



**ANNUAL REPORT**  
**1 APRIL 2016 TO 31 MARCH 2017**  
**PROVINCIAL DISASTER MANAGEMENT CENTRE**

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## Foreword by Minister

When I look back at the last year, I am proud to say that my Department has put a number of programmes in place that enables people to improve the living conditions as well as improve their resilience to disasters through strategic partnerships to identify, reduce, mitigate and prepare for impending disasters as well as respond and recover from disaster incidents.



The 2016/17 fire season was an indication that wildfires continue to be major problem in the Province, not only as a hazard to the environment and properties, but human life is increasingly at danger during these fires. More than 17000 fires have already been attended to by the Fires Services in the Province. Nearly 2000 of these were reported in informal settlements involving close to 5900 individual units resulting in 142 fatalities. Damage to the formal sector is estimated to exceed R500 million.

Years of research into the fires informal settlements has found that the majority of the deaths are linked to smoke inhalation and not the fires themselves. Based on this research the PDMC has developed a strategy that entails installing smoke alarms in our vulnerable communities. These devices will assist to wake people up before it is too late, thus reducing fire related deaths. In addition, my Department has to date procured fully equipped, purpose built firefighting vehicles which form part of a project that will see a total of R42.5 million invested into the improvement of firefighting capacity across the Province over the 2017 MTEF. This initiative signifies my Department's commitment to strengthening firefighting capabilities in rural areas.

The agricultural and hydrological drought in certain areas in the Province is a high priority for the Department. A Provincial Drought Task Team with key role-players has been established to strategise risk reduction and mitigation initiatives as well as the reprioritisation of funding. Various drought mitigation initiatives have been implemented in affected municipalities across the province which includes:

- Declaring and classifying local state of disasters in five municipalities;
- Undertaking aggressive public awareness and communication campaigns;
- Introducing water level 2 and 3 restrictions;

- Monitoring responsible water use practices;
- Assisting affected municipalities with the drilling and equipping of boreholes;
- Assisting affected municipalities and vulnerable communities with the provision of sealed bottled water by the Western Cape Department of Social Development;
- Assisting affected agricultural commercial and emerging farmers with animal fodder relief; and
- Coordinating technical guidance and support with the National Department of Water and Sanitation to confirm improved medium to long-term water infrastructure objectives.

The City of Cape Town, Kannaland and Witzenberg municipalities already declared local states of disasters for drought and supported by the Western Cape Provincial Cabinet on 22 March 2017 by means of a cabinet resolution. Joint agricultural assessment visits were also conducted to determine the severity of the drought and the assessment confirmed that the areas experienced very dry conditions which resulted in the agricultural sector taking strain.

Upon commencement of the Disaster Management Amendment Act (2015), Section 43 has been amended to include the obligations of municipalities to establish and institutionalise capacity to develop and co-ordinate disaster management plans and the implementation of a disaster management function within the municipality. As it would be difficult to implement the Disaster Management Act without the involvement of various stakeholders, I encourage Municipalities to establish disaster management capacity in all municipalities, particularly in rural areas.

In addition, my Department handed over the annual grants to Lifesaving Western Cape and the National Sea Rescue Institute (NSRI) in the amount of R422 000.00 each to strengthen water safety throughout the Province. An additional amount of R585 000.00 was provided to the NSRI for the procurement of three vessels which will increase their responsive rescue services at high risk beaches. The NSRI and Lifesaving Western Cape is not only a reactive service where they respond to those who are at risk of drowning but also proactively whereby they educate children in order to prevent drowning. During engagements with the NSRI and Lifesaving SA it became apparent that there is a need for an Integrated Provincial Drowning Prevention and Water Safety Strategic Framework with the aim to reduce the risk of drownings and increase public safety. It is with this in mind that my Department made funding (R242K) available to Lifesaving SA during 2016/17 to

develop such a strategic framework. It is envisaged to finalise the framework by November 2017 which will focus on the identification of priority drowning risks, high risk activities and equipment, and the communities affected as well as recommend appropriate prevention strategies.

A handwritten signature in black ink, appearing to read 'Bredele', written over a horizontal line.

**AW BREDELL**

**MINISTER OF LOCAL GOVERNMENT, ENVIRONMENTAL AFFAIRS AND DEVELOPMENT  
PLANNING**



## Overview by the Head of Provincial Disaster Management Centre

The Western Cape Department of Local Government herewith presents the Provincial Disaster Management Centre's (PDMC's) annual report for the 2016/17 financial year in compliance with Section 36 of the Disaster Management Act 57 2002 as amended. The report provides an overview of the activities undertaken by the PDMC, both internationally and across the province during the period under review.



It also reflects on the progress made by the PDMC in line with its objective of promoting an integrated and coordinated system of disaster management, with special emphasis on prevention and mitigation, by provincial and municipal organs of state, statutory functionaries, other role players involved in disaster management and communities.

According to the Disaster Management Act 57 of 2002 as amended, one of the key outputs of the Provincial Disaster Management Centre is to have a current and credible Provincial Risk Profile. To comply with this requirement, the Provincial Disaster Management Centre (PDMC) has updated the Western Cape Disaster Risk Profile (WCDRP) during the 2016/17 financial year. The aim of the project was to consolidate the results of all risk and vulnerability assessments conducted in the Western Cape, including climate change related assessments. The project entailed extensive desktop research on each identified hazard, associated vulnerability and coping capacities; and the development of a coherent and credible provincial disaster risk profile that takes into account all relevant existing documentation informing disaster risk.

The Western Cape is currently experiencing a drought in many areas thus necessitating the intervention of the Provincial Disaster Management Centre (PDMC) to minimise the impact on communities. Emanating from agricultural drought assessments during the course of 2015, as well as a preliminary scan and assessment of the hydrological drought situation within municipalities, the PDMC established a Provincial Drought Task team with key role-players. The Provincial Cabinet was informed on 25 November 2015 of the prevailing situation pertaining to drought and the National Disaster Management Centre (NDMC) was also requested to classify the drought disaster. Subsequently the affected five municipalities were requested to declare local disasters for drought as follows:



- Central Karoo District Municipality (agricultural drought);
- West Coast District Municipality (agricultural drought);
- Witzenberg Municipality (hydrological drought);
- Prince Albert Municipality (hydrological drought); and
- Oudtshoorn Municipality (hydrological drought)

Further engagements and verifications and site visits took place within the above municipalities with the view to secure additional technical and financial support through diverse resources and funding streams. To mitigate the drought the PDMC embarked on a drought awareness campaign with the following objectives:

- to reduce water consumption through the stimulation of behaviour modification of communities at large; and
- to support citizens experiencing drought and/or water scarcity with information to adjust behaviours and cope with reduced levels of water.

The PDMC embarked on a proactive approach to managing veld fires, which occur in certain parts of the Province mainly between the months of December and April each year. The aforesaid proactive approach to managing these fires includes the rapid response of aerial fixed wing aircrafts and helicopters which can be deployed to rapidly respond to fires in their incipient stages and commence an early fire attack with the objective of preventing extended attack operations and major fire spread. This strategy was used with great success during the 2016/17 summer season.

The Western Cape Disaster Management Centre partnered with various role-players such as the Departments of Education, Health, Social Development, Agriculture, Public Works and Roads, Sports and Cultural Affairs, Community Safety, Human Settlements, SAPS National Sea Rescue Institute (NRSI) and LifeSaving SA to ensure a safe Western Cape during the Festive Season. A Provincial Summer Festive Readiness Plan was developed to proactively address the following risks and vulnerabilities:

- Informal Settlement and wild land fires;
- Weather related incidents such as floods in terms of summer rainfall;
- Drowning;
- Motor vehicle accidents;
- Industrial Strikes (Robertson Winery/Farmworkers);
- Possible disruption to Matric Examinations due to Fees Must Fall Campaign; and
- Prolonged drought, water shortage and its socio-economic impacts.

This partnership yielded great successes as listed below:

- The matric examinations were completed successfully;
- To reduce the loss of children at beaches an initiation of tagging children was implemented;
- NSRI responded to 115 drowning incidents;
- The rip current awareness video was viewed by 310 000 passengers traveling on Mango Airline;
- Road accident fatalities decreased by 4,3%; and
- Fire assistance was promptly provided to minimise risks during one of the busiest fire seasons.



**MR C DEINER**

**HEAD: PROVINCIAL DISASTER MANAGEMENT CENTRE**

## Official Sign-off

It is hereby certified that this Annual Report

- was developed by the management of the Provincial Disaster Management Centre under the guidance of the Head of Department: Local Government, Mr G Paulse and Provincial Minister of Local Government, Environmental Affairs and Development Planning, Mr A Bredell;
- was prepared in line with the current Annual Performance Plan of the Department of Local Government and Section 36 of the Disaster Management Act 2002 as amended;



MR C DEINER

**HEAD OF CENTRE: PROVINCIAL DISASTER MANAGEMENT CENTRE**



MR G PAULSE

**HEAD OF DEPARTMENT: LOCAL GOVERNMENT**

## Acronyms

<b>Acronym</b>	<b>Description</b>
CADRI	Capacity for Disaster Reduction Initiative
DMMA	Disaster Management Amendment Act 16 of 2015
PDMC	Provincial Disaster Management Centre
DRR	Disaster Risk Reduction
FAO	Food and Agriculture Organisation
GFDRR	Global Facility for Disaster Reduction and Recovery
IDP	Integration Development Plan
IFRC	International Federation of Red Cross and Red Crescent Societies
ISDR	International Strategy for Disaster Reduction
LM	Municipalities
MTEF	Medium Term Expenditure Framework
NDRMS	National Distress and Response Modernisation System
PP	Public participation
UNDAC	United Nations Disaster Assessment and Coordination
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations International Children's Emergency Fund
UNITAR	United Nations Institute for training and research
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNOPS	United Nations Office for Public Services
WBRA	Ward Based Risk Assessment
WCDRP	Western Cape Disaster Risk Profile
WFP	World Food Programme
WHO	World Health Organisation
WMO	World Meteorological Organisation

# Chapter 1: General Information

## 1.1 Introduction

This section provides general information about the Provincial Disaster Management Centre with regards to its legislative mandate, the strategic overview and the basic organisational structure of the programme.

## 1.2 Purpose

The purpose of the Chief Directorate Disaster Management and Fire Rescue Services is to promote integrated, coordinated and multi-disciplinary disaster management and fire rescue services.

## 1.3 Legislative mandate

Disaster Management Act, 2002 (Act 57 of 2002)

This Act provides:

- An integrated and co-ordinated disaster management focused on rapid and effective response;
- Recovery from disasters as well as the reduction of disaster risk;
- The establishment of provincial and municipal disaster management centres; and
- A framework under which the provincial disaster management centre operates and liaises with municipalities and relevant stakeholders on disaster-related matters.

Disaster Management Amendment Act, 2015 (Act 16 of 2015)

The Disaster Management Amendment Act seeks to, amongst others,

- Clarify the policy focus on rehabilitation and functioning of Disaster Management Centres; and
- Align the functions of the National Disaster Management Advisory Forum to accommodate the South African National Platform for Disaster Risk Reduction;
- Provide for the South African National Defence Force, South African Police Service and any other organ of state to assist the disaster management structures; and
- Strengthen the disaster risk reporting system in order to improve the country's ability to manage potential disasters.

## 1.4 Strategic Overview

### 1.4.1 Vision

The Vision of the Provincial Disaster Management Centre is **Safer, Resilient and Sustainable Development**.

### 1.4.2 Mission

The mission of the Provincial Disaster Management Centre:

- To establish and maintain integrated systems and structure for disaster management;
- To conduct, identify and prioritise hazards and vulnerabilities in the Province;
- To develop and implement disaster risk reduction (prevention mitigation and preparedness) project and programmes;
- To develop and implement effective and rapid emergency/ disaster response and recovery mechanisms.

### 1.4.3 Values

The values of the Provincial Disaster Management Centre are aligned to the values of the Western Cape Government. Our values are:

- Caring;
- Competency;
- Accountability;
- Integrity;
- Responsiveness; and
- Innovation.

### 1.4.4 The Strategic objectives

The Strategic objectives of the Provincial Disaster Management Centres as stipulated in the Western Cape Department of Local Government Annual Performance plan are as follows:

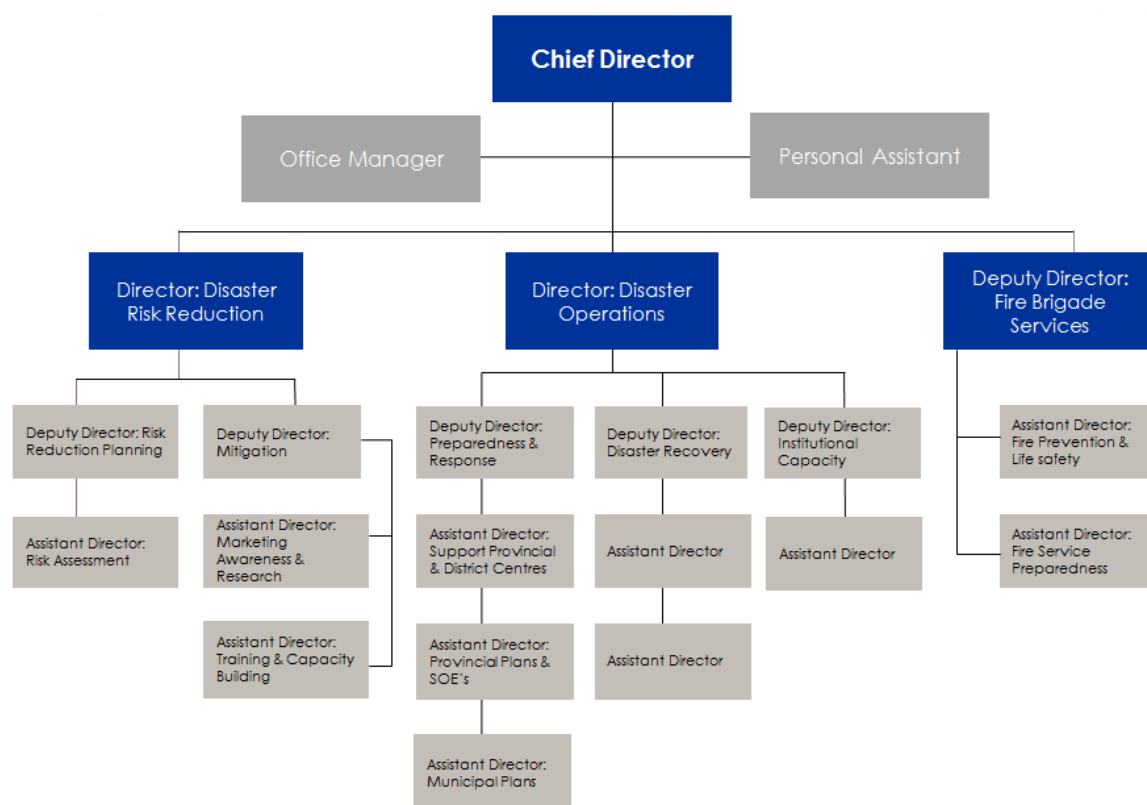
Strategic Objective	To co-ordinate effective disaster management preparedness, intergovernmental and recovery
Objective Statement	To co-ordinate disaster intergovernmental structures, disaster response, rehabilitation and reconstruction in order to improve disaster preparedness and recovery adequately in the Province
Baseline	<ul style="list-style-type: none"> <li>• Thirteen rehabilitation and reconstruction programmes facilitated</li> <li>• Regular advisory forum conducted</li> <li>• Regular updates of disaster management plans coordinated</li> </ul>
Provincial Programme Performance Indicators	<ul style="list-style-type: none"> <li>• Stakeholders assisted in developing disaster preparedness plans;</li> <li>• Centre enhancements to ensure functional Provincial Disaster Management Centre;</li> <li>• Provincial Disaster Management Annual Report;</li> <li>• Meetings of inter-governmental disaster management fora;</li> <li>• Disaster management assessments/ verifications conducted;</li> <li>• Disaster declarations/ classifications facilitated;</li> <li>• Disaster recovery programmes monitored and supported;</li> </ul>

Strategic Objective	To co-ordinate reduction of potential risks posed by hazards
Objective Statement	To co-ordinate effective disaster reduction in the Province and support municipalities to be prepared for potential disaster risks imposed by hazard
Baseline	<ul style="list-style-type: none"> <li>• A credible provincial disaster risk profile</li> </ul>
Provincial Programme Performance Indicators	<ul style="list-style-type: none"> <li>• Municipalities supported with risk and vulnerability assessments;</li> <li>• Municipalities supported to develop Disaster Risk Reduction Measures in Integrated Development Plans;</li> <li>• Maintenance of Data Repository at the PDMC;</li> <li>• Disaster Hazard Awareness Programme;</li> </ul>

Strategic Objective	To improve the Fire and Rescue Services capabilities
Objective Statement	To implement strategies to improve Fire and Rescue Service capabilities
Baseline	<ul style="list-style-type: none"> <li>• Six support programmes for special operations response task teams and fire services</li> <li>• Twenty-one municipalities on fire safety</li> </ul>
Provincial Programme Performance Indicators	<ul style="list-style-type: none"> <li>• Provincial Emergency Services Training Centre programmes at Wolwekloof;</li> <li>• Aerial Fire Fighting and Ground Support Programmes;</li> <li>• Emergency Management Skills Capacity Development (Incident Command) Programmes;</li> <li>• Fire and Life Safety Programmes;</li> <li>• Special Operations Capacity-building Programmes;</li> </ul>



## 1.5 Organisational Structure



## 1.6 Expenditure Trends

The expenditure of the Provincial Disaster Management Centre is reported on in the Annual Financial Statements of the Western Cape Department of Local Government. The provision of immediate relief for disasters transferred to Provincial Departments and Municipalities affected by disasters is through the disaster relief conditional grant. The funds are monitored by the Provincial Disaster Management Centre as reported in Chapter 5: Disaster Response and Recovery of the Annual Report.

