



Umzimvubu Local Municipality Municipal Disaster Management Plan

In case of an emergency, the user of this document should immediately turn to the preparedness plan for guidelines on managing response

TABLE OF CONTENT

	PAGE
Acronyms.....	
Definition Glossary of Terms.....	
Foreword.....	
Executive summary.....	
Purpose of the plan.....	
Background.....	
INTRODUCTION	
General Area Description.....	
Legal Requirements.....	
Legal Requirements to the ULM.....	
Motivation for National Departments and Parastals to compile plans.....	
Disaster management Institution Placement within ULM.....	
Key Outcomes.....	
Linkage with the integrated development plan of the Umzimvubu Local Municipality.....	
Linkage with the disaster management framework of the Alfred Nzo District Municipality..	
Structure of the Plan	
OBJECTIVES	
Types of disasters.....	
Response to a major Disaster.....	
COMMUNICATIONS	
Counselling Services.....	
Debriefing.....	
Closure of incident.....	
CONSTITUTIONAL LEGISLATIVE MANDATES	
Management Structure.....	
Disaster Management	
Risk Profile: Vulnerabilities Assessments.....	
Natural Hazard.....	
Drought and Water Supplies.....	
New Severe Weather Alert Levels.....	
Institutional Arrangements.....	
Shared Responsibility for disaster management.....	
Focal points for disaster management.....	
Departments with primary responsibility for specific hazards and disaster risks.....	
Assignment of responsibility for specific disaster risk.....	
Corporate disaster management structure for ULM.....	
Umzimvubu disaster management centre.....	
Umzimvubu facilities and equipment: Disaster management communication centre.....	
Umzimvubu facilities and equipment: Disaster operations centre (DOC)/Joint operations Centre (JOP).....	
Umzimvubu local disaster management advisory forum.....	
Interdepartmental disaster management co-ordination.....	
Focal points for disaster management within Municipal departments.....	
Departmental planning groups.....	
Risk reduction project teams.....	
Preparedness planning groups.....	

Joint response and relief management teams.....	
Recovery and rehabilitation project teams.....	
Corporate responsibilities.....	
Mayor.....	
Councillors.....	
Municipal manager.....	
Head of department Citizen and community services.....	
Disaster management officer.....	
Management infrastructure and planning.....	
Management corporate services (Sound Governance and human resources).....	
Manager: Special Programmes and Communication.....	
CHIEF FINANCIAL OFFICER	
Internal Auditor.....	
Manager: Local Economic Development.....	
Manager: IGR & IDP & Municipal Performance.....	
Risk Assessment.....	
Risk profile of the Umzimvubu Municipality.....	
Information Management.....	
Objective.....	
Essential elements.....	
Information cycle.....	
Functions.....	
Information and geographical information system	
Community information needs.....	
Disaster risk reduction plans.....	
Disaster reduction plan for the Umzimvubu Local Municipality.....	
Risk reduction capacity for the Umzimvubu Local Municipality.....	
Preparedness plans.....	
Preparedness plan of the Umzimvubu Local Municipality.....	
Preparedness capacity for the Umzimvubu Local Municipality.....	
Response and recovery.....	
Response Procedure.....	
Notification/ activation.....	
Rapid initial assessment.....	
Establish response management structure.....	
Re- assess.....	
Establish incident management objective.....	
Plan of action.....	
Implementation	
Strategic response management structure.....	
Monitor/ Evaluation.....	
Close incident & document.....	
De-mobilise.....	
Complete review (post Mortem).....	
Corrective action.....	
Hazard-specific contingency actions.....	
Floods	
Severe storms and strong winds.....	
Structural and veld fires.....	
Drought	
Declaration of state of disaster and disaster classification.....	
Test and review of the plan.....	

ANNEXURE A.....	
Reference documents/ bibliography.....	
Disaster preparedness plan: Fire.....	
Disaster preparedness plan: flooding.....	
Disaster preparedness plan: Drought.....	
Disaster preparedness plan: Severe Storms and strong Winds.....	
ANNEXURE B	
Disaster risk reduction guidelines.....	
Disaster risk project proposals: Fire.....	
Disaster risk project proposals: Flooding.....	
Disaster risk project proposals: Storms/ severe weather/ strong wind.....	
Disaster risk project proposals: Drought.....	

LIST OF FIGURES

- Figure 1: organisational structure of the office of the Municipal Manager of the Umzimvubu local Municipality
- Figure 2: Placement of disaster management in the citizen and community services in the Umzimvubu Local Municipality
- Figure 3: Planning process for the development of local disaster management plans and integration into the IDP
- Figure 4: Structure of the Umzimvubu Local Municipal disaster management plan
- Figure 5: Proposed organisational design for disaster management in ULM. The solid lines depict the ULM Disaster management centre, the dotted lines indicate reporting lines to the various government structures and the dotted line structures indicate Disaster management institution that interface with the ULM Disaster management Centre
- Figure 6: Municipal Disaster Management Structure (Can be collapsed into less elements if less complexity is required)

LIST OF MAPS

- Map 1: overview of the Umzimvubu Local Municipality.....
- Map 2: Total Aggregated Hazard Map of the Umzimvubu Local Municipality.....
- Map 3: Total Vulnerability of the Umzimvubu Local Municipality.....

ACRONYMS

ASAP	As Soon As Possible
DMC	Disaster Management Centre
DOC	Disaster Operations Centre
DRMC	Disaster Risk Management Centre
FCP	Forward Command Post
LA	Local Authority
JOC	Joint operation Centre
LM	Local Municipality
IDP	Integrated Development Plan
SAWS	South African Weather Services
ULM	Umzimvubu Local Municipality
HOD	Head of Department
DRM	Disaster Risk Management

DRMC	Disaster Risk Management Centre
DRMP	Disaster Risk Management Plan
DVI	Disaster Victim Identification
EMS	Emergency Medical Services
F& RS	Fire & Rescue Services
FCP	Forward Command Post (at incident site)
GIS	Geographic information System
GPS	Global Positioning System
IMT	Incident management Team (On-Site)
JMC	Joint Media Centre
JOC	Joint Operation Centre (usually located off-site)
LOC	Local Organising Committee
MLE	Municipal Law Enforcement
NGO	Non-Governmental Organization
NIA	National Intelligence Agency
PDMC	Provincial Disaster Management Centre
PGEC	Provincial Government of the Eastern Cape
Prov JOP	Safety and Security Joint operations committee at Provincial level
SANDF	South African National Defence Force
SAPS	South African Police Service
SOP	Standard Operation Procedure
VIP	Very Important Person
VOC	Venue Operations Centre (Located at a particular venue site)

DEFINITIONS/GLOSSARY OF TERMS

ALERT — An "Alert" is an incident that currently does not affect the local or general population but has the potential to a more serious emergency. The situation is unresolved and should be monitored closely. Some limited protective actions may be implemented and additional assistance requested from the relevant specialist Agencies.

CAPACITY — The ability or the resource availability of one or more services/organisations to respond to any given incident, emergency or disaster situation.

CONTROL AREA — The bringing together of organisations and elements to ensure effective emergency/disaster management response and is primarily concerned with the systematic acquisition and application of resources (organisation, manpower and equipment) in accordance with the requirements imposed by the threat or impact of an emergency or disaster. Co-ordination relates primarily to resources, and operates vertically, within an organisation as a function of the authority to command, and horizontally, across organisations, as a function of the authority to control.

CROWD BARRIER — Temporary or permanent structures that prevents access to demarcated areas as identified by the risk assessment.

DANGER ZONE (HOT ZONE) — The cordoned off area immediately around the crash site where emergency operations take place.

DISASTER — A progressive or sudden, widespread or localised, natural phenomena or human-caused occurrence which-

a) Causes or threatens to cause:
Death, injury or disease;
Damage to property, infrastructure or the environment; or
Disruption of a community; and

b) Is of a magnitude that exceeds the ability of those affected by the disaster to cope with its effects using only their own resources.

DISASTER MITIGATION

Disaster mitigation refers to structural and non-structural measures that are undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards on vulnerable areas, communities and households. These efforts can target the hazard or threat itself, for example, the positioning of firebreaks on the urban/wild and interface. This is often referred to as "structural mitigation", since it requires infrastructure or engineering measures to keep the hazard away from those at risk. Disaster mitigation efforts can also target people who are at risk, by reducing their vulnerability to a specific threat (for instance, promoting community responsibility for controlling fire risk in an informal settlement). This is often called "non-structural mitigation", as it promotes risk avoidance behaviours and attitudes.

DISASTER OPERATIONS CENTRE

Is a fully equipped dedicated facility within the Municipal, Provincial or national Disaster Management Centre. Such a facility must be capable of accommodating any combination of emergency and essential services representatives, including all relevant role players and stakeholders identified in response and recovery plans for the purpose of multi-disciplinary strategic management of response and recovery operations, when a local, provincial or national disaster occurs or is threatening to occur. This facility shall also be linked to all other established safety & security centres.

DISASTER RECOVERY

Disaster Recovery (including rehabilitation and reconstruction) focuses on the decisions and actions taken after a disaster to restore lives and livelihoods, services, infrastructure and the natural environment. In addition, by developing and applying risk reduction measures at the same time, the likelihood of a repeated disaster event is reduced. Disaster recovery includes:

Rehabilitation of the affected areas, communities and households

Reconstruction of damaged and destroyed infrastructure

Recovery of losses sustained during the disaster event, combined with the development of increased resistance to future similar occurrences.

DISASTER RISK (or RISK)

The measure of potential harm from a hazard or threat. Risk is usually associated with the human inability to cope with a particular situation. In terms of disaster management it can be defined as the probability of harmful consequences, or expected losses death, injury, damage to property and the environment, jobs, disruption of economic activity or social systems. Hazards will affect communities differently in terms of ability and resources with which to cope. Poorer communities will be more at risk than others.

DISASTER RISK ASSESSMENT

Assessment of the threat posed by any identified hazard with a disaster potential **DISASTER (RISK)**

MANAGEMENT

Means a continuous and integrated multi-sectoral, multi-disciplinary process of planning and implementation of measures aimed at:

Preventing or reducing the risk of disaster

Mitigating the severity or consequences of disasters

Emergency preparedness

A rapid and effective response to disasters, and

Post-disaster recovery and rehabilitation.

DISASTER RISK MANAGEMENT CENTRE

A centre specializing in Disaster (Risk) Management established in a Municipality, Province or at National level in terms of the Disaster Management Act, no. 57 of 2002.

DISASTER (RISK) MANAGEMENT PLAN

A document describing the organisational structure, its roles and responsibilities and concept of operation covering all aspects of the Disaster Risk Management Continuum and placing emphasis on measures that reduce vulnerability, viz. hazard identification, risk and vulnerability assessment, risk reduction and mitigation, planning and preparedness, emergency response, relief and recovery efforts.

DISASTER RISK REDUCTION

Disaster risk reduction can be seen as the systematic development and application of policies, strategies and practices to minimize vulnerabilities and disaster risks throughout a society to prevent and limit negative impacts of hazards, within the broad context of sustainable development. In South Africa, disaster risk reduction is an integral and important part of disaster management.

EMERGENCY

A local event, actual or imminent, which endangers or threatens to endanger life, property or the environment, and which is beyond the resources of a single organization or community or which requires the co-ordination of a number of significant emergency management activities.

EMERGENCY EXIT

Structural means whereby a safe route is provided for people to travel from any point in a building or structure to a place of safety without assistance.

EMERGENCY RESPONSE PLAN

The section of a Disaster Risk Management Plan developed to deal specifically with the organisational structure, its roles and responsibilities, concept of operation, means and principles of or intervention during an incident or emergency occurring at a specific venue.

EMERGENCY PROCEDURES

A set of documents describing the detailed actions to be taken by response personnel during an emergency.

EVACUATION

The controlled, rapid and directed withdrawal of a population, during an emergency, from a place of danger to a place of safety in order to avoid acute exposure to any incident.

