. Requests by the illiterate are being captured and forwarded to the relevant official / section. All municipal buildings are accessible and wheel-chair friendly.

After hour emergency requests are being dealt with by the control room on a twenty four hour basis. Requests are furthermore captured on an electronic mail or works-order system to ensure execution thereof. All help desks were equipped with Batho Pele picture signage.

The table below gives a summary of the records that are kept by Overstrand Municipality of the maintenance work carried out over the last four financial year:

Table 13.1.1: Water and sanitation indicators monitored by Overstrand Municipality with regard to customer services and maintenance work

Service	Definition	Gansbaai				Hermanus				Kleinmond				Stanford				Total			
		12/13	11/12	10/11	09/10	12/13	11/12	10/11	09/10	12/13	11/12	10/11	09/10	12/13	11/12	10/11	09/10	12/13	11/12	10/11	09/10
Sewerage connection	Provision of connection or inspection of existing connections	24	1	25	65	86	67	63	71	1	-	3	3	1	-	3	1	**112**	**68**	**94**	**140**
Sewer blockages	Repair blockages on main sewer pipelines up to connection points	69	68	65	13	1 389	1 283	1 332	526	202	132	127	62	28	18	35	33	**1688**	**1501**	**1 559**	**634**
Investigate sewer reticulation network	Investigate network	-	-	19	0	-	-	11	10	-	-	2	1	-	-	1	0	**0**	**0**	**33**	**11**
Manholes sewer reticulation	Inspection and installation of manholes	-	-	6	0	-	-	1	1	-	-	7	2	-	-	-	0	**0**	**0**	**14**	**3**
Other sewer reticulation	Any other sewer reticulation inspections	49	54	28	3	44	78	16	4	6	7	5	0	29	36	4	0	**128**	**175**	**53**	**7**
PDA toilets repairs	Previously disadvantaged toilets repaired	134	132	102	Community members were appointed to carry out the repairs	5	5	1	Community members were appointed to carry out the repairs	-	-	-	Community members were appointed to carry out the repairs	-	-	2	Community members were appointed to carry out the repairs	**139**	**137**	**105**	Community members were appointed to carry out the repairs
Pipeline sewer	Installation of sewer pipelines or repair of pipelines	-	-	2	1	1	4	10	1	-	1	6	0	-	-	1	1	**1**	**5**	**19**	**3**
Investigate sewer reticulation pump stations	Work carried out at sewer pump stations	-	3	3	1	21	36	42	12	6	10	2	2	3	2	-	2	**30**	**51**	**47**	**17**
Test water meter	Testing of water meter for accuracy	-	2	4	0	27	23	29	1	-	8	10	2	-	-	1	1	**28**	**33**	**44**	**4**
Disconnect water connection	Disconnect supply	3	6	3	Managed Externally (Debt Pack)	17	10	6	Managed Externally (Debt Pack)	12	11	6	Managed Externally (Debt Pack)	5	1	4	Managed Externally (Debt Pack)	**37**	**28**	**19**	Managed Externally (Debt Pack)
Install drip system	Installation and inspection of drip systems	1	1	-	Managed Externally (Debt Pack)	-	-	2	Managed Externally (Debt Pack)	4	-	1	Managed Externally (Debt Pack)	-	-	1	Managed Externally (Debt Pack)	**5**	**1**	**4**	Managed Externally (Debt Pack)
Inspect water connections	Inspect connections	20	78	71	27	52	79	184	114	44	150	154	17	35	42	77	27	**151**	**349**	**486**	**185**
New water connections	New water connections	56	92	68	44	84	74	23	27	35	60	38	20	9	60	13	23	**184**	**286**	**142**	**114**
Other water connections	Inspections and work carried out at water connections	127				18				79				13				**237**			
Pipelines water	Installation or repair of water pipelines	-	8	5	3	2	1	5	6	7	11	11	4	12	59	13	18	**21**	**79**	**34**	**31**
Pressure	Complaints with regard to pressure in the system	21	28	28	8	13	20	44	78	46	29	18	18	3	2	-	7	**83**	**79**	**90**	**11**
Water Pump Stations	Inspections and work carried out at water pump stations.	-	8	-	1	-	15	4	4	8	35	31	1	8	3	-	0	**16**	**61**	**35**	**6**
Repair pipe bursts	Repair of burst water pipelines	43	61	61	35	130	88	151	91	210	232	255	104	6	16	13	12	**389**	**397**	**480**	**242**
Reservoirs	Inspection of reservoirs and work carried out at reservoirs	2	-	1	2	3	7	18	40	37	89	2	50	1	7	-	1	**43**	**103**	**21**	**93**
Water Routine Inspections	Any water related inspections	174	199	92	0	-	5	13	2	4	6	7	0	159	83	1	3	**337**	**293**	**113**	**5**
Water Valves	Inspection of valves and work carried out on valves	2	6	7	5	3	8	3	9	6	15	12	2	1	2	1	2	**12**	**31**	**23**	**18**

13.2 Gaps and Strategies

Access to safe drinking water is essential to health and is a human right. Safe drinking water that complies with the SANS:241 Drinking Water specifications do not pose a significant risk to health over a lifetime of consumption, including different sensitivities that may occur between life stages. Overstrand Municipality is therefore committed to ensure that their water quality always complies with national safety standards.

The Water Safety Plan of Overstrand Municipality includes an Improvement / Upgrade Plan. The purpose of the Improvement / Upgrade Plan is to address the existing significant risks where the existing controls were not effective or absent. Barriers implemented by Overstrand Municipality against contamination and deteriorating water quality include the following:

- Participate in Catchment management and water source protection initiatives.
- Protection at points of abstraction such as river intakes and dams (Abstraction Management).
- Correct operation and maintenance of WTWs (Coagulation, flocculation, sedimentation and filtration). A new Reverse Osmosis plant was constructed at De Kelders Grotte.
- Protection and maintenance of the distribution system. This includes ensuring an adequate disinfectant residual at all times, rapid response to pipe bursts and other leaks, regular cleaning of reservoirs, keeping all delivery points tidy and clean, etc.