## **Chapter 2: Integrated Institutional Capacity**

### **2.1 Introduction**

The main focus of Integrated Institutional Capacity is to establish the necessary institutional arrangements for implementation of disaster risk management within the Western Cape. It specifically addresses the application of the principle of co-operative governance for the purpose of disaster risk management. It also emphasises the involvement of all stakeholders in strengthening the capabilities of provincial and municipal organs of state to reduce the likelihood and severity of disasters.

### **2.2 Provincial Disaster Management Advisory Forum**

The Provincial Disaster Management Centres has held four Provincial Disaster Management Advisory Forum meetings during the months of May 2016, August 2016, November 2016 and February 2017. The forum is well represented by various stakeholders from Provincial Departments; Heads of Centres of the respective municipal disaster management centres in the Province; Municipalities; Non-government Organisations; Private Sector; Insurance Industry; Higher Education Institutions, etc.

### **2.3 Forums Support by the PDMC**

The Provincial Disaster Management Centre supported the following stakeholder engagements with the aim to render support and foster partnerships:

#### **2.3.1 District and Municipal Advisory Forum**

All District Municipalities in the Western Cape namely Cape Winelands, Eden, Overberg, West Coast, Central Karoo and the City of Cape Town have established Disaster Management Advisory Forums and committees to drive the implementation of Disaster Management in their areas of jurisdiction. The Provincial Disaster Management Centres attends the aforementioned advisory forums as well as Municipal Advisory Forums. Some of the municipalities have Municipal Advisory forum committees which are attended by the Provincial Disaster Management Centre.

#### **2.3.2 Incident Command System Working Group**

The Provincial Disaster Management Centre supports the National Disaster Management Centre with the implementation of Incident Command System (ICS) in the country. The

ICS Working group has been established and it is chaired by the Head of Disaster Management Centre: Western Cape and a meeting took place in November 2016.

### **2.3.3 Water Safety Working Group**

The PDMC established a Water Safety Working Group with the aim to ensure an integrated collaboration of risk identification, mitigation, preparedness and response strategies to ensure drowning prevention and water safety in the Western Cape. The committee met on 27 September 2016 and 11 November 2016 in preparation of the Summer Season for the integration of risk reduction and response initiatives.

### **2.3.4 Safer Schools Committee**

The Western Cape Disaster Management is a member of the Safer Schools Committee chaired by the Western Cape Education Department. The aim is to ensure the safety of educators and pupils through the implementation of the Disaster Management Act as stipulated in the Western Cape Education Department: Disaster Management Plan.

### **2.3.5 Coastal Provincial Disaster Management Centre Forum**

During the period under review three engagements took place as follows:

- 22 to 24 June 2016 in the Eastern Cape;
- 5 to 7 October 2016 in the Northern Cape; and
- 30 November to 2 December 2016 in the Western Cape

The main matters that the Forum collaborated their efforts included the following:

- Human Settlements and Social Development policies and procedures relating to disasters;
- Lifesaving South Africa and the development of Drowning Prevention Strategy;
- Incident Command System Training: Liaison with Stellenbosch University in terms of the handling and transportation of hazardous material;
- Assisting in the formulation of planning and response strategy in terms of Operation Phakisa;
- Coastal Protection Zones;
- Drought coordination and management across the member provinces;
- Russian engagement and partnership with the BRICS (Brazil, Russia, India, China and South Africa) coastal disaster working group;
- Improving the recording and archiving system of the Forum;
- Research regarding flooding and sharing lessons learnt; and

- Coastal PDMC Forum Summit and improving wider partnerships

### **2.3.6 The Coastal PDMC'S Provincial Disaster Management Summit**

The Coastal Provincial Disaster Management Centres (PDMCs) forum hosted a Coastal Summit in Cape Town on the 1<sup>st</sup> and 2<sup>nd</sup> of December 2017. The summit was supported by each coastal PDMC and National Disaster Management Centre. Various presentations were made with the theme of harnessing partnerships in order to build resilience. The summit was attended by a wide range of stakeholders from local, provincial, national as well as international organisations. Stakeholders also hailed from governmental, non-governmental and private organisations as well as academia.

#### ***Coastal PDMC's Provincial Disaster Management Summit***



### **2.4 Eagle's View Newsletter**

The aim of the Eagle's View newsletter is to increase the communication, information sharing and marketing disaster management principals with topics relevant to current developments. Three newsletters were issued to a wide range of stakeholders of in May 2016, September 2016 and January 2017.

## **2.5 Capacity in the Provincial Disaster Management Centre**

As part of the Annual Performance Plan for the Department, the PDMC received a National Indicator which speaks to the functionality of the disaster management centres in the Province. The NDMC quarterly Monitoring and Reporting tool is utilised as a means to address the indicator. A summary of the implementation of the Disaster Management Act in the Cape Town Municipality and as well the district municipalities are as follows:

### **2.5.1 City of Cape Town**

The City of Cape Town has a fully functional Disaster Management Centre, an appointed Head of Centre and an active Disaster Management Advisory Forum. The Municipality has developed a Comprehensive Risk Assessment as well as a Disaster Management Framework. A Disaster Management Plan has been developed which includes Standard Operating Procedures for Disaster Response and Recovery as part of the Integrated Development Plan of the Municipality. In addition the municipality conducts simulation exercises for contingency plans and has a database of over 400 Disaster Management Volunteers. The Municipal Information Communication strategies and system is in place as well as Education, Training and Awareness Strategies. The Municipality has allocated funding for Disaster Risk Reduction, Response and Recovery initiatives as well as the monitoring and evaluation processes.

### **2.5.2 Cape Winelands District Municipality**

The Cape Winelands District Municipality has a fully functional Disaster Management Centre, an appointed Head of Centre and an active Disaster Management Advisory Forum. The District Municipality identified their priority risks in two previous Risk Assessments and compiled Ward Based Risk Assessments (WBRA) for Witzenberg and Langeberg Municipalities. WBRA conducted by the District is currently taking place in Breede Valley Municipality and Stellenbosch Municipality. The District Municipality compiled a Disaster Management Framework in 2009. A Disaster Management Plan has been developed which includes Disaster Response and Disaster Recovery as part of the Integrated Development Plan of the District Municipality. In addition the District Municipality conducts simulation exercises for contingency plans. The Information Communication Strategies and system is in place as well as Education, Training and Awareness Strategies. The District Municipality has allocated funding for Disaster Risk Reduction, Response and Recovery initiatives as well as the monitoring and evaluation processes.

### **2.5.3 West Coast District Municipality**

The West Coast District Municipality has a fully functional Disaster Management Centre, an appointed Head of Centre and an active Disaster Management Advisory Forum. The District Municipality's priority risks were identified in the Risk Assessment during 2013. The Municipality compiled Disaster Management Framework in 2009 and updated it in 2012. A Disaster Management Plan has been developed which includes Disaster Response and Disaster Recovery as part of the Integrated Development Plan of the District Municipality. In addition the municipality conducts simulation exercises for contingency plans. The Municipal Information Communication strategies and system is in place as well as Education, Training and Awareness Strategies. The District Municipality has allocated funding for Disaster Risk Reduction, Response and Recovery initiatives, however not adequately addressed due to financial constraints. The District Municipality is further constrained by inadequate human capacity. Monitoring and evaluation processes are in place.

### **2.5.4 Central Karoo District Municipality**

The Central Karoo District Municipality has a fully functional Disaster Management Centre, an appointed Head of Centre and an active Disaster Management Advisory Forum. The District Municipality's priority risks were identified in the Risk Assessment and have done the Community Risk Assessment of Laingsburg Municipality. The Municipality compiled Disaster Management Framework and a Disaster Management Plan has been developed which includes Disaster Response and Disaster Recovery as part of the Integrated Development Plan of the District Municipality. In addition the District Municipality conducts simulation exercises for contingency plans. The Municipal Information Communication strategies and system is in place as well as Education, Training and Awareness Programmes. The District Municipality has allocated funding for Disaster Risk Reduction, Response and Recovery initiatives as well as the monitoring and evaluation processes.

### **2.5.4 Eden District Municipality**

The Eden District Municipality has a fully functional Disaster Management Centre, an appointed Head of Centre and the Disaster Management agenda is tabled through existing Intergovernmental Structures such as the SAPS Cluster Joints, Climate Change Adaptation, etc. The District Municipality's priority risks were identified in the Risk Assessment. The Municipality compiled Disaster Management Framework and a Disaster Management Plan has been developed which includes Disaster Response and Disaster Recovery as part of the Integrated Development Plan of the District Municipality. In

addition the municipality conducts simulation exercises for contingency plans. The Municipal Information Communication strategies and system is in place as well as Education, Training and Awareness Programmes. The District Municipality has allocated funding for Disaster Risk Reduction, Response and Recovery initiatives, however not adequately addressed due to financial constraints. Monitoring and evaluation processes are in place.

#### **2.5.5 Overberg District Municipality**

The Overberg District Municipality has a fully functional Disaster Management Centre, an appointed Head of Centre and an active Disaster Management Advisory Forum and various Memorandum of Agreements with key stakeholders. The District Municipality's priority risks were identified in their Risk Assessment which is regularly updated. A Community Based Risk Assessment was done for Swellendam Municipality. The Municipality compiled Disaster Management Framework and a Disaster Management Plan has been developed which includes Disaster Response and Disaster Recovery as part of the Integrated Development Plan of the District Municipality. In addition, the District Municipality conducts simulation exercises for contingency plans. The Municipal Information Communication strategies and system is in place as well as Education, Training and Awareness Programmes. Disaster Management Volunteers have been trained however the District Municipality has indicated limited funding for Disaster Risk Reduction, Response and Recovery initiatives. Monitoring and evaluation processes are in place.

### **2.6 International Collaborations**

Two of the Provincial Disaster Management Centre's officials namely Ms J Pandaram and Ms L Nicholson, are members of the United Nations Disaster Assessment and Coordination (UNDAC) team. UNDAC is a system which is managed by the Office of the Coordination of Humanitarian Affairs (OCHA) in Geneva.

The UNDAC team was established in 1993 and today consists of over 230 national emergency managers from more than 80 participating countries, South Africa being one. The UNDAC team forms part of an international emergency response system for sudden-onset emergencies however this team must firstly be trained. Members must commit to respond to at least one mission every two years to remain an active team member. A mission entails members responding, at short notice to respond to disasters anywhere in the world for a period of four weeks. Ms L Nicholson attended the Induction Course in 2016



which was held in Singapore and Ms J Pandaram formed part of the Capacity for Disaster Reduction Initiative assessment held in Namibia and Zimbabwe.

### **2.6.1 Singapore UNDAC Induction Course**

Ms L Nicholson attended the Induction course in 2016 which was held in Singapore. All thirty two participants from around the world were accommodated and provided with meals at the Singapore Civil Defence Academy. The induction course in itself was intensive and demanding (08h30 – 18h00/19h00 daily) whereby the first week training was carried out around a desk top exercise. Participants were divided into groups of eight and were required to carry out practical activities from setting up an On-Site Operations Coordination Centre, talking to media, presenting to government officials, etc. The second week consisted of a simulation exercise whereby the teams were required to set up and operate the On-site Operations Coordination Centre for a period of three days, 24/7 in order to deal with an earthquake disaster. The exercise was carried out as realistic as possible where the participants had to physically “arrive” and “move” through a “make shift” airport. The facilitators’ role-played various activities and the teams were expected to deal with and were tested on the following:

- Coordination of the Urban Search and Rescue Teams (USAR) and Emergency Medical Teams arriving in country;
- Meetings with the National Military Defence in the affected country;
- Meetings with the Local and National Governments of the affected country;
- Rapid Damage Assessments;
- Media briefings; and
- Compilation of situation reports and close out reports

**Participants and Facilitators: UNDAC Induction Course: Singapore**



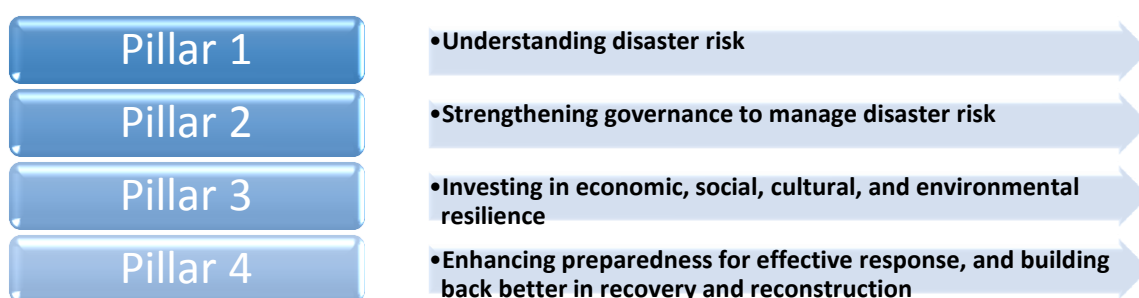
**Team Delta: On site Operations Coordination Centre**



## 2.6.2 UNDAC: Namibia and Zimbabwe missions

Ms J Pandaram formed part of the capacity assessment of Namibia and Zimbabwe which was based on the Capacity for Disaster Reduction Initiative (CADRI) methodology for assessing Disaster Risk Management (DRM) capacity, and the UNDAC methodology for assessing capacity related to preparedness and response. CADRI is an interagency partnership composed of UNDP, UNOCHA, UNICEF, WFP, FAO and WHO as executive partners and WMO, UNOPS, UNITAR, UNESCO, IFRC and GFDRR as observers. CADRI was established in 2007 and its membership expanded to additional agencies in 2012 and 2014. The objective of the CADRI partnership is to enable the UN and other members of the ISDR system to support Governments build and implement a coherent framework for developing national capacities for disaster risk reduction, including preparedness for response.

The CADRI Capacity Assessment and Planning Tool for Disaster Risk Management was developed by the CADRI members and other partners in order to support the assessment of capacities of the disaster risk management system in any given country in line with the priority areas of the Sendai Framework for Disaster Risk Reduction (2015-2030).



**Figure 1: Sendai Framework for Disaster Risk Reduction (2015-2030)**

The capacity assessment was conducted with a focus on national and local capacities for DRR, using the indicators set for the implementation of the Sendai Framework for DRR (see below) and the five technical areas of capacity development, namely (i) ownership, (ii) institutional arrangements, (iii) competencies, (iv) working tools and resources, and (v) relationships. The CADRI Tool is divided into a generic Disaster Risk Management questionnaire which is structured according to the 4 priority areas of action of the Sendai Framework and 9 sectorial modules: Health; Infrastructure; Agriculture and food security; Human mobility; Education; Environment; WASH; Nutrition and Climate services.