EVACUATION CONTROL PROCEDURES

The Plans made by the various Services to outline their duties and to ensure the orderly movement of people during the evacuation period.

EVACUEES, SPONTANEOUS

Persons who might leave an area in periods of intense crisis in response to a real or feared threat, whether or not they are advised to do so.

EVENT

Entertainment (including Live acts), recreational, educational, cultural, religious, business (including marketing, public relations and promotional), charitable, exhibition, conferential, organisational and similar activities hosted at a stadium or avenue or along a route or its precinct. NOTE: the staging of the annual Masibuyel' Embo Event may also be referred to in this DRM Plan as an "EVENT".

TECHNICAL EVENTS COMMITTEE

Committee established for each designation of an event as contemplated in section 8 of the safety at Sports and Recreational Events Act and any other relevant Legislation, including in cases where the provisional risk categorization of an event or type of event requires the establishment of such a committee.

EXERCISE

An evaluation of major portions of emergency response capabilities. An exercise tests the integrated capability of the emergency response organisation, to identify weaknesses that could affect the response to an actual emergency.

FINAL EXIT

Termination of an escape route from a venue or structure giving access to a place of safety such as a street, passageway, walkway or open space and positioned to ensure that people can disperse safely from the vicinity of the building or structure and from the effects of a hazard.

FORWARD COMMAND POST (FCP) or INCIDENT COMMAND POST (ICP)

This is the single point of joint command for all on-site operations during the response phase of an emergency incident and it will be located at an appropriate location at or near the scene of the emergency, normally within the INNER

PERIMETER/RESTRICTED ZONE. Incident Commanders/ Managers from key response agencies as the Incident Management Team, will jointly operate under UNIFIED COMMAND to co-ordinate incident operations. The FCP may also be referred to as the ON-SITE JOINT OPERATIONS CENTRE (ON-SITE JOC)

HAZARD

A potentially damaging physical event including human injury or death, social and economic disruption or environmental degradation or some combination of these.

HAZARD AREA

Area(s) designated by the Disaster Risk Management Services, or locally through a hazard risk and vulnerability analysis, which are relatively more likely to experience the direct effects of natural or man-made disasters.

HAZARD MITIGATION

All methods and measures employed during the response phase to eliminate or make less Severe/reduce the effects of a major disaster or emergency, or pro-active risk reduction initiatives—refer also to the DISASTER MITIGATION and MITIGATION definition.

HAZARDOUS MATERIAL

Any substance or material in a quantity or form which may be harmful or injurious to humans, animals, economical crops, or property when released into the environment. There are 4 traditional classes: chemical, biological, radiological and explosive (CBRE)

HELIPORT

A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of helicopters.

HOT ZONE

Refer to danger zone

INCIDENT

An emergency which impacts upon a localized community or geographical area, but not requiring the co-ordination and significant multi-agency emergency management activities at a District or State level.

INCIDENT COMMAND POST (ICP)

Refer to the forward command post (FCP) or ON-SITE JOC definitions. ON-SITE JOINT OPERATIONS

CENTRE (ON-SITE JOC)

This is the single point of joint command for all on-site operations during the response phase of an emergency incident and it will be located at an appropriate location at or near the scene of the emergency, normally within the INNER PERIMETER/RESTRICTED ZONE. Incident

Commanders/Managers from key response agencies will jointly operate under UNIFIED COMMAND to co-ordinate incident operations— this function was previously referred to as the FORWARD COMMAND POST (FCP) or the INCIDENT COMMAND POST (ICP)

OUTER PERIMETER (SAFE ZONE)

The area outside of the Restricted Zone/Inner Perimeter, still with limited public access, to act as a safety (buffer) zone from the public.

PLACE OF SAFETY

Place away/outside of danger

PREPAREDNESS

The range of deliberate, critical tasks and activities necessary to build, sustain, and improve the operational capability to prevent, protect against, respond to, and recover from incidents. Preparedness contributes to disaster risk reduction through measures taken in advance to ensure effective response to the impact of hazards, including timely and effective early warnings and the temporary evacuation of people and property from threatened locations. Preparedness enables organs of state and other institutions involved in disaster risk management, the private sector, communities and individuals to mobilise, organise, and provide relief measures to deal with an

impending or current disaster, or the effects of a disaster. Preparedness differs from prevention and mitigation, as it focuses on activities and measures taken in advance of a specific threat or disaster.

PREVENTION

Actions taken to avoid an incident or intervene to stop an incident from occurring.

PROTECTION

Actions to mitigate the overall risk to critical infrastructure people, assets, systems, networks and functions and their interconnecting links, from exposure, injury, destruction, incapacitation or exploitation.

RESILIENCY

The capability of people, assets and systems to maintain functions during a disaster and to expeditiously recover and reconstitute essential services after the event.

RESPONSE (DISASTER RESPONSE)

The implementation of measures that is necessary to protect against a hazard. Disaster response refers to the provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. It can be of an immediate, short-term or protracted duration.

RISK or (DISASTER RISK)

The measure of potential harm from a hazard or threat. Risk (is usually associated with the human inability to cope with a particular situation. In terms of disaster management it can be defined as the probability of harmful consequences, or expected losses death, injury, damage to property and the environment, jobs, disruption of economic activity or social systems. Hazards will affect communities differently in terms of ability and resources with which to cope. Poorer communities will be more at risk than others.

RISK ANALYSIS

The systematic use of information to identify risk sources and to estimate risk.

RISK ASSESSMENT

Assessment of the threat posed by any identified hazard.

SAFETY

The state of being safe, free from danger or risks and the prevention of physical harm.

SAFE ZONE

Refer to OUTER PERIMETER

SERVICE COMMAND POST (SCP)

A special facility established on site to exercise operational command of a specific Emergency or other Service responding to an Incident Situation. It will liaise with its own Service's Tactical Management Centre, as well as the FCP/On-site JOC to ensure service integration, co-ordination and communication for response and relief activities (also refer to UNIFIED COMMAND)

STANDARD OPERATING PROCEDURES (SOP's)

A set of instructions having the force of a directive, covering those features of operations which lend themselves to a definite or standard procedure without loss of effectiveness.

TEMPORARY STRUCTURE

Structures usually found at events includes but is not limited to stages, sets, barriers, fencing, tents and marquees, seating, lighting and special effect towers, platforms and masts, video screens, TV platforms and crane jibs, dance platforms, loudspeaker stacks, signage and advertising hoardings which are erected for the event and do not form part of the permanent structure of the venue.

THREAT

The intention and capability of an adversary (i.e. people and nature) to undertake actions that would be detrimental to critical infrastructures— refer also to the HAZARD definition

TRAFFIC CONTROL POINTS

Places along access or egress routes to/from the incident site and primarily used by emergency vehicles and/or places along evacuation routes that are manned by I law enforcement officials to direct and control to and from the area being evacuated.

TRIAGE

Means the medical sorting of casualties into treatment priority.

VEHICLE STAGING AREA(S)

An area demarcated for all primary emergency vehicles of the responding Services to assemble and deploy their vehicles on an organised basis.

VENUE

An area or place where an event is to be hosted, which may consist of seating for spectators, attendees and/or audience and a field of play and/or a permanent or temporary podium or other recreational area, which has a safe seated and/or standing spectator, audience or event attendee capacity of at least 2000 persons at any one time, as certified by a local authority.

VENUE OPERATIONS CENTRE (VOC)

The designated structure equipped with the necessary facilities, located in a suitable position at a particular Venue and established pro-actively to enable all relevant role players/disciplines to jointly manage all safety & security related aspects of any event, using the UNIFIED COMMAND system. During the Response Phase of any major incident at an event, the VOC may be supplemented by an FCP (or On-Site JOC/ICP) if the situation so warrants.

VULNERABILITY

The degree to which people, property, the environment or social and economic activity — in short, all elements-at-risk—are susceptible to injury, loss of life, damage, disruption, exploitation or incapacitation by all hazards

“Disaster” means a progressive or sudden, widespread or localised, natural or human- caused occurrence which:

Causes or threatens to cause:

- ☐ Death, injury or disease,
- ☐ Damage to property, infrastructure or the environment or
- ☐ Disruption of the life of a community and

Is of a magnitude that exceeds the ability of those affected by the disaster to cope with it effects using only their own resources.

“Disaster management” means a continuous and integrated multi-sectoral, multidisciplinary process of planning and implementation of measures aimed at:

- Preventing or reducing the risk of disasters,
- Mitigating the severity or consequences of disasters,
- Emergency preparedness,
- A rapid and effective response to disasters and
- Post-disaster recovery and rehabilitation.

“Emergency preparedness” means a state of readiness which enables organs of state and other institutions involved in disaster (and emergency) management, the private sector, communities and individuals to mobilize, organize and provide relief measures to deal with an impending or current disaster or the effects of a disaster.

“Hazard” refers to the frequency and severity of a threat inflicting losses on people, property, systems or functions.

“Post-disaster recovery and rehabilitation” means efforts, including development, aimed at creating a situation where:

- Normality in conditions caused by a disaster is restored,
- The effects of a disaster are mitigated or
- Circumstances are created that will reduce the risk of a similar disaster occurring.

“Prevention”, in relation to a disaster, means measures aimed at stopping a disaster from occurring or preventing an occurrence from becoming a disaster.

“Response”, in relation to a disaster, means measures taken during or immediately after a disaster in order to bring relief to people and communities affected by the disaster.

“Risk” means the convolution of exposure, hazard and vulnerability (loss).

1. FOREWORD

"Disaster Management is everybody's business"

We live in a fast changing global environment where peril and risk to human society abound. Disaster has the ability to maim and kill people. They destroy property and the environment. Yet, disasters occur and re-occur with lasting detrimental consequences.

The enormity of the disaster problem today and in the foreseeable future calls for a more proactive approach that ensure effective disaster reduction at all levels towards sustainable development.

Though one must always remember that it is not always possible to completely eliminate a risk, extensive experience and practice in the past have demonstrated that the damage caused by any disaster can be minimized largely by careful planning, mitigation and prompt action.

We would like to further invite relevant stakeholders to join in contributing to Disaster reduction.

Disaster Risk Management is and will always be everybody's business.

2. EXECUTIVE SUMMARY

The Umzimvubu Local Municipality (ULM) and all other local municipalities, in terms of the Disaster Management Act, 2002 (Act 57 of 2002), are required to have a disaster management plan. The document fulfils the legal requirement as set out in the Disaster Management Act and the National Disaster Management Framework and confirms the arrangements for managing disaster risk and for preparing for and responding to disasters within the Umzimvubu Local Municipality.

Emergencies are defined as situations, or the threat of impending situations, abnormally affecting the lives and property of our society. By their nature, or magnitude these require a coordinated response by a number of role players, both governmental and private, under the direction of the appropriately appointed and elected officials. Prevention, mitigation, response, recovery and rehabilitation measures are distinct from but are complemented by routine operations carried out daily e.g. refuse removal, water and electricity supply, sanitation, primary health care, firefighting, and policing.

The key intended outcomes of the plan are the integration of Disaster Risk Management into the strategic and operational planning and project implementation of all line functions and role players within the Umzimvubu Local Municipality, the creation and maintenance of resilient communities within the area and an integrated, fast and efficient response to emergencies and disasters by all role-players.

The overall objective of this document is to define and describe 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.

The plan outlines the institutional capacity required for effective disaster management which includes the establishment of a Disaster Management Advisory Forum, Technical Committees and a Disaster Management Centre.

A district-wide Disaster Risk Assessment with community-based as well as research inputs has been conducted and the key risks identified within ULM include: floods; veld fires; hazardous materials incidents; transport incidents (road & rail); communicable diseases (human & animal); no or dysfunctional infrastructure and/or service delivery (sewerage, drainage, runoff); environmental pollution (water, air, ground, groundwater, illegal dumping); severe weather (especially mist); deforestation, erosion, land degradation and desertification and bush encroachment; industrial activity such as mining and the extinction of endangered/ endemic species.

