



TSWELOPELE

LOCAL MUNICIPALITY
A MUNICIPALITY IN PROGRESS



TSWELOPELE LM DISASTER RISK MANAGEMENT PLAN

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Author(s)	Ms Avela Mananga
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A. ACRONYMS

Acronym	Explanation
AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Treatment
CBA	Critical Biodiversity Areas
CBDRA	Community Based Disaster Risk Assessment
CBEWS	Community Based Early Warning System
CRU	Climate Research Unit
LDM	Lejweleputswa District Municipality
DFFE	Department of Forestry, Fisheries and the Environment
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism
DMA	Disaster Management Act 57 of 2002 as Amended
DMU	Disaster Management Unit
DRA	Disaster Risk Assessment
DWA	Department of Water and Sanitation
FSUFPA	Free State Umbrella Fire Protection Association
E.g.	Example
Etc.	Etcetera
FDI	Fire Danger Index
FDR	Fire Danger Rating
FPA	Fire Protection Associations
GHG	Greenhouse Gas
GIS	Graphic Information System
HIV	Human Immunodeficiency Virus
HIRV	HIRV Model (Hazard, Impact, Risk and Vulnerability)
IAP	Invasive Alien Plant
IDP	Integrated Development Plan
KPA	Key Performance Area
LGCCS	Local Government Climate Change Support
LM	Local Municipality
MDMC	Municipal Disaster Management Centre
NDMC	National Disaster Management Centre
NDMF	National Policy Framework for Disaster Management in South Africa
NGO	Non-Governmental Organisation
PDMC	Provincial Disaster Management Centre
PGFS	Provincial Government Free State
PLHIV	People Living with HIV
POE	Portfolio of Evidence
RSA	Republic of South Africa
SANDF	South African National Defence Force
SANRAL	South African National Roads Agency
SAPS	South African Police Service
SAWS	South African Weather Service
TLM	Tswelopele Local Municipality
SMUG	SMUG Model (seriousness, managing urgency and growth)
SPI	Standardised Precipitation Index
TB	Tuberculosis

A. Terminology

The following terminology¹ is utilised in this document:

Term	Definition
Capacity	The combination of all strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals.
Contingency Planning	A management process that analyses specific potential events or emerging situations that may threaten society or the environment and establishes arrangements to enable timely, effective and appropriate responses to such events and situations.
Development planning	An integrated, multi-sectoral process through which governmental institutions streamline social, economic and spatial growth.
Disaster	A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.
Disaster Risk	The potential disaster losses, in lives, health, status, livelihoods, assets and services, which could occur to a particular community or society over some specified future time period.
Disaster Management	The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster. This term is an extension of the more general term 'Risk Management' to address the specific issue of disaster risks. Disaster Management aims to avoid, lessen or transfer the adverse effects of hazards through activities and measures for prevention, mitigation and preparedness.
Disaster Risk Reduction	The conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development.
Disaster Risk Reduction Plan	A document prepared by an authority, sector, organization or enterprise that sets out goals and specific objectives for reducing disaster risks together with related actions to accomplish these objectives.
Early Warning Systems	The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss by reducing or mitigating disaster risk. It incorporates a system of data collection and analysis that monitors people's well-being (including security), in order to provide timely notice when an emergency threatens, and thus to elicit an appropriate response. An Early Warning System is the integration of four main elements: Risk Knowledge; Monitoring and Predicting; Disseminating Information; and Response. Failure of any part of the system will imply failure of the whole system.
Hazard	A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage,

loss of livelihoods and services, social and economic disruption, or environmental damage. Hazards can include latent conditions that may represent future threats and can have different origins: natural (geological, hydro meteorological and biological) or induced by human processes (environmental degradation and technological hazards). Hazards can be single, sequential or combined in their origin and effects. Each hazard is characterized by its location, intensity, frequency and probability

Impact The terms Primary Impact and Secondary Impact are used to describe the different causes and scales of potential impacts from a hazard event:

Primary Impacts are also called direct impacts.

Secondary Impacts are often referred to as indirect or induced impacts. This does not imply that Secondary Impacts are of secondary importance ~ in many cases the effects on biodiversity and the environment from secondary impacts are much more significant than those of primary impacts

Mitigation The lessening or limitation of the adverse impacts of hazards and related disasters.

Preparedness The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions. These activities and measures include the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations.

Prevention The outright avoidance of adverse impacts of hazards and related disasters.

Recovery The restoration and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.

Residual Risk The risk remains in unmanaged form, even when effective disaster risk reduction measures are in place, and for which emergency response and recovery capacities must be maintained.

Resilience The capacity of a system, community or society is potentially exposed to hazards to adapt by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase this capacity for learning from past disasters for better future protection and to improve disaster risk reduction measures.

Response The provision of emergency services and public assistance during or immediately after a disaster in order to: save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected. These measures can be for immediate, short-term or protracted duration.

Risk The combination of the probability of an event and its negative consequences.

Risk Assessment A methodology to determine the nature and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that

together could potentially harm exposed people, property, services, livelihoods and the environments on which they depend.

Risk Management The systematic approach and practice of managing uncertainty to minimize potential harm and loss.

Vulnerability The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard. Conditions of vulnerability and susceptibility to the impact of hazards are determined by physical, social, economic and environmental factors or processes

B. EXECUTIVE SUMMARY

Tswelopele Local Municipality (TLM), in terms of the Disaster Management Act, 2002 (Act 57 of 2002) amended as Act 16 of 2015, is required to compile a municipal Disaster Management plan. This document fulfils the legal requirement as set out in the Disaster Management Act as amended and the Policy Framework for Disaster Management in South Africa and confirms the arrangements for managing disaster risk and for preparing for- and responding to disasters within Tswelopele Local Municipality. The development of Tswelopele Local Municipality Disaster Management Plan has culminated into chapters which are arranged as follows:

Chapter 1 deals with the introduction and provides a background to the project. It describes the legal requirements that inform the Disaster Management responsibilities of various role-players and stakeholders and provides insight into current compliance with the relevant legislation, primarily the Disaster Management Act as amended. The structure of the Disaster Management Plan is also explained and linked to the key performance areas and enablers of the policy framework for disaster management in South Africa, also known as the National Disaster Management Framework (NDMF).

Chapter 2 addresses requirements for the establishment of integrated institutional capacity for Disaster Management within Tswelopele Local Municipality. The plan outlines the institutional capacity required for effective Disaster Management which includes the establishment of a local municipality disaster management advisory forum, technical committees and a disaster management unit which should incorporate a 24-hour emergency control and communications facility.

In Chapter 3 the risk profile of Tswelopele Local Municipality is provided based on the risk assessment which was conducted in all the 09 wards of Tswelopele Local Municipality. The high risks identified within the municipality wards include localised flooding, vegetation fires, strong winds, drought, severe Thunderstorms, road accidents, tornado, structural fires.

Chapter 4 deals with disaster risk reduction planning to reduce those risks identified in the previous chapter. Disaster risk reduction project proposals have been formulated for priority risks, and a risk reduction process is described in the beginning of the chapter. These proposals will remain guidelines which will need to be adapted to the specific prevailing circumstances when they are put into use.

In Chapter 5 response and recovery issues are highlighted. Preparedness plans for priority risks are introduced and the preparedness capacity of the municipality is described which leads to the identification of certain gaps and recommendations. Subsequently, an any-hazard response procedure is presented that will form the basis of response to all major incidents and disasters. Additional hazard-specific contingency plans are listed after which the declaration of a state of disaster and disaster classification is discussed.

The chapter concludes with the identification of additional gaps and recommendations. The remaining chapters contain arrangements for the review and maintenance of the plan, a summary of the plan, as well as several annexures including contact details and additional descriptions of corporate responsibilities for Disaster Management. In summary, it can be said that several sections of the plan contain implementation actions that are required to ensure the effective implementation of this plan. The most important of these are summarized below:

- A 24-hour Communication Control Centre has to be established to monitor emergency and essential services' communications and early warning information systems and identify

developing emergencies and disasters so that appropriate response can be activated during major incidents and disasters.

- The municipality should institute the compulsory consideration of Disaster Management in the planning and execution stages of all IDP projects. This will ensure the integration of Disaster Management into the IDP and will ensure that all plans and projects are focused on contributing to disaster risk reduction and disaster preparedness – thus reducing the impact of disasters on lives, property, community activities, the economy and the environment in the municipality.
- The municipality should regularly review and update its plan, as required by Section 48 of the Disaster Management Act, 2002 as amended. The Disaster Management Advisory Forum shall be responsible for the review of the municipal disaster management plan on an annual basis where there is a need.

CHAPTER 1

INTRODUCTION

Emergencies and disasters respect no boundaries and can destroy life and property suddenly and without warning. The South African government has recognised the need to prepare for and to reduce the risk of disasters and has made provision for such measures through the three spheres of government in partnership with the private sector and civil society.

Tswelopele Local Municipality is not immune to emergencies and disasters and annually suffers the impact of various human-induced and natural hazards that have the potential to kill, injure, destroy and disrupt. The municipality is committed to ensuring the safety of its inhabitants and the sustainability of its communities, economy, environment and therefore intends to effectively manage disaster risk within Tswelopele Local Municipality in close collaboration with all relevant stakeholders and especially the wards within the local municipality.

Tswelopele Local Municipality is required as per the Disaster Management Act, 2002 (Act No. 57 of 2002) as amended, to compile municipal Disaster Management plan. This document fulfils this legal requirement and confirms the arrangements for managing disaster risk and for preparing for- and responding to disasters within Tswelopele Local Municipality.

The intended outcomes of this plan are:

- The integration of Disaster Management into the strategic and operational planning and project implementation of all line functions and role players within Tswelopele Local Municipality.
- The creation and maintenance of resilient communities within Tswelopele Local Municipality; and
- An integrated, fast and efficient response to emergencies and disasters by all role-players.

The overall objective of this document is not only to define the essential elements and procedures for preventing and mitigating major incidents or disasters, but also to ensure rapid and effective response and aspect specific contingency planning in case of a major incident or disaster that will:

- Save lives.
- Reduce risk exposure.
- Reduce suffering.
- Protect property.
- Protect the environment.
- Reduce economic and social losses; and
- Provide for the safety and health of all responders.

In this chapter the study area will be described, after which the compilation of the Disaster Management plan will be presented with specific attention given to the relationship between the plan and the Key Performance Areas of the Policy Framework for Disaster Management (National Disaster Management Framework) in South Africa.

1.1 General Area Description

Tswelopele Local Municipality is a Category B municipality, which falls in the Lejweleputswa District area and is situated in the north western parts of the Free State and borders the North West Province to the north, and it is about 100 km north west of Bloemfontein. The geographic area of the municipality is 652.043 square kilometers. The major towns that form part of the Tswelopele Local Municipality are Bultfontein/Phahameng and Hoopstad/Tikwana as well as their surrounding rural areas. the municipality has a population of 56,896 people and 14,799 households.

Tswelopele Local Municipality is primarily responsible for the implementation of the Disaster Management Act (No. 57 of 2002 as amended) within its area of jurisdiction, with a specific focus on ensuring effective and focused, integrated and standardised disaster risk reduction planning. The local municipality is exposed to a wide range of weather hazards, including drought, fires and severe thunderstorms that can trigger widespread hardship and devastation.

In order to minimise disaster impacts, decrease disaster risk, reduce hazards and vulnerability and to increase capacity and resilience, it is necessary to compile and implement a comprehensive Disaster Management plan. Disaster Management is a continuous and integrated multi-sectoral and multidisciplinary process of planning and implementation of measures aimed at preventing or reducing the risk of disasters; mitigating the severity or consequences of disasters; ensuring emergency preparedness; enabling a rapid and effective response to disasters and facilitating post-disaster recovery and rehabilitation.



Figure 1 illustrates how the various work streams within Disaster Management increase and decrease in intensity and resource requirements over time as crises approach and are dealt with. The figure further demonstrates that Disaster Management involves the simultaneous management of several disaster risks in various stages of the life cycle of disaster risks.

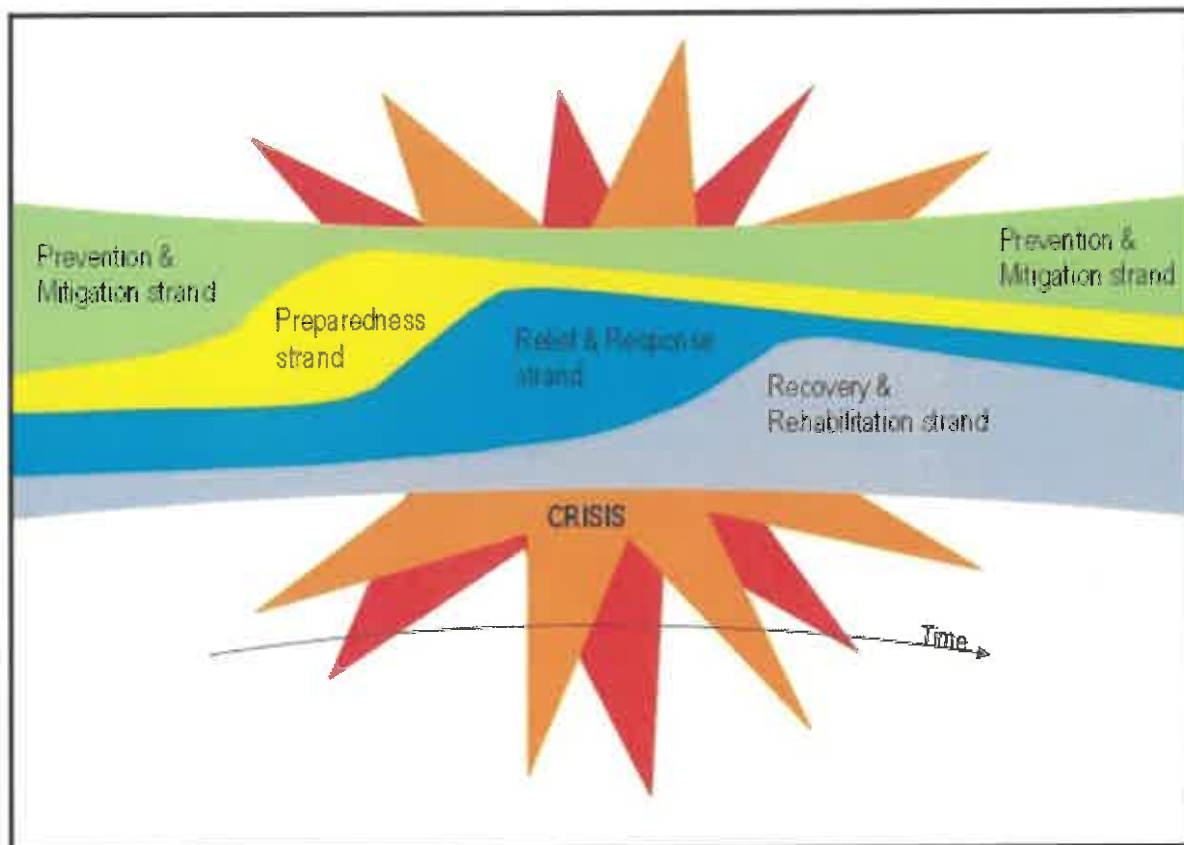


Figure 1: The expand / contract model of Disaster Management

The South African government has responded to the negative consequences of disasters by developing legislation (The Disaster Management Act, 2002 – Act No. 57 of 2002) as amended and national policy (The Policy Framework for Disaster Management in South Africa, 2005) to deal with the management of disaster risk and disaster impact.