### 2.6.2.1 Namibia (18-29 July 2016):

Namibia is experiencing a complex combination of factors, which render it vulnerable to disasters. The HIV/AIDS pandemic, deepening food insecurity and the increasing

challenges facing national institutions to effectively provide adequate social services have a negative impact on the resilience and coping mechanisms of households. Hazards such as floods, drought and desertification are interrupting progress in human development. The net result of the crisis is that limited resources intended for development have to be diverted to disaster response, which delays planned developmental programmes.

Poverty is the major contributing factor to increased vulnerability to disasters in Namibia. There are disparities in infrastructure development throughout the country especially between the urban and rural areas. In addition, there exists unequal access to quality education, health services and employment opportunities between the rural and urban areas. All of these represent other dimensions of poverty in Namibia. The economic and geographical dualism, which is partly a legacy of the colonial past of the country, poses one of the biggest challenges in the fight against poverty and vulnerability in Namibia.

In the wake of the drought triggered by the El Nino phenomenon in 2016 which has affected Namibia along with the Southern Africa sub-region, the Government seized the opportunity to undertake a capacity and needs assessment of the NDRMS. The purpose of the assessment was to identify priority actions required for building the NDRMS capacity at all levels to reduce the risk of disasters, enhance preparedness levels, and to ensure swift recovery capacity after an emergency.

A national capacity assessment was thus undertaken under the leadership of the Government of Namibia through the Directorate Disaster Risk Management. The exercise was supported by the UN System through the UN Country Team in Namibia, the Capacity for Disaster Reduction Initiative (CADRI) and experts deployed through the United Nations Disaster Assessment and Coordination (UNDAC) system.

The national capacity assessment identified existing capacities, gaps and needs related to disaster risk management, and proposed a set of prioritised recommendations on how these capacities can be strengthened.

The prioritised recommendations form the backbone of a National Plan/ Framework for Action for Disaster Risk Management in Namibia which will guide the efforts of all stakeholders involved in disaster risk management to implement the requirements of the Sendai Framework.

## **Pillar 1: Understanding disaster risk**

The Sendai Framework Priority Area 1 is focused on the degree of awareness and understanding of DRM concepts and practices of all stakeholders involved in the DRM system at all levels. A good level of understanding of DRM at both strategic/ policy level, as well as at operational level is a prerequisite of informed decision-making on DRM in any given country. In Namibia, the assessment found that a majority of interviewed institutions and professionals, at all levels of administration (from central to local) have a good understanding of disaster and climate risks and a fair understanding of what disaster risk management means for their field of work.

Various technical institutions are formally mandated for data collection and forecasting, such as the Meteorological service, the Hydrology department and the National Statistics Agency, among others. The assessment found that these institutions are generally well equipped and highly skilled to fulfil their mandate. However, certain capacities are still required for systems to be fully performant, including for early warning and integrated information management. As Namibia is largely affected by floods and drought, vulnerability assessments are carried out regularly by a number of institutions on the basis of a vetted methodology. Institutions such as the DDRM, Ministry of Agriculture, Water and Forestry, the Meteorological service, among others participate jointly to such assessments and have been trained on the methodology. While these capacities represent undeniable assets of the DRM system as far as the Priority Action 1 is concerned, a number of recommendations have been made in order to bridge existing gaps and needs of the system.

## **Pillar 2: Strengthening governance to manage disaster risk**

The Sendai Framework Priority Area 2 outlines the requirements of a performing legislative, policy and institutional system for DRM as enabling factors for the implementation of DRM measures. Namibia has a comprehensive DRM legislative and policy framework, a well-structured, de-concentrated DRM institutional architecture and a number of planning instruments.

For instance, the DRM Act (2012) and Regulations (2013), as well as the National Disaster Risk Management Policy of the Republic of Namibia (2009) (currently being revised) are legal and policy instruments which gives direction and define the parameters for the application of the concept of DRM in the country. Similarly, the National DRM Plan (2011) includes important information regarding the operationalization of the DRM system. Last but not least, the Fifth National Development Plan (2016-2020), the main national

development planning instrument of the Government, has the potential to further articulate the requirements for effective DRM integration in developmental priorities for the country.

The institutional structure for DRM is well articulated across all levels of administration, however the assessment found that it mostly performs at central level and in certain Regions, while lacking functional structures, capacities and resources at sub-regional levels. At national level, the DDRM is strategically located within Government structure at the level of the Office of the Prime Minister enabling privileged position to assume inter-sectorial coordination. At sector level, certain line ministries and technical departments have DRM Focal Persons assigned. While the governance aspects of the DRM system in Namibia attain a certain level of sophistication and performance, a number of shortcomings have been identified through the assessment.

### **Pillar 3: Investing in economic, social, cultural, and environmental resilience**

The Sendai Framework Priority Area 3 is centered on the planning and implementation of structural and non-structural measures at sector level to reduce the risk arising from disasters and increase the resilience of at-risk populations. Overall, the assessment found that there is a fair understanding of the current and potential impacts of disasters (including those arising from climate variability and change) on various sectors, particularly agriculture, environment and health, on which an in-depth assessment has been conducted. However, during the assessment, many institutions highlighted the fact that limited human, financial, technical capacities seriously hamper the effectiveness of their work as far as DRM is concerned.

Specific capacities and gaps in these selected sectors have been identified and are presented in the detailed report. A number of key recommendations for each sector have emerged in order to address the needs.

### **Pillar 4: Enhancing preparedness for effective response, and building back better in recovery and reconstruction**

The Sendai Framework Priority Area 4 has a specific focus on structures, tools and operational capacities related to disaster preparedness, response, recovery, rehabilitation and reconstruction.

When the risk of disasters cannot be reduced, transferred or managed, capacities are needed in order to prepare, respond and recover from the impact of disasters. The disaster response system in Namibia performs relatively well, particularly when it comes to

responding to localized droughts and floods. The legal framework for implementing disaster preparedness and response measures exists, however has some difficulties in being translated into a simple, robust, logical system that can be sustainable with limited resources.

Emergency preparedness and response capacities are more developed at Capital City (Windhoek) level and in those regions where frequent disasters are occurring. For instance, advanced emergency services are established in Windhoek City with highly motivated and professional uniformed personnel, covering tasks such as firefighting, technical rescue, hazmat incidents and ambulance services. For large scale emergencies, the resources from the National Defence Forces and the National Police are also available to support disaster response. At local level, the Namibian Red Cross Society assists with emergency response services, especially in regions frequently affected by disasters.

In terms of contingency planning, the existence of well-equipped strategic storage facilities (warehouses) in some regions is an asset for the DRM system. This ensures that the country is in a state of preparedness to respond to different types of disasters by stock-piling food and non-food relief supplies. Traditional early warning systems are present in communities experiencing recurrent floods. In most at-risk locations, people use their indigenous knowledge to prevent the adverse effects of the hazards, and self-relocate when flooding occurs. The assessment has highlighted a number of challenges faced by the DRM system as far as preparedness; response and recovery planning are concerned.



**UNDAC: Namibia Mission**



### **2.6.2. 2 Zimbabwe (20-31 March 2017):**

Zimbabwe is particularly vulnerable to climate induced hazards such as drought, floods and cyclones that can trigger food insecurity as well as disease and pest outbreaks. Climate change has induced increasingly erratic rainfall which, combined with limited adaptive capacities, have resulted in peaks in food insecurity every four to five years.

The last two consecutive years of poor rains, compounded by El Niño, have resulted in the worst drought in 35 years. The exposure to natural hazards and climate risks is compounded by endemic poverty. Underlying risk drivers include rapid unplanned urbanization, construction on wetland areas, land degradation and deforestation.

The capacity assessment of the DRM system in Zimbabwe was conducted with a focus on national and sub-national capacities for DRM using the CADRI Capacity Assessment and Planning Tool for Disaster Risk Management developed by the CADRI partner agencies. The Tool was developed in order to support the assessment of existing capacities of the disaster risk management system in line with the priority areas of the Sendai Framework for Disaster Risk Reduction (2015-2030).

The assessment was carried out by a multi-disciplinary team composed of approximately 20 representatives from: Department for Civil Protection, UN agencies from Zimbabwe and international experts deployed through the Capacity for Disaster Reduction Initiative (CADRI) and the United Nations Disaster Assessment and Coordination (UNDAC) system. The assessment comprised interviews with approximately 100 Government and non-Government institutions at central and local levels in 4 districts (Chiredzi and Mwenezi; Bulilima and Tsholotsho).

The assessment findings and recommendations have been structured according to the four priority areas of the Sendai Framework which is entitled as "Pillars". These recommendations include:

## **Pillar 1: Understanding disaster risk**

The Sendai Framework Pillar 1 is focused on the degree of awareness and understanding of DRM concepts and practices of all stakeholders involved in the DRM system at all levels. A good level of understanding of DRM at both strategic/ policy level, as well as at operational level is a prerequisite of informed decision-making on DRM in any given country. Overall, the assessment recommendations focus on consolidating existing risk data, information, and mapping undertaking in various institutions, and at various levels (especially at the local level) with support from partners. Capacity building of key institutions, including the DCP, in various areas related to DRM emerged as a key area covering several recommendations. The reinforcement of DCP capacities in the area of capacity building, including its role in coordinating and consolidating disparate training initiatives taking place particularly at the local level was also highlighted as a key recommendation.

## **Pillar 2: Strengthening governance to manage disaster risk**

The Sendai Framework Pillar 2 outlines the requirements of an effective legislative, policy and institutional system for DRM as enabling factors for the implementation of DRM measures. Key assessment recommendations related to disaster risk governance in Zimbabwe focus on validating and enforcing legislative and institutional reform. It is recommended that the draft DRM Bill be passed, disseminated and enforced, triggering measures to reinforce the institutional architecture for DRM in the country. A medium to long term recommendation is for the Government to further explore establishing a single Government entity responsible for the coordination of all aspects of multi-hazard disaster risk management (prevention, mitigation, preparedness, response, and recovery) placed within a suitable Government body that will fully allow it to exert its mandate, has adequate convening power of all relevant Government institutions and partners, and is accountable for effective implementation of its mandate. In the immediate term,

however, the assessment made a set of practical recommendations for the reinforcement of existing institutions based on existing resources.

### **Pillar 3: Investing in economic, social, cultural, and environmental resilience**

The Sendai Framework Pillar 3 is centred on the planning and implementation of structural and non-structural measures at sector level to reduce the risk arising from disasters and increase the resilience of at-risk populations. Overall, the assessment made several recommendations regarding DRM financing and investment, for instance through DRM allocations in line ministries and at sub-national level, through the establishment of fast-track mechanisms for in support of rapid disbursement of funding for disaster response operations, and through options for engaging the private sector, the diaspora, as well as tapping into climate financing.

### **Pillar 4: Enhancing preparedness for effective response, and building back better in recovery and reconstruction**

The Sendai Framework Pillar 4 has a specific focus on structures, tools and operational capacities related to disaster preparedness, response, recovery, rehabilitation and reconstruction. When the risk of disasters cannot be reduced, transferred or managed, capacities are needed in order to prepare, respond and recover from the impact of disasters. Key recommendations targeting disaster preparedness and response focus on prepositioning adequate contingency stock of emergency relief non-food items, on establishing stand-by agreements for rapid deployment of emergency aid, and on several measures aimed at consolidating disparate capacities that exist in the country that could reinforce the preparedness capacities overall.

It is expected that the assessment results and recommendations would guide national stakeholders in undertaking necessary steps in the implementation of DRM measures in Zimbabwe in line with the commitments under the Sendai Framework.

## UNDAC: Namibia Mission



### 2.7 Institutional Capacity Challenges

The Disaster Management Act 2002 was amended in 2015. The Disaster Management Provincial Framework therefore requires amendment. This requires alignment with the National Disaster Management Framework and therefore the PDMC sought leadership/ guidance from the NDMC with the amendment of the framework.



## Chapter 3: Disaster Risk Assessments

### 3.1 Introduction

A disaster risk assessment is the first step towards planning an effective disaster risk reduction programme by examining the likelihood and outcomes of expected disaster events. This would include investigating related hazards and conditions of vulnerability that increase, by calculating the probability of something, the chances of loss. Risk is a measurement of potential for exposure to loss. Risks, either man-made or natural, are constant and the potential is usually measured by its probability in years.

The outcomes of a disaster risk assessment can ensure that all developmental initiatives as well as contingency planning of the local communities are informed by accurate knowledge of disaster risk, enabling various stakeholders to contribute to the reduction of disaster risks.

Assessment of hazards involves accessing official sources of scientific information and drawing on advice of local scientific experts on different hazards, the types, frequency and typical impacts of geological and hydro-meteorological hazards. Vulnerability assessment considers both people and built environment and could include assessing the presence of very vulnerable young or disabled persons. Disaster risk assessment is a process that determines the level of risk by:

- Identifying and analysing potential hazards and/or threats;
- Assessing the conditions of vulnerability that increases the chance of loss for particular elements-at-risk (that is, environmental, human, infrastructural, agricultural, economic and other elements that are exposed to a hazard, and are at risk of loss);
- Determining the level of risk for different situations and conditions; and
- Helping to set priorities for actions

The Provincial Disaster Management Centres' activities in terms of the implementation of the Disaster Risk Assessment Key Performance Indicator during the reporting year are as follows:

## 3.2 Provincial Risk Profile

According to the Disaster Management Act 57 of 2002 as amended, one of the key outputs of the Provincial Disaster Management Centre is to have a current and credible Provincial Risk Profile. To comply with this requirement, the Provincial Disaster Management Centre (PDMC) has updated the Western Cape Disaster Risk Profile (WCDRP) during the 2016/17 financial year. The WCDRP was done in accordance with the Western Cape Standardised Disaster Risk Assessment Methodology.

The aim of the project was to consolidate the results of all risk and vulnerability assessments conducted in the Western Cape, including climate change related assessments. The project entailed extensive desktop research on each identified hazard, associated vulnerability and coping capacities; and the development of a coherent and credible provincial disaster risk profile that takes into account all relevant existing documentation informing disaster risk.