Disaster risk reduction as well as disaster preparedness plans have been compiled based on the identified risks and are described in detail in this document. These plans however remain guidelines which will need to be adapted to the specific prevailing circumstances when they are put into use.

Several sections of the document contain implementation actions that are required to ensure the effective implementation of this plan.

3. PURPOSE OF THE PLAN

The purpose of the disaster risk management plan is to enhance the capacity of the Municipality to prevent and to deal with disaster and to avoid developments which are subject to high risk of disaster.

The Disaster Management Plan is to be seen as an information guide to the relevant role players. It shall advise the role players how to lead in case of a disaster to prevent or at least mitigate negative effects on the Umzimvubu Local Municipality geographic area.

The plan shall be used as the basis to establish procedures which shall assure maximum and efficiently Utilization of all resources in and around the Umzimvubu Local Municipality geographic area, minimize the loss of life and/or injury.

With a comprehensive Disaster Management Plan (DMP), Umzimvubu Local Municipality shall be better prepared to support the local communities in dealing with disasters and to speed up the recovery process. It is crucial to have effective and efficient Disaster Risk Management in order to save lives, prevent escalation of emergencies and incidents and relieve suffering.

4. BACKGROUND

The Umzimvubu Local Municipality has a tropical wet and dry climate with moderately hot summers, and mild to chilly winters

This plan serves to confirm the arrangements within the Umzimvubu Local Municipality to effectively prevent disaster from occurring and to lessen the impact of these hazards that cannot be avoided.

Disaster Management is a continuous and integrated multi-sectoral and multi-disciplinary process of planning and implementation of measures aimed at Disaster prevention — mitigation, preparedness, response, recovery and rehabilitation (Disaster Management Act 2007)

Province	Eastern Cape
District	Alfred Nzo
Type	Local Municipality
Main town	KwaBhaca and EmaXesibeni
Languages	Afrikaans, English & Xhosa
Area	506km ²
Population	220 000

The population is diversified across race, groups and culture and are characterised by varying levels of socio-economic status and education.

5. INTRODUCTION

The first part of this section provides an introduction to the area of the Umzimvubu Local Municipality. The legal requirements related to Disaster Management within the ULM are then defined, and the status quo of Disaster Management within the Umzimvubu Local Municipality is described.

In accordance with the Act and with the desire to better provide for the wellbeing of its residents, the Umzimvubu Local Municipality is amending its Disaster Management Plan to ensure preparedness and effective response by the Municipality to its residents in the event of a disaster.

What is a disaster?

A disaster is a progressive and sudden, widespread or localized, nature or man-made occurrence which causes:

a) (i) death, inquiry or sickness

Damage to property, infrastructure or the environment, or

Disruption of a community, and

b) If of a magnitude which exceeds the ability of those who are affected to defend the results by making use of only their own resources.

What is disaster management?

Disaster management is a continuous and integrated multi-sector, multi-disciplinary process of planning and implementation of measures aimed at-

- Prevention or reduction of the risk of disaster;
- Relieve of the severity of results of disasters;
- Emergency preparedness;
- Swift and effective reaction on disasters; and
- After disaster repair and rehabilitation.

5.1 General Area Description

The Umzimvubu Local Municipality is nestled in the north eastern corner of the Eastern Cape Province, and forms part of the provincial border with KwaZulu-Natal. This municipal area, together with the Matatiele Local Municipality, Ntabankulu Local Municipality and Mbizana Local Municipality falls within the Alfred Nzo District Municipality, identified as the poorest district in the Province. The ULM is named after the large Umzimvubu River and rightly so as this river and numerous others form part of the Umzimvubu catchment system that snakes its way through the valleys of this mountainous region. With temperate summers and moderate winters, the ULM enjoys summer rainfall of up to 1100 mm which leaves the predominantly grassland biome lush after the rains.

The ULM stretches over an area of 2506 km² and houses a population of just over 220 000 people, only 10% of which live in urban areas contributing to the rural personality of the area. The main language spoken in the area is isiXhosa with 98.9% of the population being African. KwaBhaca and EmaXesibeni are the two main urban centres in the municipality, both of which are located on the N2 highway which forms a link between KwaZulu-Natal, the Eastern Cape and Western Cape Provinces. Beside the two major nodal points, the municipality comprises of 230 villages, each of which contain 30 to 250 homesteads and this allows for the population density to average at around 88 people per square kilometre.

Challenges facing the ULM

This largely rural municipality encounters a variety of challenges due to low employment and education levels compounded by high poverty levels, with an estimated 36% of its population dependent on government grants as a monthly income. The household sector employs a large number of individuals, as does the agricultural sector despite the low contribution it makes to the economy. A daunting 72.1% of the economically active population does not earn a monthly income. These factors all impact on the low economic activity in the region. Further factors hampering development in the municipal area include extreme lack in infrastructure, in

the form of electricity, water and sanitation infrastructure. Housing structures are primarily informal in nature and municipal services are generally not sufficient to reach these areas. Refuse removal services, as an example, is only available to 5.7% of households. In the ULM, water based sanitation is only available in urban areas, and thus sanitation for the majority of the population is predominantly still in the form of pit latrines (61%) with up to 20% of households without any form of toilet facilities. These contributing factors have a direct effect on the overall vulnerability rating of the area.

As an added challenge, the ULM suffers from frequent extreme weather conditions such as tornadoes, lightning, and hail storms that frequently lead to property damage, loss of lives and livestock. The effect these hazards have on the local population and on the Municipality itself creates extra obstacles that impede development. Integrated and sustainable planning is required in order to address these challenges.

Prospects for the ULM

Various natural resources have highlighted economic development opportunities in the region. The main areas for potential economic growth that have been identified include the agricultural, tourism, forestry, construction and mining sectors, all of which have been included in the Local Economic Development strategies for the ULM.



Map 1 Overview of the Umzimvubu Local Municipality

5.2 Legal requirements

5.2.1 Legal requirements applicable to the ULM

According to section 53 of the Disaster Management Act, the Umzimvubu Local Municipality is legally obliged to prepare a disaster management plan for its area according to the circumstances prevailing in the area; 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.

The Constitution of the Republic of South Africa (Act 108 of 1996) gives everyone the right to a safe environment. In section 24 it is stated that everyone has the right to an environment that is not harmful to their health or well-being.

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 National Government recognized 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:

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 White Paper led to the promulgation of the Disaster Management Act, Act 57 of 2002, which is the regulatory framework for disaster management in South Africa. The Department of Cooperative Governance and Traditional Affairs (CoGTA), through the National Disaster Management Centre (NDMC), administers the Act.

National Disaster Risk Management Framework: The NDMC has prepared a National Disaster Management Framework, which aims to guide the development and implementation of disaster management in the country.

National Disaster Risk Management Centre Guidelines: The NDMC has developed guidelines for the Establishment of disaster management centres (DMC's).

Section 53(1) (a) of the Disaster Management Act, 2002 (Act 57 of 2002 – herein referred to as “the Act”) therefore requires the Umzimvubu Municipality to prepare a disaster management plan for its area according to the circumstances prevailing in its area and within the ambit of its municipal disaster management framework.

Section 53(2) (a) of the Act 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 32 of 2000) lists “applicable disaster management plans” as core components of an IDP.

According to Section 53(4) of the Act the Municipality must submit a copy of its Disaster Management (DM) plan, and of any amendment of the plan, to the Disaster Management Centre of the Alfred Nzo District Municipality, the Eastern Cape Province and the National Disaster Management Centre.

5.2.2 Motivation for national departments and Parastatals to compile plans

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

(1) Each national organ of state indicated in the national disaster management framework must prepare a disaster management plan setting out (i) 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

national disaster management framework; (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 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 Disaster Management Act, 2002 (Act 57 of 2002) 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 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 Act. The schedules are available at http://www.acts.co.za/public_service_act_1994/index.htm.

According to Section 1 of the Public Finance Management Act, 1999 (Act 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 Parastatals operating within the Umzimvubu Local therefore have a responsibility to have Disaster Management plans in place and can be engaged with in this regard. 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 the ULM and commerce and industry within the ULM on issues of risk and joint efforts to reduce risk or to respond to disasters.

5.3 The Disaster Management Institutional Placement within ULM

The Alfred Nzo District Municipality's Disaster Manager is directly responsible for the provision of Disaster Management services in the Umzimvubu Local Municipality. The current placement of the Disaster Management Function within the ULM's organisational structure falls within citizen and community services, which fits into the overall Structure as illustrated in Figure1 and further illustrated in Figure 2.

Figure 1: Organisational structure of the Office of the Municipal Manager of the Umzimvubu Local Municipality

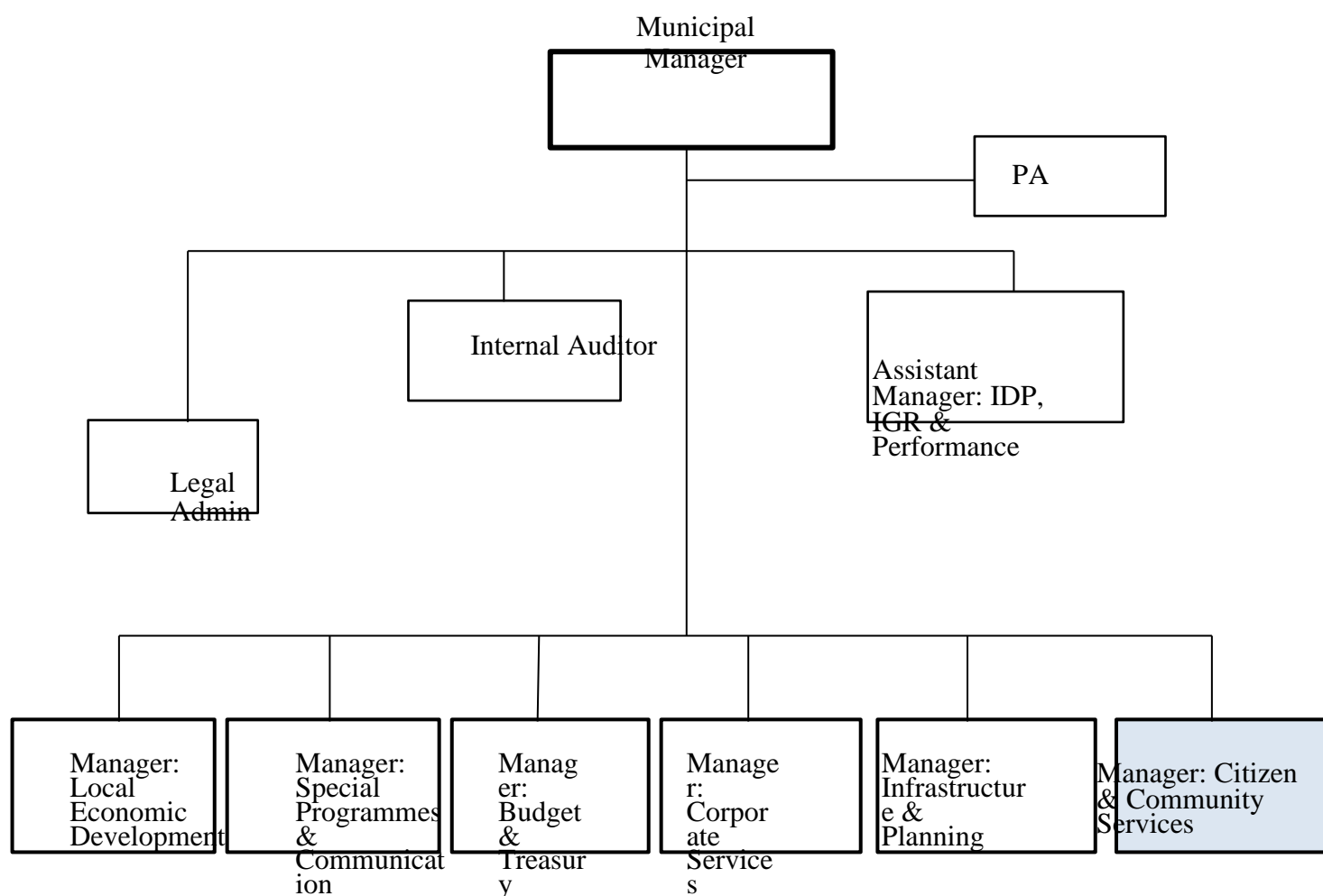


Figure 1: Organisational structure of the Office of the Municipal Manager of the Umzimvubu Local Municipality

The main nodes of disaster management in the area are focused in EmaXesibeni and KwaBhaca. The Alfred Nzo District Disaster Management Centre is located in EmaXesibeni, with a satellite office in KwaBhaca, and another satellite office in Maluti. The Umzimvubu Local Municipality's Disaster Management Officer is situated in KwaBhaca in the Local Municipal Offices. Incidents are reported to the District Municipality's emergency call centre, which then feeds information through to the Disaster Management Officer of Umzimvubu Local Municipality if ULM is affected.