The Disaster Management Act as amended, hereafter termed the Act, provides for an integrated and co-ordinated Disaster Management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, emergency preparedness, rapid and effective response to disasters and post-disaster recovery. The Disaster Management Act prescribes the establishment of national, provincial and municipal Disaster Management centres. Most importantly in the context of this document, the Disaster Management Act also requires the compilation of Disaster Management Plans in all spheres of government. Tswelopele Local Municipality is primarily responsible for the implementation of the Act within its area of jurisdiction, with a specific focus on ensuring effective and focused disaster risk reduction planning.

1.2 Disaster Management Plan (DMP) Description

1.2.1 Objectives of the DMP

The Policy Framework for Disaster Management in South Africa indicates that the main objectives of Disaster Management in any particular jurisdiction within South Africa, such as the Local Municipality, are to:

- Establish integrated institutional capacity within the municipality to enable the effective implementation of Disaster Management policy and legislation.

- Establish a uniform approach to assessing and monitoring disaster risks that will inform disaster management planning and disaster risk reduction undertaken by the municipality and other role-players.
- Develop and implement integrated disaster management plans and risk reduction programmes in accordance with approved frameworks; and
- Ensure effective and appropriate disaster response and recovery.

The objectives of the DMP are aligned to the National Policy Framework and are thus to focus on:

- The development of institutional capacity for disaster management through the establishment of a local municipal disaster management advisory forum and related management structures and processes.
- The completion of a disaster risk assessment and related reports and guidelines.
- The development of risk reduction planning (strategy) and related products; and
- The development of operational response and recovery plans and related products.

1.2.2 Scope of the DMP

This DMP falls within the paradigm of the South African (National), Free State (Provincial), Lejweleputswa (District) and Tswelopele Disaster Management Frameworks as well as the strategy frameworks of the LDM. The DMP applies to the whole of Tswelopele Local Municipality and will influence the interaction of all spheres of government and sectors of society within the local Municipality with regards to disaster risk and disaster impact.

Tswelopele Local Municipality DMP will function as a guideline for the practical implementation of all aspects of Disaster Management within the Local Municipality and will serve as management decision-making tool that will assist with the identification of disaster risks and the functional and organisational integration of disaster risk reduction as well as disaster response actions and projects.

Tswelopele Local Municipality DMP will therefore provide Disaster Management stakeholders with clear guidance on activities they need to undertake to meet the objectives and targets of the National, Provincial and the District Municipality Disaster Management Framework and to reduce disaster risk and increase disaster resilience within the municipality.

The Policy Framework for Disaster Management in South Africa, also known as the National Disaster Management Framework (NDMF) was published in 2005. It is the legal instrument specified by the Act to address needs for consistency across multiple interest groups by providing a coherent, transparent, and inclusive policy on Disaster Management appropriate for the republic as a whole.

1.2.3 TSWELOPELE LOCAL MUNICIPALITY DMP APPROACH AND METHODOLOGY

The methodology used during the compilation of Tswelopele Local Municipality DMP is aligned with existing methodologies and practice utilised within the Lejweleputswa District and the Free State Province and is aligned with the Policy Framework for Disaster Management in South Africa.

The overall approach combines participatory-consultative aspects with expert opinion based on research and experience. The data used in the compilation of the DMP was gathered from stakeholder consultation as well as a desktop study which summarised existing data provided by Tswelopele Local Municipality officials and other supporting documents retrieved from credible internet sources.

1.2.4 Stakeholder Consultation

The approach for managing the assembly of Tswelopele Local Municipality DMP entailed a close collaboration and liaison with the top management of Tswelopele Local Municipality and Disaster Management, and the Stakeholder representatives from the nine wards within the municipality. Engagements were made within the 9 wards and government departments and stakeholders within the municipality to obtain relevant data of the risks to be addressed for the development of Tswelopele Local Municipality Disaster Risk Management Plan.

CHAPTER 2

LEGAL REQUIREMENTS APPLICABLE TO TSWELOPELE LOCAL MUNICIPALITY

South Africa is prone to a variety of natural and human-induced hazards, which occasionally lead to loss of property and lives. In the past decade, these hazard occurrences have become more frequent and severe. The Constitution of the Republic of South Africa (Act 108 of 1996) gives everyone the right to a safe environment. Section 24 states that everyone has the right to an environment that is not harmful to their health or well-being.

The National Government recognised a need to establish an institutional framework that allows for risk prevention and rapid action during an occurrence and has taken certain steps towards this end, such as:

- **The constitution of the republic of south Africa, 1996**
- **White Paper on Disaster Management:** The White Paper introduced a new paradigm in the management of disasters, by placing an emphasis on risk reduction and preparedness.
- **Disaster Management Act (the Act):** The White Paper led to the promulgation of the Disaster Management Act, Act No. 57 of 2002, which is the regulatory framework for Disaster Management in South Africa. The Department of Cooperative Governance (COG), through the National Disaster Management Centre (NDMC), administers the Act.
- **Disaster Management Amendment Act, Act no 16 of 2015**
- **National Disaster Management Framework (NDMF):** The NDMC has prepared a Policy Framework for Disaster Management in South Africa, which aims to guide the development and implementation of Disaster Management in the country.
- **National Disaster Management Centre Guidelines:** The NDMC developed guidelines for the establishment of disaster management centres (DMCs).
- **Provincial Disaster Management Generic Plans.**

CHAPTER 3

INTERGRATED INSTITUTIONAL CAPACITY

The NDMF is organised into four Key Performance Areas (KPA's) and three Enablers as illustrated in Figure 2:

The four KPA's of the NDMF correspond with the main sections of the DMP and thus serves as the document structure as illustrated in Figure 2.

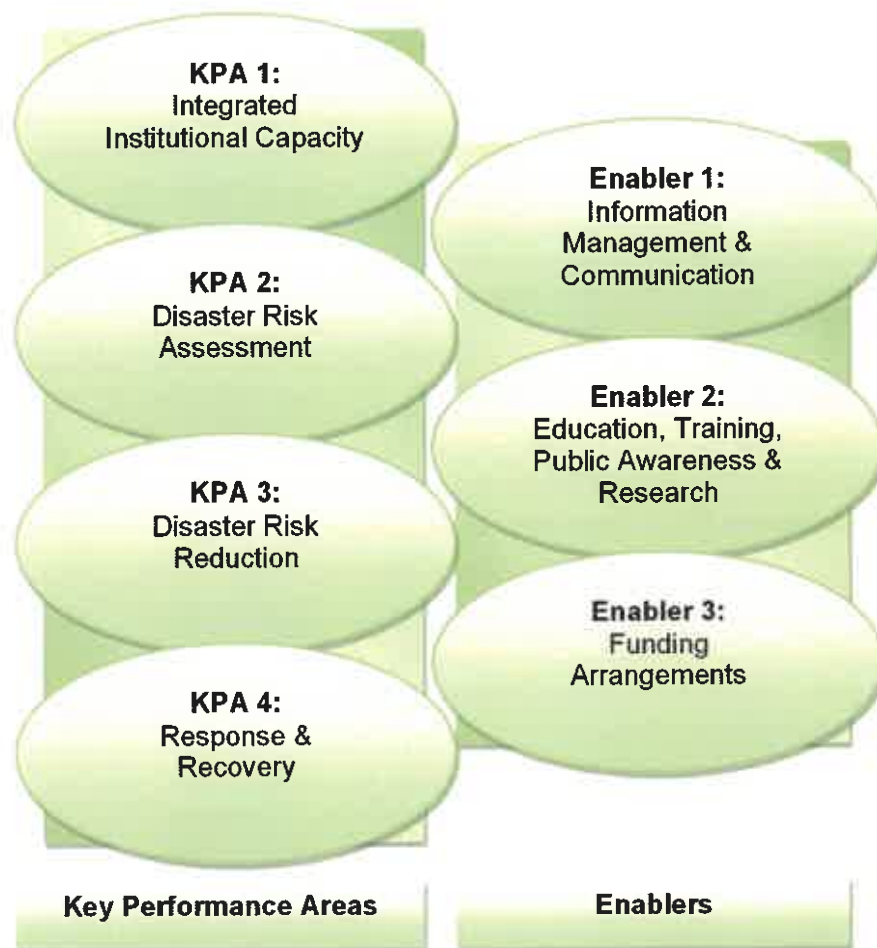


Figure 2 KPA's and Enablers of the National Disaster Management Framework

The four KPA's and the three Enablers are:

- KPA 1: Integrated Institutional Capacity for Disaster Management.
- KPA 2: Disaster Risk Assessment.
- KPA 3: Disaster Risk Reduction.
- KPA 4: Response and Recovery.
- Enabler 1: Information Management and Communication.
- Enabler 2: Education, Training, Public Awareness and Research; and
- Enabler 3: Funding Arrangements for Disaster Management.

In the table on the overleaf the KPA's and Enablers are illustrated with the main objective for each of these KPA's and Enablers indicated in the right-hand column

Table 1: NDMF KPA's, Enablers and Objectives

NDMF KPA's and Enablers	National Framework objectives translated to District-level objectives
KPA 1: Integrated Institutional Capacity for Disaster Management	Establish integrated institutional capacity for Disaster Management within Tswelopele Local Municipality to enable the effective implementation of Disaster Management policy and legislation.
KPA 2: Disaster Risk Assessment	Establish a uniform approach to assessing and monitoring disaster risks that will inform Disaster Management planning and disaster risk reduction undertaken by organs of state and other role players.
KPA 3: Disaster Risk Reduction	Ensure all Disaster Management stakeholders develop and implement integrated Disaster Management plans and risk reduction programmes in accordance with approved National, Provincial (Free State), District (Lejweleputswa) and Local Municipality (Tswelopele LM) frameworks.
KPA 4: Response and Recovery	Ensure effective and appropriate disaster response and recovery by: <ul style="list-style-type: none"> • Implementing a uniform approach to the dissemination of early warnings. • Averting or reducing the potential impact in respect of personal injury, health, loss of life, property, infrastructure, environments and government services. • Implementing immediate integrated and appropriate response and relief measures when significant events or disasters occur or are threatening to occur. • Implementing all rehabilitation and reconstruction strategies following a disaster in an integrated and developmental manner.
Enabler 1: Information Management and Communication	Development of a comprehensive information management and communication system. Establish integrated communication links with all Disaster Management role players.
Enabler 2: Education, Training, Public Awareness and Research	Promote a culture of risk avoidance among Disaster Management stakeholders within Tswelopele Local Municipality by capacitating all role players through integrated education, training and public awareness supported by scientific research.
Enabler 3: Funding Arrangements for Disaster Management	Establish mechanisms for the funding of Disaster Management in Tswelopele Local Municipality.

Both the Free State Provincial Disaster Management Framework and the Lejweleputswa District Disaster Management Frameworks are structured around the KPA's, and Enablers as set out in the Policy Framework for Disaster Management in South Africa.

3.1 A brief description of each KPA and Enabler

Each of these KPA's and Enablers are further elaborated upon in the Disaster Management Frameworks of the Free State Province, Lejweleputswa District Municipality and Tswelopele Local Municipality.

3.1.1 KPA 1: Integrated Institutional Capacity for Disaster Management

Key Performance Area 1 of the Policy Framework for Disaster Management in South Africa (NDMF) establishes the requirements for effective institutional arrangements in the national sphere to ensure the integrated and coordinated implementation of Disaster Management policy and legislation and the application of the principle of co-operative governance. Key Performance Area 1 also places appropriate emphasis on arrangements that will ensure the involvement of all stakeholders in Disaster Management in order to strengthen the capabilities of national, provincial and municipal organs of state. Arrangements that will facilitate co-operation with countries in the region and the international community for the purpose of Disaster Management are also discussed.

3.1.2 KPA 2: Disaster Risk Assessment

Disaster risk specifically refers to the likelihood of harm or loss due to the action of hazards or other external threats on vulnerable structures, services, areas, communities and households within an area. Key Performance Area 2 addresses the need for conducting ongoing disaster risk assessments and monitoring to inform Disaster Management planning and priority setting, guide disaster risk reduction efforts and monitor the effectiveness of such efforts. It also outlines the requirements for implementing disaster risk assessment and monitoring by organs of state within all spheres of government.

3.1.3 KPA 3: Disaster Risk Reduction

The successful implementation of the Act critically depends on the preparation and alignment of Disaster Management frameworks and plans for all spheres of government. The legal requirements for the preparation of Disaster Management frameworks and plans by national, provincial and municipal organs of state are specified in sections 25, 38 and 52 of the Act as amended. This Key Performance Area addresses the requirements for Disaster Management planning within all spheres of government. It gives particular attention to the planning for and integration of the core risk reduction principles of prevention and mitigation into ongoing programmes and initiatives.

3.1.4 KPA 4: Response and Recovery

The Act requires an integrated and coordinated policy that focuses on preparedness for disasters, rapid and effective response to disasters and post-disaster recovery and rehabilitation. When a significant event or disaster occurs or is threatening to occur, it is imperative that there should be no confusion as to roles, responsibilities, funding arrangements and the procedures to be followed. This section addresses key requirements that will ensure that planning for disaster response and recovery as well as rehabilitation and reconstruction achieves these objectives.

3.1.5 Enabler 1: Information Management and Communication

Disaster Management is a collaborative process that involves all spheres of government, non-governmental organisations, the private sector, and a wide range of capacity-building partners and communities. Integrated Disaster Management depends on access to reliable hazard and disaster risk information as well as effective communication systems to enable the receipt, dissemination, and exchange of information. It therefore requires capabilities to manage risks on an ongoing basis, and

to effectively anticipate, prepare for, respond to and monitor a range of natural and other hazards. It further requires systems and processes that will enable all role players to make timely and appropriate decisions during emergencies. These systems and processes must also inform Disaster Management and development planning processes by all stakeholders.

3.1.6 *Enabler 2: Education, Training, Public Awareness and Research*

Sections 15 and 20(2) of the Disaster Management Act as amended specify the promotion of education and training, the encouragement of a broad-based culture of risk avoidance, and the promotion of research into all aspects of Disaster Management. This Key Performance Area addresses the development of education and training for Disaster Management and associated professions as well as the inclusion of Disaster Management and risk-avoidance programs in school curricula. It also outlines mechanisms for awareness creation and the development of a national disaster risk research agenda.