Three other important barriers implemented by OM against poor quality drinking water that are a prerequisite to those listed above are as follows:

- A well informed Council and municipal managers that understand the extreme importance of and are committed to providing adequate resources for continuous professional operation and maintenance of the water supply system.
- Competent managers and supervisors in the technical department who are responsible for water supply services lead by example and are passionate about monitoring and safeguarding drinking water quality.
- Well informed community members and other consumers of water supply services that have respect for water as a precious resource.

14. NEEDS DEVELOPMENT PLAN

14.1 Status Quo

The identification of projects necessary to ensure the provision of adequate levels of water and sanitation services is based primarily on the findings of the Water and Sewer Master Plans, in consultation with the Municipality's town planning department. Master Planning is typically based on a forward planning horizon of 20 years, but is usually updated every three to five years, taking into account improved water demand estimates and subsequent infrastructure developments which may have taken place. The existing Water and Sewer Master Plans of Overstrand Municipality were last updated during July 2012. The recommended projects from these Master Plans were incorporated into the WSDP.

The Master Plans represent the ideal infrastructure development required to meet projected water demands over the next few years, while realistic capital investment in infrastructure projects is determined by budget availability. As a result, prioritization of projects is necessary to identify what can be done within the available and projected budget constraints. The prioritization of projects is done through the IDP and annual budget planning process.

Recommended infrastructure projects for implementation in the future will be based on the following plans and processes:

- Water and Sewer Master Plans and Water and Waste Water Treatment Works Master Plans.
- Infrastructure replacement needs (Asset Register)
- Budget proposals
- Asset Management Plans

The needs identified through the WSDP process, which needs to be addressed in the future, are summarised in the table below for the different Topics:

Table 14.1.1: Needs identified through the WSDP process and possible improvements / projects

Topic	Short Coming	Possible Improvements / Projects
Administration	-	-
Demographics	-	-
Service Levels	Ensure that all households on the farms in the rural areas with existing services below RDP standard are provided with at least basic water and sanitation services	Assist private landowners as far as possible with the provision of basic water and sanitation services to all the households in the Municipality's Management Area with existing service levels below RDP standard.
Socio Economic	-	-
Water Services Infrastructure	Priority should be given to rehabilitating existing infrastructure as this generally makes best use of financial resources and can achieve an increased in (operational) services level coverage's most rapidly.	The preparation of maintenance plans and the allocation of sufficient funding for maintenance are required to prevent the development of a large condition backlog.
	Ensure that an appropriate maintenance and rehabilitation plan (IAMP) is developed and implemented.	Develop an Infrastructure Asset Management Plan (IAMP) from the updated Asset Register. This plan must be 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.
	Ensure that all the assets, as listed under the various tables in this chapter, are included in the Asset Register.	Update the Asset Register to include all the assets.
Operation and Maintenance	It is important for Overstrand Municipality to classify all treatment works and operators along the lines of the regulations by establishing a programme for certification of works, operators, technicians and managers. The process will include reviewing the skills needed and aligning resources to these needs as well as reviewing total staff numbers necessary to meet all the objectives in the National Water Act.	Establish a mentoring role for operators ensuring an adequately trained and classified workforce with dedicated training programmes for supervisors and operators. Establish budgets 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.
	The Occupational Health and Safety Act contain provisions directing employers to maintain a safe workplace and to minimize the exposure of employees and the public to workplace hazards. It is therefore important for Overstrand Municipality to compile a Legal Compliance Audit of their WTWs and WWTWs, which will provide the management of Overstrand Municipality with the necessary information to establish whether the Municipality is in compliance with the legislation or not.	Compile an Occupational Health and Safety Audit at all the WTWs and WWTWs.
	Shortcomings were identified as part of the Water Safety Plans and W_2RAPs.	Implement Improvement / Upgrade Plans of Water Safety Plans and W_2RAPs
	Shortcomings were identified as part of the WTW and WWTW Process Audits.	Implement recommendations from detail WTW and WWTW Process Audits
Associated Services	-	-
Conservation and Demand Management	Reduce the percentage of Non-Revenue Water.	Continue with the implementation of the WDM Strategy and Action Plan to reduce the non-revenue water for the various distribution systems to 17% by June 2017 (SDBIP).

Table 14.1.1: Needs identified through the WSDP process and possible improvements / projects		
Topic	**Short Coming**	**Possible Improvements / Projects**
	Repair leaks at all the indigent households	Continue with the repairing of leaks at all the indigent households.
	Old meters and meters that are not accurate should be replaced.	Continue with the phased pro-active replacement of the old water meters, as identified through the detail water meter audit.
	Continue with the implementation of an extensive schools WDM programme, which might also include annual competitions between schools (say with a prize for the lowest consumption, the lowest per capita consumption and for the best WDM-strategy poster design, etc.) Schools should be encouraged to make WDM programmes part of a long term project, where learners should be actively involved. A schools WDM programme should receive a high priority.	Continue to support schools with WDM initiatives (Especially during Water Week)
	Overstrand Municipality needs to continue to focus on the installation of water saving devices (specific water efficient toilets). The Municipality also needs to focus on raising awareness regarding conservation projects and the installation of water efficient devices in order to reduce the water demand and their percentage of non-revenue water.	Raise awareness under the public of water efficient devices and water conservation projects.
Water Resource	Registration of water use with the DWA.	Ensure all bulk water abstraction from the various sources is registered with the DWA and legalised.
	The industrial consumers in Overstrand Municipality's Management Area are not yet monitored, with regard to the quality and volume of effluent discharged by them.	Ensure that all industries apply for the discharge of industrial effluent into the sewer system, to monitor the quality and volume of industrial effluent discharged and to implement the set of by-laws with regard to the discharge of industrial effluent into Overstrand Municipality's sewer system in order to determine whether the quality comply with the standards and criteria.
Financial Profile	Develop IAMPs for all water and sewer infrastructure, which will indicate the real replacement values, the service life of the assets and the funds required to provide for adequate asset replacement.	Develop an IAMP
Institutional Arrangements	All critical vacant water and sanitation positions as indicated on the approved Organogram needs to be filled as soon as possible. Overstrand Municipality needs to review the skills needed at each of the WTWs and WWTWs according to the classification of the WTWs and WWTWs and need to align resources to these needs as well as reviewing the total staff numbers necessary to meet all the objectives in the National Water Act.	Aligning the career paths to the occupational categories will assist the personnel to understand levels within across teams. Simplification of job titles to conform to respective occupational categories will assist in developing compatible and comparable career paths within the different Departments. Occupational categories will provide differentiation between levels. This approach will allow for more specific job designations in organograms with explicit career path connotations.
	Continue with the mentoring role for operational personnel ensuring an adequately trained and classified workforce with dedicated training programmes for supervisors and operational personnel. Budgets need to be established to address the shortfall of skilled personnel, rethink methods to retain qualified personnel and plan for succession and clear career paths for experienced staff.	Ensure all required water and sanitation training is included in the Municipality's Workplace Skills Plan. Establish budgets to address the shortfall of skilled personnel, rethink methods to retain qualified personnel and plan for clear career paths.
	Overstrand Municipality can also continue to actively focus on in-house training, which requires the identification of trainers (from senior operators / officers / professional ranks) for the development and facilitation of courses which relate to specific organizational knowledge and systems requirements.	Overstrand Municipality's internal reports such as the Water Safety Plan, W_2RAP, Operation and Maintenance Manuals and this WSDP have the necessary information on which the in-house courses can be based. This will assist Overstrand Municipality's Human Resource Department in general and the skills development facilitator in particular to develop and implement effective workplace skills plans relevant to Human Capacity Development requirements.
	Highly skilled experienced personnel are needed to operate the new	Continue with Section 78 investigation, in order to review the