The Alfred Nzo District Municipality is also responsible for Fire and Rescue Services in the Umzimvubu Local Municipality.

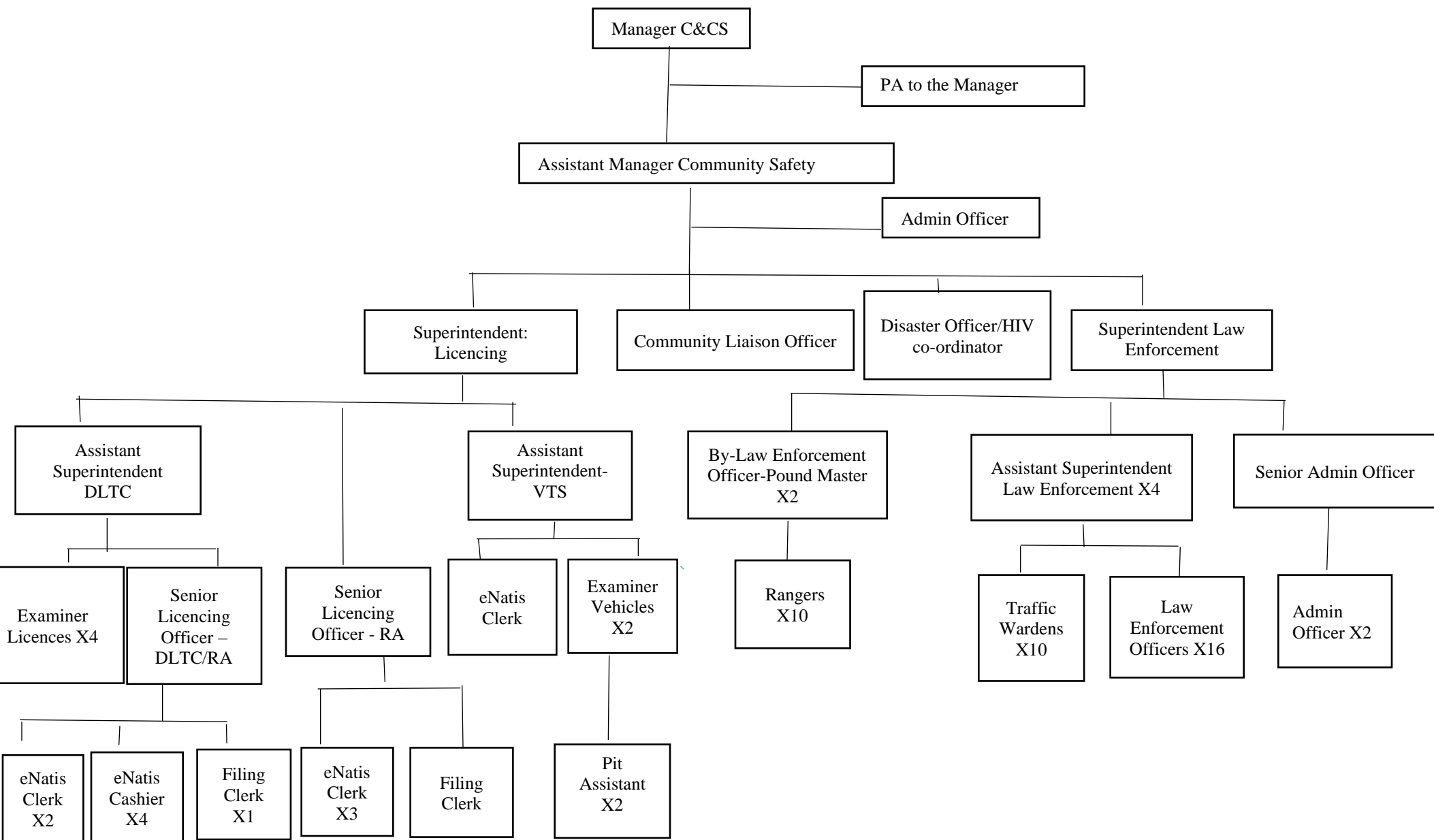


Figure 2: Placement of Disaster Management in the Citizen and Community Services in the Umzimvubu Local Municipality

5.4 Key outcomes

The Disaster Management Plan of the Umzimvubu Local Municipality seeks to achieve the following key outcomes:

- ☐ Integration of Disaster Risk Management into the strategic and operational planning and project implementation of all line functions and role players within the municipality;
- ☐ Informing planning and allocation of resources by the municipality to enable the reduction of community vulnerability;
- ☐ Resilient communities and
- ☐ An integrated, fast and efficient response to emergencies and disasters by all role-players.

5.5 Linkage with the Integrated Development Plan of the Umzimvubu Municipality

The following figure depicts the planning process for the development of local disaster management plans as well as the integration of such plans into the integrated development plan.

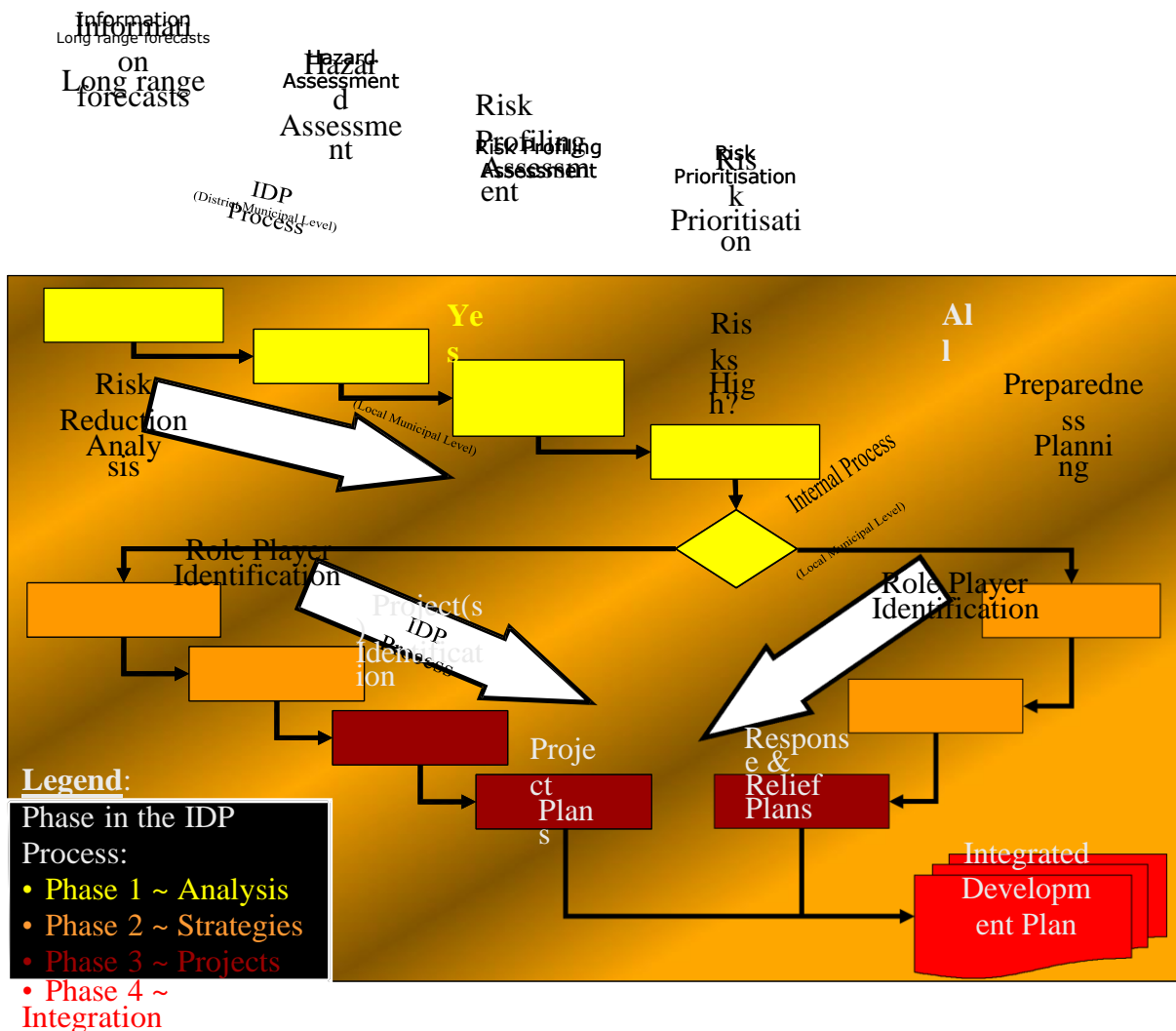


Figure 3 Planning process for the development of local disaster management plans and integration into the IDP

Both the Municipal Systems Act and the Disaster Management Act requires the inclusion of the Disaster Management Plan of the Umzimvubu Local Municipality into the Integrated Development Plan (IDP) of the Municipality. The Disaster Management Plan has become one of the criteria for determining a credible IDP document. Thus, disaster management is being elevated from the periphery of planning into the core of determining allocation of resources.

To ensure success the disaster management planning process involves:

In the first phase of the disaster management planning process, as in the IDP process, communities and stakeholders are given the chance to indicate/highlight the problems they experience and to determine their priorities (community based risk assessment), with inputs from Disaster Management. The outputs of this phase are a list of the intolerably high risks, the high risks and the tolerable risks for each of the wards / clusters in the municipality.

The intolerably high risks and the high risks are addressed. In this phase, the Advisory Forum, in conjunction with the technical task teams, will have to make recommendations on the most appropriate way(s) to address the intolerably high risks and the high risks, as well as, to ensure that project proposals are designed, which can be implemented.

The tolerable risks are addressed. The Advisory Forum, in conjunction with the technical task teams, must identify and recommend the minimum preparedness and contingency planning requirements to be in a position to address tolerable risk manifestation.

The Municipality, especially the IDP Manager and the Head of Disaster Management, has to make sure that the disaster risk reduction project proposals are in line with the objectives and the agreed strategies of the IDP of the Council.

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 risk management into their strategies, operational planning and project implementation.

It is strongly recommended that the municipality institutes the compulsory consideration of disaster risk 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 Umzimvubu Municipality.

5.6 Linkage with the Disaster Management Framework of the Umzimvubu Local

The Alfred Nzo District Municipality (ANDM) Disaster Management Framework is in place.

The Umzimvubu Municipality must prepare and execute its disaster management plan within the disaster management framework of ANDM. The National, Eastern Cape Provincial, Alfred Nzo District Municipal and Umzimvubu Local frameworks will guide the development of this plan and future versions of this plan.

5.7 Structure of the plan

The Municipal Disaster Management Plan of the Umzimvubu Municipality consists of the components as indicated in Figure 4.