3.1.7 *Enabler 3: Funding Arrangements for Disaster Management*

The provision of funding for Disaster Management is likely to constitute the single most important factor contributing to the successful implementation of the Act by national, provincial and municipal spheres of government. The Act as amended, with the exception of Chapter 6 on funding of post-disaster recovery and rehabilitation, does not provide clear guidelines for the provision of funding for Disaster Management. In order to give effect to the requirements of the Act as amended, four key performance areas and three enablers have been identified in the NDMF to guide the implementation of the Act as amended. Accordingly, funding from a range of sources for the different aspects of Disaster Management outlined in the key performance areas and enablers will be required. Enabler 3 builds on the recommendations made by the Financial and Fiscal Commission on funding arrangements in its submission on the Division of Revenue Act and describes the Disaster Management funding arrangements for organs of state in the national, provincial and local spheres of government. From the perspective of the municipality, it is important that all the enablers and key performance areas are adequately addressed in the framework and the Disaster Management plan of the district.

In this plan, the key performance areas are reflected in specific dedicated chapters, while the enablers are interwoven into all chapters of the plan. Figure 3 illustrates the relationship between the chapters of the plan and the KPAs and Enablers of the National Framework.

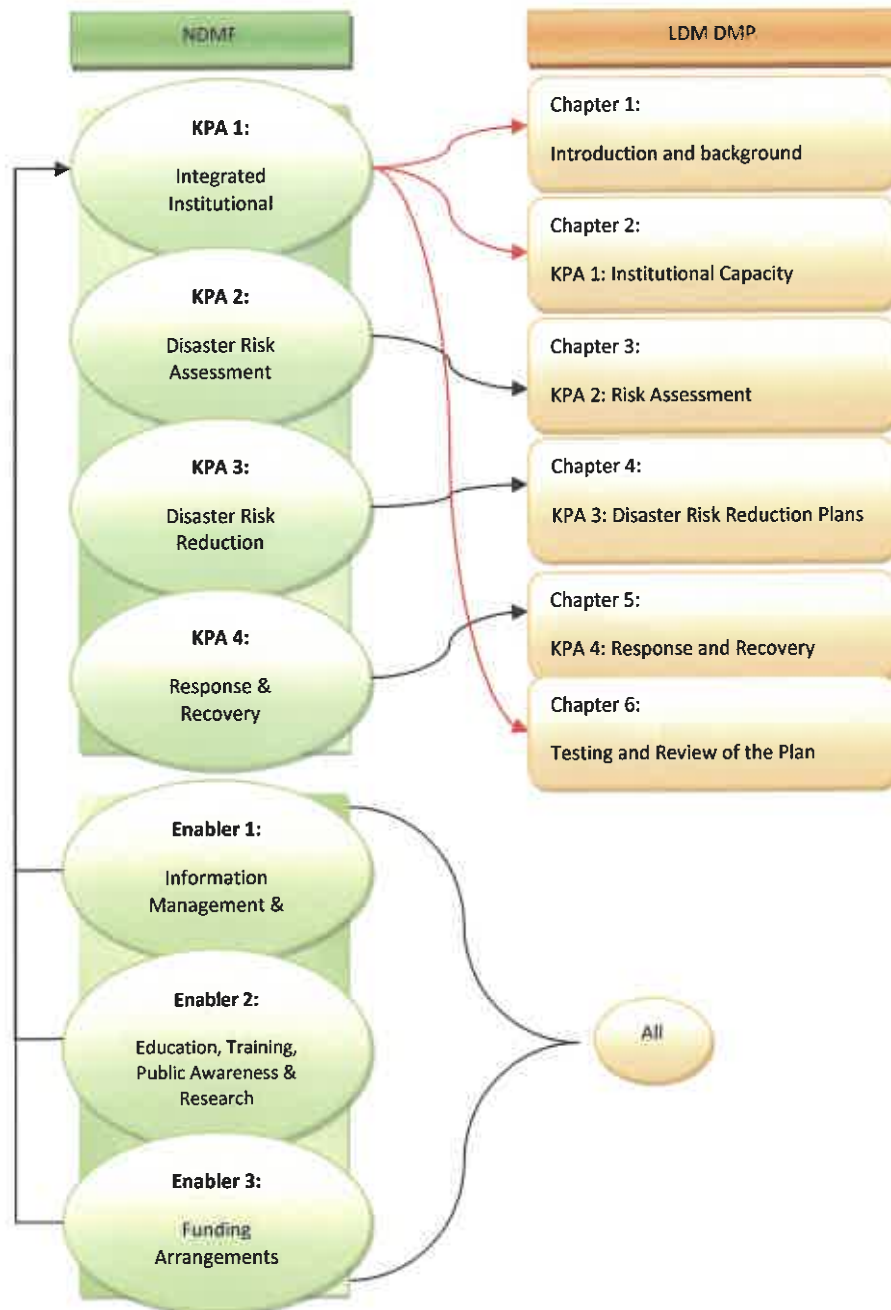


Figure 3: The Interrelationship between the NDMF and the Tswelopele Disaster Management plan (LDM DMP)

CHAPTER 4

RISK ASSESSMENT

Disaster risk assessment is the first step in planning an effective disaster risk reduction programme. A disaster risk assessment examines the likelihood and outcomes of expected disaster events. This includes investigating the related hazards and conditions of vulnerability that increase the chance of loss. The risk assessment done for the purpose of this Disaster Management Plan included a literature review, the identification and consulting of sources of historic information, and workshops and focus groups with subject specialists and Disaster Management stakeholders within the local municipality.

4.1 Risk Profile of Tswelopele Local Municipality

The first step in developing a risk profile is hazard identification. A hazard is a potentially damaging physical event, phenomenon or human activity, which may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards are typically categorised into natural, technological and environmental hazards.

Natural hazards are natural processes or phenomena occurring in the biosphere that may constitute a damaging event. Natural Hazards are typically classified into:

- *Geological Hazards:* Natural earth processes or phenomena in the biosphere, which include geological, neo-tectonic, geo-physical, geo-morphological, geo-technical and hydro-geological nature.
- *Hydro Meteorological Hazards:* Natural processes or phenomena of atmospheric, hydrological or oceanographic nature.
- *Biological Hazards:* Processes of organic origin or those conveyed by biological vectors, including exposure to pathogenic micro-organisms, toxins and bioactive substances.

Technological hazards constitute danger originating from technological or industrial accidents, dangerous procedures or certain human activities, which may cause the loss of life or injury, property damage, social and economic degradation.

Environmental hazards are processes induced by human behaviour and activities (sometimes combined with natural hazards), that damage the natural resource base or adversely alter natural processes or ecosystems.

To identify the typical hazards in Tswelopele Municipal area, a table indicating the hazards was developed in conjunction with ward representatives during consultative risk assessment.

Table 2: Identified priority risks for Tswelopele Local Municipal area

Localized Flooding
Vegetation Fire
Lightning
Strong winds
Tornado
Drought
Severe Thunderstorms
Structural Fire
Diseases
Road Accidents
Heavy Snowfall

4.2 Education, Training, Public Awareness and Research

Sections 15 and 20(2) of the Disaster Management Act as amended specify the promotion of education and training, the encouragement of a broad-based culture of risk avoidance, and the promotion of research into all aspects of Disaster Management. This Key Performance Area addresses the

development of education and training for Disaster Management and associated professions as well as the inclusion of Disaster Management and risk-avoidance programs in school curricula.

It also outlines mechanisms for awareness creation and the development of a national disaster risk research agenda.

4.3 Funding Arrangements for Disaster Management

The provision of funding for disaster management is likely to constitute the single most important factor contributing to the successful implementation of the Act by national, provincial and municipal spheres of government. The Act as amended, with the exception of Chapter 6 on funding of post-disaster recovery and rehabilitation, does not provide clear guidelines for the provision of funding for disaster management. In order to give effect to the requirements of the Act as amended, four key performance areas and three enablers have been identified in the NDMF to guide the implementation of the Act as amended. Accordingly, funding from a range of sources for the different aspects of disaster management outlined in the key performance areas and enablers will be required. Enabler 3 builds on the recommendations made by the Financial and Fiscal Commission on funding arrangements in its submission on the Division of Revenue Act and describes the Disaster Management funding arrangements for organs of state in the national, provincial and local spheres of government. From the perspective of the Municipality, it is important that all the Enablers and Key Performance Areas are adequately addressed in the framework and the Disaster Management plan of the district.

CHAPTER 5

DISASTER RISK REDUCTION

Disaster risk reduction involves focused activities to reduce vulnerability, increase capacity and resilience, and avoid or reduce hazards that may affect specific elements at risk. Disaster risk reduction plans providing for prevention and mitigation strategies have been compiled based on best practice and capacity within the district.

5.1 Risk reduction process

The process described here can be considered as a Standard Operating Procedure (SOP) for Risk Reduction.

The success of risk reduction efforts will rely heavily on the results of a thorough disaster risk assessment (hazard and vulnerability assessment). The completion of a detailed risk assessment is a prerequisite for this process. Community-based risk mapping and risk assessments can also provide valuable information to base risk reduction planning on. Using the risk assessment, the first step in risk reduction will be to identify priority risks.

For each priority risk, the following process should be followed:

- Analyse the risk, through consultation if required.
- Determine stakeholders who can influence the risk (hazard / vulnerability / capacity).
- Convene stakeholders meeting.
- Determine primary and secondary responsibility on a consensus basis (this might already be in place – see Institutional Capacity chapter).
- Develop risk reduction strategy options in a participative manner.
- Evaluate the developed risk reduction strategy options.
- Decide on most viable risk reduction strategies and describe these in detailed proposals.
- Submit proposals to Tswelopele Local Municipality Advisory Forum meeting
- Upon approval from Tswelopele Local Municipality Advisory Forum meeting, perform risk reduction programmes and ensure inclusion of programmes into Municipal IDP.

5.2 The Disaster Management Act (the Act)

The Disaster Management Act, Act No. 57 of 2002 as amended (the Act), requires that, inter alia, the three spheres of government prepare **Disaster Management Plans** (Sections 39 and 53 of the Act).

Section 39 of the Act addresses the disaster management planning requirements for Provinces, namely:

“(1) Each province must-

- (a) prepare a disaster management plan for the province as a whole;*
- (b) co-ordinate and align the implementation of its plan with those of other organs of state and institutional role-players; and*
- (c) regularly review and update its plan.*

(2) A disaster management plan for a province must-

- (a) form an integral part of development planning in the province;*
- (b) anticipate the types of disaster that are likely to occur in the province and their possible effects;*
- (c) guide the development of measures that reduce the vulnerability of disaster-prone areas, communities and households;*
- (d) seek to develop a system of incentives that will promote disaster management in the province;*
- (e) identify the areas or communities at risk;*
- (f) take into account indigenous knowledge relating to disaster management;*
- (g) promote disaster management research;*
- h) identify and address weaknesses in capacity to deal with possible disasters:*
- (l) provide for appropriate prevention and mitigation strategies;*
- (j) facilitate maximum emergency preparedness; and*
- (k) contain contingency plans and emergency procedures in the event of a disaster, providing for-*
 - (l) the allocation of responsibilities to the various role-players and*
 - (ii) prompt disaster response and relief;*
 - (iii) the procurement of essential goods and services;*
 - (iv) the establishment of strategic communication links;*
 - (v) the dissemination of information; and*
 - (vi) other matters that may be prescribed.*

(3) Municipal organs of state in the province, to the extent required by the province, may be requested to co-operate with the province in preparing a disaster management plan for the province.

(4) A province must submit a copy of its disaster management plan and of any amendment to the plan to the National Centre and each municipal disaster management Centre in the province.”

Section 53 of the Act addresses the disaster management planning requirements for Municipal Areas, namely:

(1) Each municipality must, within the applicable municipal disaster management framework-

- (a) prepare a disaster management plan for its area according to the circumstances prevailing in the area;*
- (b) co-ordinate and align the implementation of its plan with those of other organs of state and institutional role-players;*
- (c) regularly review and update its plan; and*
- (d) through appropriate mechanisms, processes and procedures established in terms of Chapter 4 of the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000), consult the local community on the preparation or amendment of its plan.*

(2) A disaster management plan for a municipal area must-

- (a) form an integral part of the municipality's integrated development plan;*
- (c) anticipate the types of disaster that are likely to occur in the municipal area and their possible effects;*
- (d) place emphasis on measures that reduce the vulnerability of disaster-prone areas, communities and households;*
- (e) seek to develop a system of incentives that will promote disaster management in the municipality;*
- (e) identify the areas, communities or households at risk;*
- (f) take into account indigenous knowledge relating to disaster management;*
- (g) promote disaster management research;*
- (h) identify and address weaknesses in capacity to deal with possible disasters;*
- (l) provide for appropriate prevention and mitigation strategies:*
- (j) facilitate maximum emergency preparedness; and*
- (k) contain contingency plans and emergency procedures in the event of a disaster, providing for-*
 - (i) the allocation of responsibilities to the various role-players and co-ordination in the carrying out of those responsibilities;*
 - (ii) prompt disaster response and relief;*
 - (iii) the procurement of essential goods and services;*
 - (iv) the establishment of strategic communication links;*
 - (v) the dissemination of information; and*
 - (vi) Other matters that may be prescribed.*

(3) A district municipality and the local municipalities within the area of the district municipality must prepare their disaster management plans after consulting each other.

(4) A municipality must submit a copy of its disaster management plan, and of any amendment to the plan,

to the National Centre, the disaster management Centre of the relevant province, and, if it is a district Municipality or a local municipality, to every municipal disaster management Centre within the area of the district municipality concerned.”

The current understanding of the Act as amended as it relates to *Disaster Management Plans* is that Municipalities must plan for the following:

- Disaster Risk Reduction (Disaster Mitigation) Planning:** *Disaster Risk Reduction Plans* should reduce the risks to which vulnerable communities are exposed to acceptable levels (described in Sections 39 (2) and 53 (2) (a); (b); (c); (e); (f); (h) and (l) of the Act). In preparing their Risk Reduction Plans, Municipalities should apply their minds and produce cost-effective and innovative risk reduction solutions. The majority of these plans will be linked to the ***Integrated Development Plan*** (IDP) as projects and programmes.

5.3 Requirements for national departments and public enterprises to compile plans

Tswelopele Local Municipality working in isolation of other organs of state and the private sector would not be able to significantly reduce the variety of disaster risks which confront the inhabitants of the municipality. Disaster Management is truly everybody’s business and collaboration, and co-operation would be required to reduce disaster risk. The success of Tswelopele Local Municipality DMP depends on effective planning by several other stakeholders as illustrated in the figure below.