Table 14.1.1: Needs identified through the WSDP process and possible improvements / projects		
Topic	**Short Coming**	**Possible Improvements / Projects**
	WTWs and WWTWs due to the technology being used. The Municipality's key focus currently is that of re-active maintenance and the preventative maintenance is lacking behind, because of the limited budgets for preventative maintenance.	current bulk water services delivery mechanism.
Social and Customer Service Requirements	All critical water and sanitation stats need to be kept up to date and monitored on a monthly basis (Number of complaints; pipe breakages; sewer blockages; meters tested, replaced and repaired; septic tanks pumped, etc.)	Ensure all water and sanitation stats are kept up to date and included in the Monthly Reports.

14.2 Gaps and Strategies

Overstrand Municipality's proposed key capital infrastructure projects for the next three years are as follows:

- Upgrade various sections of the bulk and internal water reticulation networks, as recommended by the Water Master Plans (Mount Pleasant, Zwelihle, Kleinbaai and Hawston).
- Construction of new reservoirs for Mount Pleasant and Sandbaai
- Upgrading of "Die Oog" pump station building and refurbishment of the Buffels River Dam Bridge and Tower and Palmiet River Weir.
- Continue with the implementation of WDM measures (Meter replacements, pipeline replacements, pressure management, etc.)
- Upgrading of Gateway, Camphill and Volmoed Well Fields.
- Upgrade and extension of various sections of the bulk sewer pipelines and internal drainage networks, as recommended by the Sewer Master Plans.
- Upgrade of the Stanford WWTW.
- Upgrade some of the sewer pump stations.

The table below gives more detail of the individual projects, as included in the proposed Three Year Capital Budget for 2014/2015.

Table 14.2.1: Water and sewerage capital projects, as included in the proposed Three Year Capital Budget for 2014/2015					
Project name	**Local Area**	**Project type (e.g. bulk, reticulation, etc.)**	**Schedule Date, Estimated Cost**		
			14/15	**15/16**	**16/17**
WATER					
Replacement of Overstrand water pipes	Overstrand	Reticulation	R13 800 000	R12 500 000	R11 000 000
Upgrading of "Die Oog" pump station building	Stanford	Pump Station	-	-	R500 000
New bulk water reservoir	Sandbaai	Reservoir	-	-	R6 300 000
Upgrading of Franskraal – Kleinbaai – Gansbaai pipelines	Kleinbaai	Bulk Pipeline	-	R7 000 000	R2 500 000
Upgrading of Gateway, Camphill and Volmoed Well Fields	Hermanus	Sources	-	-	R2 000 000
Refurbish Buffels River Dam Bridge and Tower and Palmiet River Weir	Kleinmond	Bulk Infrastructure	-	R2 000 000	-
New 1 Ml Reservoir OHW.B31	Mount Pleasant	Reservoir	-	R2 800 000	-
200mm dia Bulk watermain OHW8.1	Mount Pleasant	Bulk Pipeline	-	R1 000 000	-

Table 14.2.1: Water and sewerage capital projects, as included in the proposed Three Year Capital Budget for 2014/2015					
Project name	**Local Area**	**Project type (e.g. bulk, reticulation, etc.)**	**Schedule Date, Estimated Cost**		
			14/15	**15/16**	**16/17**
250mm dia Bulk watermain HOW.B14	Mount Pleasant	Bulk Pipeline	-	R520 000	-
160mm dia Bulk watermain OHW8.3	Mount Pleasant	Bulk Pipeline	-	R300 000	-
160mm dia Bulk watermain OHW9.9	Zwelihle	Bulk Pipeline	-	R490 000	-
160mm dia Bulk watermain OHW9.10	Zwelihle	Bulk Pipeline	-	R200 000	-
Hawston: Bulk Water	Hawston	Bulk Pipeline	-	-	R5 000 000
Hawston: Bulk water upgrade for housing project	Hawston	Bulk Pipeline	-	-	R3 611 000
New 500mm dia Water pipeline	Hawston	Bulk Pipeline	-	-	R2 100 000
Total			**R13 800 000**	**R26 810 000**	**R33 011 000**
SEWERAGE					
Upgrading of pump stations	Overstrand	Pump Station	-	-	R2 000 000
Sewer network extension	Stanford	Drainage Network	R2 000 000	R2 000 000	-
Sewer network extension	Kleinmond	Drainage Network	-	R2 000 000	R2 000 000
CBD Sewer network extension	Gansbaai	Drainage Network	-	R3 000 000	R3 000 000
Upgrading of Kidbrooke pipeline	Onrus	Bulk Pipeline	R2 900 000	-	-
Upgrade WWTW	Stanford	WWTW	-	-	R4 500 000
Bulk sewerage for housing project	Eluxolweni	Bulk Pipeline	R8 100 000	-	-
Upgrade existing sewerage pump station OHS19.2	Zwelihle	Pump Station	-	R750 000	-
Bulk sewerage rising main 355mm dia OHS19.1	Zwelihle	Bulk Pipeline	-	R1 620 000	-
Bulk sewerage main 200mm dia OHS 13.3	Zwelihle	Bulk Pipeline	-	R1 000 000	-
Bulk sewerage outfall line 525mm dia OHS13.2	Zwelihle	Bulk Pipeline	-	R2 100 000	-
Total			**R13 000 000**	**R12 470 000**	**R11 500 000**