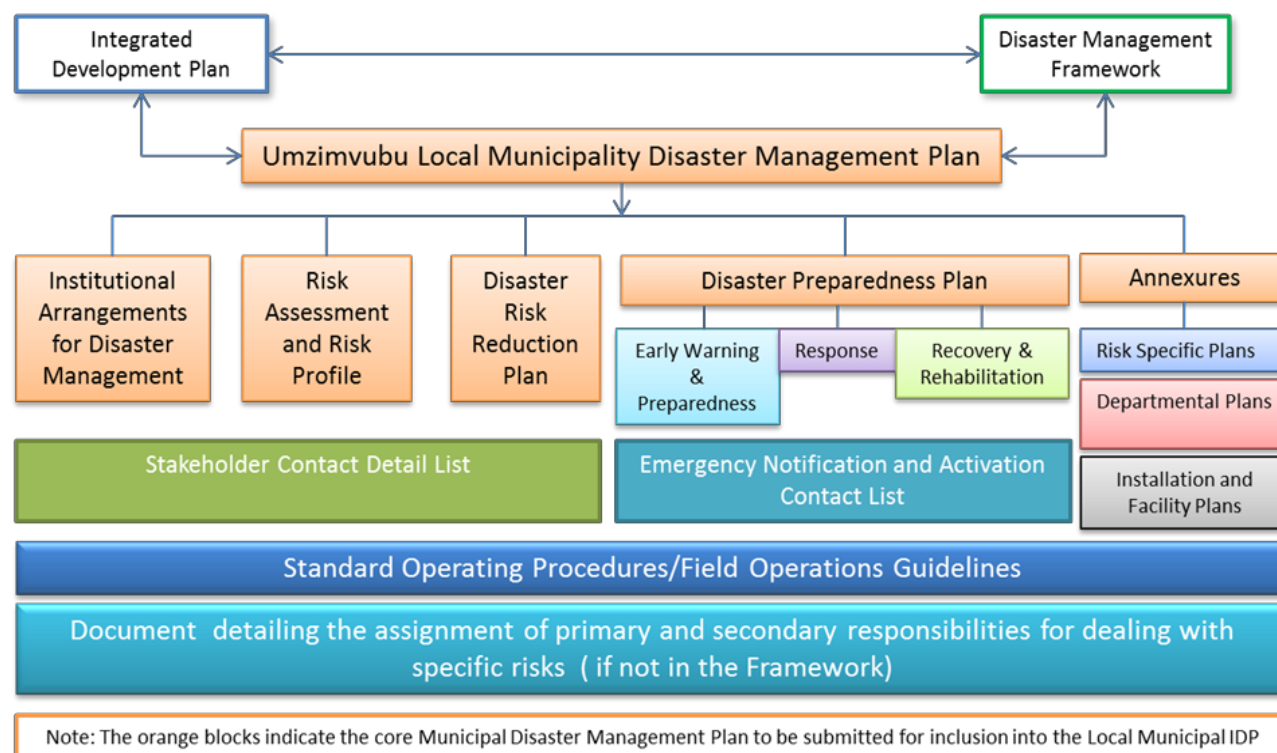


Figure 4: Structure of the ULM Disaster Management Plan

6. OBJECTIVES

The objectives of the plan are as follows:

To regulate the disaster response to the benefit of the community and visitors.

To respond effectively to the requirements of individuals towards the protection of life and property.

To establish those most vulnerable and at risk.

To provide immediate emergency relief materials for persons evacuated, or made temporarily homeless.

To restore normality on the affected community within a reasonable timescale, dependent on the seriousness of the incident.

6.1 TYPES OF DISASTERS

It often happens that disasters do not occur in isolation and that one disaster occurs as a result of another. Therefore it is important to be aware of all possible disasters that may affect your region.

DISASTER CATEGORIES		
Broad Hazard Category		Specific Disaster Risk Category
Hydrometeorological	Climate-Related	Extreme weather Meteorological drought
	Hydrological	Riverine flooding Storm surges Urban flooding Hydrological drought Agricultural drought
Geological		Seismic risks and earthquakes Rock falls and landslides
Biological	Fires	Urban fringe fires, Veld fires
	Epidemics	Humans, Livestock
Environmental		Air pollution Water pollution Soil erosion/land degradation
Technological	Risks associated with installations	Power plants Bridges, Dams Petrochemical installations
	Risks associated with transport	Roads Air
	Hazmat	Toxic cargo spills Radioactivity emissions
	Risks associated with flammable surfaces	Urban format fire Urban informal fire

6.2 RESPONSE TO A MAJOR DISASTER

a) Activating Procedure

The ULM Disaster Official, shall contact the Municipal Manager, Manager – Citizen and Community Services and Assistant Manager – Community Safety by telephone and inform them of the possible disaster threatening after having received an early warning from the Alfred Nzo Disaster Risk management of a possible incident, The Disaster Official shall then put herself/himself on standby.

Emergency Services shall then receive instruction from their Control Room to undertake evacuation in the event of a flood where residents' lives are endangered, as well as in other cases.

b) Establishment of a Joint Operations Centre

It shall be the responsibility of the Municipal Manager for the Umzimvubu Local Municipality, to invoke a district emergency response, after consultation with the Manager of Citizen and Community Services and Assistant Manager of Community Safety Division. All other managers in the institution must be informed immediately. At the onset of the event, the Municipal Manager, HODs, Assistant Manager of Community Safety and Disaster official shall congregate and determine if a Joint Operation Centre needs to be established.

The Municipal Manager as Head of the JOC shall have the responsibility, depending on circumstances to invoke all or part of the plan. The JOC shall determine what internal and external resources are required. A representative to represent ULM in the JOC must be identified.

c) Composition of Joint Operation Committee the JOC shall comprise of the following:

- Municipal Manager: Head of the JOC/Disaster Management.
- JOC spokesperson: Head of Communication.
- Disaster Management Team: Chief: Law Enforcement, Chief: Fire.
- Head of Departments: It is advisable that all Head of Departments attend the establishment meeting. Thereafter the Head of Departments are involved in terms of line function.
- S.A. Police Services: An officer, not below the rank of Inspector, with knowledge of the Umzimvubu Local Municipality Area, as well as knowledge of the specific area affected if appropriate.
- Medical Services: Medical Practitioner from either Madzikane or Mount Ayliff Hospital.
- Secretariat: A team responsible for the data collection, communication and JOC.
- Delegated Councillors: Two councillors are to be nominated to sit on the JOC. Ideally these should not be Ward Councillors as the Ward Councillors will be required within their wards.

Other possible members shall include, the Department of Labour, the Department of Social Development and the Department of Transport and SANRAL.

d) Functions of the Joint Operation Centre

- To act as a node for the required joint response according to the disaster itself and developing situation.
- To act as an emergency communication centre, for all responding services including public enquiries.
- To ensure continuity of locally motivated response.
- To record, process and act upon information received from whatever source.
- To act as a media centre, preparing media releases for residents and visitors.

7. COMMUNICATIONS

The JOC Media spokesperson shall be responsible for all communication.

All incoming calls shall be logged and channelled to the relevant office for prioritisation and action. As far as possible all logging and response should be captured electronically. Every role player will make use of his own communication equipment. The line function must in turn provide the Head of Communication with regular updates on progress and this information shall then be fed to the JOC.

The JOC shall require a minimum of two incoming lines and one outgoing unpublished number, as well as a further dedicated channel. A JOC shall be established where organization with regard to incidents will be handled. Ideally e-mail and fax facilities should be available and the support of Telkom, in the provision of additional communication, should be sought at the earliest opportunity. Regular line function briefings should be held to ensure continuity of effort, together with an overall assessment of progress.

The Media Officer shall send out information to the media and community, thus avoiding unnecessary pressures on those coordinating the emergency response, and also in an attempt to reduce the spread of rumours which otherwise could cause harm and unnecessary alarm. The use of the local media should be sought to achieve this.

Community-based Disaster Nodes shall be established in each affected Ward, which shall provide information to the JOC and feed information to the community. These shall be situated at the relevant Community Hall. Limited supplies shall also be placed in these centres.

7.1 COUNSELLING SERVICES

Where appropriate the counselling services of psychologist and local faith practitioners shall be sought. These services shall be available to all persons, directly or indirectly involved in the disaster itself.

7.2 DEBRIEFING

As soon as possible after the JOC has been established, Council needs to be briefed on the matter. The purpose of the briefing is to formally inform Council of the extent of the event, and to decide whether to declare the event a disaster. The outcomes of this meeting need to be communicated to Alfred Nzo District Municipality and the Provincial Administration.

7.3 CLOSURE OF INCIDENT

Once all of the emergency services have withdrawn from the scene with their onsite investigation completed, the JOC shall close, and it shall be the responsibility of the JOC to initiate whatever recovery programme is identified as necessary to re-establish the status quo.

8. CONSTITUTIONAL LEGISLATIVE MANDATES

In terms of Section 41(1) (b) of the Constitution of the republic of South Africa, all spheres of government, local government are required to secure the well-being of the people of the Republic. Local Government is also empowered to deal with a number of functions, which are closely related to Disaster Management under part B of schedule 4 and 5 of the Constitution. In addition Section 152 (1) (d) of the Constitution requires local government to provide a safe and healthy environment.

Specific statutory requirement/Legal Framework

The following Legislation impacts on the integrated Disaster Risk Management Planning effort and will provide the basis for operation by the relevant role players, whether they are lead or supporting disciplines:

- Municipal By-Laws
- National Road Traffic Act, Act 93 of 1996
- Act on Animal Sicknesses
- Criminal Process Act
- Act on Disaster Management
- Act on the transport of dangerous substances
- National Building Regulations
- Defence Act
- Act on the Convening of gatherings
- Act on Fire-Brigade Services, Act 99 of 1987
- National Act on Field and Forest Fires
- Act on Occupational Safety and Health, Act 85 of 1993
- Animal Protection Act
- Act on announcement of information
- Police Act
- Water Act
- Safety at Sport and Recreational events, Act 2 of 2010

9. MANAGEMENT STRUCTURE

9.1 Disaster Management

Disaster Management role in terms of the Disaster Management Act (Act 57 of 2002) Section 48(1) and (2), is to act as an advisory and consultative body during any event, so as to ensure that the appropriate prevention, mitigation and disaster response initiatives have been implemented.

As a major incident or a disaster occur, Disaster Management can perform a response coordinating role, ensuring that multi-disciplinary coordination is in place and communication between responding agencies is efficient.

10. RISK PROFILE: VUNERABILITIES ASSESSMENTS

Risk and vulnerabilities will determine the priorities for Disaster Management programmes and projects.

The following hazards were found as the most significant threats of disaster to the Umzimvubu communities.

10.1 Natural Hazard

- Fire (Forest & Bush)
- The risk of fire, particularly in the dry season is prevalent throughout the Municipal area.
- Fire (Informal settlements)
- Communities in informal settlements are the most vulnerable.
- Extreme weather events (Climatic)
- Floods
- During periods of heavy rainfall in the catchments areas, a number of low lying areas become flooded. Cut off low pressure system contributes to the floods in and around the Umzimvubu Local Municipality area.
- Gail force winds
- Gail force winds have increased over the years. Winds normally with a speed of from 34 to 40 knots (63 to 74 kilometres per hour)

10.2 Draught and water supplies

Drought risk is a risk, and is prevalent throughout the Municipal area.

It is important to note that drought management is a shared responsibility between all spheres of Government, the farming communities, the private sector and civil society.

Technological Hazard

a) Transportable and Hazardous Materials

The N2 Road and the current unmonitored transportation of Hazardous material create risk if accidents occurred. The National Road (N2) passing through the area is a conduit from the transportation of a large variety of goods including Hazardous Material. These include, but are not limited, to petroleum products and chemicals.

b) Power outages

The problem experienced by Eskom and the projected inability to meet future demands indicates that power outages are likely to occur on or more frequent basis. It is therefore imperative that emergency power facilities are put in place to maintain essential services.

Administrative Hazard

In any Municipal Administration the loss of or damage to Municipal records and IT Systems will result in major difficulties.

- Human Hazards
- Arson / Bomb Explosion
- Fires in the informal settlements mentioned above are sometimes attributed to arson.
- Crime
- Crime is an ongoing social hazard particularly prevalent in areas of high unemployment.