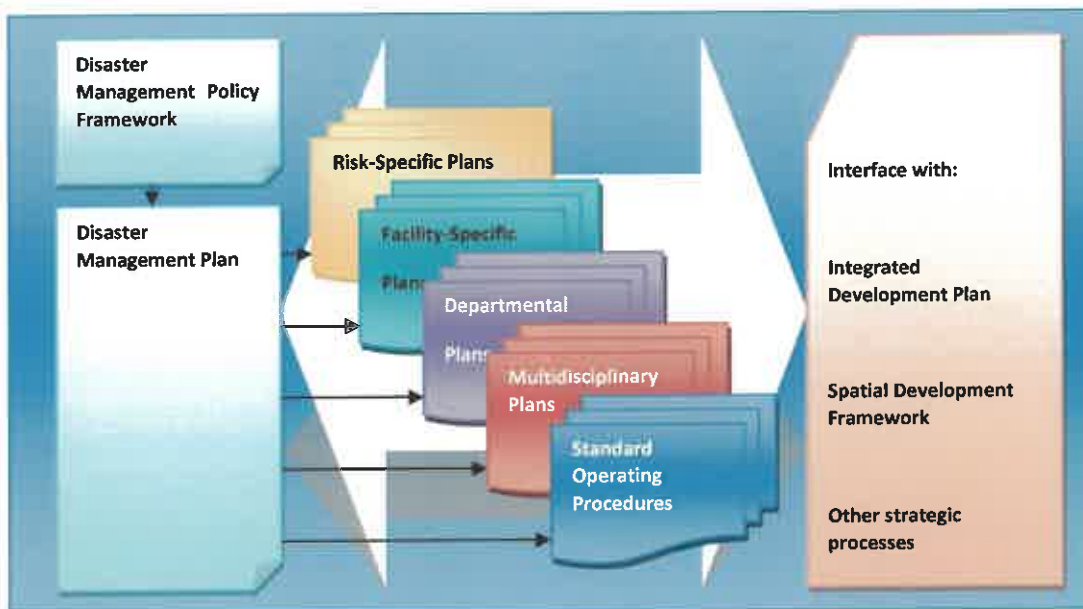


Figure 1: The relationship between plans

National government departments and public enterprises operating within the boundaries of Tswelopele Local Municipality can make considerable contributions to disaster risk reduction within the local municipality through the compilation of their own Disaster Management plans. This sub-section describes the legal requirement for national departments and public enterprises to conduct Disaster Management planning.

Part 2, Section 25 of the Disaster Management Act as amended governs the preparation of disaster management plans by national organs of state:

(1) Each national organ of state indicated in the Policy Framework for Disaster Management in South Africa must prepare a disaster management plan setting out (l) the way in which the concept and

principles of disaster management are to be applied in its functional area; (ii) its role and responsibilities in terms of the Policy Framework for Disaster Management in South Africa; (iii) its role and responsibilities regarding emergency response and post disaster recovery and rehabilitation; (v) its capacity to fulfil its role and responsibilities; (vi) particulars of its disaster management strategies; and (vi) contingency strategies and emergency procedures in the event of a disaster, including measures to finance these strategies; co-ordinate and align the implementation of its plan with those of other organs of state and institutional role-players; and regularly review and update its plan.

(2) The disaster management plan of a national organ of state referred to in subsection (1) must form an integral part of its planning.

(3) (a) A national organ of state must submit a copy of its disaster management plan and of any amendment to the plan to the National Centre. (b) If a national organ of state fails to submit a copy of its disaster management plan or of any amendment to the plan in terms of paragraph (a), the National Centre must report the failure to the Minister, who must take such steps as may be necessary to secure compliance with that paragraph, including reporting the failure to Parliament.

Section 1 of the Act describes a national organ of state as a national department or national public entity defined in section 1 of the Public Finance Management Act, 1999 (Act No. 1 of 1999). A national department is described in the same section as *'(a) a department listed in schedule 1 of the Public Service Act, 1994 (Proclamation No. 103 of 1994), but excluding a provincial administration; or (b) an organisational component listed in Schedule 3 of that Act².*

According to Section 1 of the Public Finance Management Act, 1999 (Act No. 1 of 1999), a national public entity means *'(a) a national government business enterprise or (b) a board, commission, company, corporation, fund or other entity (other than a national government business enterprise) which is (i) established in terms of national legislation; (ii) fully or substantially funded either from the National Revenue Fund, or by way of a tax. Levy or other money imposed in terms of national legislation; and (iii) accountable to Parliament.'*

In the same section a national government business enterprise is defined as an entity which *'(a) is a juristic person under the ownership control of the national executive; (b) has been assigned financial and operational authority to carry on a business activity; (c) as its principal business, provides goods or services in accordance with ordinary business principles; and (d) is financed fully or substantially from sources other than (i) the National Revenue Fund; or (ii) by way of a tax, levy or other statutory money.'*

All national departments and public enterprises operating within the Municipality thus have a responsibility to have disaster management plans in place and can be engaged with in this regard. Disaster Management planning does not stop with government and organs of state. The private sector is also encouraged to develop disaster management plans and is legally required to at least ensure occupational health and safety and to have emergency planning in place.

5.4. Requirements for commerce and industry to compile plans

Disaster Management requires multi-sectoral co-operation, and it is critical that business also contributes to the reduction of disaster risk in communities. District and local municipalities must therefore maintain strong relationships with business, especially where commerce and industry can provide resources that can contribute to disaster risk reduction. Commerce and industry can contribute directly to Disaster Management through memorandums of understanding or direct assistance but could also choose to use corporate social investment vehicles for this purpose.

It is in the interest of any business to ensure that it is reducing its exposure to disaster risk and that it is able to respond quickly and effectively to any incident that may affect its ability to conduct business and generate income. There is a strong link between the resilience of commerce and industry within a specific area and the ability of communities to bounce back from adversity. Communities rely on commerce and industry for livelihoods and for the commercial provision of daily necessities. It is therefore in the interest of Tswelopele Local Municipality Management to support emergency and Disaster Management planning with commerce and industry.

The desire of commerce and industry to stay in business and maintain profit levels is enough motivation for this sector to assess their risks and devise plans to avoid, reduce or respond to risks which could affect their ability to continue with business. In addition, good practice and corporate social responsibility also dictate that commerce and industry assess and manage risk, which includes disaster risk. The King II and III Reports focus on risk management in companies and place an emphasis on the triple-bottom line of financial, social and environmental aspects. The King reports underline the importance of risk management and business continuity planning and provides a basis for interaction between Tswelopele Local Municipality and commerce and industry within the area on issues of risk and joint efforts to reduce risk or to respond to disasters.

More formally, the Occupational Health and Safety (OHS) Act (No. 85 of 1993) and the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977) with their respective regulations and codes of practice and associated standards require compliance to many safety-related aspects. Compliance with these acts and their regulations, codes and standards will protect the interests of the private sector.

Of particular importance within the OHS Act are sections 7 (Health and Safety Policy); 8 (General Duties); 9 (People not in employment who may be directly affected); 17 and 18 (Health and safety representatives); 19 and 20 (Committees) and the Major Hazard Installation Regulations proclaimed under this Act.

The prescriptions of the National Building Regulations (updated in 2008) and SANS 10400:1990 – Code of practice for the application of the National Building Regulations provides for safe buildings that will reduce vulnerability, increase resilience and therefore decrease disaster risk.

Further legislation that requires commerce and industry as well as government to actively pursue disaster risk reduction includes the National Environmental Management Act (NEMA), the Mineral Resources Act, and the National Veld and Forest Fires Act that regulate the establishment of Fire Protection Associations (FPAs).

In summary it can be said that there is a clear need and legal foundation for all organs of state and the private sector to assess their disaster risk, to address this risk through mitigation actions, and to be prepared to respond to major incidents and disasters affecting them.

The policy framework also aims to guide the development and implementation of uniform and integrated disaster risk management policy and plans of the municipality.

5.5. Tswelopele Local Municipality current compliance with the Disaster Management Act

According to the Disaster Management Act (No. 57 of 2002) as amended, Tswelopele LM is required to have the following established:

- A Disaster Management Framework (Section 42 of the Act).
- A Disaster Management Plan (Section 53 of the Act).

The Local Municipality is legally only required to have a Disaster Management Plan. A Disaster Management Advisory forum is required at Local level and is recommended best practice. Section 51 of the Act describes the current status quo of compliance of the Lejweleputswa Disaster Management and the Local Municipalities within the District with the requirements of the Disaster Management Act as amended. The information entailed is based on personal interviews with

Disaster Management staff or role-players within the Local Municipality. Although the Local Municipality might have form of Disaster Management Plan, that has been approved by the relevant Council. Council approval is a necessity if the plan is to inform the IDP process of the Local Municipality.

The priorities of Disaster Management Act as amended determines if the requirement in the Act is a “must” in other words compulsory. For example, a Framework is compulsory for a District Municipality but optional for a Local Municipality.

It is recommended that each Local Municipality should at least have an internal disaster management coordinating body such as an Inter-Departmental Disaster Management Committee. The additional establishment of an advisory forum is strongly recommended to co-ordinate disaster management policy within the municipality and enable stakeholder involvement in disaster management matters.

CHAPTER 6

PREPAREDNESS PLANNING

Disaster Impact Assessment and Recovery Planning should focus on assessing the impact of a disaster; identifying appropriate reconstruction and rehabilitation measures; and monitoring the effectiveness of the reconstruction and rehabilitation measures.

According to section 53 of the Act as amended, Tswelopele Local Municipality is legally obliged to

- Prepare a Disaster Management plan for its area according to the circumstances prevailing in the municipality, for its area of jurisdiction
- To co-ordinate and align the implementation of its plan with those of other organs of state and institutional role players; and
- To regularly review and update its plan and include consultation with its stakeholders as well as local communities in the preparation or amendment process.

Section 53(2) (a) of the Act as amended specifies that the Disaster Management plan for a municipality must form an integral part of the municipality’s Integrated Development Plan (IDP). Section 26(g) of the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000) lists “applicable disaster management plans” as core components of an IDP.

According to Section 53(4) of the Act as amended, the Municipality must submit a copy of its Disaster Management Plan (DMP), and of any amendment to the plan, to the Disaster Management Centre of the District, the Free State Province and the National Disaster Management Centre.

Additional legislative requirements that will inform the way in which Tswelopele local municipality approaches the management of disaster risks within its jurisdiction includes the Municipal Structures Act of 1998 (Act No. 117 of 1998). According to Section 84(1)(j) of this act, Tswelopele local municipality is responsible for the provision of firefighting services serving the area of the local municipality as a whole.

This section has focused on the implications of the Act for Tswelopele Local Municipality, but the Act also provides for the responsibility of other stakeholders to attend to Disaster Management.

CHAPTER 7

RESPONSE

The Disaster Management planning responsibilities of national departments and public enterprises operating within the jurisdiction of Tswelopele local municipality will be described as follows:

Risk reduction proposals for priority risks are listed in the tables below. Tswelopele local municipality guidelines expand on the definitions of the categories of risk reduction measures (left-hand-column) and how to take risk reduction proposals from identification (as in the right-hand column) to detailed plans.

7.1.1 Disaster Risk Project Proposals: Localized Flooding

Risk Reduction Category	Risk Reduction Project Proposals
Physical Planning Measures	1 Enforcement of Environmental Impact Assessment with all development projects (EIA)
	2 Plan for the upgrading of existing infrastructure to cope with new developments i.e. by building bridges
	3 Identification and plotting of vacant high risk flood areas for future reference and avoid human settlements in such areas
	4 Avoid development and settling of communities along rivers and within the flood line
	5 Apply and update zoning regulations regularly
	6 Identify alternate suitable venues/facilities for emergency services
	7 Apply low intensity land use in 1:100 flood line areas i.e. alter hibernation areas of livestock if it is in the floodplain areas
	8 Study and understand the impact of climate change on development
	9 Signage
	10 Asset management
	11 Maintenance i.e. Dept of Public Works, Disaster Management and Dept of Water Affairs should collaborate to remove debris and reeds from riverbeds
	12 Immediate demolition of illegal housing structures in floodplain areas so as to prevent a mushrooming event
	13 Build relevant sheds and shelter areas for livestock
Engineering Construction Measures &	14 Study EIA to inform construction and building measures
	15 Identifiable flood measuring and early warning systems
	16 Plan and build retention dams to reduce risk of flooding
	17 Restore and maintain water catchment areas

Risk Reduction Category	Risk Reduction Project Proposals
	18 Build retaining walls to protect buildings
	19 Improve and upgrade storm water reticulation systems regularly
	20 Develop and maintain early warning systems
	21 Develop and maintain sustained cleaning programs for rivers and dams
	22 Plan bigger capacity dams to regulate flow of water
	23 Implement programmes and measures to prevent erosion, i.e. planting of trees and mulching grass
	24 Plan and erect visible warning signs in low lying areas
Economic Measures	25 Provide disaster relief funds on local municipal level and district level
	26 Adequate provision for the maintenance of storm water systems
	27 Farmers developing areas for agricultural use in flood prone areas should pay increases insurance on crops in those areas
	28 Diversify the agricultural industry
	29 Provide financial incentives to employ and retain engineers
	30 Provide financial incentives for farming communities and emerging farmers who strategize and mitigate risks
Management & Institutional Measures	31 Enforce relevant bylaws
	32 Plan for support for affected communities
	33 Take climate change into account when developing plans and protocols
	34 Develop and maintain flood emergency response teams
	35 Develop and supervise maintenance programs
	36 Ensure that SOP for disasters is developed and maintained
	37 Utilize the Dept of Agriculture's Project Implementation (PIMS) to assist the Dept of Infrastructure and Engineering
	38 Dept of Public Works, Disaster Management and Dept of Water Affairs should collaborate to remove debris and reeds from riverbeds
	39 Facilitate strategic planning of resources to cover all areas during emergencies
	40 Plan and ensure strategic distribution of Disaster Management resources across area
	41 Ensure the provision of emergency flood kits

Risk Reduction Category	Risk Reduction Project Proposals
	42 Mutual aid agreements to be established for relief and response
	43 More command centre tools of trade
	44 Quality assessments
	45 Asset management
Societal Measures	46 Develop awareness training and workshops in high-risk areas
	47 Develop and inform communities of response actions to early warning systems and evacuation drills
	48 Ensure coordination and cooperation with NGO's
	49 Community awareness i.e. through preseason radio warnings
	50 Early warning systems: include indigenous knowledge for early warnings especially for emerging farmers. Educate these communities that the "fertile" soils are usually located in dangerous flood prone areas and potential erosion areas

7.1.2 Disaster Preparedness Plan: Localized Flooding

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Notify response teams (Municipal engineering, SAPS, Fire & Rescue, EMS, Dept. Water Affairs, SAWS)	Local Authority	Disaster Management Unit	Immediately	To activate response teams
Activate response teams	Disaster Management and Services Standby Teams	From locations/ standby positions	Immediately	To assess impact and actions required
Identify affected and damaged area	Disaster Management and Services Standby Teams	In affected area	Immediately	To determine the extent of the damage in order to assess the affected area
Determine impact	Disaster Management and Services Standby Teams	At affected area	Immediately	To determine the actions and level of response required
Implement appropriate emergency intervention	First responders on scene	At scene	On arrival	To protect life and property and neutralize any impacting hazard
Activate JOC	Disaster Management unit and senior management of all services / jurisdictions involved.	DMU or alternative	Immediately if major flooding incident	To plan strategically and coordinate multidisciplinary response, relief and rehabilitation
Assess information	All services	JOC	Immediately	To plan actions
Design plan of action	DM Co-ordination Team / JOC Team	JOC	After assessment	To facilitate response and relief
Implement response actions	Disaster Management Team, SANDF, SAPS, EMS	Affected area	ASAP	To prevent injury / mortality and to provide basic needs / services
Provide relief	Relevant Stakeholders	At affected area / relief Centre	After assessment	To minimize impact

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Mopping up	Relevant Stakeholders	Affected area	ASAP	To normalize community
Assess the possibility of further flooding	Disaster Management Team, SAWS	Entire area	Immediately	To minimize and/or prevent further disruption / damage
Issue early warning to areas vulnerable to further flooding	Disaster Management Team, SAWS	Vulnerable areas	Immediately	To minimize and/or prevent further disruption / damage
Institute recovery measures	PDMC, Treasury, Relevant Departments	JOC	Once the situation is under control	To restore normal activities in area
Road closures	Municipality / Prov Traffic	On Site	ASAP	To prevent loss of life and property
Communication with the population of affected areas	Municipality / Media / Disaster Management / SAPS	On-site media liaison point / Media Centre close to JOC	ASAP	To prevent loss of life and property through public communication
Arrange temporary accommodation	Municipality / Social services/ NGO's	Available venues	When needed	To provide temporary accommodation – emergency shelter
Organize medical search parties	EMS / Fire & Rescue	On site	ASAP if people reported missing / unaccounted for	To treat medical cases
Flood management	Department of Water Affairs	On site and downstream	ASAP	To manage the effects of the flood
Rapid initial impact assessment	Municipal engineer and Provincial roads engineer	In affected area	Once flooding has subsided, if infrastructure damage suspected	To establish impact and immediate required repair to infrastructure as well as assistance required from province / national
Prioritize, plan and implement emergency repairs to infrastructure	Infrastructure owner	Areas with damaged infrastructure	ASAP – depending on prioritization and available resources	To restore critical and essential services
Verification of impact assessment	Province / NDMC / Contracted impact assessment team	Areas with damaged infrastructure	ASAP after rapid initial impact assessment	To quantify and verify infrastructure damage and repair / replacement cost in monetary terms

Additional hazard-specific contingency options could include:

- Mobilising swift water rescue capacity.
 - Mass evacuation.
 - Monitoring for water-borne diseases.
 - Determine the need for emergency shelter; and
- Determine the need for emergency sustenance and transport.