Overstrand Municipality's implementation strategies, with regard to new water and sanitation infrastructure, are as follows:

- Take the recommended projects, as identified through the Water and Sewer Master Plans and the WSDP, into account during the planning and prioritization process for new infrastructure. Prioritize from the desired list, those items which can be implemented from available funding in the particular financial year.
- To update the existing Water Master Plans and to undertake revised master planning at least every two to three years and to use the Master Plans to list the desired infrastructure development requirements and reflect these in the IDP.
- Ensure adequate funds are allocated on an annual basis towards the rehabilitation and maintenance of the existing water and sewer infrastructure.
- Give attention to the provision of basic water and sanitation services in the rural areas, once clear National Policy guidelines are available.
- Assign a high priority to the implementation of Overstrand Municipality's WDM Strategy (Demand Management) in order to postpone additional capital investment for as long as possible, both from the water availability perspective as well as from the treatment of increased effluent volumes.
- Balance land-use and development planning (SDFs and Growth Management Strategy) in accordance with the availability of water and the capacity of WTWs and WWTWs that are in place or that will be implemented

ANNEXURE 2: Integrated Waste Management Plan (IWMP) (Draft 2015/16)

Note: The draft IWMP 2015/16, was tabled in Council on 25 March 2015

OVERSTRAND MUNICIPALITY

INTEGRATED WASTE MANAGEMENT PLAN

EXECUTIVE SUMMARY

INTRODUCTION AND GENERAL DESCRIPTION

The fourth generation of this Integrated Waste Management Plan (IWMP) has been formulated by Jan Palm Consulting Engineers (JPCE) on behalf of Overstrand Municipality. The third generation IWMP was developed in 2012 and was subsequently commented on and evaluated by the Department: Environmental Affairs and Development Planning (D:EA&DP). This update incorporates the comments and recommendations made on the 2012 IWMP as well as the latest checklist for IWMPs by the D:EA&DP.

The IWMP is a statutory requirement of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) that has been promulgated and came into effect on 1 July 2009 and that has as its goal the transformation of the current methodology of waste management, i.e. collection and disposal, to a sustainable practice focusing on waste avoidance and environmental sustainability. Implementation of this IWMP will be through municipal by-laws and in accordance with an implementation schedule.

The IWMP must be incorporated as part of each Municipality's Integrated Development Plan (IDP), but is submitted as a separate document. The IWMP also shows alignment of its goals with the Western Cape IWMP and the National Waste Management Strategy (NWMS 2011).

The primary objective of integrated waste management (IWM) planning is to integrate and optimise waste management, in order to maximise efficiency and minimise the associated environmental impacts and financial costs, and to improve the quality of life of all residents within the Overstrand Municipality.

The Plan takes particular note of importance of local authority waste management planning. This document underlines the following principles of the National Waste Management Strategy:

- The prevention of waste generation;
- The recovery of waste of which the generation cannot be prevented, and
- The safe disposal of waste that cannot be recovered

The general topography, geology and hydrogeology of the area is discussed in section 1.3 and the demographic details in section 1.4. The current population estimate of the Overstrand is 93 374 people, based on the Census 2011 population of 80 433 people and an annual growth rate of 3.8%.

POLICY AND LEGISLATION

All applicable waste management legislation is listed and discussed under section 2 of the IWMP. The latest published legislation has been added in the IWMP update, which mainly consists of Norms & Standards published under the Waste Act since the 2012 IWMP.

The Overstrand Municipality has also revised the previous solid waste by-laws into a comprehensive Integrated Waste Management By-law which was published in the Provincial Gazette of 12 July 2013.

EXISTING WASTE MANAGEMENT

Awareness and Education

The Municipality distributes solid waste information and news via the Overstrand Bulletin, the Overstrand website and visits to schools. Various advertising boards are erected throughout the Municipal area which promote and encourage responsible waste management and waste minimisation. It is planned that the Youth Jobs In Waste Programme will also be applied to partly conduct solid waste awareness and education campaigns.

Waste Quantities and Types

The Municipality makes use of weighbridges to record accurate waste quantities. Weighbridges are installed at the Gans Bay and Karwyderskraal landfills with another weighbridge to be installed at the Hermanus transfer station during 2015. The Municipality also reports to the Integrated Pollutant and Waste Information System.

From the recorded waste quantities and the population figures, average waste generation rates per income group in the Overstrand were calculated as well as the future estimated waste quantities.

Income group	kg/person/day
Very Low & Low	0.94
Middle	1.41
High & Very High	2.83

The total waste generated for 2015 was estimated at 59 109 tonnes, with a future total of 66 106 tonnes estimated for 2018.

Waste is recorded in general categories e.g. garden waste, general household, builder's rubble, etc., but not in specific material streams such as glass, plastic, paper or metal. For this reason the amount of available recyclables calculation was based on the findings of the 2007 study commissioned by D:EA&DP to determine the waste characterisation in the Overberg District. The IWMP further recommends that a new study is conducted over the span of four seasons to acquire an updated reflection of the Overstrand waste stream composition. This will assist in future waste minimisation strategies.

The annual tonnes of each major recyclable category were calculated to be as follows:

PAPER/ CARD (t/a)	PLASTICS (t/a)	GLASS (t/a)	METAL (t/a)
10679	**6942**	**3204**	**2136**

The above calculations indicate that at the current waste stream characterisation and assumptions that 40% of the generated waste stream consists of recyclable materials. Due to at-home waste handling, waste collection methods and handling, the full 40% cannot yet be seen as recyclable due to contamination. Overstrand practices source separation to reduce contamination and maximise waste recovery.

Recycling takes place at the Hermanus MRF, done by Walker Bay Recycling, and at the Gans Bay MRF, done by Enviroserv Waste Management. Overstrand also chips garden waste and composting is done at the Karwyderskraal landfill. The combined effort of recycling and garden waste chipping and composting amounts to an average of 23% of the total generated waste stream being diverted from landfill.