The WCDRP addresses the following criteria as stipulated in South Africa's "Policy Framework for Disaster Risk Assessment", with specific reference to "Key Performance Area 2, Disaster Risk Assessment" as listed below:

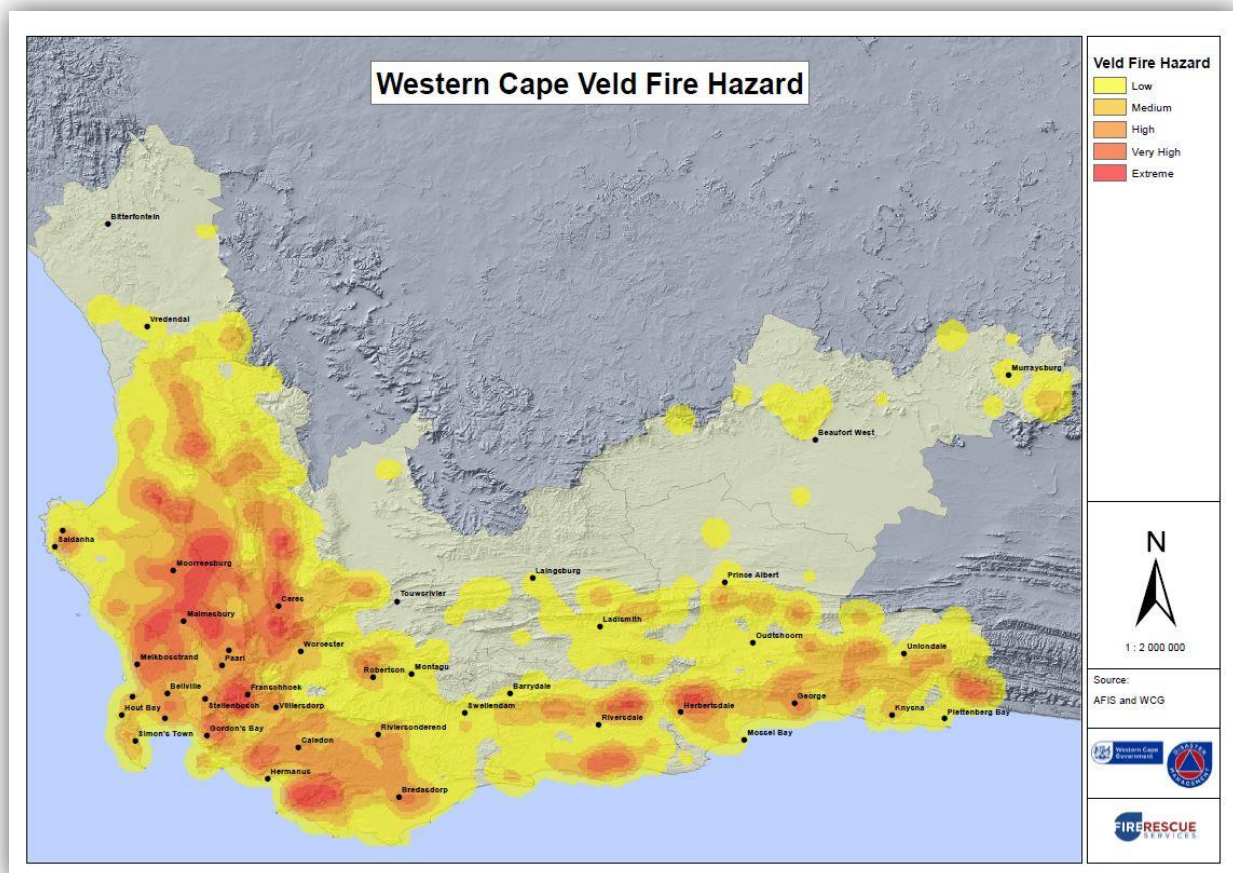
No	Criteria
1	Does the assessment <i>identify and analyse</i> the potential hazard and or threat?
2	Does the assessment indicate <i>how frequently</i> the hazard can occur?
3	Does the assessment <i>analyse the conditions of vulnerability</i> that increase the possibility of loss for particular elements at risk?
4	Does assessment clearly indicate <i>which areas, communities or households are most at risk</i> ?
5	Does the assessment determine <i>the level of risk for different situations and conditions</i> ?
6	Does the assessment indicate the <i>likely impacts</i> on areas, communities or households?
7	Does the assessment identify the <i>vulnerability that increases the severity of the threat</i> ?
8	Does the assessment analyse the <i>capabilities or resources available</i> to manage the risk?



- 9 Does the assessment indicate whether the *risk is becoming more serious*?
- 10 Does the assessment indicate the *impact/influence the risk has on development* in the identified areas?
- 11 Does the assessment indicate whether there *are any secondary impacts* that could affect the identified areas?
- 12 Does the assessment *assist in setting priorities for action*?

By developing a Provincial Disaster Risk Profile that complies with the above mentioned criteria, the PDMC is be able to update current disaster risk management plan for the province as a whole which will include strategies, programmes and projects aimed at risk reduction and emergency preparedness. The latter will in turn form an integral part of Local Authorities Disaster Management Plans that forms part of the IDP, as well as the preparation of operational plans for the coordination of response and recovery efforts in the event of a provincial disaster.

**Example of a Provincial Risk Map: Western Cape Fires Hazard Map**



### 3.3 Supporting Municipalities in Updating Risk Assessments

The Provincial Disaster Management Centre (PDMC) has since 2012 assisted all the District Municipalities in the Western Cape in updating their disaster risk assessments.

Undertaking a disaster risk assessment is the first step in the disaster management continuum and underpins all disaster management activities including disaster risk reduction, disaster preparedness and response.

The update of the disaster risk assessments was conducted in accordance with the Western Cape Standardised Disaster Risk Assessment Methodology.

The risk assessments are inclusive of:

- Hazard assessment;
- Vulnerability assessment;
- Capacity assessment;
- GIS mapping; and
- Extensive Public Participation

The introduction of the Disaster Management Amendment Act 16 of 2015 (DMMA) has made it compulsory for municipalities to undertake a disaster risk assessment for their geographical area. The DMMA also requires municipalities to map areas, communities and infrastructure at risk as well as take the effect of climate change into account.

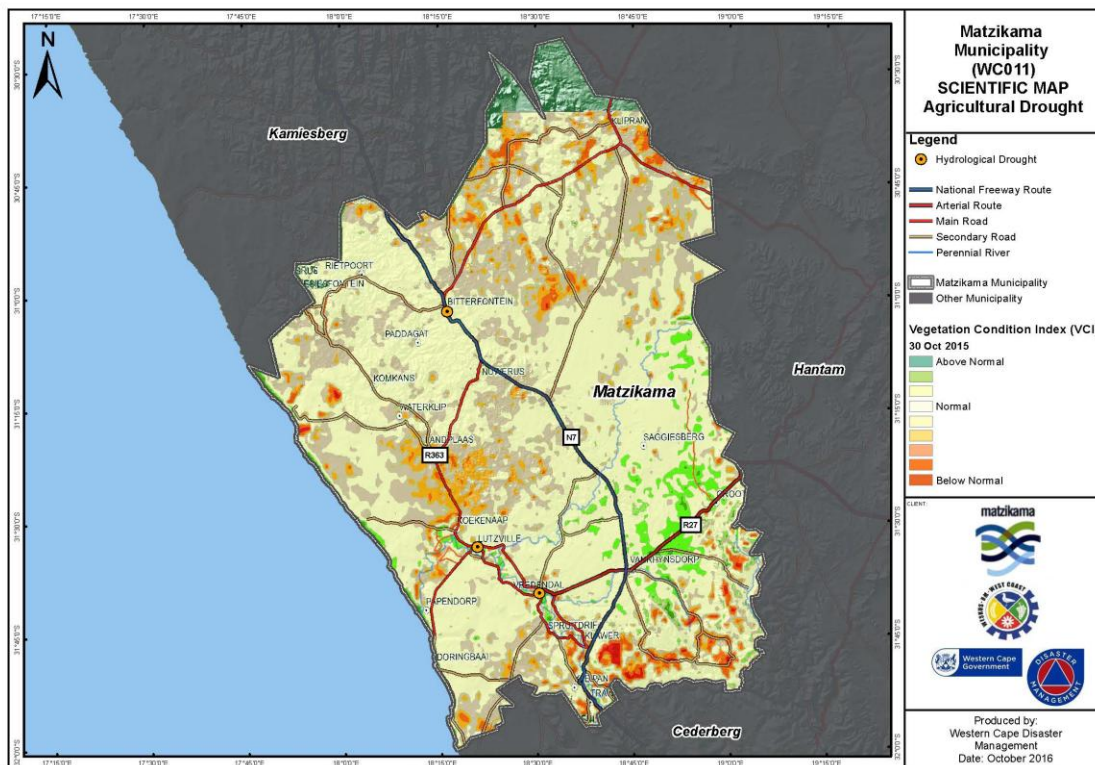
In an attempt to influence disaster risk reduction at a community level as well, due to the lack of resources and skills at a local municipal level, the PDMC in collaboration with the West Coast, Central Karoo and Eden District Municipalities assisted Matzikama, Laingsburg and Hessequa Municipalities respectively in conducting community-based risk assessments. The Community Based risk assessments placed an emphasis on identifying risk reduction initiatives in communities.

The PDMC in collaboration with the District Disaster Management Centres will, based on the risk assessment findings, identify risk reduction projects that will be implemented via the Integrated Development Plan. The sub-directorates Risk Reduction Planning and Preparedness and Response work closely together in assisting the municipalities to align the risk assessments to contingency planning. It is envisaged that this initiative will be rolled out to all the high risk municipalities throughout the Western Cape.

The outcomes of a comprehensive disaster risk assessment can ensure that all developmental initiatives as well as contingency planning and practice of the local

authority are informed by accurate knowledge of disaster risk, enabling various stakeholders to contribute to the reduction of disaster risk within its area of jurisdiction.

### Example of a Municipal Risk Map



Matzikama Agricultural Drought Map

## 3.4 Development and Maintenance of the Spatial Data Repository (GIS) at the PDMC

The PDMC has a fully functional and well maintained GIS that includes a Web Based Decision Support Tool (DST) that provides decision makers with accurate and credible information. All operational datasets are updated, maintained and uploaded into our central data repository.

DST was migrated from Microsoft Silverlight platform to ArcGIS Online platform. This ensures that all stakeholders will have global access to the DST within a secure and user friendly environment.

### 3.4.1 Western Cape Flood Hazard Index

The inclusion of the Western Cape Flood Hazard Index in the new DST ensures that all stakeholders have access to a complete provincial flood hazard index that will inform risk

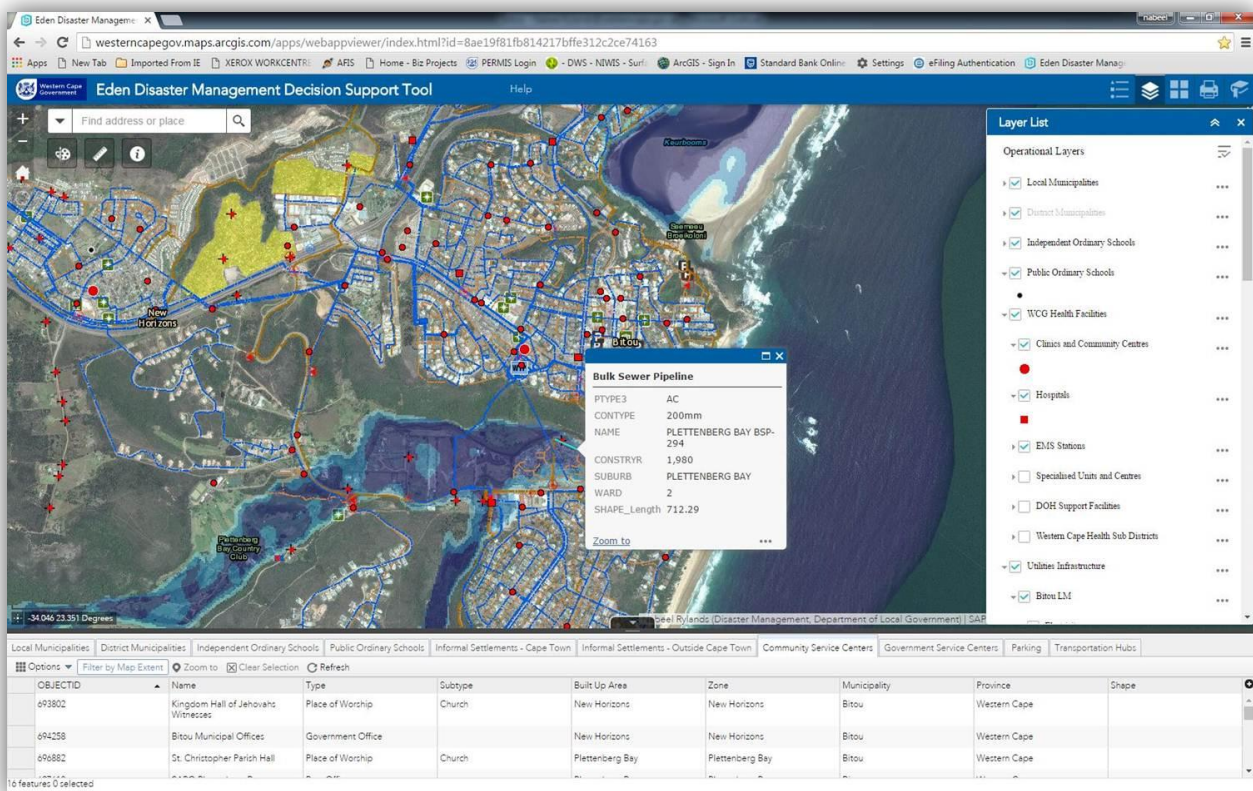


reduction, preparedness and spatial planning processes. The inclusion of information from the Western Cape Department of Social Development also enhances the ability of decision makers to understand the socio-economic profile of an area.

### 3.4.2 Roll-out of the new Decision Support Tool (DST)

The roll-out of the new DST to all municipalities took place during the course of the 2016/17 financial year with each district provided with a training workshop. The DST workshops were attended by disaster management officials from the District as well as the Municipalities. Officials were trained in the use and application of the DST and the maintenance process to ensure that data sets remain current and credible.

#### Example of DST: Eden District Municipality



## Chapter 4: Disaster Risk Reduction

### 4.1 Introduction

The aim of Disaster Risk Reduction is to ensure that all disaster management stakeholders develop and implement integrated disaster management plans and risk reduction programmes, i.e. Disaster Management Chapter in Municipal Integrated Development Plan. These include long term *Risk Reduction Interventions Strategies*, short-term *Mitigation Intervention Strategies* to alleviate the impact of disasters on communities and *Preparedness Intervention Strategies* to ensure stakeholders and communities are prepared during a disaster.

#### 4.1.1 Western Cape Drought Intervention

The Western Cape is currently experiencing a drought in many areas thus necessitating the intervention of the Provincial Disaster Management Centre (PDMC) to minimize the impact on communities.

Emanating from agricultural drought assessments during the course of 2015, as well as a preliminary scan and assessment of the hydrological drought situation within municipalities, the PDMC notified the Provincial Cabinet on 25 November 2015 of the prevailing situation pertaining to drought. The National Disaster Management Centre (NDMC) was also requested to classify the drought disaster, which took place on 11 January 2016. Subsequently the affected five municipalities declared local disasters for drought as follows:

- Central Karoo District Municipality (agricultural drought);
- West Coast District Municipality (agricultural drought);
- Witzenberg Municipality (hydrological drought);
- Prince Albert Municipality (hydrological drought); and
- Oudtshoorn Municipality (hydrological drought)

Further engagements and verifications and site visits took place within the above municipalities with the view to secure additional technical and financial support through diverse resources and funding streams.

A Province Drought Task Team consisting of representatives from the following organisations was established by the PDMC:

- All District and Metro Heads of Centres;
- National Department of Water and Sanitation: Western Cape;
- Western Cape Department of Environmental Affairs and Development Planning (DEADP);
- Western Cape Department of Agriculture;
- Western Cape Department of Local Government: Municipal Infrastructure;
- South African Weather Service (SAWS); and
- PDMC

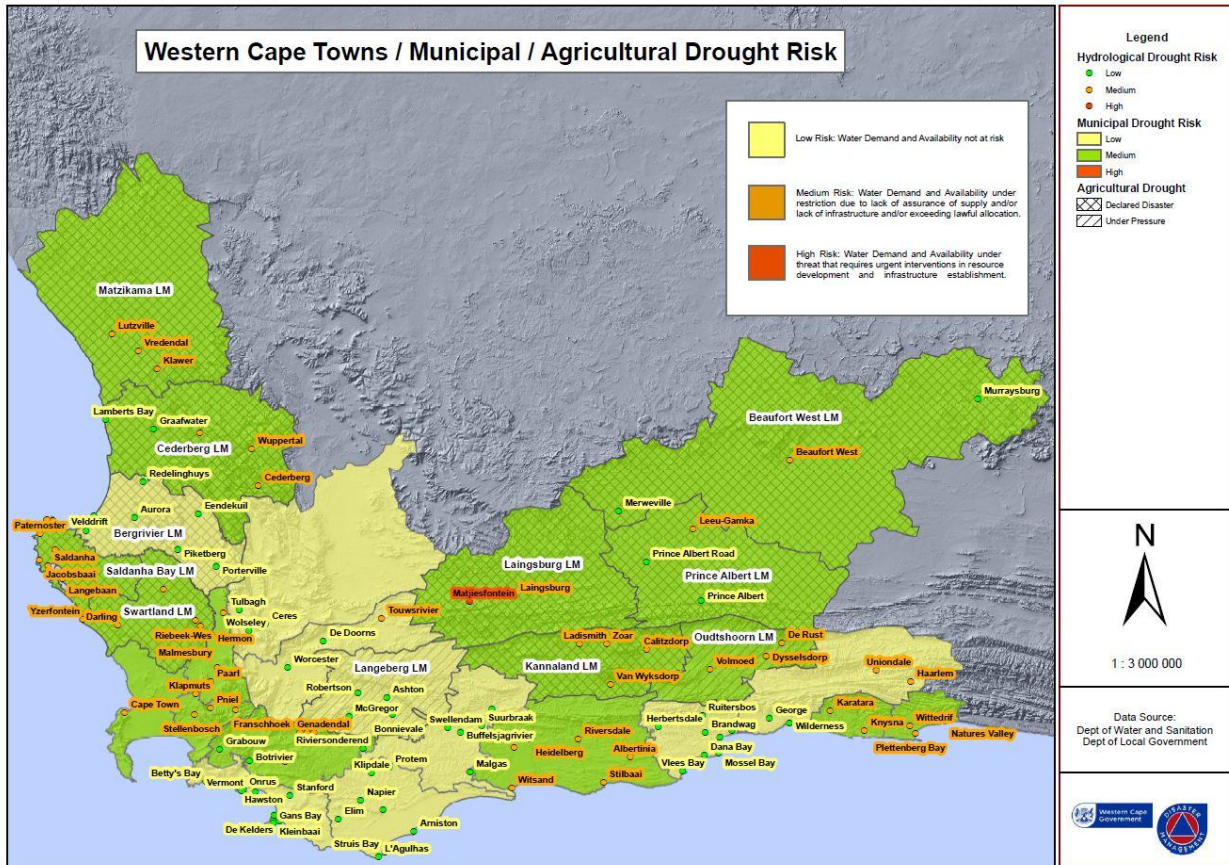
The Task Team has successfully coordinated the following:

- Determined the high risk areas;
- Determining the total water availability for each area in the Province (both surface and groundwater);
- Implemented urgent measures in areas where serious water issues manifested (i.e. Voelvlei dam);
- Monitoring water levels on a monthly basis;
- Initiated and coordinated inputs for a Communication Strategy; and
- Issuing on a regular basis Drought Situation reports, highlighting the current situation in the Province with regard to the drought and water availability.