7.2.1 Disaster Risk Project Proposals: Fire - Structural and Vegetation Fire

Risk Reduction Category	Risk Reduction Project Proposals
Physical Planning Measures	1 Plan and provide for fire stations based on land use categories and fire risk assessment
	2 Plan and provide for buffer zone between residential and vegetation areas. Cut grass at regular and seasonal intervals
	3 Plan and provide access roads for fire trucks in informal settlements
	4 Plan to prevent Illegal electricity connections in informal settlements
	5 Plan fire services in line with new development needs i.e. provide fire equipment and fire beaters
	6 Ensure that development of dwellings does not take place before adequate bulk services are provided. Approval of building plans.
	7 Encourage and facilitate Integrated catchment management planning i.e. by providing sand and installing water taps or hydrants at central locations
Engineering Construction Measures Economic Measures	8 Ensure compliance with fire regulations and by-laws
	9 Install fire alarms in buildings
	10 Plan and provide fire escape routes and doors
	11 Plan and provide fire breaks in high-risk vegetation areas
	12 Provide suitable roads as evacuation routes in informal settlements
	13 Provide informal areas with fire-resistant materials
	14 Plan and develop fire early warning systems
	15 Provide additional fire hydrants
	16 Ensure that the fire extinguishers are assessed on an annual basis
	17 Research and upgrading / improvement of firefighting equipment/ trucks/ hydrants
	18 Provide fire hydrants in informal settlements
	19 Install watch towers, fire breaks, fire extinguishers in forestry areas
	20 Improve the quality and provide appropriate of firefighting equipment at all levels

Risk Reduction Category	Risk Reduction Project Proposals
	<p>21 Ensure that fire hydrant water supply is sufficient in higher lying areas. Build dams for water reticulation in strategic high-risk areas</p> <p>22 Provide capital projects in municipal budget</p> <p>23 Provide funds for upgrading fire equipment</p> <p>24 Fines for illegal electrical connections</p> <p>25 Implement program to decrease high risk housing</p> <p>26 Authorities to develop a project to make fire extinguishers more affordable for every household, as well as a means of making the maintenance thereof less expensive</p> <p>27 Rural areas property rebates for areas under conservation</p> <p>28 Provide affordable and accessible insurance packages for emerging and small-scale farming communities</p> <p>29 Action plans in place</p> <p>30 Reaction plan in place</p> <p>31 Purchase fire engines for veld fires</p>
<p>Management & Institutional Measures</p>	<p>32 Train fire marshals for commercial/industrial complexes</p> <p>33 Appointing / train appropriate staff</p> <p>34 Conduct fire and evacuation drills</p> <p>35 Ensure evacuation doors are unlocked</p> <p>36 Running of programmes for prevention of arson</p> <p>37 Maintenance program for fire extinguishing equipment</p> <p>38 Identify and procure appropriate equipment</p> <p>39 Structured and sustained fire-prevention inspections</p> <p>40 Cleaning of undergrowth around buildings</p> <p>41 Train and deploy firefighting volunteers at fire stations and road works</p> <p>42 Identifying high risk fire areas (hotspots) from Disaster Risk Assessment report</p> <p>43 Identify safer alternatives for cooking and lighting i.e. stoves, lamps etc.</p> <p>44 Ensure correct storage of combustible materials</p>

Risk Reduction Category	Risk Reduction Project Proposals
	45 Develop and implement maintenance programs for access routes in high-risk fire areas
	46 Train and develop fire response teams and fire beaters
	47 Training at all levels to improve the implementation of an incident command system as a standard operating procedure
	48 Develop a management policy for the sale of paraffin
	49 Establish and support Fire Protection Association
	50 Develop area fire management plans
	51 Refrain from using cardboard containers for recycling of paper
	52 Revisit policy for evicting shack dweller
	53 Maintenance programme
	54 Decentralize funds
	55 Local Municipality and Eskom should take active ownership of their responsibilities.
Societal Measures	56 Develop fire evacuation procedures for commercial/industrial complexes
	57 Declare non-smoking areas
	58 Prohibit fires in high-risk areas
	59 Conduct fire hazard awareness programs
	60 Conduct community awareness programs in communities before the fire season starts. So annually before June.
	61 Implement community-based programs for the proper care/maintenance of electrical equipment
	62 Include fire prevention education in school curriculum
	63 Include Disaster Management in school curriculum
	64 Implement fire education, fire risk awareness, recruitment of volunteer fire fighters, social responsibility, ownership system e.g. hydrants
	65 Establish ward-based disaster committees

7.2.2 Disaster Preparedness Plan: Fire – Structural and Vegetation Fire

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Inform Fire Services	First person to notice incident	Disaster Management Unit	Immediately	To respond with resources

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Respond resources	Disaster Management Unit	Disaster Management Unit	Immediately	To limit impact by saving lives, property, livestock and critical structures/facilities.
For facilities: Activate facility fire teams	Disaster Management Unit	Disaster Management Unit	Immediately when the incident is reported	To contain situation
For facilities: Fire team to extinguish small fires	Trained fire team	At the point of incident	ASAP	To prevent / minimise the chance of the fire spreading
For facilities: Evacuate facility	Evacuation teams / SAPS / Fire	At facility	ASAP	To prevent injury/deaths
For facilities: Check the name list of all evacuated people	Trained control team	At specific control points (assembly areas) outside the building / facility	ASAP after evacuation	To ensure everyone is out of the building / facility
Assess Situation	First Responders on scene	At scene	On arrival	To determine needs
Request additional resources	First Responders on scene	From scene through local authority fire call centre	After assessment	To manage situation
Implement appropriate emergency intervention	First responders on scene	At scene	On arrival	To protect life and property and neutralize any impacting hazard
Setup command post	Disaster Management Unit	Safe area on site	Immediately	To plan and implement correct immediate responses
Establish incident management plan per service	Services on scene	On scene	ASAP	To effect appropriate immediate response and relief actions
Assess impact	Services on scene	On scene	Immediately	To determine future relief and recovery actions
Notify Disaster Management team if major incident	Disaster Management Unit	From command post	As soon as required	To facilitate multidisciplinary co-ordination and major incident management support
Crowd and traffic control	SAPS, Traffic, Law Enforcement, Private security if appropriate	Around scene	Immediately	To control people and traffic at the incident

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Assemble joint incident management team	Senior representatives of all services on scene	At appropriate single command post, in case of fire incident preferably at fire command post	Immediately once more than one service working on scene	To ensure multidisciplinary coordination that enables effective response and relief
Design joint incident action plan	Joint incident management team	Command post / FCP	ASAP	To manage situation
Implement joint plan of action	Joint incident management team	On scene	ASAP	To normalize situation
Seek missing people	Search team/ Fire/ EMS/ SAPS	Through the whole building / facility / affected area	ASAP once missing people have been reported	To rescue missing persons
Treat injured people	Trained first aid team/ EMS / Fire	At the first aid post / triage area	Immediately when injury is reported	To treat injuries
Inform next of kin of injured people	Facility manager / SAPS / EMS	At the facility manager / director's office / from scene	Immediately when injury is reported	To inform family members of the conditions of the injured relative and how to reach them
Monitor actions	Joint incident management team	On scene	Ongoing during incident management	To ensure effective planning and execution
Area /Facility clean-up	All services	On site	On completion of rescue/ immediate emergency actions	To prevent further incidents/ environmental impacts
On-site inspection	EMS/ Traffic/ Fire / SAPS forensics	On scene	On completion of emergency actions	To ensure site is safe for use again
Stand down	All services	On scene	Once site is declared safe	To normalize services operations
De- brief	All role-players (disaster management ward committee, volunteer units, ward structures, LMs and FPAs, disaster management and relevant departments)	Pre-determined venue	Within one week	To evaluate actions and improve future response
Update plans and procedures	All role-players (disaster management ward committee, volunteer units, ward structures, LMs and FPAs, disaster management and relevant departments)	At service HQ	ASAP	Effective service delivery

Additional hazard-specific contingency options could include:

- Strengthen firefighting capacity and capability in high-risk areas.
- Implement environmental monitoring stations.
- Improve acquisition and activation of firefighting resources.
- Enhance community-level teams with firefighting training and basic equipment to act as first responders.
- Determine the need for emergency shelter; and
- Determine the need for emergency sustenance and transport.

7.3.1 Disaster Risk Project Proposals: Severe Thunderstorm (hail and cold snap)

Risk Reduction Category	Risk Reduction Project Proposals
Physical Planning Measures	1 Enforcing building codes to ensure buildings can withstand severe weather prevalent in area
	2 Considering weather conditions and storm / severe weather occurrence in development planning, zoning and land-use management
	3 Identification and plotting of vacant high-risk areas for future reference to avoid human settlements in such areas
	4 Retrofitting of vulnerable buildings to ensure resilience to storms and severe weather
	5 Implement storm attenuation measures such as windbreaks in high-risk areas i.e. build trees
	6 Identify alternate suitable venues/facilities for emergency services
	7 Study and understand the impact of climate change on development
Engineering Construction Measures &	8 Conduct a feasibility study of the area before any construction commences
	9 Fencing off of wetlands
	10 Develop and maintain severe weather early warning systems
	11 Lightning conductors on roofs in high-risk areas
	12 Implement robust construction methods according to building codes and known severe weather occurrence
	13 Provide robust community facilities that are less vulnerable to severe weather and can be used as temporary emergency shelter
	14 Ensure known severe weather occurrences are considered in all municipal infrastructure construction projects
	15 Proper maintenance, monitoring and evaluation of stormwater systems and planning
Economic Measures	16 Pro-active maintenance
	17 Suggest the implementation of an emergency fund by the municipality
	18 Establish co-operations of farming communities

Risk Reduction Category	Risk Reduction Project Proposals
	<p>19 Adequate provision for the maintenance buildings to reduce vulnerability to severe weather</p> <p>20 Procure insurance on important infrastructure that can be damaged by severe weather</p> <p>21 Institute and enforce fines or other punitive measures for non-adherence to building codes</p> <p>22 Provide accessible and affordable insurance packages for high-risk communities</p>
Management & Institutional Measures	<p>23 Plan for the support of affected communities</p> <p>24 Develop and maintain storm damage and search & rescue emergency response teams</p> <p>25 Develop and implement preventative maintenance programmes</p> <p>26 Ensure that standard operating procedures for disasters are developed and maintained.</p> <p>27 Facilitate strategic planning of resources to cover all areas during emergencies</p> <p>28 Plan and ensure strategic distribution of Disaster Management resources across area</p> <p>29 Educate building inspectors and infrastructure maintenance teams on known severe weather threats</p> <p>30 Mutual aid agreements to be established for relief and response</p> <p>31 Ensure availability of mobile command vehicles and emergency housing</p> <p>32 Identifying hotspots / high risk areas – develop database of severe weather events and damage / impact experienced</p> <p>33 Develop awareness training and workshops in high-risk areas before the rainy season</p>
Societal Measures	<p>34 Develop and inform communities of response actions to early warning systems</p> <p>35 Ensure Coordination and cooperation with NGOs such as ADRA</p> <p>36 Community awareness and involvement of the youth</p> <p>37 Collect community-based information on past severe weather events and make publicly available for school and research projects</p> <p>38 Identify and utilize indigenous knowledge systems</p> <p>39 Focus on combatting climate change through adaptation measures</p>

7.3.2 Disaster Preparedness Plan: Severe Thunderstorms (hail and cold snap)

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Notify response teams (Municipal engineering, SAPS, Fire & Rescue, EMS, Dept. Water Affairs, SAWS)	Local Authority	Disaster Management Unit	Immediately	To activate response teams
Activate response teams	Disaster Management and Services Standby Teams	From locations/ standby positions	Immediately	To assess impact and actions required
Identify affected and damaged area	Disaster Management and Services Standby Teams	In affected area	Immediately	To determine the extent of the damage in order to assess the affected area
Determine impact	Disaster Management and Services Standby Teams	At affected area	Immediately	To determine the actions and level of response required
Implement appropriate emergency intervention	First responders on scene	At scene	On arrival	To protect life and property and neutralize any impacting hazard
Activate JOC	Disaster Management unit and senior management of all services / jurisdictions involved.	DMU or alternative	Immediately if major flooding incident	To plan strategically and coordinate multidisciplinary response, relief and rehabilitation
Assess information	All services	JOC	Immediately	To plan actions
Design plan of action	DM Co-ordination Team / JOC Team	JOC	After assessment	To facilitate response and relief
Implement response actions	Disaster Management Team, SANDF, SAPS, EMS	Affected area	ASAP	To prevent injury / mortality and to provide basic needs / services
Provide relief	Relevant Stakeholders	At affected area / relief centre	After assessment	To minimize impact
Mopping up	Relevant Stakeholders	Affected area	ASAP	To normalize community