11. NEW SEVERE WEATHER ALERT LEVELS

Floods

Although most floods occur in rural areas, urban areas are also at risk of flooding as build-up areas make it difficult for the soil to absorb rainwater. During periods of urban flooding, streets can become swift-moving rivers, which can cause extensive damage to buildings and infrastructure.

What you can do to reduce the risk of flooding in your community:

- Be aware of where you build your home — avoid high-risk areas such as riverbeds and floodplains.
- Speak out if you think that local developments are increasing your risk of flooding.
- Consult with your local councillor and disaster management centre about flood risks and the development of a community flood risk management plan.

What to do if flooding is imminent:

Listen out for warnings on radio and TV

Alert your neighbours, especially the elderly and people with special needs

If advised to evacuate, do so immediately. Save yourself and your loved ones, NOT your belongings.

Protect your Home

Raise your floors aboveground level

Move to higher ground if you are staying in a flood-prone area

Warn others not to build in areas that are prone to flooding

Ensure that water can drain away from your house. Make furrows to channel water around your site and keep storm-water drains clear — especially during heavy rains.

Report or blocked or damaged storm water systems to your municipality

Waterproof your roof

Keep sandbags ready to divert water from your home

What to do during a flood

No matter how the flood occurs, the rule for being safe is simple: head for higher ground and stay away from flood waters. If you come upon flood waters, stop, turn around and go another way. Whether by car or on foot, never try to cross flood waters.

Watch out for animals, especially snakes— remember that they were also driven from their homes and are most probably scared, which makes them more dangerous.

Stay away from streams and river banks in flooded and recently-flooded areas

Stay away from damaged power lines and electrical wires. Electrocuting is another major source of deaths in floods as electric current passes easily through water.

If possible, listen continuously to the radio for safety updates and instructions from the authorities.

Do not become part of the "spectator factor" during flooding congestion and could place you at risk.

Protect Your Health

Flood water is dirty and it can make your family sick.

- **Tell children not to play in flood water**

- **Beware of sharp objects in the water**

- **Wash your hands with soap and clean water before working with**

Veld Fires

A veld-fire is any fire that occurs outside the boundaries of urban built areas and poses the potential of running out of control. About 90% of veld fires are started by humans; the other 10% are started by natural occurrences.

Warning: Cigarette Butts are the most common cause of veld fires. 3 Components are needed for a veld fire to start: oxygen, fuel and heat.

At least 16% oxygen must be in the air for a fire to start (our atmosphere contains 21 %o)

Fuel is any living or dead material that will burn. Fuels such as dead plants, dry leaves and grass burn easier than green plants because the dead material contains less moisture.

Heat is usually supplied by a lightning strike or cigarette butts.

Protect your Home

During fire-season it is important to be vigilant and make sure your home is not susceptible to fire damage.

- **Form a safety zone around your house, using paving, gravel or green lawn that is kept short and well-watered. Keep the area free of dead leaves and twigs. Avoid having trees and bushes adjacent to the house, or creepers on the walls**
- **Keep roof surfaces and gutters free from flammable debris**
- **Choose fire-resistant, water-wise plants for your garden — especially those near your house.**
- **Install screens or shutters. During a fire, wind can blow embers on your property, sometimes with enough force to break windows.**
- **Keep useful tools readily available to deal with small fires before the fire professionals arrive e.g. a rake, axe, saw, spade, fire beaters**
- **Store any combustible substances e.g. firewood, gas, petrol, paint and solvents as far away from the living area as possible.**
- **Make sure your water hoses are in good working order, and can reach all parts of the property.**

If a fire approaches:

- Hose down the garden and house, especially on the side of the approaching fire
- Fill baths and other containers with water for use in case the water pressure drops
- Block gaps under doors with wet towels
- Close doors, windows and window screens
- If you have decided to stay on your property, go indoors before the fire front arrives and stay there until it has passed
- Remain vigilant even after the fire front has passed: watch for flare-ups and listen to radio broadcasts for advice from the authorities

12. INSTITUTIONAL ARRANGEMENTS

This section describes the planning for institutional arrangements for Disaster Management within the Umzimvubu Local Municipality.

12.1 Shared responsibility for disaster management

The responsibility for reducing disaster risk, preparing for disasters, and responding to disasters is shared among all departments and employees of the Umzimvubu Local Municipality, local communities within the Umzimvubu Local Municipality, all departments and employees of the Umzimvubu Municipality, all district municipal, provincial and national organs of state operating within the municipality, all sectors of society within the municipality and, perhaps most importantly, all the residents of the municipality.

12.1.1 Focal points for disaster management

Although the Community Safety department within the Umzimvubu Municipality is responsible for the Disaster Management function in terms of directing and facilitating the disaster risk management process, it cannot perform the whole spectrum of disaster risk management activities on its own. Disaster risk management is everybody's business. It is therefore recommended that each municipal department within the Local Municipality assign a person or section within the department to be the focal point for disaster management activities in that department. The same applies to district, national and provincial departments operating within the municipality.

The disaster management activities to be performed within departments include participation in disaster risk reduction as well as preparedness and response.

Action: The Disaster Management Officials of the Umzimvubu Municipality will circulate forms on an annual basis requesting role-players to indicate their focal points for disaster management. The forms shall provide space for indicating the department, position and full contact details (also after hours) of the focal point and at least one alternate contact person.

12.1.2 Departments with primary responsibility for specific hazards and disaster risks

Where a department is primarily responsible for a specific hazard, the department's role in disaster risk management for that specific hazard will be more than mere participation: it will have to lead risk reduction as well as preparedness activities due to its expertise in the field. Section 3.3 from page 24

described the responsibilities of specific departments within the Local Municipality in terms of Disaster Management.

Umzimvubu Disaster Management can support such a department with advice, information, facilitation and coordination.

Action: Umzimvubu Disaster Management will maintain a list of hazards that may affect the municipality with associated primary role-players indicated for risk reduction as well as preparedness for each specific hazard. (See next section for the process of assigning such responsibility.)

The plans for disaster risk reduction and preparedness compiled by these primary role-players should be attached to this plan or should be referenced as supporting documentation as indicated in Figure 4: Structure of the Umzimvubu Municipal Disaster Management Plan. These documents must be easily accessible to all relevant role-players.

12.1.3 Assignment of responsibility to deal with specific disaster risks

Departments that are responsible for specific services in normal conditions will remain responsible for such services during disasters. The declaration of a state of disaster and the tighter coordination instituted during disasters does not absolve any agency of its assigned responsibilities.

Legislation assigns responsibility for most disaster risks to specific departments or functions. There are however grey areas related to some disaster risks, for example there may be some debate around who should be the lead agent for a hazardous materials incident that involves crime / terrorism and injured persons. In order to ensure clear roles and responsibilities and enhance integrated disaster risk management efforts, such grey areas must be addressed and clearly assigned responsibilities must be confirmed.

Action: The risk profile of the Umzimvubu Municipality will be considered and primary and supporting role- players will be identified for each identified risk. Such allocation of primary and supporting roles will be done in consultation with all relevant role-players, will be informed by existing legal frameworks, and assignment will be done on a consensus basis.

The above assignment of responsibilities will be revisited and confirmed on an annual basis, and will be recorded and distributed in the format indicated in Table 1 below.

Table 1: Assignment of primary and supporting role-players for disaster risks

Description of disaster risks identified in the risk profile of the municipality (Complete one table per risk)	Primary role-player in risk reduction	Supporting role-players
	Primary role-player in preparedness to	Supporting role-players
	Primary role-player in response and	Supporting role-players
	Primary role-player in recovery &	Supporting role-players

The document assigning responsibilities can become an annexure of the Municipal Disaster Management Plan of the municipality, if such assigning of responsibilities have not been dealt with in the Municipal Disaster Management Framework.

12.2 Corporate Disaster Management Structure for the Umzimvubu

Local Municipality

In this section a corporate Disaster Management structure for Umzimvubu Local Municipality is proposed.

While limited facilities are in existence for a Disaster Management Centre, the organisational structure for a Disaster Management Centre able to perform Disaster Management duties as envisaged within the Disaster Management Act and Disaster Management Framework is not yet in existence.

The Corporate Disaster Management structure for the Umzimvubu Municipality must deal with both proactive and reactive disaster management issues and encompasses more than the department which is responsible for the function. From the next sub-section the proposed structure for the ULM Disaster Management will be described. The structure can include the elements described in the next sub-section but may be collapsed into a smaller number of elements if less complexity is required.

12.2.1 Umzimvubu Disaster Management Centre

“Umzimvubu Disaster Management” refers to the department within the municipality assigned with the Disaster Management function.

The Disaster Management function of the Umzimvubu Municipality should aim to

- Prevent or reduce the risk of disasters thus mitigating the severity or consequences of disasters;
- Prepare for emergencies;
- Respond rapidly and effectively to emergencies and disasters;
- Implement post-disaster recovery and rehabilitation within the municipality by monitoring, integrating, co-ordinating and directing the disaster risk management activities of all role players.

A fully established and functioning Municipal Disaster Management Centre (facility) is a key element of this plan. This centre would have to have the appropriate levels of capacities in the form of a facility, vehicles, equipment and personnel.

12.2.2 Umzimvubu Facilities and Equipment: Disaster Management Communications Centre

This is the facility providing 24-hour emergency and essential services contact points to the public within the municipal area. The Centre is responsible for day-to-day emergency response by municipal departments and for the establishment of strategic communication links. The Umzimvubu Disaster Management Communications Centre will liaise closely with the Emergency Control Centres / Groups of the Alfred Nzo District Municipality and other stakeholders within the Umzimvubu Municipality on an on-going basis. The use of radios, cell phones and landlines are all essential in maintaining proper communications lines before, during and after a disaster.

Alfred Nzo District has established a satellite office in Mount Frere. The ANDM Fire Services Control Centre serves as the emergency call centre for ULM as well. ULM has no dedicated facilities for a disaster management operations centre, emergency call centre or JOC, Currently the Local Municipality only provides immediate social relief and the ANDM conducts further response and relief measures.

Action: Umzimvubu Disaster Management will consider establishing and maintaining a fully staffed and resourced Disaster Management Communications Centre and if required collaborate with

other agencies to maintain 24-hour per day, 7 days per week public emergency and essential services call-taking capacity.

12.2.3 Umzimvubu Facilities and Equipment: Disaster Operations Centre (DOC)/Joint Operations Centre (JOC)

The Umzimvubu DOC is a facility equipped to serve as command and coordination centre during disasters, where the joint response & relief management team will convene. Alternative facilities should be identified as back-up to the primary DOC. The term JOC for Joint Operations Centre can also be used for this facility.

Action: Umzimvubu Disaster Management will consider establishing and maintaining a fully staffed and resourced Disaster Operations Centre for activation as and where required and will identify fall-back or alternative facilities for the same purpose. In addition, equipment to implement Operations such as Disaster Response vehicles that will allow efficient response for disaster or emergency situations will be contemplated.

The current Umzimvubu Local Municipal Disaster Management capacity and capability is as follows:

Table 2 ULM Disaster Management capacity

Disaster Management Framework		Disaster Management Plan (approved by Council)		Disaster Management Advisory Forum		Disaster Management Centre		Head of the DM Centre appointed		Placement	Number of personnel.
YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
	X		X	X			X		X	Citizen and Community Services	1

The structure illustrated below is a suggested organisational design for ULM Disaster Management which uses a combination of functional specialisation and area-based management.