From 13 – 15 March 2017 Western Cape Drought Tribunals were held with all thirty Municipalities to discuss the current drought situation in the Province and to ascertain the necessity to initiate Section 35 and 49 procedures of the Disaster Management Act, 57 of 2002 as amended in 2015. Each Municipality presented the current situation with regards to its available water resources and indicated whether it was necessary to declare a proactive disaster in their area. The City of Cape Town and Kannaland Municipality requested that a drought disaster to be declared in the areas, whilst the Theewaterskloof and Hessequa Municipalities recalled their intentions to declare.

Due to the current drought situation in the Western Cape, the PDMC will continue to monitor and coordinate efforts to reduce the impact of the drought on the population of the Western Cape.

## Example of a Western Cape Drought Risk Map



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## 4.2 Mitigation Intervention Strategies

### 4.2.1 Drought Awareness Campaign 2016

The PDMC has embarked on a drought awareness campaign with the following objectives:

- to reduce water consumption through the stimulation of behaviour modification of communities at large; and
- to support citizens experiencing drought and/or water scarcity with information to adjust behaviours and cope with reduced levels of water.

The Western Cape Government's multi-platform communication campaign consisted of print, radio, online, social media, OOH (Out-Of-Home) and bulk sms's which was rolled out to drought stricken areas.





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### **Drought Awareness Campaign**

#### **4.2.2 Hazard Awareness Campaign**

The Provincial Disaster Management Centre, through the Department of Local Government, rolled out the Annual Fire and Flood Awareness Campaign Roadshow throughout the Eden District Municipality over a 5 week period (22 January - 28 February 2017). The 2016/17 campaign primarily targeted the vulnerable and rural communities who were not visited in previous years. In addition, the campaign also collaborated with the local authorities (Fire Rescue Services, Local and District municipalities' Disaster Management officials).

The primary aim was to address the prevalence of fire, flood and drought related incidents/disasters that may cause injury, loss of life, displacement of people, damage to property and the environment. The objectives of the campaign were to:

- Instil a culture of disaster resilience among communities;



- Create awareness and equip pupils with basic emergency preparedness and hazard-avoidance knowledge through the demonstration of safety tips;
- Educate children about the emergency numbers (10177 and 112); and
- Reach all vulnerable areas of the Western Cape Region

***Hazard Awareness Campaign: Eden District Municipality***



A 30-minute industrial theatre play was used to educate targeted audiences on the dangers of fires, floods and drought, as well as other household hazards. Primary schools in rural areas vulnerable to these hazards were the main target audience, but also with the inclusion of town-based public and private schools that were nominated in collaboration with Local and District Municipalities. In total the number of schools reached in the Eden District Municipality amounted to fifty six schools and **22374** learners. The financial implications are tabled as follows:

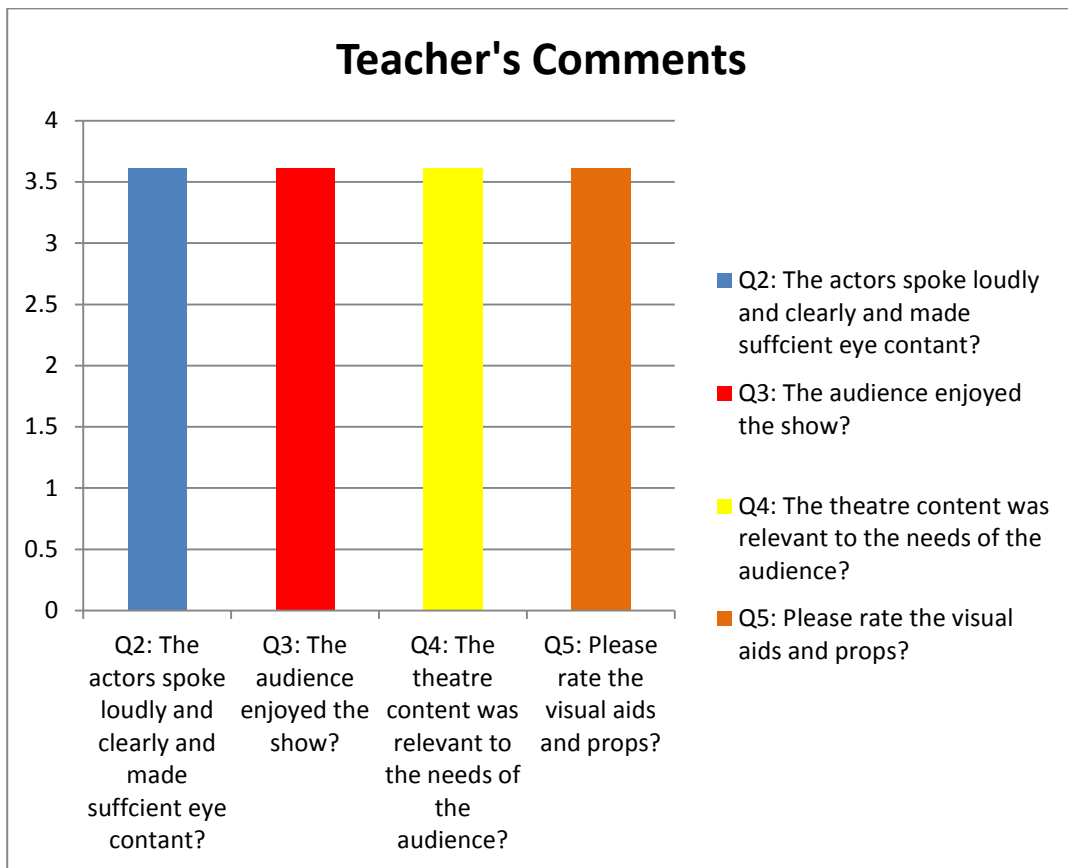
<b>Allocated Budget: Hazard Awareness Programme</b>	<b>Cost implications</b>
Campaign element: Kambro Diggers (theatre group) Cost includes: Actors' fees, travelling costs, accommodation, meals, cleaning and repairing of Gerry the Mascot, Videography taking of the Play and equipment	R 343 800.00
Additional educational Material (Pamphlets)	R 162 566.10
Promotional Banners x3	R 2 223.00
Indirect Costs:	
• Traveling Cost	R 59 200.00
• Accommodation and meals in terms of staff	R 64 793.20
<b>TOTAL COST</b>	<b>R 632 582.30</b>

#### **4.2.2.1 Hazard Awareness Campaign: Impact Assessment**

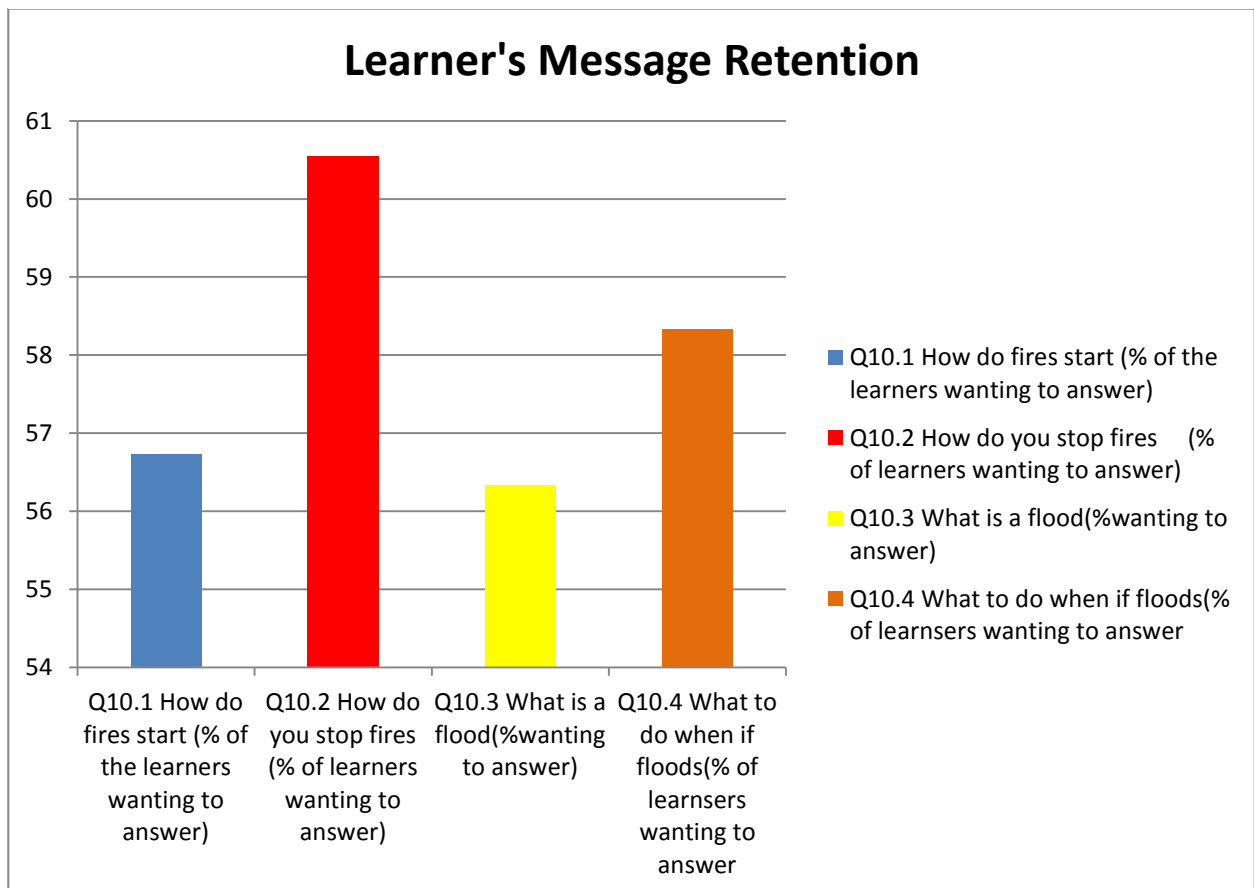
The impact of the hazard awareness campaign was measured in the form of questionnaires completed by the principal and educators from the school. The total number of completed questionnaires received amounted to forty four (83% of the schools visited) of which the total number of learners reached amounted to **22 374**.

The questions on the questionnaire evaluated the educators and principals opinions regarding the quality of the play. The following graph illustrates the summary of responses from Eden District from educators' comments column, and summarized responses:

## Educators' Comment on Hazard Awareness Campaign



## Learners' Comment on Hazard Awareness Campaign



## 4.3 Disaster Management and Integrated Development Planning

The IDP is an annually reviewed 5-year overarching plan for an area that gives an overall framework for development. It aims to coordinate the work of local and other spheres of government and should take into account the following:

- Existing conditions and problems vs available resources;
- Economic and social development;
- Set a framework for what infrastructure and services are needed; and
- How the environment should be protected.

### 4.3.1 Integrated Development Planning

Integrated Development Planning is also an approach to planning that involves the entire Municipality and its citizens in finding the best solutions to achieve good long-term and sustainable development (social development, economic development and environmental development). This approach also applies to Disaster Management planning and the way it interacts and synergises with the Integrated Development Plan. This particularly applies to the IDP process and phases, where Disaster Management planning should run in parallel with the IDP cycle.

Key elements of Integrated Development Planning consist of the following:

- Public participation (PP);
- Strategic focus;
- Integration;
- Prioritising those in greatest need;
- Delivery orientation.

These key elements are also key elements of Disaster Management planning processes:

- Public Participation (PP) - Disaster Risk Assessments consist of a Scientific-based Disaster Risk Assessment as well as a Community-based Risk Assessment, where the latter forms part of the PP process, namely during the actual risk assessment and also during the Public Participation phase of the IDP cycle;
- Strategic focus - the final Risk Assessment document contains strategic information that has developmental implications;
- Integration – both the IDP and the Disaster Management planning processes seek to integrate the respective approaches within the final IDP document;
- Prioritising – disaster Risk Assessments categorise and prioritise risks which can then be linked to the prioritised areas in the IDP;

- Delivery orientation - risk reduction activities should primarily be carried by means of service delivery.

#### 4.3.2 Annual assessments of IDPs

The Department of Local Government, through the Directorate: Integrated Development Planning coordinates and facilitates annual assessments of municipal IDPs. Sector departments assess the content, relevance and quality of the IDPs in accordance to their IDP indicators, which are based on legislative requirements.

The Provincial Disaster Management Centre (PDMC) specifically assesses the Disaster Management chapter in the IDP instead of only the Disaster Management Plan. Annual reviews of the five-year IDP should reflect on the progress made on institutional arrangements, risk assessment updates, risk reduction projects and interventions, as well as any changes made to the disaster management preparedness, response and contingency plans.

Each unit with the PDMC assesses the IDPs in line with their functional areas of expertise, thus providing specific expert based reviews. The overall findings are consolidated into the LGMTEC 3 reports that are then sent to municipalities to amend the draft IDPs.

#### 4.3.3 Legal and Policy Requirements

In terms of legal alignments, the Local Government Systems Act (32 of 200) states:

- That a Disaster Management Plan is a “core component of the IDP”,

The Disaster Management Act (57 of 2002 as amended) states that a Disaster Management Plan:

- “Forms an integral part of the municipality’s Integrated Development Plan”;
- “Must conduct Risk Assessments for its municipal area”; and
- “Provide measures and indicate how it will invest in disaster risk reduction”.

Furthermore, the Western Cape Disaster Management Framework (2010) states that:

- “Disaster reduction efforts are medium- to long-term multi-sectoral efforts focused on vulnerability reduction and it is therefore more effective to incorporate them into **on-going integrated development planning (IDP) processes, programmes and projects**”;

- “Effective and adaptive disaster risk reduction interventions in the municipal sphere are best planned and implemented as **development initiatives** through IDP mechanisms and phases”.

Due to these legal and policy requirements, it is essential for a Disaster Management chapter to be present in the IDP in order to effectively implement the Disaster Management Plan, in particular the proactive risk reduction activities.

The Provincial Disaster Management Centre has developed content guidelines for a Disaster Management Chapter in the IDP that centralizes and addresses the strategic aspects and status quo of Disaster Management institutional arrangements, corporate planning and subsequent coordination. The guidelines are structured in line with the four Key Performance Areas and three Enablers of the National, Provincial and District Disaster Management Frameworks.

#### 4.3.4 Linking Disaster Management Planning and Integrated Development Planning

Risk Assessments will inform and underpin all risk reduction planning, which can be implemented in the following ways.