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Assess the possibility of further damage	Disaster Management Team, SAWS	Entire area	Immediately	To minimize and/or prevent further disruption / damage
Issue of early warning to areas vulnerable to further damage	Disaster Management Team, SAWS	Vulnerable areas	Immediately	To minimize and/or prevent further disruption / damage
Institute recovery measures	PDMC, Treasury, Relevant Departments	JOC	Once the situation is under control	To restore normal activities in area
Road closures	Municipality / Prov Traffic	On Site	ASAP	To prevent loss of life and property
Communication with population of affected areas. Create pamphlets and visit the affected areas.	Municipality / Media / Disaster Management / SAPS	On-site media liaison point / Media Centre close to JOC	ASAP	To prevent loss of life and property through public communication
Arrange temporary accommodation	Municipality / Social services/ NGO's/ Church groups and organisations/ SASSA/CDWs	Available venues	When needed	To provide temporary accommodation – emergency shelter
Organize medical search parties	EMS / Fire & Rescue	On site	ASAP if people reported missing / unaccounted for	To treat medical cases
Rapid initial impact assessment	Municipal engineer and Provincial roads engineer	In affected area	Once storm has passed, if infrastructure damage suspected	To establish impact and immediate required repair to infrastructure as well as assistance required from province / national
Prioritize, plan and implement emergency repairs to infrastructure	Infrastructure owner	Areas with damaged infrastructure	ASAP – depending on prioritization and available resources	To restore critical and essential services
Verification of impact assessment	Province / NDMC / Contracted impact assessment team	Areas with damaged infrastructure	ASAP after rapid initial impact assessment	To quantify and verify infrastructure damage and repair / replacement cost in monetary terms

Additional hazard-specific contingency options could include:

- Mobilise resources to repair structural damage to critical infrastructure.
- Mobilise urban / rural search and rescue capacity.
- Determine the need for emergency shelter; and

- Determine the need for emergency sustenance and transport

7.4.1 Disaster Risk Project Proposals: Road Accident

Risk Reduction Category	Risk Reduction Project Proposals
Physical Planning Measures	1 Regulate the traffic through speed bumps, circles, traffic lights
	2 Provide sufficient fencing for grazing areas of livestock
	3 Provide enough signs for pedestrian and school crossings
Engineering & Construction Measures	4 Maintenance of the road infrastructure
	5 In high accident zone areas build underground bridges
Economic Measures	6 Pro-active maintenance
	7 Institute and enforce fines or other punitive measures for non-adherence
Management & Institutional Measures	8 Ensure the availability and visibility of enough trained traffic personnel
	9 Plan for the support of affected communities
	10 Develop and maintain emergency response teams
	11 Develop and implement preventative maintenance programmes
	12 Ensure that standard operating procedures for road accidents are developed and maintained
	13 Plan and ensure strategic distribution of Disaster Management resources across area
	14 Educate community members on known high risk areas
	15 Ensure availability of mobile command vehicles
Societal Measures	16 Identifying hotspots / high risk areas – develop database of severe weather events and damage / impact experienced
	17 Identify high risk areas through the Disaster Risk Assessment report and create tailored programmes that focus on pertinent areas
	18 Develop Awareness training and workshops in high-risk accident areas
	19 Ensure Coordination and cooperation with all government departments (Traffic, EMS), SAPS and NGO's
	20 Community awareness

7.4.2 Disaster Preparedness Plan: Road Accident

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Notify response teams (Traffic Department, SAPS, Fire & Rescue, EMS)	Local Authority	Disaster Management Unit	Immediately	To activate response teams
Activate response teams	Disaster Management and Services Standby Teams	From locations/ standby positions	Immediately	To assess impact and actions required
Identify affected and damaged area	Disaster Management and Services Standby Teams	In affected area	Immediately	To determine the extent of the damage in order to assess the affected area
Determine impact	Disaster Management and Services Standby Teams	At affected area	Immediately	To determine the actions and level of response required
Implement appropriate emergency intervention	First responders on scene	At scene	On arrival	To protect life and property and neutralize any impacting hazard
Assess information	All services	JOC	Immediately	To plan actions
Design plan of action	DM Co-ordination Team / JOC Team	JOC	After assessment	To facilitate response and relief
Implement response actions	Disaster Management Team, SAPS, EMS	Affected area	ASAP	To prevent injury / mortality and to provide basic needs / services
Provide relief	Relevant Stakeholders	At affected area / relief centre	After assessment	To minimize impact
Mopping up	Relevant Stakeholders	Affected area	ASAP	To normalize community
Assess the possibility of further damage	Disaster Management Team, Traffic Department, EMS, SAPS	Entire area	Immediately	To minimize and/or prevent further disruption / damage
Issue early warning to areas affected by road closure	Disaster Management Team, Traffic Department, EMS, SAPS	Vulnerable areas	Immediately	To minimize and/or prevent further disruption / damage

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Road closures	Municipality / Prov Traffic	On Site	ASAP	To prevent loss of life and property
Communication with the population of affected areas	Traffic Department/ Municipality / Media / Disaster Management / SAPS	On-site media liaison point / Media Centre close to JOC	ASAP	To prevent loss of life through public communication
Arrange temporary accommodation	Municipality / Social services/ NGO's	Available venues	When needed	To provide temporary accommodation – emergency shelter
Organize medical search parties	EMS / Fire & Rescue	On site	ASAP if people reported missing / unaccounted for	To treat medical cases
Prioritize, plan and implement emergency repairs to infrastructure	Infrastructure owner	Areas with damaged infrastructure	ASAP – depending on prioritization and available resources	To restore critical and essential services
Verification of impact assessment	Traffic Department of Province, district or region/ NDMC / Contracted impact assessment team	Areas with damaged infrastructure	ASAP after rapid initial impact assessment	To quantify and verify infrastructure damage and repair / replacement cost in monetary terms

Additional hazard-specific contingency options could include:

- Mobilise resources to repair structural damage to critical infrastructure.
- Mobilise urban / rural search and rescue capacity; and

7.5.1 Disaster Risk Project Proposals: Drought

Risk Reduction Category	Risk Reduction Project Proposals
Physical Planning Measures	1 Study and understand the impact of climate change on development
	2 Build water reticulation structures
	3 Invest in JoJo tanks
	4 Camp rotation to prevent overgrazing (commonage)
	5 Fencing off of camps for grazing areas of livestock

Risk Reduction Category	Risk Reduction Project Proposals
	<p>6 Diversifying farming methods i.e. farm with Nguni cows as they are drought resistant</p> <p>7 Plant drought resistant crops.</p> <p>8 Remove alien plants – i.e. cutting down wattle trees</p> <p>9 Remove reeds from riverbeds</p> <p>10 Build proper storage and preservation facilities for agricultural produce</p>
Engineering Construction Measures	<p>11 Regulate management of water structures</p> <p>12 Landscaping in backyards</p> <p>13 Ensure known drought occurrences are considered in all municipal infrastructure construction projects</p> <p>14 Build granaries and other storage areas for emergency animal feed</p> <p>15 Build water reticulation dams in drought ridden areas. As identified in the Disaster Risk Assessment report</p>
Economic Measures	<p>16 Pro-active surveillance</p> <p>17 Provide affordable and accessible insurance for emerging or small-scale farming communities</p> <p>18 Institute and enforce fines or other punitive measures for non-adherence to water saving measures</p>
Management Institutional Measures	<p>19 Plan for the support of affected communities. To be included and addressed in Disaster Management Plan</p> <p>20 Develop and implement preventative maintenance programmes</p> <p>21 Ensure that standard operating procedures for droughts are developed and maintained</p> <p>22 Community members able to identify water leakages</p> <p>23 Facilitate strategic planning of resources to cover all areas during emergencies</p>
	<p>24 Plan and ensure strategic distribution of Disaster Management resources across area</p> <p>25 Educate farming and rural communities on known symptoms of drought</p> <p>26 Mutual aid agreements to be established for relief and response</p> <p>27 Ensure availability of mobile command vehicles</p> <p>28 Incentives for farming communities actively participating in advisory forums</p>

	29	Identifying hotspots / high risk areas – develop database of drought events and damage / impact experienced
Societal Measures	30	Develop Awareness training and workshops in high-risk areas
	31	Develop and inform communities of response actions to early warning systems
	32	Ensure Coordination and cooperation with NGO's
	33	Community awareness
	34	Collect community-based information on past severe drought events and make publicly available for school and research projects
	35	Institute community garden project scheme
	36	Water week by DWA To sustain local economy and avoid death of livestock and increase in unemployment. in conjunction with the municipality
	37	Strengthening of education programmes

7.5.2 Disaster Preparedness Plan: Drought

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Build dams/ catchment areas.	Department of Agriculture, Disaster Management, Dept of Water, Working for water	In high-risk areas	Pre-drought. Before season.	To sustain local economy and avoid death of livestock and increase in unemployment.
Establish grazing camps.	Department of Agriculture, farmers.	In high-risk areas	Immediately	To sustain local economy and avoid death of livestock and increase in unemployment.
Fence off grazing areas.	Department of Agriculture, farmers.	In high-risk areas	Immediately	To prevent overgrazing which can potentially exacerbate drought.
Establish fire belts	Department of Agriculture, farmers, local fire station.	In high-risk areas	Immediately	To sustain local economy and avoid death of livestock and increase in unemployment.
Adjust emergency animal feeding stock supplies.	Department of Agriculture, farmers.	In high-risk areas	Immediately	To sustain local economy and avoid death of livestock and

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
				increase in unemployment.
Notify response teams (Dept of Agriculture, EMS, Dept. Water Affairs, SAWS)	Local Authority	Disaster Management Unit	Immediately	To activate response teams
Identify affected and damaged area	Disaster Management and Services Standby Teams	In affected area	Immediately	To determine the extent of the damage in order to assess the affected area
Determine impact	Disaster Management and Services Standby Teams	At affected area	Immediately	To determine the actions and level of response required
Implement appropriate emergency intervention	First responders on scene	At scene	On arrival	To protect life and property and neutralize any impacting hazard
Activate JOC	Disaster Management Unit and senior management of all services / jurisdictions involved.	DMU or alternative	Immediately if major flooding incident	To plan strategically and coordinate multidisciplinary response, relief and rehabilitation
Assess information	All services	JOC	Immediately	To plan actions
Design plan of action	DM Co-ordination Team / JOC Team	JOC	After assessment	To facilitate response and relief
Implement response actions	Disaster Management Team, SANDF, SAPS, EMS	Affected area	ASAP	To prevent injury / mortality and to provide basic needs / services
Provide relief	Relevant Stakeholders	At affected area / relief centre	After assessment	To minimize impact
Mopping up	Relevant Stakeholders	Affected area	ASAP	To normalize community
Assess the possibility of further damage	Disaster Management Team, SAWS	Entire area	Immediately	To minimize and/or prevent further disruption / damage

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Issue of early warning to areas vulnerable to further damage	Disaster Management Team, SAWS	Vulnerable areas	Immediately	To minimize and/or prevent further disruption / damage
Institute recovery measures	PDMC, Treasury, Dept of Agriculture, Relevant Departments	JOC	Once the situation is under control	To restore normal activities in area
Communication with the population of affected areas	Municipality / Media / Disaster Management / Dept of Agriculture	On-site media liaison point / Media Centre close to JOC	ASAP	To prevent loss of life and property through public communication
Arrange temporary feed for livestock	Municipality / Social services/ SASSA/ NGO's	Available storage areas	When needed	To provide temporary accommodation – emergency shelter
Verification of impact assessment	Province / NDMC / Contracted impact assessment team	Areas with damaged infrastructure	ASAP after rapid initial impact assessment	To quantify and verify infrastructure damage and repair / replacement cost in monetary terms

Additional hazard-specific contingency options could include:

- Mobilise resources to assist struggling farming communities.
- Determine the need for emergency feed and water for livestock; and
- Determine the need for emergency sustenance.

7.6.1 Disaster Risk Project Proposals: Strong wind and Tornado

Risk Reduction Category	Risk Reduction Project Proposals
Physical Planning Measures	1 Enforcing building codes to ensure buildings can withstand severe weather prevalent in area
	2 Considering weather conditions and strong wind occurrence in development planning, zoning and land-use management
	3 Identification and plotting of vacant high-risk areas for future reference to avoid human settlements in such areas
	4 Retrofitting of vulnerable buildings to ensure resilience to strong winds
	5 Implement attenuation measures such as windbreaks in high-risk areas i.e. plant trees
	6 Identify alternate suitable venues/facilities for emergency services

Risk Reduction Category	Risk Reduction Project Proposals
	7 Study and understand the impact of climate change on development
	8 Do not share animals during this season
Engineering Construction Measures	9 Conduct a feasibility study of the area before any construction commences
	10 Develop and maintain severe weather early warning systems
	11 Implement robust construction methods according to building codes, especially regarding the roofs of the housing structures, i.e. make use of roofs with gables. And propose and utilize alternative construction materials for the perishable pine trees that are currently being utilized
	12 Provide robust community facilities that are less vulnerable to severe weather and can be used as temporary emergency shelter
	13 Ensure known strong wind/tornado occurrences are considered in all municipal infrastructure construction projects
	14 Require financial incentives to employ and retain engineers
	15 Erect signs to warn community of high-risk area
Economic Measures	16 Pro-active maintenance
	17 Suggest the implementation of an emergency fund by the municipality
	18 Adequate provision for the maintenance buildings to reduce vulnerability to tornadoes
	19 Procure insurance on important infrastructure that can be damaged by tornadoes
	20 Institute and enforce fines or other punitive measures for non-adherence to building codes
	21 Provide accessible and affordable insurance packages for high risk communities
Management Institutional Measures	22 Plan for the support of affected communities
	23 Develop and maintain search & rescue emergency response teams
	24 Develop and implement preventative maintenance programmes
	25 Ensure that standard operating procedures for disasters are developed and maintained.
	26 Facilitate strategic planning of resources to cover all areas during emergencies
	27 Plan and ensure strategic distribution of Disaster Management resources across area
	28 Educate building inspectors and infrastructure maintenance teams on known tornado threats
29 Mutual aid agreements to be established for relief and response	

Risk Reduction Category	Risk Reduction Project Proposals	
	30	Ensure availability of mobile command vehicles and emergency housing
	31	Identifying hotspots / high risk areas – develop database of tornado events and damage / impact experienced
Societal Measures	32	Develop Awareness training and workshops in high risk areas
	33	Develop and inform communities of response actions to early warning systems
	34	Ensure Coordination and cooperation with NGO's such as ADRA
	35	Community awareness and involvement of the youth
	36	Collect community-based information on past tornado events and make publicly available for school and research projects
	37	Identify and utilize indigenous knowledge systems. Cultural heritage of rondavels not be ignored

7.6.2 Disaster Preparedness Plan: Strong winds and Tornado

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Notify response teams (Municipal engineering, SAPS, Fire & Rescue, EMS,SAWS)	Local Authority	Disaster Management Unit	Immediately	To activate response teams
Activate response teams	Disaster Management and Services Standby Teams	From locations/ standby positions	Immediately	To assess impact and actions required
Identify affected and damaged area	Disaster Management and Services Standby Teams	In affected area	Immediately	To determine the extent of the damage in order to assess the affected area
Determine impact	Disaster Management and Services Standby Teams	At affected area	Immediately	To determine the actions and level of response required
Implement appropriate emergency intervention	First responders on scene	At scene	On arrival	To protect life and property and neutralize any impacting hazard
Activate JOC	Disaster Management Unit and senior management of all services /	DMU or alternative	Immediately if major flooding incident	To plan strategically and coordinate multidisciplinary response, relief and rehabilitation