Waste Collection

The Municipality provides a waste collection service to all formal and informal households and waste is collected in wheelie bins, black bags, clear bags for source separation waste and communal skips. Farmers not located on collection routes do not receive a waste collection service, but bring their own waste to the various drop-offs and transfer stations for disposal. The Municipality delivers free basic services to all registered indigent households in the area. Public cleansing services are also rendered by the Municipality in all towns which includes the cleansing of

streets, public open spaces and areas of illegal dumping.

Few vacancies exist in the solid waste management personnel structure and solid waste services are rendered at a good level. The waste collection vehicles and other vehicles in the waste fleet are assessed by the Municipality and replaced where necessary.

Waste Management Facilities

The Municipality currently operates the Gans Bay landfill, which is permitted in terms of Section 20 of the Environment Conservation Act. The landfill was extended within its permitted boundaries by the construction of a new disposal cell in 2013/2014. Operation is done by Enviroserv and is generally good. The landfill is externally audited as required by the permit. The current available disposal airspace provides an estimated remaining lifetime until 2031.

The Karwyderskraal regional landfill is currently undergoing an extension with a new disposal cell being constructed. The disposal of waste will resume in 2015, no longer necessitating the Overstrand Municipality to transport and dispose all of its waste at the Gans Bay landfill.

The Municipality operates two Solid Waste Transfer Stations at Hermanus and Kleinmond. Both transfer stations are licensed and externally audited. A number of solid waste drop-offs have also been established throughout the Municipal areas which act as satellite collection points for general waste. These drop-offs are located at Rooiels, Pringle Bay, Betty's Bay, Hawston, Onrus, Sandbaai, Voëlklip, Stanford and Pearly Beach. The weekend drop-offs allow for weekend visitors to drop off their waste on the weekends if they are not in the Overstrand to put it out for weekly collection.

There are a number of disposal sites in the Overstrand that are no longer operational. All of these sites have been issued with closure licenses as part of the National Outcome 10 project to license all unlicensed waste facilities. The sites that require rehabilitation are located at Onrus, Hermanus, Hawston, Fisherman's Haven, Voëlklip, Stanford and Pearly Beach. The Betty's Bay and Kleinmond closed disposal sites have been rehabilitated.

Provision must be made to rehabilitate the sites not yet rehabilitated. The estimates are currently:

Rehab estimate excl. VAT	**Onrus**	**Hermanus**	**Hawston**	**Fisherhaven**
	R7 152 827.00	**R18 431 235.00**	**R4 052 778.00**	**R5 904 258.00**
	Voëlklip	**Stanford**	**Pearly Beach**	
	R9 440 861.00	**R4 228 013.00**	**R2 910 199.00**	

Identified Gaps

- Public Awareness and Education: This is not lacking in Overstrand, but identified as a gap as it is one of the most important aspects of successful integrated waste management and requires continuous input.
- Waste information: A new waste characterisation study in the Overstrand needs to be conducted.
- Collection Fleet: Vehicles operating beyond their economic lifetimes need to be replaced.
- Law enforcement: Stricter law enforcement needs to be applied to perpetrators of illegal dumping.
- Closed disposal sites: A number of disposal sites require rehabilitation.
- Solid waste department: Vacancies need to be filled to ensure that the services are rendered effectively.

Strategic Objectives

The strategic objectives of the IWMP are centred on waste avoidance, waste reduction and waste disposal, wherever each is practical and achievable.

Overstrand Municipality needs to provide a safe, robust, and secure system for the management of wastes generated in its administrative area.

It is essential that this system can respond to changes in socio-economic situation, to changing waste composition and quantities, and to alterations in the public's perception of waste management issues. Overstrand Municipality must adopt, therefore, a combination of options for handling waste, tailored to meet the needs and prevailing circumstances of its particular administrative area. The combinations utilised will undoubtedly vary over time - reflecting the changing needs of local residents and the environment.

The plans formulated by Overstrand Municipality are specific to the area and its resources. They reflect the availability of suitable waste management facilities in the region, as well as local market demand for recovered materials.

IMPLEMENTATION

The IWMP has an implementation plan which is part of 7 main goals. These goals have each been divided into actions and years of implementation with estimated costs in order to achieve the main goals. These goals are:

Goal 1: Awareness and Education

Goal 2: Improve Waste Information Management

Goal 3: Effective Solid Waste Service Delivery

Goal 4: Promote and Ensure Waste Minimisation

Goal 5: Improve Regulatory Compliance

Goal 6: Ensure Safe and Integrated Management of Hazardous Waste

Goal 7: Ensure Sound Budgeting For Integrated Waste Management

MONITORING AND REVIEW

The IWMP acts as a planning guide and requires regular updates and reviews in order to stay relevant, especially the projects for implementation. Each project must be reviewed to measure its success, shortcomings or reasons for failure. The IWMP must be updated to reflect the progress of projects or to adapt strategies. The review will also assist in budgeting for upcoming waste management projects.

As the IWMP is a sectoral plan of the IDP, the following projects are recommended to be included in the IDP:

1. The rehabilitation of the Onrus, Hermanus, Hawston, Fisherman's Haven, Voëlklip and Stanford landfills;

2. The construction of a weighbridge at the Kleinmond transfer station.

Annexure 3: Integrated Transport Plan

OVERSTRAND LOCAL MUNICIPALITY

Munisipaliteit • U-Masipala • Municipality
OVERSTRAND

LOCAL INTEGRATED TRANSPORT PLAN (LITP)

2012 to 2016

(March 2013 revision)
FINAL

Note: A new LITP will be developed in the 2015/16 financial year.

Executive Summary

The Overstrand Local Municipality stretches along the South African coast from Rooi Els in the west to Quoin Point in the east, a coastline of approximately 230km. There are many towns and villages situated in the Municipal area including Rooi Els, Pringle Bay, Betty's Bay, Kleinmond, Hermanus, Stanford, Gansbaai, Pearly Beach, Baardskeerdersbos, Buffeljagsbaai and Viljoenshof. Hermanus is the administrative and economic centre of the area. The area is known worldwide for its natural beauty and excellent whale watching and shark diving facilities.