- Disaster risk is incorporated into risk reduction planning on a strategic level to inform any required interventions:
  - Risk reduction objectives are developed and prioritised (in the DM Chapter);
  - Risk reduction projects are created to support the objectives (project plans in the DM Plan); and
  - Implementation of projects (through the IDP).
- Disaster risk is incorporated into service delivery plans by municipal line departments:
  - Using Risk Assessment information for risk reduction orientated service delivery; and
  - Enhanced or targeted service delivery in high risk or prioritised areas.
- Disaster risk is incorporated into development planning:
  - Risks that potentially affect new developments (whether in planning or building phase) or existing developments/assets/infrastructure are identified and addressed through control measures in the municipality and IDP; and
  - **Disaster Risk Register** in the Disaster Management Chapter serves as the control measure for reducing identified and prioritised developmental risk in order to have sustainable and resilient developments.

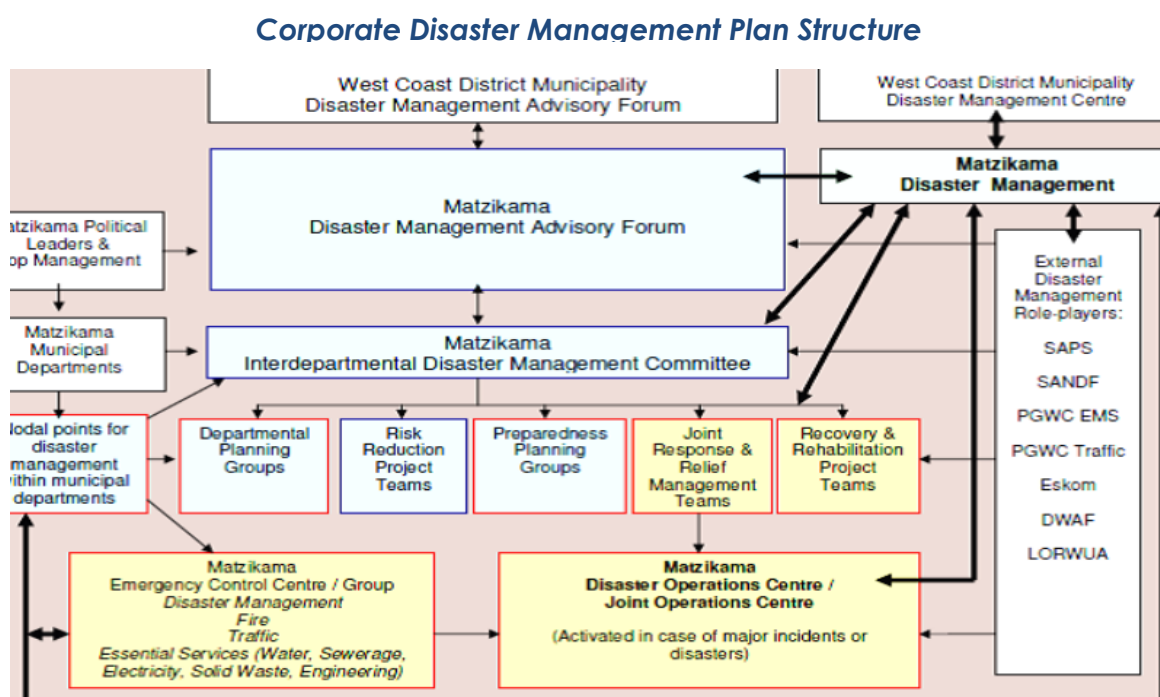
Further reasons for linking Disaster Management (DM) with Integrated Development Planning (IDP) includes:

- Integration - the IDP plays a co-ordinating, facilitating and integrating function between the different sectoral plans – the IDP is a multi-sectoral approach to Disaster Management and is especially necessary for risk reduction initiatives.
- Funding - without inclusion into the IDP, disaster risk reduction projects will not be assigned with a budget and it will therefore not be possible to execute such projects

Since Disaster Management in practice is essentially a management and coordination function, it requires suitable institutional arrangements and subsequent corporate planning activities. This has been found to be a critical aspect and success factor in order for both processes (DM and IDP) to be aligned and functional.

Should a municipality have a binding Disaster Management Policy (which would be based on a District Municipality's Disaster Management Framework) that underwent a council resolution, the required directives and defined arrangements, roles and responsibilities would create the enabling institutional and corporate environment required for effective synchronisation of the Disaster Management and Integrated Development Planning processes.

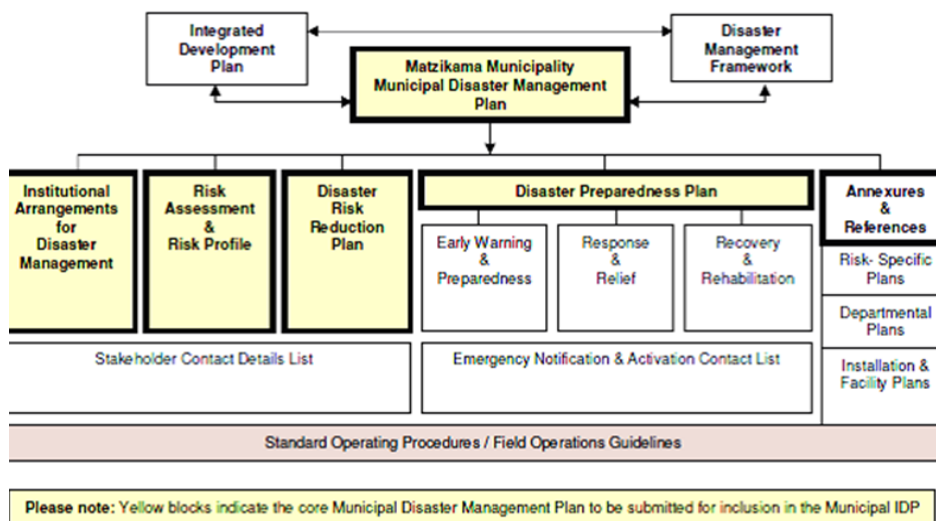
The figure below outlines the required corporate Disaster Management structure in municipalities:





The figure below outlines the structure of a Disaster Management Plan:

### Structure of a Disaster Management Plan



In conclusion, the Disaster Management Act is the legislative backbone, the Disaster Management Frameworks are the approach and vision, whilst the Disaster Management Plan and Disaster Management Chapter in the IDP are the means of coordination and implementation. Disaster Risk Reduction should predominantly take place developmentally, by always factoring prevailing risks from the Risk Assessment in all development projects and service delivery. Since Disaster Management is a collaborative process that involves all spheres of government on the political and administrative levels, including all sectors of society, the predominant challenge therein is for municipalities to facilitate and manage that process of participation, i.e. suitable institutional arrangement and corporate planning.

All municipalities in the Western Cape have been supported with the provision of the Disaster Management Chapter guidelines, where hands-on support was provided to the following municipalities in the 2016/17 financial year:

- Mossel Bay Municipality;
- Stellenbosch Municipality;
- Cederberg Municipality;
- Bergriver Municipality;
- Cape Winelands District Municipality; and
- Eden District Municipality



## 4.4 Preparedness Intervention Strategies

Disaster management plans incorporates elements of preparedness, response and recovery appropriate to the respective functional areas of the different organs of state.

### 4.4.1 Support with the Development of Disaster Management Plans

As part of the Annual Performance Plan for the Department of Local Government, the Provincial Disaster Management Centre provided hands on support to the Western Cape Department of Social Development to review their Disaster Management Plan. This included extensive consultation with the Western Cape Department of Social Development as well as external role-players. This plan included the Key Performance Areas as per the National Disaster Management Policy Framework namely; Integrated Institutional Capacity, Disaster Risk Assessment, Disaster Risk Reduction as well as Response and Recovery.

The PDMC also assisted Matzikama Municipality in the development of their disaster management plan. This assistance required far-reaching hands on support due to the lack of capacity in the municipality.

Over and above the Annual Performance Plan deliverables the following plans were updated and/or developed or commented on:

- The Draft Preparedness plan for nuclear emergencies at Koeberg Nuclear Power Station was workshopped with the City of Cape Town, Eskom, National Disaster Management Centre and National Department of Energy. The draft plan was further disseminated to all stakeholders for comments;
- PDMC Festive Summer Readiness plan which included input from all relevant provincial departments as well as all Head of Centres;
- WC Disaster Response Plan for Terrorism;
- City of Cape Town's Social Disorder Plan;
- Mossel Bay Municipality Landslide Contingency Plan;
- National Oil Spill Contingency Plan;
- National Nuclear Plan;
- Oudtshoorn Disaster Management Municipality;
- Hessequa Disaster Management Municipality;
- Bitou Disaster Management Municipality;
- Kannaland Disaster Management Municipality;

- Standard Operating Procedure for Koeberg Nuclear Plan: Treatment of Radiation Casualty Patients at Medical Facilities in the event of a Radiological or Nuclear Event; and
- Western Cape Disaster Management Election Plan

The PDMC also provided extensive input into the National Guideline for the Development of Disaster Management Plans.

#### **4.4 Developmental Risk Reduction Challenges:**

“Under conditions of fiscal austerity, the diversion of resources to mitigation activities is accompanied by a political risk of diminishing the stature of an immediate priority in favour of averting a future uncertain event. This partly explains a general political reluctance to invest scarce resources to minimise the impacts of future ‘unknowns’ in favour of visible disaster relief in times of crisis—when there is unchallenged justification and humanitarian need, along with the strategic opportunity to generate political capital.” **DISASTER RISK REDUCTION IN SOUTHERN AFRICA, *Hot rhetoric-cold reality* -Alisa Holloway, African Security Review Vol 12 No 1, 2003**

## Chapter 5: Disaster Response and Recovery

### 5.1 Introduction

This key performance area presents implementing priorities concerned with disaster response and recovery and rehabilitation in the Province of the Western Cape. It addresses requirements in the Act for an integrated and co-ordinated policy that focuses on rapid and effective response to disasters and post-disaster recovery. When a significant event or disaster occurs or is threatening to occur, it is imperative that there must be no confusion as to roles and responsibilities and the necessary procedures to be followed. It describes measures to ensure effective disaster response, recovery and rehabilitation planning.

### 5.2 Disaster Response

The centre was not activated during the period under review however the centre was utilised as an Area Command for the coordination of the devastating veld fires during January and February 2017. The PDMC also supported the City of Cape Town during their activation of their centre for the fires on 11 January 2017.

#### *Fires in the Western Cape: January 2017*



## *Fires in the Western Cape: January 2017*



Even though the Western Cape experienced lesser rainfall period than normal during the 2016 winter season, there were flooding incidents from 28 to 30 April 2016 in the City of Cape Municipality, Cape Winelands District Municipality, Overberg District Municipality, Eden District Municipality and West Coast District Municipality. Flooding incidents also occurred over the period of 25 to 29 July 2016 in Overberg District Municipality, Eden District Municipality and the City of Cape Town. Support given to the municipalities includes situation reporting, coordination and media releases.

The planning around the utilisation of the centre as a venue to co-ordinate the Cape Town Cycle tour for the 10<sup>th</sup> year running was carried out. This entailed that all the necessary equipment and resources were planned around using the centre as a Joint Operations Centre. However the cycle tour was, for the first time in 40 years, cancelled on the morning of the tour due to weather conditions.

The PDMC was represented on the National Workgroup in drawing up guidelines for the Minimum Infrastructure Requirements for Disaster Management Centres.

The following organisations visited the centre for disaster management training, information sharing and lessons learned:

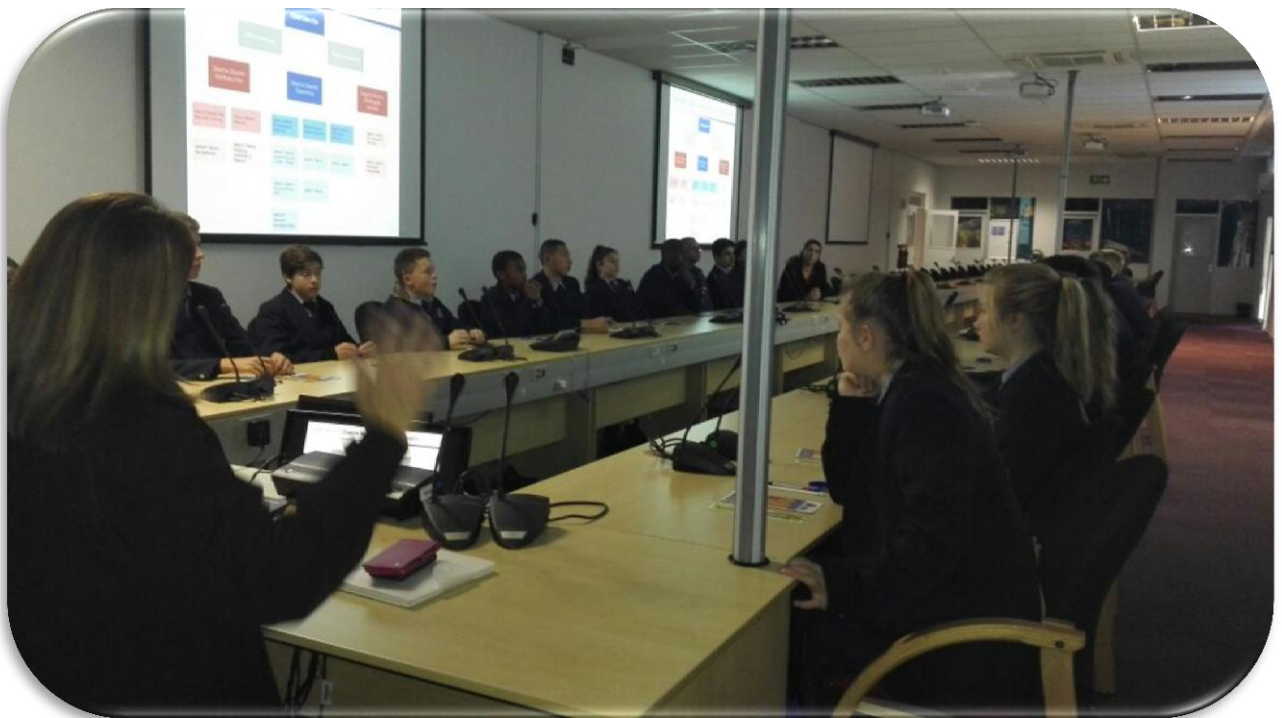
- Stenden University;
- Two Japanese delegations; and
- Curro Situri School



Japanese delegation



Curro Situri School



### **5.3 Disaster Response Planning Committees / Task Teams**

The PDMC is an active member on the Operation Phakisa Response Task Team, whereby extensive interaction as well as training has taken place with regards to the Incident Management/Command System. Furthermore the PDMC participates in the quarterly Emergency Preparedness and the Emergency Planning Steering Oversight Committees which deal with Nuclear Preparedness.

In preparation for the local elections held in August 2016 the PDMC attended the necessary South African Police Provincial Joints Committee and was also represented in their centre on the day of election.

### **5.4 Disaster Response Exercises**

As a first, the Centre in collaboration with the Disaster Management Institute SA held an Incident Command System (ICS) Exercise. This exercise included testing communication and the fundamental concepts of ICS by utilising the scenario of an earthquake which led to the following incidents:

- Hazardous chemicals leakage at Koeberg Nuclear Power Station;
- Structural Collapse of Multi Story Residential Structure in Millerton; and
- Fire at the Chevron Oil Refinery.

The Provincial Disaster Management Centre officials were responsible to establish a Multi-Agency Coordination Team while each of the above incidents established their own Incident Command. Furthermore a simulated media conference was held which provided all role-players with an opportunity to receive exposure not only in ICS but also in dealing with media. Numerous delegates attending the DMISA conference participated in the exercise which was held on 20 September 2016.

The Provincial Disaster Management Centre actively participated in the Annual Koeberg Station exercise as well as the bi-annual National Nuclear Regulator Exercise which were both held during November 2016. Over and above the mentioned exercise mentioned the PDMC participated in the Airports Company SA as well as a Chevron exercise.



**DMISA Conference:  
ICS Exercise**





## 5.5 Disaster Response Capacity Support

For the 2016/17 financial year the PDMC financially supported National Sea Rescue Institute (NSRI) and Lifesaving WC with an amount of R422 000.00 each. In addition to the annual grant a further amount of R585 000.00 was provided to the NSRI for the purchasing of three rubber boats as well as an amount of R242 000.00 was provided to Lifesaving SA for the development of a Drowning Prevention and Water Safety Strategy for the Western Cape Province. It is envisaged that the strategy be completed by November 2017.