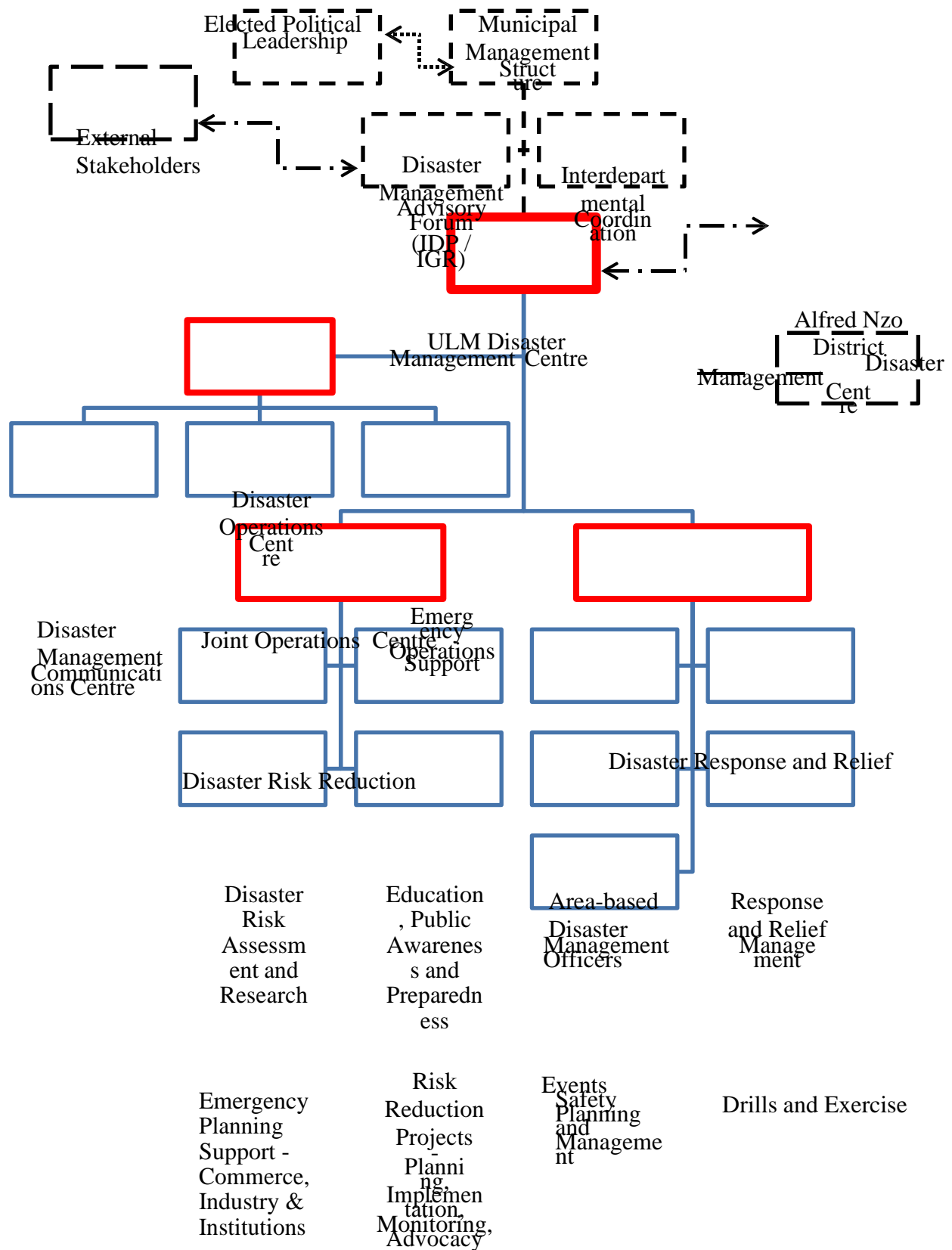


Figure 5 Proposed organisational design for Disaster Management in ULM. The solid lines depict the ULM Disaster Management Centre, the dotted lines indicate reporting lines to the various government structures and the dotted/line structures indicate Disaster Management institutions that interface with the ULM Disaster Management Centre

12.2.4 Umzimvubu Local Disaster Management Advisory Forum

Municipalities may establish municipal disaster management advisory forums as described in Section 51 of the Disaster Management Act, 2002. It is advantageous for a Local Municipality to establish such a forum to coordinate strategic issues related to disaster management such as risk assessments and to approve and/or review the disaster management plan for the municipality before it is submitted to Council. The frequency of meetings of such a body is 2-4 times per year or as required.

Action: The Umzimvubu Local Municipality has an established Advisory Forum which will consider merging into the existing IDP and IGR Representative Forum and Steering Committee to lessen the number of meetings that needs to be attended. This Forum meets quarterly, and the Agenda is informed by the stages of the IDP. It is proposed that disaster management consultation becomes a standing agenda item for IDP and IGR meetings.

12.2.5. Interdepartmental Disaster Management co-ordination

Internal coordination will occur at manager level where instructions and identified projects from the Advisory Forum can be implemented and tracked. Municipal top-management meetings can serve as a coordination forum or Steering Committee for disaster management issues within the municipality. Although a dedicated structure can be created for this purpose, this role will be performed by the top management team of the municipality to reduce the complexity of the disaster management structure. Ad-hoc external representation may form part of the deliberations upon invitation.

Action: The Umzimvubu Local Municipality will consider the establishment of a dedicated body for Interdepartmental Disaster Management coordination, or will assign this responsibility to the top management team (of officials) of the municipality. An Interdepartmental Working Group currently exists within the ULM, and meets on a quarterly basis. ULM Disaster Management could consider being incorporated into the existing Interdepartmental Working Group.

12.2.6 Focal points for disaster management within municipal departments.

Refer to the section 3.1.1 above.

12.2.7 Departmental planning groups

This element relates to planning groups that can be established within departments within the Municipality to deal with internal disaster management issues such as the compilation of departmental disaster management plans and contingency plans for facilities and services of the department. The disaster management focal points of such departments will be involved in these planning groups.

In a less complex design these groups can be integrated with others to become technical task teams.

Action: Focal points will be empowered and supported by their departments / organisations to establish, manage, and participate in departmental planning groups.

12.2.8 Risk reduction project teams

These are multi-disciplinary project teams convened to address and reduce a specific disaster risk. The teams are convened by the primary role-player for the risk and supported by Disaster Management.

In a less complex design these teams can be integrated with others to become technical task teams.

Action: The primary role-players for specific hazards or disaster risks, in collaboration with Umzimvubu Disaster Management, will establish and manage risk-reduction project teams as required or when requested by the Disaster Management Advisory Forum. (Existing structures should be used as far as possible to prevent duplication and reduce the meeting burden on role-players.)

12.2.9 Preparedness planning groups

These are multi-disciplinary planning groups convened to ensure a high level of preparedness for a specific disaster risk. They can be convened by the primary role-player for the risk and supported by Disaster Management.

In a less complex design these groups can be integrated with others to become technical task teams.

Action: The primary role-players for specific hazards or disaster risks, in collaboration with Umzimvubu Disaster Management, will establish and manage preparedness planning groups as required or when requested by the Disaster Management Advisory Forum. (Existing structures should be used as far as possible to prevent duplication and reduce the meeting burden on role-players.)

12.2.10 Joint response & relief management teams

Mostly flowing from a preparedness planning group, this is a team that is mobilised to deal with the immediate response & relief required during or immediately after major incidents and disasters. Such teams will normally convene in the Disaster Operations Centre (see description below).

In a less complex design these teams can be integrated with others to become technical task teams.

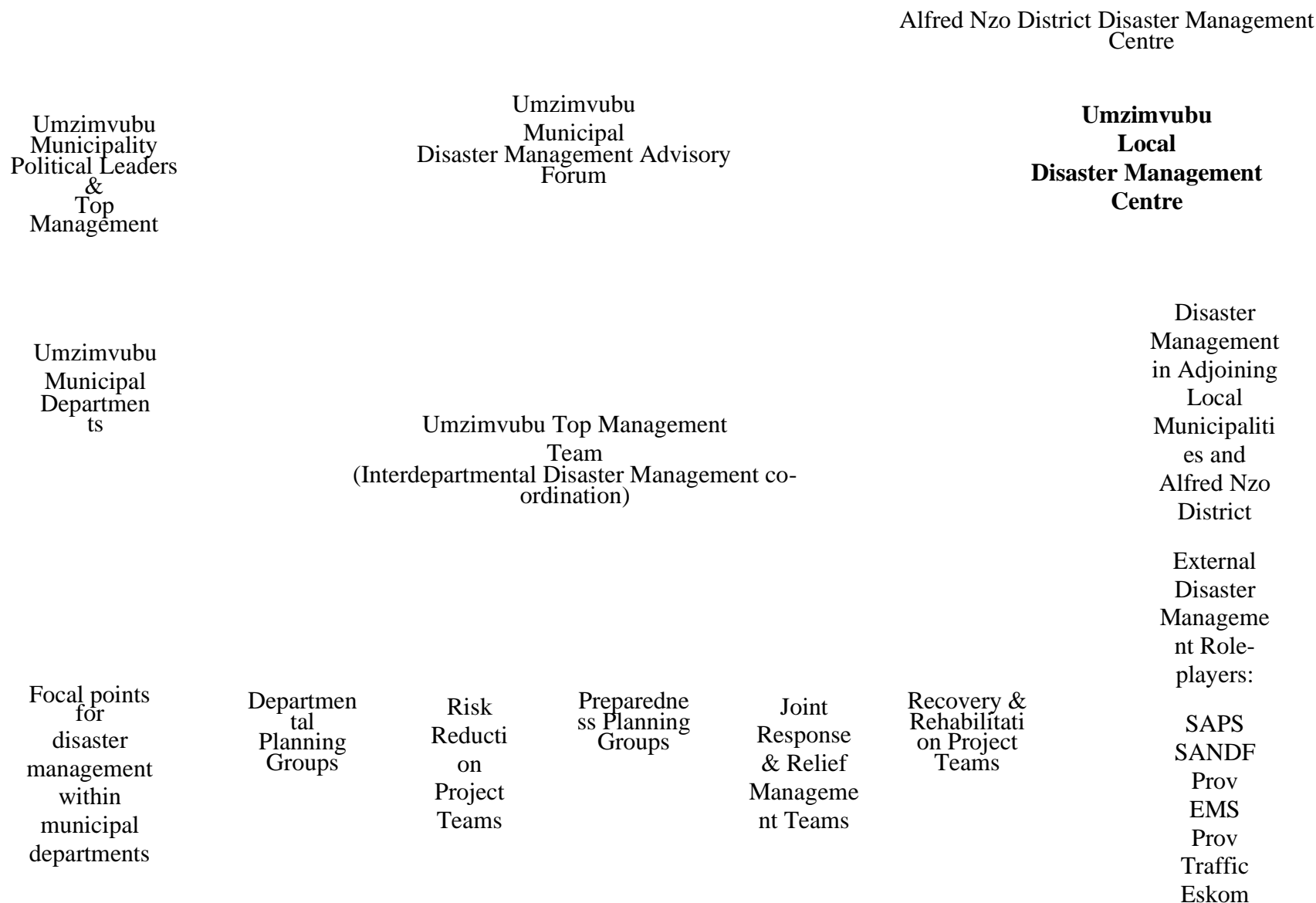
Action: The preparedness planning group for each hazard will detail how the activation of a joint response and relief management team for that specific hazard will be managed, and who will form part of the team.