The Municipality covers a land area of approximately 2,125km^2 with a total population (2011 census) of 80,432 people. This equates to a population density of 38 people per square kilometer.

The economy of the region is primarily agricultural but with tourism also being an important factor. Both have seasonal implications from the perspective of transport system utilisation, the result of which is a transport system that has adequate capacity most of the time, but which is placed under stress at a few peak times of the year.

The agricultural nature of the region also means that the transport network is relatively sparse except in the towns. The **main road system** in the Overstrand Municipality consists of **National Road** N2 which runs east to west in the vicinity of Botriver along the Northern boundary of the Municipality for a length of 7.63 km. SANRAL is responsible for the maintenance and rehabilitation of national roads. The total length of **Provincial roads** in the area is 573km (230km surfaced and 343km gravel). The Municipality is responsible for the **local municipal roads** with a total length of 609km (431km surfaced and 178km gravel). The average condition for municipal roads is good to very good.

The exclusively road based freight transport in the region is almost entirely related to agricultural activity, with considerable seasonality. The impact of this freight movement on the transport system is limited and not a matter of concern at present.
The other seasonal transport in the region is that related to tourism, which has an impact on specific areas, especially those in the coastal towns, where whale watching and other holiday activities can sometimes lead to congestion and parking problems that detract from the tourist experience.

Arising from the foregoing, the transport needs for the Overstrand Municipality include:

- Increase of capacity for main transport routes into, through and around towns and villages;
- Provision of regular and safe public transport on all the routes, including upgraded public transport facilities for commuters;
- A solution to seasonal problems of congestion and parking at popular local tourist destinations;
- Provision of facilities for non-motorised transport and the disabled;
- Increased road rehabilitation and maintenance.

ANNEXURE 3: INTEGRATED TRANSPORT PLAN 2012/16

The Vision of the Overstrand Municipality is:

"To be a centre of excellence for the community"

The Mission of the Overstrand Municipality is:

"Creation of sustainable communities by delivering optimal services to support economic, social and environmental goals"

The Strategic Objects of the Overstrand Municipality is:

- ***The provision of democratic and accountable governance***
- ***The provision and maintenance of municipal services***
- ***The encouragement of structured community participation in the matters of the Municipality***
- ***The creation and maintenance of a safe and healthy environment***
- ***The promotion of tourism, economic and social development***

The OLM response to the transport needs is aligned with the strategic objects of the Transportation and road projects are included under the "municipal services" strategy. The recruitment and training of staff to enhance the OLM transport department's capacity to effectively execute transport projects is in line with the strategy of Human Resource Development. A well planned and maintained transport system enhances economic development for the area. The OLM's use of prioritised lists of transport projects results in better financial management of its resources.

The preparation of the Overstrand Local Integrated Transport Plan is a statutory requirement in terms of both the National Land Transport Transition Act (NLTTA), (Act 22 of 2000), sections 19 and 27, and the replacing Act, the National Land Transport Act (NLTA), (Act 5 of 2009), sections 32 and 36. As well as fulfilling this requirement the LITP addresses the various transport needs of the OLM taking into consideration the financial, social and environmental impact on the area. This ITP also feeds into the Overberg District ITP.

A total proposed budget for road maintenance (resealing, rehabilitation, kerbing and sidewalks) over the next five years amounts to R 173 million. The prioritised list of rehabilitation and maintenance of roads from the pavement management system is attached.

The total proposed budget (provincial and municipal) for capital projects for the next five years is R 430 million. A list of proposed capital projects is attached.

Abbreviations and Acronyms

ITP.....Integrated Transport Plan

LITP.....Local Integrated Transport Plan

NLTA.....National Land Transport Act

NLTTA.....National Land Transport Transition Act

ODM..... Overberg District Municipality

OLM.....Overstrand Local Municipality

SANRAL.....South Africa National Road Agency Limited

Table of Contents

EXECUTIVE SUMMARY

Note: Appendix B-E is not included in the IDP review

List of Tables

List of Figures

1 Introduction

1.1 Overview

The geographical position of the Overstrand Local Municipality is shown in Figure 1. It is a coastal LM and stretches from Rooi Els in the west to Quoin Point in the east, and from along the coast to the first mountain range to the north. There are many towns and villages situated in the Municipal area including Rooi Els, Pringle Bay, Betty's Bay, Kleinmond, Hermanus, Stanford, Gansbaai, Pearly Beach, Baardskeerdersbos, Buffeljagsbaai and Viljoenshof. The municipal area is approximately 2125 km² with a coastline of ±230 km. The main routes into the area are the R43, R44, R320 and R326 routes, all of which connect to the N2.

One of the most outstanding features of this area is its breathtaking natural beauty. The area includes the Kogelberg Biosphere Reserve which is one of only two such areas currently in South Africa. This is regarded as the heart of the Cape floral kingdom as approximately one fifth of all known fynbos species occur here. Hermanus is the administrative and economic centre of the area. The rest of the Municipal area is rural with some fishing and service industries. **Figure 2** shows the location of the Overstrand Local Municipality in relation to the District Municipality.

Figure 2: Location of Overstrand Municipality in Relation to the District Municipality

1.2 Population

The total population of the Overstrand according to the 2011 census is 80,432 people. Detail population figures per town is not yet available from the 2011 census and therefore the 2008 population estimates are used in the rest of the report (**Table 1** below).

In addition to the urban population there is a farming population of approximately 5 300, giving an approximate total population within the Local Municipal area of 79 000.