***Official Handover of the NSRI and Lifesaving WC annual grant by Minister Anton Bredell and Head of Department Mr Graham Paulse on 1 December 2016***

## 5.6 Disaster Response: Readiness of PDMC

During the 2016/17 the centre underwent a “facelift” with the first phase of a re-design completed. This included the re-location of the current clusters, the electrical, data and network cables and the procurement of additional furniture. With the re-design, the tactical side of the centre can seat extra ten officials bringing the total to 33.

**Before re-design**



**After re-design**



The current Wi-Fi in the centre was extended to the Media Room and the South African Weather Services computer was replaced. The centre also recently upgraded their security by installing a card access control system.

An information/training session was held with all personnel from the centre to ensure they are all knowledgeable on the utilisation of the equipment and systems in the centre. An internal exercise was also held with all personnel to test their preparedness should the centre be activated. The standard operating procedures for the activation and management of the centre was updated and also tested during the exercise.

## **5.7 Disaster Response Challenge**

One of the major challenges is the absence of an Information Management System therefore the PDMC has had an initial engagement with the CSIR on how this gap can be addressed. It is however vital that the National Disaster Management Centre ensures the roll-out of the Situation Reporting System which will ensure that duplication does not take place.

## **5.8 Disaster Recovery**

This key performance area presents implementing priorities concerned with disaster response and recovery and rehabilitation in the Province of the Western Cape. It addresses requirements in the Act for an integrated and co-ordinated policy that focuses on rapid and effective response to disasters and post-disaster recovery.

When a significant event or disaster occurs or is threatening to occur, it is imperative that there must be no confusion as to roles and responsibilities and the necessary procedures to be followed. It describes measures to ensure effective disaster response, recovery and rehabilitation planning.

### **5.8.1 Damage Assessments**

After significant incidents occur, irrespective of the severity (small and large scale), assessments are conducted to ascertain the damage and losses incurred to the infrastructure (municipal or sector departments) and in the case of the agricultural sector, losses with respect to animals that need to be culled, grazing areas and produce. The conducting of assessments to verify the enormity of an incident is legislated in the Disaster Management Act, 200 (Act 57 of 2002, as amended).

During the 2016- 2017 financial year, the Western Cape Province experienced its own share of disasters that culminated into the request for disaster declarations. These disaster declarations were attributed to the protracted drought ravaging the Province. Not only did the Western Cape Province have to contend with the slow on-set of drought, but also the occurrence of landslips – this happened in residential areas (Tuscan village and Seemeeuvlug) in Mossel Bay as well as fires that raged across the Province.

### **5.8.2 Prince Albert Municipality Fire caused by lighting**

During the beginning of the new financial year, the Province had a fiery awakening when approximately 20 000 hectares were destroyed by a fire that was caused by lightning on the property of Cape Nature. Officials from the Provincial Disaster Management Centre, Western Cape Department of Agriculture, Eden and Central Karoo District Municipalities Heads of Centres, the chair of the Prince Albert Farmer's Union, affected farmers and the fire responder of Prince Albert Municipality conducted a site visit during 8 – 9 April 2016 to the affected area to ascertain the damage and losses and also to determine the likelihood of a disaster declaration, should there be a need for it. During the assessment it was established that damage occurred to loss of infrastructure (pipelines, fencing) as well as losses to olive trees, pecan nut trees, the loss of eco-tourism and the damage to a 1km water pipeline that delivers water (domestic) to the farms. Due to the relative small amount of damage incurred (R6 000.00), the Western Cape Department of Agriculture was in a position to fund it.



*Devastation of Fire Damage*



*Damaged Pipeline*





### **5.8.3 Central Karoo District Municipality: Drought**

The Central Karoo District Municipality is an arid region and has the unenviable moniker of always being dry and suffering the effects of a protracted drought.

Assessment of the situation in Central Karoo was conducted within the drought stricken areas of livestock farming. The assessment was conducted by representatives of Western Cape Department of Agriculture, Provincial Disaster Management Centre, specialist Agricultural adviser and representatives of organised farming. Several areas (fifty two) were assessed to identify the most critical for drought relief assistance. The assessment was done in essence to justify the funds that were allocated to the farming community. After the conclusion of this assessment it was recommended that the agricultural drought in the Central Karoo District Municipality be considered with the view to provide much needed fodder relief to approved farmers.

#### ***Drought in Central Karoo District Municipality***



### **5.9 Other Damage Assessments**

During the course of the financial year, several other assessments were also conducted. Not only were assessments done to the normal run-of-the mill hazards, but also some hazards that are not of the norm.

### **5.9.1 Prince Albert Municipality: Transfer of Transnet Borehole**

During November 2016 an assessment was conducted in Prince Albert to justify the transfer of a (Transnet) borehole to the community of Leeu Gamka after 95 housing units was transferred from Transnet to Prince Albert Municipality. Prince Albert was declared as a local disaster area and duly classified as such by the National Disaster Management Centre on 11 January 2016, due to the prevailing drought in the area.

The aforementioned assessment included a visit to the borehole and the community it is purported to serve.

***Transnet Borehole: Leeu Gamka***



### **5.9.2 Breede Valley Municipality: Stettynskloof Pipeline**

During the November 2013 floods, the pipeline at Stettynskloof that supplies potable water to the Worcester community was damaged. Funding through the emergency disaster recovery grant was allocated to Breede Valley Municipality to repair the damage to the pipeline.

On the 5<sup>th</sup> of December 2016, an official of Breede Valley Municipality informed Western Cape Disaster Management that the pipeline at Stettynskloof sustained damage and that they require assistance to repair the steel pipeline. A thorough assessment was

conducted to determine what needed to be done and if funding was required. The municipality requested aerial support to lift and insert a part of the pipe into pipeline.

Representatives of Provincial Disaster Management Centre met with officials from Cape Winelands District Municipality and Breede Valley Municipality on the 7<sup>th</sup> of December 2016, to assist them with the management of the damage incurred to the water pipeline by arranging aerial support from SANDF through National Disaster Management Centre and/or other means.

### ***Damaged Pipeline***



### **5.9.3 Mossel Bay Municipality: Landslide/ Landslip**

A meeting and an assessment was conducted on 19 December 2016 with regards to the landslide/ landslip that occurred in Mossel Bay (Seemeevflug and Tuscan Villas) which affected private dwellings as well as municipal infrastructure. Due to the precarious and life threatening nature of the occurrence, urgent interventions was required to assist the Municipality as well as the residents of these two areas. After the assessment and subsequent meetings, it was decided that a task team be established that would meet weekly to monitor the situation. The head of the Eden District Disaster Management Centre informed the stakeholders that they will request a disaster declaration with regard to the landslide in order to financially assist the Municipality with the aim to mitigate the risks.



*Damaged houses due to the Landslide: Tuscan Village*



*Damaged house in Seemeevlug*



## 5.10 Disaster Declarations and Classifications:

### 5.10.1 Disaster Declaration: Drought

Disaster declarations classified by the NDMC on 11 January 2016, were extended on a monthly basis after a period of three months for the following municipalities:

- Central Karoo District Municipality (agricultural drought);
- West Coast District Municipality (agricultural drought);
- Witzenberg Municipality, supported by Cape Winelands District Municipality;
- Prince Albert Municipality; and
- Oudtshoorn Municipality

The above municipalities were supported by the Sub-Directorate Recovery with the coordination of technical and financial support. Relevant sector departments such as the National Department of Water and Sanitation: Western Cape, Western Cape Department of Agriculture, Department of Environmental Affairs and Development Planning, Western Cape Department of Local Government: Municipal Infrastructure and Provincial Treasury were consulted for technical, financial and advisory support. In terms of the agricultural sector, the Western Cape Department of Agriculture assisted with livestock feed (animal fodder relief) of a total support package of R78.4 million, of which R12 million was provided by National Department of Agriculture, Forestry and Fisheries and centrally distributed. Both commercial and emerging farmers were financially supported within the Central Karoo and West Coast District Municipal areas.

The three municipalities of Witzenberg, Prince Albert and Oudtshoorn were supported to the amount of R37.2 million where the Western Cape Departments of Local Government and Treasury undertook re-prioritization of budgets in order to support them with drought mitigation initiatives, such as the drilling and equipping of boreholes. Thus the total package of support amounted to R 115.6 million.

During March 2017 the City of Cape Town; Kannaland and Witzenberg municipalities declared local states of disasters. This prompted the Provincial Disaster Management Centre to notify Provincial Cabinet on 22<sup>nd</sup> March 2017 of the drought situation.

Further assessments took place and it is likely that more municipalities might also declare local states of disasters for drought during April 2017.

### 5.10.2 Disaster Declaration: Mossel Bay Landslides

Mossel Bay Municipality notified both Eden District Municipality and the PDMC about the declaration of a local state of disaster owing to the landslides of two hills where residential developments took place. If supported by Eden District Municipality, it will be forwarded to the PDMC for further consideration and support.

### 5.10.3 Disaster Declaration: Fires in the Western Cape

During the past fire season many fires (estimated at more than 17 000) ravaged large parts of the province. A major informal settlement fire also took place at Imizamo Yethu, Hout Bay within the boundaries of the City of Cape Town. The latter is considering declaring a local state of disaster for this fire where more than 15 000 people have been displaced. An assessment and site visit is planned to take place on 11<sup>th</sup> April 2017 together with the National Disaster Management Centre to be appraised of the situation.

## 5.11 Monitoring of Funded Projects: Disaster Recovery Conditional Grants

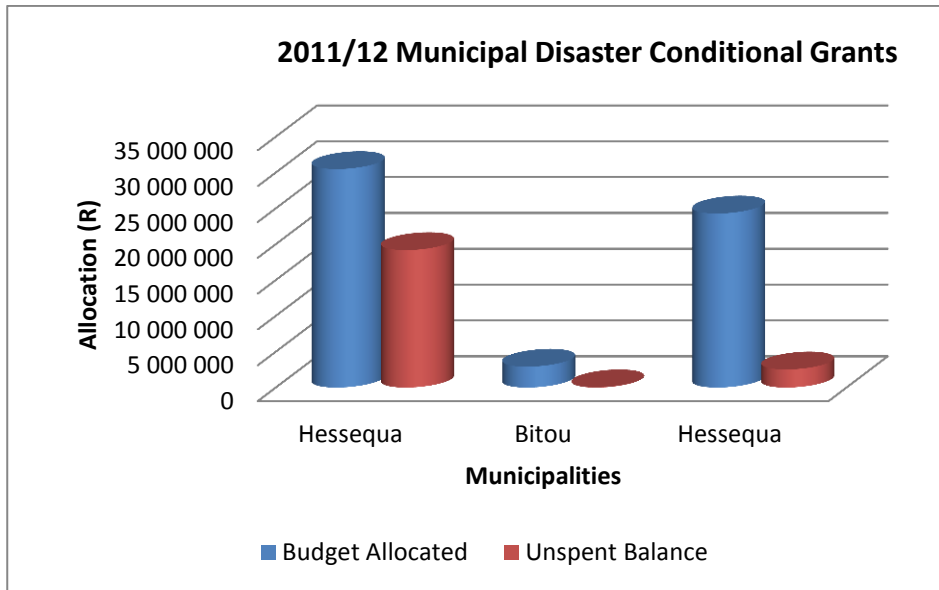
### 5.11.1 Flood events: June 2011 and July 2012 floods

The combined allocation of these two events was done in November 2013, including funds for the 2014 to 2016 MTEF period. The final tranche was transferred during the 2015/16 financial year. The below tables and graphs depicts the 2011/12 expenditure and project completion progress in terms of Municipal and Provincial Conditional Grants. See below table and graphs in terms of the 2011/12 Municipal and Provincial Disaster Conditional Grants:

**Table: Municipal Disaster Conditional Grant 2011/ 12**

2011/12 Municipal Disaster Conditional Grants				
Municipality	Budget Allocated	Expenditure to Date	Unspent Balance	Project Status
Hessequa	R 30 489 560.00	R 11 307 900.00	R 19 181 660.00	37.09% Completed
Bitou	R 2 915 143.00	R 2 880 919.00	R 34 224.00	100% Completed
Hessequa	R 24 292 524.00	R 21 763 746.00	R 2 528 778.00	37.09% Completed

**Graph: Municipal Disaster Conditional Grant 2011/ 12**

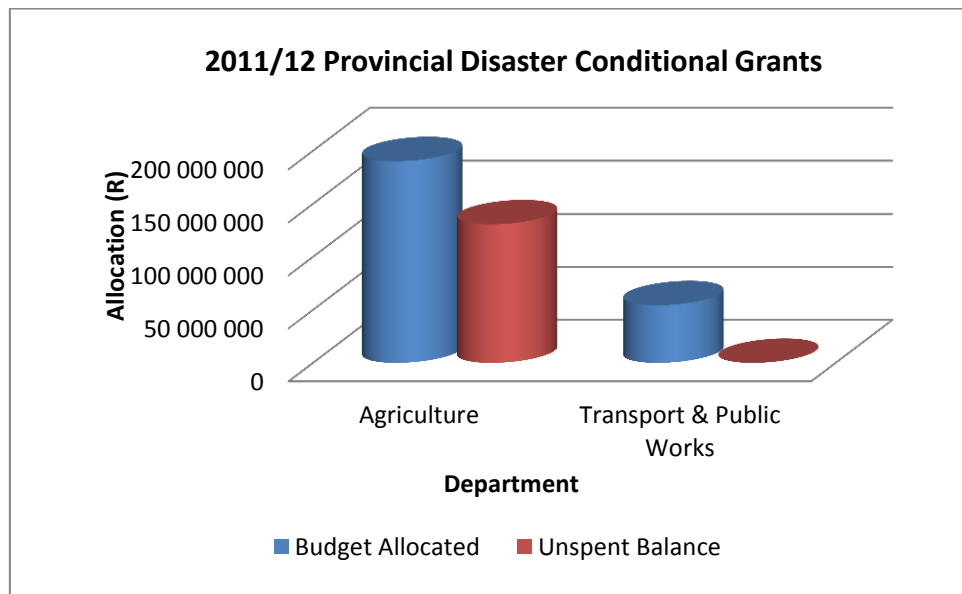


**Table: Provincial Disaster Conditional Grant 2011/ 12**

2011/12 Provincial Disaster Conditional Grants				
Department	Budget Allocated	Expenditure to Date	Unspent Balance	Project Status
Agriculture	R 190 263 000.00	R 59 586 746.00	R 130 676 254.00	31% Completed
Transport and Public Works	R 54 360 000.00	R 89 233 000.00	(R 34 873 000.00)	100% Completed

*Note: The over expenditure in terms of Transport and Public Works was internally funded.*

**Graph: Provincial Disaster Conditional Grant 2011/ 12**



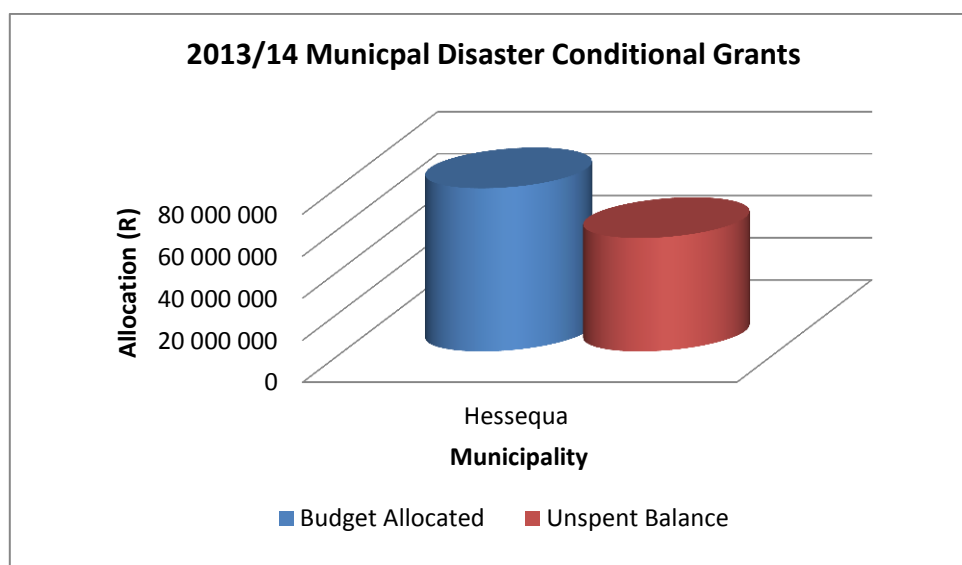
### 5.11.2 Flood event: November 2013 and January 2014