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
	jurisdictions involved.			
Assess information	All services	JOC	Immediately	To plan actions
Design plan of action	DM Co-ordination Team / JOC Team	JOC	After assessment	To facilitate response and relief
Implement response actions	Disaster Management Team, SANDF, SAPS, EMS	Affected area	ASAP	To prevent injury / mortality and to provide basic needs / services
Provide relief	Relevant Stakeholders	At affected area / relief centre	After assessment	To minimize impact
Mopping up	Relevant Stakeholders	Affected area	ASAP	To normalize community
Assess possibility of further flooding	Disaster Management Team, SAWS	Entire area	Immediately	To minimize and/or prevent further disruption / damage
Issue early warning to areas vulnerable to further flooding	Disaster Management Team, SAWS	Vulnerable areas	Immediately	To minimize and/or prevent further disruption / damage
Institute recovery measures	PDMC, Treasury, Relevant Departments	JOC	Once situation is under control	To restore normal activities in area
Road closures	Municipality / Prov Traffic	On Site	ASAP	To prevent loss of life and property
Communication with population of affected areas	Municipality / Media / Disaster Management / SAPS	On-site media liaison point / Media Centre close to JOC	ASAP	To prevent loss of life and property through public communication
Arrange temporary accommodation	Municipality / Social services/ NGO's	Available venues	When needed	To provide temporary accommodation – emergency shelter
Organize medical search parties	EMS / Fire & Rescue	On site	ASAP if people reported missing / unaccounted for	To treat medical cases
Strong winds management	Department of housing	On site and downstream	ASAP	To manage the effects of the flood
Rapid initial impact assessment	Municipal engineer and Provincial roads engineer	In affected area	Once strong winds has subsided, if infrastructure damage suspected	To establish impact and immediate required repair to infrastructure as well as assistance required from province / national

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Prioritize, plan and implement emergency repairs to infrastructure	Infrastructure owner	Areas with damaged infrastructure	ASAP – depending on prioritization and available resources	To restore critical and essential services
Verification of impact assessment	Province / NDMC / Contracted impact assessment team	Areas with damaged infrastructure	ASAP after rapid initial impact assessment	To quantify and verify infrastructure damage and repair / replacement cost in monetary terms

7.7.1 Disaster Risk Project Proposal: Heavy snowfall

Risk Reduction Category	Risk Reduction Project Proposals
Physical Planning Measures	1 Enforcing of building codes to ensure buildings can withstand severe weather prevalent in area
	2 Identify alternate suitable venues/facilities for emergency services
	3 Study and understand the impact of climate change on development
	4 Do not shear animals during this season
Engineering Construction Measures &	5 Conduct a feasibility study of the area before any construction commences
	6 Develop and maintain severe weather early warning systems
	7 Provide robust community facilities that are less vulnerable to heavy snowfall and can be used as temporary emergency shelter
	8 Ensure known occurrences of Heavy snowfall are considered in all municipal infrastructure construction projects
	9 Erect signs to warn community of high risk area
Economic Measures	10 Pro-active maintenance
	11 Suggest the implementation of an emergency fund by the municipality
	12 Institute and enforce fines or other punitive measures for non-adherence to building codes
	13 Provide accessible and affordable insurance packages for high risk communities
Management Institutional Measures &	14 Plan for the support of affected communities
	15 Develop and maintain search & rescue emergency response teams
	16 Develop and implement preventative maintenance programmes
	17 Ensure that standard operating procedures for disasters are developed and maintained.
	18 Facilitate strategic planning of resources to cover all areas during emergencies

Risk Reduction Category	Risk Reduction Project Proposals	
	19	Plan and ensure strategic distribution of Disaster Management resources across area
	20	Educate building inspectors and infrastructure maintenance teams on known tornado threats
	21	Mutual aid agreements to be established for relief and response
	22	Ensure availability of mobile command vehicles and emergency housing
	23	Identifying hotspots / high risk areas – develop database of heavy snowfall events and damage / impact experienced

Societal Measures	24	Develop awareness training and workshops in high risk areas
	25	Develop and inform communities of response actions to early warning systems
	26	Ensure Coordination and cooperation with NGO's such as ADRA
	27	Community awareness and involvement of the youth
	28	Collect community-based information on past snow events and make publicly available for school and research projects
	29	Identify and utilize indigenous knowledge systems. Cultural heritage of rondavels not be ignored

7.7.2 Disaster Preparedness Plan: Heavy snowfall

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Notify response teams (Municipal engineering, SAPS, Fire & Rescue, EMS, Dept. Water Affairs, SAWS)	Local Authority	Disaster Management Unit	Immediately	To activate response teams
Activate response teams	Disaster Management and Services Standby Teams	From locations/ standby positions	Immediately	To assess impact and actions required
Identify affected and damaged area	Disaster Management and Services Standby Teams	In affected area	Immediately	To determine the extent of the damage in order to assess the affected area
Determine impact	Disaster Management and Services	At affected area	Immediately	To determine the actions and level of response required

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
	Standby Teams			
Implement appropriate emergency intervention	First responders on scene	At scene	On arrival	To protect life and property and neutralize any impacting hazard
Activate JOC	DMU and senior management of all services / jurisdictions involved.	DMU or alternative	Immediately if major flooding incident	To plan strategically and coordinate multidisciplinary response, relief and rehabilitation
Assess information	All services	JOC	Immediately	To plan actions
Design plan of action	DM Co-ordination Team / JOC Team	JOC	After assessment	To facilitate response and relief
Implement response actions	Disaster Management Team, SANDF, SAPS, EMS	Affected area	ASAP	To prevent injury / mortality and to provide basic needs / services
Provide relief	Relevant Stakeholders	At affected area / relief centre	After assessment	To minimize impact
Mopping up	Relevant Stakeholders	Affected area	ASAP	To normalize community
Assess possibility of further damage	Disaster Management Team, SAWS	Entire area	Immediately	To minimize and/or prevent further disruption / damage
Issue early warning to areas vulnerable to further damage	Disaster Management Team, SAWS	Vulnerable areas	Immediately	To minimize and/or prevent further disruption / damage
Institute recovery measures	PDMC, Treasury, Relevant Departments	JOC	Once situation is under control	To restore normal activities in area
Road closures	Municipality / Prov Traffic	On Site	ASAP	To prevent loss of life and property
Communication with population of affected areas	Municipality / Media / Disaster Management / SAPS	On-site media liaison point / Media Centre close to JOC	ASAP	To prevent loss of life and property though public communication
Arrange temporary accommodation	Municipality / Social	Available venues	When needed	To provide temporary accommodation –

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
	services/ NGO's			emergency shelter
Organize medical search parties	EMS / Fire & Rescue	On site	ASAP if people reported missing / unaccounted for	To treat medical cases
Rapid initial impact assessment	Municipal engineer and Provincial roads engineer	In affected area	Once storm has passed, if infrastructure damage suspected	To establish impact and immediate required repair to infrastructure as well as assistance required from province / national
Prioritize, plan and implement emergency repairs to infrastructure	Infrastructure owner	Areas with damaged infrastructure	ASAP – depending on prioritization and available resources	To restore critical and essential services
Verification of impact assessment	Province / NDMC / Contracted impact assessment team	Areas with damaged infrastructure	ASAP after rapid initial impact assessment	To quantify and verify infrastructure damage and repair / replacement cost in monetary terms

7.8.1 Disaster Risk Project Proposals: Lightning

Risk Reduction Category	Risk Reduction Project Proposals
Physical Planning Measures	1 Enforcing of building codes to ensure buildings can withstand severe weather prevalent in area
	2 Considering weather conditions lightning occurrence in development planning, zoning and land-use management
	3 Focus on indigenous knowledge systems that are being used
	4 Retro-fitting of vulnerable buildings to ensure resilience to storms and severe weather
	5 Implement storm attenuation measures such as windbreaks in high-risk areas
Engineering & Construction Measures	6 Develop and maintain severe weather early warning systems
	7 Lightning conductors on roofs in high-risk areas
	8 Pro-active maintenance

Risk Category	Reduction	Risk Reduction Project Proposals
Economic Measures	9	Institute and enforce fines or other punitive measures for non-adherence to building codes
	10	Appoint a service provider that can deliver accessible and affordable insurance packages. Especially focused on the farming communities as they suffer due to livestock loss.
Management & Institutional Measures	11	Plan for the support of affected communities
	12	Ensure that standard operating procedures for disasters are developed and maintained
	13	Facilitate strategic planning of resources to cover all areas during emergencies
	14	Plan and ensure strategic distribution of Disaster Management resources across area
	15	Educate building inspectors and infrastructure maintenance teams on known lightning threats
	16	Ensure availability of mobile command vehicles
	17	Identifying hotspots / high risk areas – develop database of lightning events and damage / impact experienced
Societal Measures	18	Implement a programme that will reward and strengthen support and collaboration attained during disaster forums
	19	Develop Awareness training and workshops in high-risk areas
	20	Develop and inform communities of response actions to early warning systems
	21	Ensure Coordination and cooperation with NGO's
	22	Community awareness the responsibility of Disaster Management Centre, disaster risk officials and volunteers in collaboration with the relevant government departments, ESKOM etc.
	23	Collect community-based information on past severe lightning events and make publicly available for school and research projects

7.8.2 Disaster Preparedness Plan: Lightning

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Notify response teams (Municipal engineering, SAPS, Fire & Rescue, EMS, Dept. Water Affairs, SAWS)	Local Authority	Disaster Management Unit	Immediately	To activate response teams
Activate response teams	Disaster Management and Services Standby Teams	From locations/ standby positions	Immediately	To assess impact and actions required

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Identify affected and damaged area	Disaster Management and Services Standby Teams	In affected area	Immediately	To determine the extent of the damage in order to assess the affected area
Determine impact	Disaster Management and Services Standby Teams	At affected area	Immediately	To determine the actions and level of response required
Implement appropriate emergency intervention	First responders on scene	At scene	On arrival	To protect life and property and neutralize any impacting hazard
Activate JOC	DMU and senior management of all services / jurisdictions involved.	DMU or alternative	Immediately if major flooding incident	To plan strategically and coordinate multidisciplinary response, relief and rehabilitation
Assess information	All services	JOC	Immediately	To plan actions
Design plan of action	DM Co-ordination Team / JOC Team	JOC	After assessment	To facilitate response and relief
Implement response actions	Disaster Management Team, SAPS, EMS	Affected area	ASAP	To prevent injury / mortality and to provide basic needs / services
Provide relief	Relevant Stakeholders	At affected area / relief centre	After assessment	To minimize impact
Mopping up	Relevant Stakeholders	Affected area	ASAP	To normalize community
Assess possibility of further damage	Disaster Management Team, SAWS	Entire area	Immediately	To minimize and/or prevent further disruption / damage
Institute recovery measures	PDMC, Treasury, Relevant Departments	JOC	Once situation is under control	To restore normal activities in area
Road closures	Municipality / Prov Traffic	On Site	ASAP	To prevent loss of life and property
Communication with population of affected areas	Municipality / Media / Disaster Management / SAPS	On-site media liaison point / Media Centre close to JOC	ASAP	To prevent loss of life and property through public communication

What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
Arrange temporary accommodation	Municipality / Social services/ NGO's/ ESKOM	Available venues	When needed	To provide temporary accommodation – emergency shelter
Rapid initial impact assessment	ESKOM/ Municipal engineer and Provincial roads engineer	In affected area	Once storm has passed, if infrastructure damage suspected	To establish impact and immediate required repair to infrastructure as well as assistance required from province / national
Prioritize, plan and implement emergency repairs to infrastructure	Infrastructure owner	Areas with damaged infrastructure	ASAP – depending on prioritization and available resources	To restore critical and essential services
Verification of impact assessment	Province / NDMC / Contracted impact assessment team	Areas with damaged infrastructure	ASAP after rapid initial impact assessment	To quantify and verify infrastructure damage and repair / replacement cost in monetary terms

Additional hazard-specific contingency options could include:

- Mobilise resources to repair structural damage to critical infrastructure.
- Mobilise urban / rural search and rescue capacity.
- Determine the need for emergency shelter; and
- Determine the need for emergency sustenance and transport.

CHAPTER 8

RECOVERY

Disaster Impact Assessment and Recovery Planning should focus on assessing the impact of a disaster; identifying appropriate reconstruction and rehabilitation measures; and monitoring the effectiveness of the reconstruction and rehabilitation measures. Disaster Management is defined in Disaster Management Act as an integrated, multi-sectoral, multi-disciplinary process of planning and implementation of measures aimed at preventing or reducing the risk of disasters. The global context of Disaster Risk Reduction is shaped by the Hyogo Framework of action, which was adopted by 168 Nation States in 2005. Priority 3 of this five – point framework is to “use knowledge, innovation and education to build a culture of safety and resilience at all levels”.

Tswelopele Local Municipality, through Disaster Management Unit strives to improve its efforts to support the broader community of humanitarian and development organisations (within its area of jurisdiction), as well as public, private and civic-sector actors working to achieve these goals. Crucial element of our work is to improve the lives of vulnerable people by mobilising the power of knowledge and providing lifesaving information. Sendai Framework for Disaster Risk Reduction 2015-2030 is the

latest framework adopted internationally, which emphasizes the importance to promote successful disaster risk communication actions.

Once a state of disaster has been declared all response agencies are expected to respond as per their SOP's according to their respective mandates for the purpose of recovery and rehabilitation in an integrated and developmental manner.

To avoid incidents from happening again measures like engineering and new technologies are explored and implemented e.g. Redesigning of infrastructure.

8.1. Information Management and Communication

Disaster Management is a collaborative process that involves all spheres of government, non-governmental organisations, the private sector, a wide range of capacity-building partners and communities. Integrated Disaster Management depends on access to reliable hazard and disaster risk information as well as effective communication systems to enable the receipt, dissemination, and exchange of information. It therefore requires capabilities to manage risks on an ongoing basis, and to effectively anticipate, prepare for, respond to and monitor a range of natural and other hazards. It further requires systems and processes that will enable all role players to make timely and appropriate decisions during emergencies. These systems and processes must also inform Disaster Management and development planning processes by all stakeholders.

8.2. Funding Arrangements for Disaster Management

The provision of funding for Disaster Management is likely to constitute the single most important factor contributing to the successful implementation of the Act by national, provincial and municipal spheres of government. The Act as amended, with the exception of Chapter 6 on funding of post-disaster recovery and rehabilitation, does not provide clear guidelines for the provision of funding for disaster management. In order to give effect to the requirements of the Act as amended, four key performance areas and three enablers have been identified in the NDMF to guide the implementation of the Act as amended. Accordingly, funding from a range of sources for the different aspects of disaster management outlined in the key performance areas and enablers will be required. Enabler 3 builds on the recommendations made by the Financial and Fiscal Commission on funding arrangements in its submission on the Division of Revenue Act, and describes the Disaster Management funding arrangements for organs of state in the national, provincial and local spheres of government. From the perspective of the municipality, it is important that all the enablers and key performance areas are adequately addressed in the framework and the Disaster Management plan of the local municipality.

In this plan, the key performance areas are reflected in specific dedicated chapters, while the enablers are interwoven into all chapters of the plan.