Table 1: Population of Overstrand Municipality Urban Areas

Town/Areas	Location	2008 Population
Greater Hermanus	Hermanus is situated approximately 100 km to the south-east of Cape Town on the R43 Provincial Road on the ocean front and is the capital of the Overstrand Local Municipality.	40 980
Greater Gansbaai	Gansbaai is situated approximately 20 km south of Stanford and approximately 40 km south-east of Hermanus on the ocean front.	14 744
Kleinmond	Kleinmond is situated on the ocean front. It is the first town to the west of the Botriver mouth.	9 310
Stanford	Stanford is situated approximately 20 km east of Hermanus.	5 038
Hangklip Area	This area consists of the towns of Betty's Bay, Pringle Bay and Rooi Els and the surrounding areas.	2 786
Pearly Beach	Pearly Beach is situated approximately 60 km east of Hermanus on the ocean front.	831
Total		**73 689**

1.3 Vision

The vision of the Overstrand Local Municipality is:

"To be a centre of excellence for the community"

1.4 Mission

The mission of the Overstrand Local Municipality is:

"Creation of sustainable communities by delivering optimal services to support economic, social and environmental goals"

1.5 Strategic Objectives

The Strategic Objectives of the Municipality which form the basis of the IDP and relates to transport goals are:

- The provision and maintenance of municipal services
- The creation and maintenance of a safe and healthy environment
- The promotion of tourism, economic and social development

1.6 The Preparation of the Local Integrated Transport Plan

The preparation of the Overstrand Local Integrated Transport Plan is a statutory requirement in terms of both the National Land Transport Transition Act (NLTTA), (Act 22 of 2000), sections 19 and 27, and the replacing Act, the National Land Transport Act (NLTA), (Act 5 of 2009), sections 32 and 36.

The current Integrated Transport Plan was approved in May 2012 and will be reviewed annually.

2 Transport Register

2.1 Roads

2.1.1 Road Network

The **main road system** in the Overstrand Municipality consists of **National Road** N2 which runs east to west in the vicinity of Botriver along the Northern boundary of the Municipal area for a length of 7.63 km. SANRAL is responsible for the maintenance and rehabilitation of national roads.

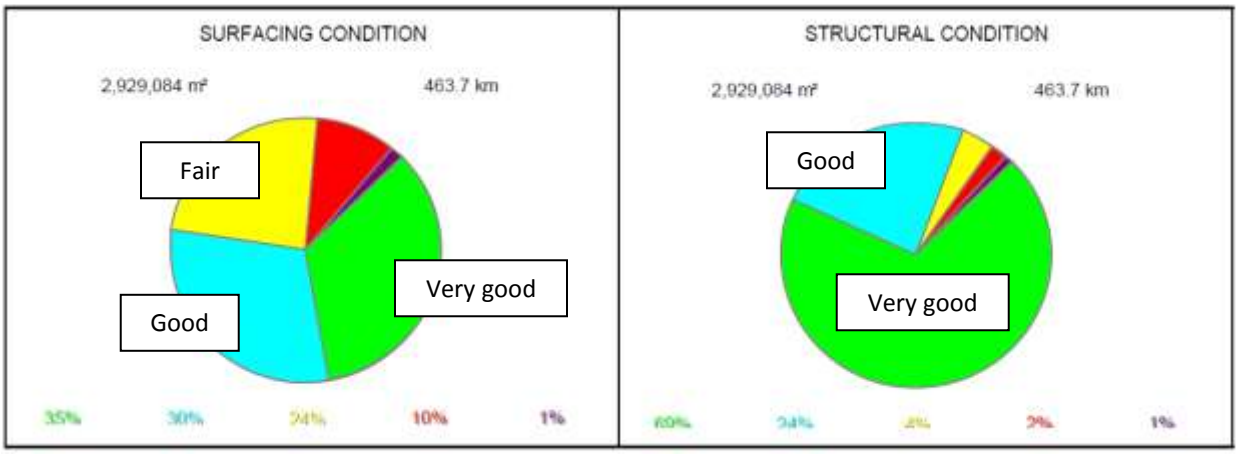
The total length of **Provincial roads** in the area is 573km (230km surfaced and 343km gravel). The regional office of the Provincial Department of Transport and Public Works in Paarl is responsible for maintaining the rural provincial road network in the Overberg District Municipality area. The Overberg District Municipality, acting as agent for the regional provincial office, is responsible for operational maintenance of the lower order provincial roads, in particular the gravel roads in the district municipality area. The main Numbered Routes in the area are shown in **Figure 3**

Figure 3: The main Provincial Road Network in the Overstrand Municipality area.

The Municipality is responsible for the **local municipal roads** with a total length of 628.3km (473.6km paved and 154.7km gravel). The average condition for municipal paved roads is good to very good and for gravel roads the average condition is fair.

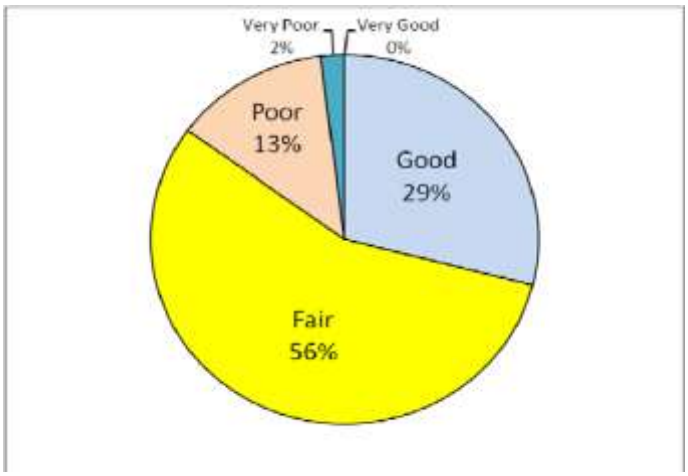
The local road network layouts in the urban areas are attached as appendices. The surfacing and structural conditions of the local tar roads are shown in **Figure 4**. They are generally in a good to very good condition.

Figure 4: Condition of Local Municipal Tar Roads



The condition of the gravel roads are shown in **Figure 4**. They are generally in a fair to good condition.

Figure 5: Condition of Local Municipal Gravel Roads



2.1.2 Intersections (Problems)

Most of the problems that are associated with intersections lie along Provincial Routes. They are being experienced at the following intersections/routes:

- In Rooi Els
  R44/Rooi Els turn off (Anemone Street)
- In Pringle Bay
  R44/Pringle Bay turn off (Hangklip Street)
- In Kleinmond at:

R44/Botrivier Road

R44/Hermanus Avenue

- In Greater Hermanus at
  R43/Fisherhaven

  R43/Hawston (both entrances)

  R43/Lynx Avenue

- In Hermanus at
  R43/Fairways Avenue

  R43/Brug Street

  R43 (7th Street)/10 Avenue, Voëlklip

- In Stanford at
  R43 / R326 (Queen Victoria Street) intersection

- In Gansbaai at
  R43/Kapokblom. This gives access to the Gateway Shopping Centre and the Municipal Offices.