The combined allocation of these two events was done in February 2015 and the first tranche transferred during March 2015. The second tranche was transferred during the 2016/17 financial year. These funds must be spent over the 2015 to 2018 MTEF period. The below tables and graphs depicts the 2013/14 expenditure and project completion progress in terms of Municipal and Provincial conditional Grants. See below table and graphs in terms of the 2013/14 Municipal and Provincial Disaster Conditional Grants:

**Table: Municipal Disaster Conditional Grant**

2013/14 Municipal Disaster-Conditional-Grants				
Municipality	Budget Allocated	Expenditure to Date	Unspent Balance	Project Status
Hessequa	R 77 568 091.00	R 23 644 277.00	R 53 923 814.00	41.25% Completed

**Graph: Municipal Disaster Conditional Grant 2013/14**

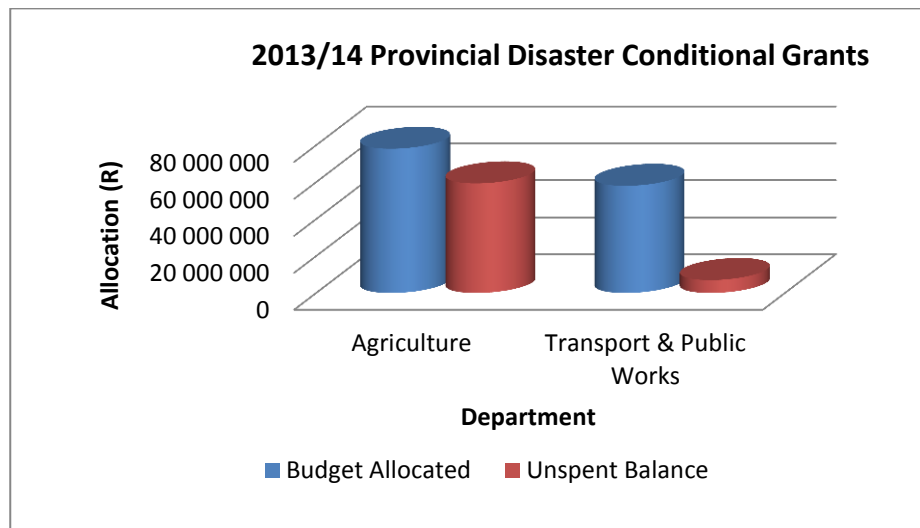


**Table: Provincial Disaster Conditional Grant 2013/14**

2013/14 Provincial Disaster Conditional Grants				
Department	Budget Allocated	Expenditure to Date	Unspent Balance	Project Status
Agriculture	R 78 060 317.00	R 18 723 839.00	R 59 336 478.00	24% Completed
Transport and Public Works	R 58 000 000.00	R 50 997 000.00	R 7 003 000.00	87% Completed



**Graph: Provincial Disaster Conditional Grant 2013/14**



### 5.11.3 Monitoring of funded projects

Project site visits were undertaken for monitoring purposes of funded projects on a quarterly basis during this financial year, with respect to rehabilitation and reconstruction of infrastructural flood damages. The project monitoring is done together with National Disaster Management Centre, Municipalities and Provincial sector Departments.

### *Re-construction and repairs of damaged houses in Bitou*





**Flood damaged Brak River stream in Albertinia, before and during construction**



**Re-construction of washed away bridge and road**



**Agricultural projects – strengthening of riverbank, Heidelberg**



## 5.12 Disaster Recovery Challenges

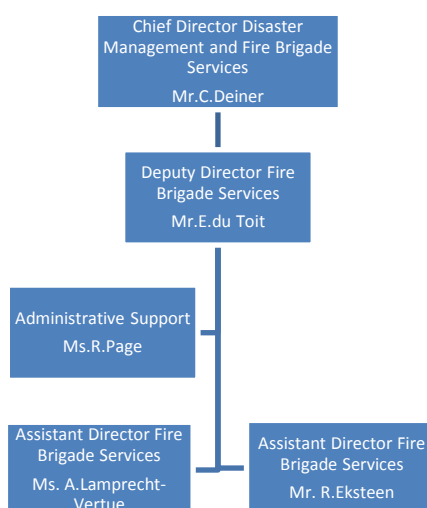
Challenges occurred pertaining to the roll-overs of unspent funds, where municipalities failed to adequately apply for the roll-over of funds within the national treasury prescripts. The Provincial Disaster Management Centre regularly submits monthly expenditure and progress reports to the NDMC of all funded projects.

## Chapter 6: Fire Brigade and Rescue Services

### 6.1 Provincial Fire Brigade and Rescue Services Capacity

Fire Brigade Services is a dedicated sub-directorate within the Chief Directorate Disaster Management and Fire Brigade and Rescue Services in the Department of Local Government of the Provincial Government of the Western Cape. A Deputy Director is responsible for the Sub-directorate: Fire Brigade and Rescue Services reporting in terms of line function to the Chief Director Disaster Management and Fire Brigade and Rescue Services.

#### *Fire Brigade and Rescue Services: Organogram*



The organogram for the Sub-directorate Fire Brigade Services is completed by two Assistant Directors both reporting to the Deputy Director Fire Brigade Services. Administrative support is provided by a Senior Administrative Assistant.

The Sub-directorate is furthermore supported by non-line functionary sections within the Chief Directorate Disaster Management and Fire Brigade Services namely; transport, office administration, archiving, communication and Geospatial Information management.

The PDMC as the competent authority and provide for the administration of the Fire Brigade Services Act and concomitant legislation for and on behalf of the Provincial Government of the Western Cape.

## 6.2 Fire Brigade Services Forums

The Sub-directorate Fire Brigade Services supports the secretariat function of the following committees:

- Category of Authorized Persons;
- Provincial Fire Working Group; and
- Western Cape Chief Fire Officers Committee

## 6.3 Capacity Support Initiatives

The PDMC has formalised and supported various agreements to ensure Fire Brigade Services capacity to respond effectively to fires. The below table lists such agreements:

<b>Current Memoranda of Understanding and Mutual Aid Agreements</b>		
<b>Between</b>		<b>Purpose</b>
<b>Western Cape Department of Local Government</b>	Breede Valley Municipality	Urban Search and Rescue Cooperative agreement
<b>Western Cape Department of Local Government</b>	Cape Nature	Fire awareness campaign
<b>Western Cape Department of Local Government</b>	FFA Aviation (Pty)Ltd	Aerial Fire Fighting
<b>Western Cape Department of Local Government</b>	Eden District Municipality	Aerial Fire Fighting
<b>Western Cape Department of Local Government</b>	Overberg District Municipality	Aerial Fire Fighting
<b>Western Cape Department of Local Government</b>	City of Cape Town Municipality	Aerial Fire Fighting
<b>Western Cape Department of Local Government</b>	Cape Winelands District Municipality	Aerial Fire Fighting
<b>Western Cape Department of Local Government</b>	West Coast District Municipality	Aerial Fire Fighting
<b>City of Cape Town Metropolitan Municipality</b>	West Coast District Municipality	Mutual aid agreement in the event of fire and other large scale event
	Cape Winelands District Municipality	Mutual aid agreement in the event of fire and other large scale event

	Overberg District Municipality	Mutual aid agreement in the event of fire and other large scale event
	Eden District Municipality	Mutual aid agreement in the event of fire and other large scale event
	Central Karoo District Municipality	Mutual aid agreement in the event of fire and other large scale event
<b>City of Cape Town Metropolitan Municipality</b>	Chevron	Mutual aid agreement in the event of fire and other large scale event
<b>City of Cape Town Metropolitan Municipality</b>	Port of Cape Town	Mutual aid agreement in the event of fire and other large scale event
<b>City of Cape Town Metropolitan Municipality</b>	Eskom (Koeberg)	Mutual aid agreement in the event of fire and other large scale event
<b>City of Cape Town Metropolitan Municipality</b>	ACSA-Cape Town international Airport	Mutual aid agreement in the event of fire and other large scale event
<b>City of Cape Town Metropolitan Municipality</b>	Denel-munitions	Mutual aid agreement in the event of fire and other large scale event
<b>City of Cape Town Metropolitan Municipality</b>	South African National Parks	Mutual aid agreement in the event of fire and other large scale event
<b>Cape Winelands District Municipality</b>	Mountains to Oceans/Cape Nature	Mutual aid agreement in the event of fire and other large scale event.
<b>Mosselbay Municipality</b>	Petro SA	Mutual aid agreement in the event of fire and other large scale event.

## 6.4 Institutional Arrangements for Veld Fire Management

Fire is a natural and essential ecological process in most of Western Cape's Fynbos. However, as was vividly illustrated during the past fire seasons, it can also have undesirable social and economic impacts, threatening human health, safety and property. Balancing the potential benefits and risks of veld and forest fire is a complex task for land, natural resource and fire managers. It is also a task that is vital to public safety and the sustainable management of Fynbos and catchment areas in the Province.

The Western Cape Provincial Government recognized that a strategic shift is needed to proactively manage the benefits and risks of veld and forest fires to meet the immediate and longer-term needs of society, preserve a healthy Fynbos ecosystem and to protect our catchment areas. The Western Cape Veld Fire strategy objectives are as follows:

<b>Objective 1</b>	To establish a well-co-ordinated early detection rapid response strategy that is financially sustainable.
<b>Objective 2</b>	To develop and maintain a Knowledge Management System, which can be used by all spheres of government and other agencies involved with fire management that will ensure well informed decisions relating to fire and fuel load management.
<b>Objective 3</b>	To ensure the sustained availability of appropriate fire management resources so as to efficiently practice integrated fire management In terms of knowledge, personnel and equipment quality and quantity.
<b>Objective 4</b>	To ensure a sustained budget so as to address the long term integrated fire management activities which include alien vegetation management.
<b>Objective 5</b>	To develop and strengthen effective partnerships with relevant government bodies, agencies, and departments as well as private entities so as to support integrated fire management.
<b>Objective 6</b>	To ensure that integrated fire management plans protect our critical infrastructure, natural ecosystems and catchment areas.
<b>Objective 7</b>	To develop awareness strategies that will raise the awareness of the importance of integrated fire management at an organizational, municipal and provincial level to reduce the incidence of ignitions and property loss.



## 6.5 Fire Response

The Provincial Government of the Western Cape through its Chief Directorate: Disaster Management and Fire Brigade and Rescue Services have embarked on a proactive approach to managing veld fires, which occur in certain parts of the Province mainly between the months of December and April each year. The aforesaid proactive approach to managing these fires includes the rapid response of aerial fixed wing aircraft and helicopters which can be deployed to respond to fires in their incipient stages and commence an early fire attack with the objective of preventing extended attack operations and major fire spread. This strategy was used with great success during the 2016/17 summer season.



***Fires in the  
Western Cape***



The Western Cape veld fire plan provides the various responsible fire authorities and agencies with an overview of the current arrangements that are in place for the management of veld and forest fires in the Province. The Plan contains an overview of veld fire preparedness, prevention and response arrangements. It also reflects an integrated approach and shared responsibility for veld and forest fire management between government, agencies, communities and individuals.

## 6.6 Fire Awareness

This project arose from the recognition that fire related injuries are a major contributor to premature death, disability, harm and loss of property to the citizens of South Africa. It emphasises preventing fire related injuries before they occur. It further emphasises the need to bring together Government Departments to strengthen the implementation of evidence-based fire safety and injury prevention interventions through a strategic evidence-led and co-ordinated endeavour to changing the social, behavioural and environmental factors that cause fire injuries. Integral to this is the development of effective policies and identification of evidence based programmes to be implemented that contribute to the reduction of fire related deaths and injuries. Furthermore this report integrates the efforts of diverse scientific disciplines, organisations and communities and implies that the combined participation of Government is essential for successful and sustained fire prevention efforts at all levels of society. The prevention of fire deaths and injury, for which there is no single silver bullet, necessitates a concerted and coordinated, inter-sectorial response.

## 6.7 Western Cape Strategic Framework

The Western Cape Strategic Framework for Fire and Burn Injury Prevention has been developed to support the prioritisation of programmes that will help prevent fires and burn injuries in the Western Cape. This Framework is a strategic endeavour to change key environmental, social and behavioural factors that contribute to the causation of fires and burns. The Strategic Framework highlights evidence-led recommendations for the Western Cape Local Government Department to develop operational plans that utilise proven fire and burn injury prevention interventions. The Framework draws on the public health and disaster risk perspectives, which have been successfully applied across settings to integrate the efforts of multiple sectors in the implementation of evidence led injury prevention strategies.

The Framework highlights the most common fire and burn injury settings and affected populations in the Western Cape. While the Framework targets the prevention of risk factors specific to these priority groups and settings, it also emphasises the promotion of supportive institutional factors. The Strategic Framework focuses on the prevention of fires and burn injuries.

The Framework focuses upon primary (i.e. on pre-injury circumstances), secondary (i.e. on conditions specific to the injury event) and selected tertiary prevention (or rehabilitative)



priorities. It offers department-specific prevention objectives, with the requisite flexibility to allow for the individual or collective uptake by Departments of fire and burn injury prevention opportunities. This Framework foregrounds the coordinating role of the Western Cape DLG, which manages the department of Fire and Rescue Services that is tasked with the control of fires. The DLG, however, does not hold the sole mandate for the prevention of burns or the management of its consequences.

## 6.8 Smoke Alarm Installation Project

The Western Cape Disaster Management and Fire and Rescue Services in conjunction with the Breede Valley Municipal Fire Department have initiated a project to install battery operated smoke alarms in high fire risk dwellings - such as informal settlement shacks. The key elements that are emphasised in the programme include:

- Targeting communities at greatest risk from fire (people with disabilities, elderly, etc);
- Partnering with municipality and fire departments;
- Developing strong collaborations with individuals and community organisations;
- Using local coordinators (e.g. ward councillors);
- Employing local youth to install the fire alarms through the Expanded Public Works Programme;
- Conducting door-to-door visits (e.g. using a home visitation programme);
- Combining the smoke alarm installations with fire safety education;
- Providing incentives and recognition for staff and volunteers; and
- Monitoring and evaluating the programme (site visits, surveys, data collection).

Currently over 4000 smoke alarms have been installed within the identified high risk communities. The installation teams were either made up of members employed through the Expanded Public Works Programme (EPWP) or members from the community itself. The teams, who were familiar with the high risk locations, visited each dwelling with the local ward councillor and conducted a home visitation with the adult occupants present. Door to door campaigns such as this allow community members to see and interact with firefighters in a non-emergency situation. This builds trust in the community and allows firefighters the opportunity to conduct further site visits when required.

Before the team members actually installed a smoke alarm in a particular household, they obtained the resident's signature on an indemnity form. In addition, an installation survey allowed the crew to record important information about the dwellings they visited, as well as the number of smoke alarms they installed or batteries they replaced. The survey was

conducted to also gather information on the total number of people living in the dwelling, energy sources used, number of rooms etc. Each smoke alarm is marked with a unique number and a GPS enabled camera was used to take a photograph of the dwelling in which the alarm was installed. Once installed, each smoke alarm is tested in the presence of the occupant. In addition to the free smoke alarms, educational pamphlets were distributed explaining the purpose of the project, what to do when the smoke alarms sounds as well as some basic fire safety tips.

Conducting home visits to install smoke alarms is an immediate approach to efficiently intervene in high-risk communities. Visits provide the opportunity to identify and fix nonfunctioning alarms, properly install new alarms in locations and provide personalised feedback and education based on household risk factors (e.g., fire escape plan). Additionally, this approach significantly increases the prevalence of smoke alarm use and functionality in high-risk dwellings.

The overall goal of any successful smoke alarm programme is to save lives, therefore monitoring and evaluating the programme's effectiveness is key. The programme design stage took into consideration how the programme will be tracked, measured and evaluated. Follow-up site visits and base line home surveys are used to determine the extent of behaviour changes and also to check on the condition of the smoke alarms. Providing data on the positive impact and lives saved will be used to obtain further support and funding for the project.

### ***Installation of Smoke Alarms***





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