CHAPTER 9

CLIMATE CHANGE

This section outlines the climate change context relevant to disaster risk management in Tswelopele Local Municipality within the Lejweleputswa District Municipality, and explains how climate change adaptation and resilience measures will be incorporated into the municipal Disaster Management Plan (DMP). Climate change is likely to increase the frequency and intensity of weather-related hazards already identified as priorities in this plan, including droughts, severe thunderstorms, localised flooding, strong winds, and heat-related fire risks. This highlights the need for proactive risk reduction, preparedness, response, and recovery interventions.

9.1. Legislative and policy framework

- **National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA)** – provides environmental management principles (including sustainable development and cooperative governance) that guide climate-related decision-making and project authorizations.
- **Disaster Management Act, 2002 (Act 57 of 2002), as amended** and the **National Disaster Management Framework (NDMF)** – require integration of disaster risk reduction into development planning, and emphasize risk assessment, prevention/mitigation and preparedness; climate change is a key driver of hydro-meteorological risk in municipal areas.
- **Climate Change Act, 2024 (Act 22 of 2024)** – establishes a coordinated, whole-of-government climate response. It places duties on spheres of government to align policies and planning with climate risks, and requires climate needs and response assessments and climate response implementation plans for provinces and metropolitan/district municipalities on a five-year cycle (as provisions come into operation). Municipal alignment should be achieved through the IDP, SDF, sector plans and the DMP.

Provincial and district alignment (Free State)

The Free State Province Climate Change Adaptation Strategy and Implementation Plan (2024–2029) provides the provincial framework for coordinated adaptation action, organised around *enablers* (institutions, policy/planning, research, finance, monitoring and evaluation), *cross-cutting sectors* (including vulnerable groups and disaster management), and *sector-specific* interventions. The TLM DMP supports this provincial approach by: (i) using the municipal risk profile to prioritise climate-sensitive hazards; (ii) strengthening early warning, preparedness and response arrangements; and (iii) embedding prevention/mitigation actions in municipal planning and budgeting (IDP/SDF and sector programmes).

9.2. Integration into municipal planning, risk reduction and preparedness

Climate change response in TLM should be implemented through routine municipal planning and budgeting processes, rather than as a stand-alone activity. Accordingly, climate risk information must inform the Integrated Development Plan (IDP), Spatial Development Framework (SDF), infrastructure asset management, water services planning, human settlements planning, and environmental management. This aligns with the DMP's approach under the NDMF Key Performance Areas (risk assessment; risk reduction; response and recovery) and the Enablers (information management, education and awareness, and funding).

Priority actions for the DMP implementation

- **Climate-informed risk assessment updates:** update hazard layers (flood-prone areas, fire risk, drought indicators) and include climate trends in the next DMP review cycle; integrate ward-based vulnerability mapping.
- **Early warning and risk communication:** strengthen links with SAWS and provincial/district disaster management for alerts; maintain multiple dissemination channels (SMS/WhatsApp groups, community radio, ward committees) and ensure actionable messages for floods, storms, fire danger and heat.
- **Drought preparedness and water resilience:** maintain a drought contingency plan linked to water restrictions, emergency supply measures and support to vulnerable households; protect and maintain critical water infrastructure and reduce non-revenue water where feasible.
- **Flood and stormwater resilience:** implement routine stormwater maintenance (clearing of inlets/culverts), enforce flood line and land-use controls, and priorities upgrades at recurrent hotspots identified in the DMP.
- **Fire risk management:** align veld fire actions with the Fire Protection Association arrangements; seasonal firebreak planning, awareness campaigns, and readiness of firefighting resources in high-risk periods.

- **Resilient infrastructure and building practices:** apply appropriate design standards for wind, stormwater capacity and heat to new municipal assets; include climate risk screening in project planning and procurement.
- **Capacity building and partnerships:** train officials and ward structures on climate risk, early warning response and incident reporting; partner with sector departments (water, agriculture, health, roads) to implement risk reduction measures.

Action	Lead / support	Deliverable
Climate risk screening for new IDP projects and municipal assets	Municipal Planning & Engineering (lead); Disaster Management Unit (support)	Simple climate risk checklist applied to capital projects; annually during IDP/budget cycle
Seasonal early warning and preparedness readiness (storms, floods, fire danger, heat)	Disaster Management Unit (lead); SAWS, PDMC, Ward Committees (support)	Seasonal readiness briefings and contact lists updated; pre-season (spring/summer) and mid-season
Drought contingency planning linked to water services operations	Water Services / Technical Services (lead); Disaster Management; Agriculture sector partners	Drought triggers, restriction levels, emergency supply actions; reviewed annually before peak summer demand
Stormwater hotspot maintenance and targeted upgrades	Technical Services (lead); Roads/Stormwater; Environmental management Disaster Management (support)	Hotspot register, routine clearing schedule, prioritised upgrade list; quarterly maintenance, annual capital prioritisation
Fire season prevention and response readiness	Fire Services / FPA (lead); Disaster Management; Community structures	Firebreak plans, awareness campaigns, equipment readiness checks; annually before fire season
Community awareness and preparedness (risk reduction behavior)	Disaster Management Unit (lead); Environmental Management; Communications; Ward Committees; NGOs	Targeted campaigns (flood safety, lightning, heat, water saving); ongoing with seasonal peaks

9.3 Monitoring, reporting and review

Implementation should be tracked through existing DRMP monitoring arrangements (e.g., quarterly reporting where applicable and the required DRMP review cycle). Practical indicators may include: number of early warning messages disseminated and acted upon; completion of pre-season readiness checks; number of stormwater hotspots maintained; water loss reduction initiatives implemented; and completion of climate risk screening for capital projects. Where provincial or district climate change reporting tools are introduced through the Free State adaptation plan and the Climate Change Act implementation, TLM should align municipal reporting and contribute data through the district and/or provincial coordination structures.

CHAPTER 10

TESTING AND REVIEW OF THE PLAN

The institution will conduct analysis of risks and hazards as entailed on the disaster risk assessment. The plan will be tested and reviewed against identified risks and hazards by the way the institution is responding to reported incidents and also through scenario building.

10.1. Monitoring and evaluation and review of the disaster management plan

Monitoring and evaluation of the plan is being done by the institution on a quarterly basis and the plan is reviewed by the institution every five years.

CHAPTER 11

RECOMMENDATIONS

There needs to be thorough planning by all relevant stakeholders, so that Disaster Management is put at the centre of every development.

A separate Disaster Management Plan included into the IDP but standing on its own and isolated from the rest of the IDP does not necessarily give evidence of the integration of Disaster Management into the IDP. All departments and role players submitting input to the content of the current and future IDP of the municipality are therefore urged to consider the inclusion and integration of Disaster Management into their strategies, operational planning and project implementation.

It is strongly recommended that Tswelopele Local Municipality institutes the compulsory consideration of Disaster Management in the planning and execution stages of all IDP projects. This will ensure the integration of Disaster Management into the IDP and will ensure that all plans and projects are focused on contributing to disaster risk reduction and disaster preparedness – thus reducing the impact of disasters on lives, property, community activities, the economy and the environment in Tswelopele Local Municipality.

CHAPTER 12

CONTACT DETAILS

The institution has developed a list of all relevant stakeholder that are having a role to play in the implementation of disaster management. The disaster management is developing hazard specific contingency plan to deal with hazards based on the seasons and events to put into effect the requirements of the disaster management plan.

12. INSTITUTIONAL ROLES AND RESPONSIBILITIES

AGENCY KEY ROLE PLAYERS	ROLES AND RESPONSIBILITY	CONTACT PERSON	CONTACT NUMBER	EMAIL ADDRESS
Tswelopele Disaster Management	Ensuring quick and effective response and recovery after a disaster has occurred. Coordination of all relevant stakeholders when a disaster has stricken	Ms A Mananga	065 856 6335	mananga@tswelopele.org
Disaster Management Centre	Coordination of all relevant stakeholders when a disaster has stricken	Mr Nzume	082 515 5593	bondasn1@gmail.com
Fire Department	General Rescue, Fire prevention Management of hazardous material situations, Advice relative to evacuation requirements because of a hazardous material incident	Ms Beta Mokgashane	071 731 0915	beta.mokhashane@gmail.com
Fire Protection Association	Fire Prevention	Mrs L Swanepoel	082 346 2834	Lerikabrand@gmail.com
Tswelopele Traffic Services	Guidelines on alternative routes to be taken Coordinate and provide information on road closures Search and rescue services	Mr A Kaibe	072 204 0527	kaibea@tswelopele.org
Provincial Disaster Management Centre	Coordinates provincial disaster risk reduction, preparedness, response, and recovery, acting as the primary unit for managing disasters within a province by integrating efforts of various government bodies,	Ms C Meje	071 303 9123	CM_meje@yahoo.com
Tswelopele Technical Services	Technical Services contribute significantly to protecting communities, minimising risks, and enabling effective response and recovery operations.	Mr J Moahludi (Electrician)	082 928 1935	moahlodij@tswelopele.org
		Mr S Polori (Water) BUO	060 356 6926	polorisello@gmail.com
		Mr M Sekharume (Water) HPD	076 648 0922	moqebelohjhnsekharume@gmail.com
		Mr N Dail Waste water	063 135 6366	dalinana@gmail.com

		Mr L Kale Waste water	078 789 4949	lpkale5@gmail.com
South African Police Service	Prevention of crime and the maintenance of peace and order. Co-ordination of rescue, co-ordination of evacuation Patrols of evacuated areas	Col Tafane	072 314 4794	BULFON-SAPS@saps.gov.za
		Warrant Officer Thomeli (BULT)	072 260 0967	bultfontein@flash.co.za
		Warrant Officer Mofammere (HPD)	082 466 6834	
		Mr T Swanepoel (CPF)	076 134 8103	tonyswanepoel65@gmail.com
Tswelopele Security Services	Provide security services when needed	Mr Terrence Mr Veli (BUO) Mr Ntlatseng (HPD)	078 924 9522 073 618 2959 071 191 0107	
Private Security	Security Assistance	Agrisec (BUO)	069 285 2658	
		Boss Security (HPD)	081 266 4643	
Department of Health	Co-ordination of emergency medical resources.	C Swanepoel	078 8513 988	
Emergency Medical Rescue Services	Assessment, treatment and transportation of injured persons- Basic, intermediate and advanced life support	SP Moalusi	060 9773 174	
		Mr Mahaloba	076 6771 172	
Department of Social Development	Co-ordination of the provision of emergency accommodation and counselling services Co-ordination of warm meals, food vouchers and social relief payments to affected people Provide emergency relief	JJJ.vn Rensburg	084 5854 111	
Department of Education	Provision of schools for temporary shelter (if required) Aid with Emergency Shelter while processes to access temporary shelters are undertaken.	Ms Zonke	066 488 1832	

Department of Agriculture	Provide advice, veterinary services and feed to affected farmers	Ms Tshadi	066 475 9520	
Department of Human Settlements	Provision of temporary shelter and facilitate the processes for the application for permanent Housing Solution	Mr I Moletsane	072 904 7333	moletsanei@tswelopele.org
Department of Roads and Public Works	Provision of Road Closure Signs and refurbishment of damaged roads and bridges infrastructure	Mr S Mokheseng HPD	078 209 4691	mokhesengtsietsi14@gmail.com
Department of Transport (Provincial Traffic)	Guidelines on alternative routes to be taken Coordinate and provide information on road closures Search and rescue services	Ms Mammy Wittes	073 336 6674	wittesmamzo@gmail.com
Department of Home Affairs	Provision of Birth Certificates and all forms of Identifications for the affected individuals	Mr M Mbele	066 305 8886	norman.mbele@dha.gov.za
		Mr Mtjale (immigration)	078 480 6602	gcinimuzi.mtjale@dha.gov.za
SECONDARY RESPONSIBILITY				
South Africa National Defence Force	Rapid response, search & rescue, logistical support (food, water, shelter), infrastructure repair, and medical aid	Col. M Matanzima	073 3177 324	

**EXTRACT FROM THE MINUTES OF THE COUNCIL MEETING HELD ON 24 JUNE 2026
AT 10:00 IN THE TOWN HALL, BULTFONTEIN**

**“9 / 06 REPORT ON THE FINAL DRAFT OF REVIEWED DISASTER RISK
MANAGEMENT PLAN FOR THE TSWELOPELE LOCAL MUNICIPALITY**

MINUTES: COUNCIL MEETING

DATE: 24 JUNE 2026

1. PURPOSE

To bring to the attention of Council the report on the final draft of reviewed disaster risk management plan developed for the Tswelopele Local Municipality During Quarter 4 Of 2025 / 2026 Financial Year.

2. BACKGROUND

Disaster Management is defined in Disaster Management Act as an integrated, multi-sectoral, multi-disciplinary process of planning and implementation of measures aimed at preventing or reducing the risk of disasters. The objective of Disaster Risk Assessment is to establish a uniform approach in assessing and monitoring disaster risks that will inform planning and disaster reduction undertaken by organs of state and other role players in the district and local municipalities. Section 20,33 and 47 of the Disaster Management Act, 2002 [Act 57 of 2002] as amended underscore the importance of disaster risk assessment to guide national, provincial, and municipal disaster risk reduction efforts, including disaster management planning.

KPA 2 of the National Disaster Management Policy Framework outlines the requirements or the implementing disaster risk assessment and monitoring by organs of state within all spheres of government. Furthermore, it shows that the outcomes of disaster risk assessment directly inform the development of disaster risk management plans.

The global context of Disaster Risk Assessment is shaped by the Hyogo Framework 2005 - 2015 of action, which was adopted by 168 nation states in 2005. Both the communities and local authorities should be empowered to manage and reduce disaster risk by having access to the necessary information, resources, and authority to implement actions for disaster risk reduction.

It is essential for everyone to be better prepared when disasters happen, hence a need to communicate risks effectively with populations, communities, families, and individuals. The aim is to increase the capacity through continuous risk assessment and disaster risk reduction planning initiatives.

Crucial element of our work is to improve the lives of vulnerable people by mobilising the power of knowledge and providing lifesaving information. Sendai Framework for Disaster Risk Reduction 2015 - 2030 is the latest framework adopted internationally, which emphasizes the importance to promote successful disaster risk communication actions.

EXPOSITION OF FACTS:

During quarter 4 of 2025 / 26 financial year the Disaster Management Unit has developed a final draft of reviewed disaster risk management plan using data

- ♦ Delayed recovery and increased costs.

8. ANNEXURE

- ♦ Final Reviewed Draft TLM Disaster Risk Management Plan.
- ♦ Guidelines on the step to development of disaster management plan.

9. RECOMMENDATIONS:

1. It is recommended that Council take note and accept the report on the final draft of reviewed disaster risk management plan developed for Tswelopele Local Municipality during Quarter 4 of 2025 / 2026 Financial Year.

[FOR NOTIFICATION]

Cllr Radienyane proposed that the matter be resolved as follows and was seconded by Cllr Snyer.

RESOLVED:

1. Council took note and accepted the report on the final draft of reviewed disaster risk management plan developed for Tswelopele Local Municipality during Quarter 4 of 2025 / 2026 Financial Year.

CERTIFIED AS A TRUE EXTRACT

NAME : NJ ALEXANDER

DESIGNATION : ACTING DIRECTOR CORPORATE SERVICES

SIGNATURE : 