  R43/Kleinbaai turnoff.

2.1.3 Roads (problems)

The following roads present problems.

- In the Gansbaai area
  - ✓ Gansbaai to Elim. This is a Provincial project. The first two phases has been completed. The next phase is due to start in 2013.
- At Stanford
  - ✓ The R43 between Hermanus and Gansbaai going past Stanford. This is a road of poor geometric quality and limited capacity that needs major upgrading.
- In Hermanus
  - ✓ The R43 between Sandbaai and Hermanus – capacity problems, construction started in 2011 to create addition capacity.
  - ✓ The R320 between Hermanus and Caledon – surfacing of the gravel portion of the road and rehabilitating the rest of the road.

- ✓ Hermanus Parallel Road. This proposed route will allow the communities of Vermont, Onrus, Sandbaai, Zwelihle and Mount Pleasant access to the Hermanus CDB and Industrial Areas without using the provincial road. The following sections have been identified:
  Section1 – Schulphoek Boulevard to Swartdam Road

  Section 2 – Swartdam Road to CBD

  Section 3 - Schulphoek Boulevard

  Section 4 – CBD to Zwelihle

  Section 5 – Zwelihle to Sandbaai

  Section 6 – Bergsig Street

  Section 7 – Sandbaai commonage

  Section 8 – Onrus River Bridge and Onrus access road

- ✓ Hermanus by-pass road. This a long term Provincial project to create a by-pass road around Hermanus.

2.1.4 Parking

Parking is a major problem in the Hermanus area. A five year programme has been developed to address this situation. Phase 1 of the programme starts with providing 650 parking bays at the station site development. Further phases will include 300 parking bays at the Station Site Phase 2 development and 300 bays in a multi-level parking garage in the CBD (behind Woolworths).

2.1.5 Traffic Volume

The distribution of traffic on surfaced and unsurfaced roads is such that the majority of vehicle kilometres are travelled on surfaced roads. The Western Cape Provincial Government maintains a traffic count programme, with a combination of temporary and permanent count stations. Traffic counts can be accessed on the following internet web site: http://rnis.wcape.gov.za/pls/rnis/webreports.main.

Congestion has been noted along the R43 Provincial road in Greater Hermanus. It causes major problems during the morning and evening peak periods and all day during the tourist periods.

Other areas that have congestion problems during the tourist season are:

- Gansbaai
- Kleinmond

- Stanford

Parking is a problem in all the CBD areas and at some tourist facilities (beaches, view points, etc.).

2.1.6 Road Safety

Accident statistics according to the 2007 Western Cape Provincial Road Traffic Accident report are only available in a combined format for Cape Agulhas and Overstrand Local Municipalities. These accident rates are shown in **Table 2: Road accident statistics.** Due to the fact that transport and traffic related characteristics have been observed to be consistent and continuous across the two combined municipal areas, it can be accepted that the combined trend shown in Table 2 mirror the trend of the individual LM.

The trend indicates a relatively low rate in Cape Agulhas and Overstrand due to the rural nature of the area. The report highlights a relatively high fatality rate in rural areas compared to urbanised areas this is probably due to the high speeds on rural roads. The accident data is tabulated according to existing traffic control areas which does not exactly map onto existing municipal boundaries. There is a black spot at R43/Vermont Avenue intersection.

Table 2: Road accident statistics

Accidents	
Fatal	28
Injury	353
Damage	1782
Total	**2163**

People	
Fatal	35
Serious	142
Slight	469
No Injury	3339
Total	**3985**

(Source of data has Cape Agulhas and Overstrand accident records combined)

2.1.7 Freight

There are two forms of freight transported in the area, namely those that are associated with deliveries to shops, and those associated with agriculture. Due to many narrow roads in the urban areas the movement of freight contributes greatly to the congestion in the area.

2.1.8 Maintenance

There is a 5 year programme for the rehabilitation and maintenance of roads although this programme is dependent on funding. Maintenance for local roads in the 2012 budget is estimated at R35 million. A table

reflecting the budget is attached in chapter 5.

2.2 Public Transport

The Overstrand Municipality has no subsidised public transport services and public transport is provided by privately operated minibus taxis. A number of school bus contracts are in operation in the region. Details of the operations are presented in the 2009 Current Public Transport Record, which forms part of the Overberg District Municipality Integrated Transport Plan. Operations in the towns of the area are discussed below.

2.2.1 Pringle Bay

Pringle Bay is situated 10 km west of Betty's Bay on the ocean front. There are no official taxi ranks but three taxis operate within the town. Workers and children are picked up and dropped off at the Pringle Bay Mini Market.

2.2.2 Betty's Bay

Betty's Bay is approximately 10 km west of Kleinmond on the ocean front. Mooiuitsig is a neighbourhood of Betty's Bay. There are no taxi ranks in this area. People are transported along the R44 where there are no formal taxi facilities. Private transportation is used to carry school children to and from Kleinmond.

2.2.3 Kleinmond

High School busses pick up children in Kleinmond and transport them to the schools in Hermanus or Caledon. There are 6 legal taxis registered under Caledon Taxi Association and provided by MK Tours and Koti Taxis. There are 4 taxis from Arrabella which pick up contract workers in the Kleinmond area on a daily basis. There is only one taxi rank at Overhills residential area. It is situated on the right side of the R44 in the direction of Betty's Bay.

2.2.4 Fisherhaven

Fisherhaven is situated approximately 15 km to the north-west of Hermanus on the ocean front. There is no transport service for people living in Fisherhaven. Domestic workers have to use the public transport on the R43 walking to and from home to the pick up points on the main road.

2.2.5 Hawston

Hawston is situated 10 km to the west of Hermanus on the ocean front. A total of fifteen taxis operate in Hawston. Hawston's largest taxi rank is in Kerkstraat. The passengers are mainly domestic workers who are transported to and from Hermanus and the towns in between. Four taxis transport school children to and from the school in Hermanus. The Lusitania Bus Service in Hermanus transports workers to and from Hermanus on a daily basis.

2.2.6 Vermont

Vermont is an area situated to the west of Onrusrivier on the ocean front. It has a small permanent population.