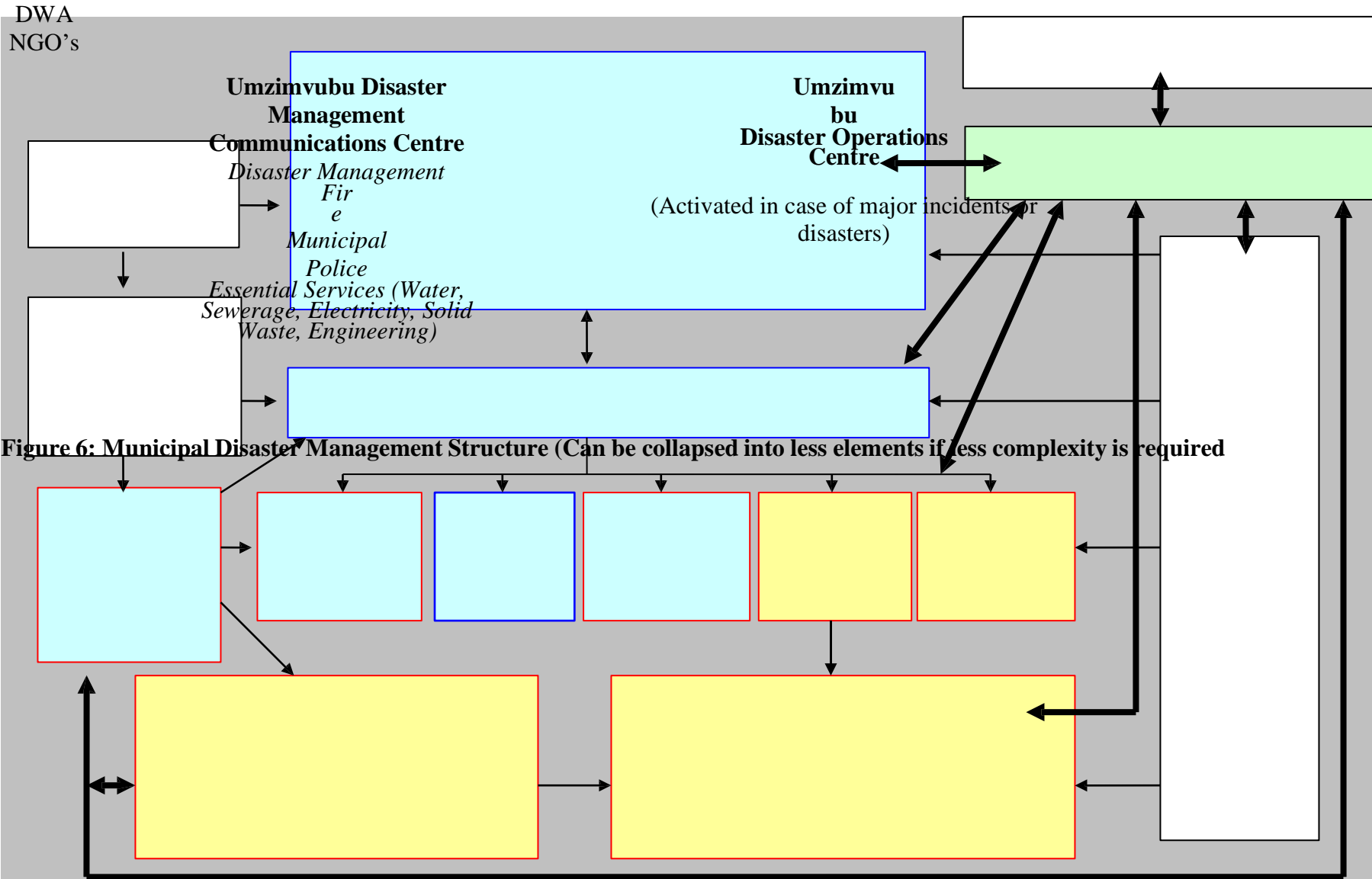
12.2.11 Recovery & rehabilitation project teams

These are project teams managing recovery and rehabilitation after disasters, mostly on a project-management basis. Disaster recovery and rehabilitation must focus on risk elimination or mitigation. Departments who are responsible for the maintenance of specific infrastructure are also responsible for the repair or replacement of such infrastructure after disasters.

In a less complex design these teams can be integrated with others to become technical task teams.

Action: The preparedness planning group for each hazard will detail how the activation of recovery and rehabilitation project teams for that specific hazard will be managed, and who will form part of the teams.





12.3 Corporate Responsibilities

The main Umzimvubu Local Municipal Stakeholders have specific corporate responsibilities with regards to disaster prevention/risk elimination projects and disaster response scenarios. The primary objective of each municipal stakeholder must be to contribute, from their specific areas of expertise, to the prevention of the occurrence of emergencies or disasters that threaten life, property, the environment or economic activity in the Umzimvubu Local Municipality.

12.3.1 Mayor

The Mayor is ultimately in charge of the emergency/threatening disaster. The Mayor or Acting Executive

Mayor, as Head of Council, is also responsible for:

- Declaring a state of disaster to exist;
- Notify the MEC of Local Government of the declaration of a local state of disaster and the termination of the declaration of a state of disaster;
- With the assistance of Municipal staff, ensure that the Municipal Councillors are advised of the declaration and termination of declaration of the state of disaster and are kept informed of the (potential) impact of the event(s)
- Ensuring that the public, the media and neighbouring municipal officials are also advised of both the declaration and termination of a state of disaster.

12.3.2 Councillors

Councillors must ensure that ward committees are established and involved in disaster risk management programs with the emphasis on disaster risk reduction and related public awareness and education. The main aim is to enhance the natural coping skills of the public.

12.3.3 Municipal Manager

To ensure disaster prevention, risk reduction and disaster preparedness, the Municipal Manager must ensure that the disaster management function is executed in an effective and efficient manner in the area of the Umzimvubu Local Municipality.

Before, during and after emergencies or disasters it will be the responsibility of the municipal manager to personally, or through a designated official:

- Report, liaise and consult with the Mayor and external provincial and national government departments on emergency impact and response to the Mayor;
- Report on event impact and response to the councillor(s) for the affected area(s);
- Report on event impact and response to the remaining Councillors;
- Notify next of kin when a Local Municipality employee is injured, missing or killed;
- Authorize extraordinary expenditures;
- Identify persons/organizations to receive recognition for contributions to emergency response.

12.3.4 Head of the Department Citizen and Community Services

The Head of the Department: Citizen and Community Services, responsible for the Disaster Management

Function within the ULM, is responsible for the following:

- Ensure that departmental disaster plans are compiled and maintained;
- Ensure the effective planning for, utilisation and functioning of municipal emergency services for pre- disaster risk prevention, mitigation and reduction, disaster response and post disaster recovery and rehabilitation;
- Compile pro-active departmental disaster management programs to support risk reduction or elimination;
- Compile reactive departmental disaster risk management plans to ensure municipal services continuation during emergency/disaster situations;
- Coordinate response and mutual aid agreements with adjacent municipalities and private sector entities.
- Compilation of pro-active departmental disaster management programs to support risk reduction or elimination;
- Compilation of reactive departmental disaster risk management contingency plans to ensure service continuation during emergency/disaster situations;
- Determine resource needs and associated training for disaster management purposes;
- Ensuring liaison with voluntary and private role players, augmenting and coordinating Public Health resources.

12.3.5 Disaster Management Officer

The Officer is responsible to ensure that disaster risk reduction institutional arrangements address all capability

(Skills) and capacity (resource) needs, which includes, but is not restricted to:

- A dedicated disaster risk management communication system;
- Community based risk assessment at regular intervals;
- Community based aspect specific skills enhancement;
- High risk hazard research through the advisory forum technical task teams;
- Access to emergency supplies;
- Exercise response and contingency plans;
- Ensure “memoranda of understanding” and “mutual aid agreements” with neighbouring local government
- And private entities.

12.3.6 Manager Infrastructure and Planning

The Manager Infrastructure and Planning must ensure that disaster risk management plans are compiled and maintained with specific reference to the following:

- Compilation of pro-active departmental disaster management programs to support risk reduction or elimination;
- Compilation of reactive departmental disaster management plans to ensure service continuation during emergency/disaster situations;
- Identifying and prioritizing essential services that require special maintenance and/or restoration as the result of an emergency or disaster;
- Establishing and maintaining a resources database that is integrated with the Disaster Management Centre’s disaster management resources database;
- The conducting of regular environmental impact studies.
- That all housing projects and development comply with disaster risk reduction principles;

- The availability of alternative office space for the ensured continuance of Municipal Services in the case of a disaster adversely affecting council property.

12.3.7 Manager Corporate Services (Sound Governance and Human Resources)

The Manager Corporate Services must ensure that disaster risk management plans are compiled and maintained in his/her service, with specific reference to the following:

- Compilation of pro-active departmental disaster management programs to support risk reduction or elimination;
- Compilation of reactive departmental disaster management plans to ensure service continuation during emergency/disaster situations;
- Monitoring compliance with relevant legislation, regulations, licenses and by-laws;
- Supplying resources for disaster management purposes.
- Coordinating of the establishment for human resource base to assist during disasters.
- Coordinating offers of and appeals for volunteers in conjunction with the Public Relations Officer under the direction of the Disaster Management Advisory Forum (DMAF);
- Supporting the DMAF in risk-reducing public education and awareness (risk reduction) programs;
- Research and document potential occupational health and safety issues to which all emergency responders, including volunteers, might be exposed to;
- Ensure that all departmental and emergency responders attend appropriate training and refresher courses

12.3.8 Manager: Special Programmes and Communication

- The responsible person must ensure that disaster risk management plans are compiled and maintained with specific reference to the following:
- Compilation of pro-active departmental disaster risk management programs to support risk reduction or elimination;
- Compilation of reactive departmental disaster management plans to ensure service continuation during emergency/disaster situations;
- Disaster Risk management projects must be forwarded to the Manager Communication, via the DMAF, especially those aimed at risk reduction and must be communicated to ensure effective public awareness.

12.3.9 Chief Financial Officer

The Chief Financial Officer must ensure that disaster plans are compiled and maintained with specific reference to the following:

- Compilation of pro-active departmental disaster risk management programs to support risk reduction or elimination;
- Compilation of reactive departmental disaster risk management plans to ensure service continuation during emergency/disaster situations;
- Managing donations for emergency response;
- Facilitating emergency procurement;
- Initiating and facilitating efforts to make funds available for disaster management in the municipal area;
- Supplying financial resources for disaster management purposes;
- Liaising with the Provincial officials with respect to the utilization of Provincial emergency relief funds where applicable;
- Setting up a dedicated disaster contingency fund.

12.3.10 Internal Auditor

The Internal Auditor must ensure task compliance as contained in the Disaster Management Plan with specific reference to;

- Disaster risk management plans, programs and procedures with regard to;
- Risk assessment from a disaster risk reduction and prevention management perspective.
- Emergency plans and activation procedures (preparedness / response / contingency).
- Standard Operating Procedures (SOP'S)
- Auditing of disaster risk reduction institutional capacity, plans and implementation management processes in compliance with the requirements the Disaster Management Act (Act 57 of 2002).

12.3.11 Manager: Local Economic Development

The Manager Local Economic Development must ensure that disaster risk management plans are compiled and maintained with specific reference to the following:

- Compilation of pro-active departmental disaster risk management programs to support risk reduction or elimination;
- Compilation of reactive departmental disaster risk management plans to ensure service continuation during emergency/disaster situations;
- Ensure that risk reduction and mitigation principles are applied in all development projects;
- Include the reduction of natural disasters as an element in environmental education programmes;
- Supplying resources for disaster management purposes;
- Supply information, to the disaster management centre, regarding projects in the District, economic development planning, spatial development and tourism.

12.3.12 Manager: IGR & IDP & Municipal Performance

The Manager must ensure compliance with specific tasks as contained in the Disaster Management Plan:

- Disaster risk management plans and procedures with regard to;
- Risk assessment from a disaster management perspective;
- Disaster Risk Management incorporated into IDP plans and projects.

13. 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 historical information, and workshops and focus groups with subject specialists and Disaster Management stakeholders within the ULM.

13.1 Risk Profile of the Umzimvubu Municipality

Various disaster risks have been identified and assessed, as set out in detail in the Risk Assessment Report accompanying this document. The guidelines accompanying this document describe Aurecon's risk assessment methodology.

The following disaster risks were identified as priority risks to be addressed by disaster risk reduction as well as preparedness plans:

- Severe storms
- River / Flash Floods
- Strong winds
- Veld Fires
- Drought

The above lists illustrate the types of disasters that pose the highest risks within the area of the Umzimvubu Municipality and their possible effects. The communities at risk can be derived from the risk lists, and are also shown in the risk assessment that was conducted for the area.

More detailed risk descriptions, inclusive of hazards, vulnerability and capacity descriptions, are available in the detailed risk assessment document which accompanies this plan.

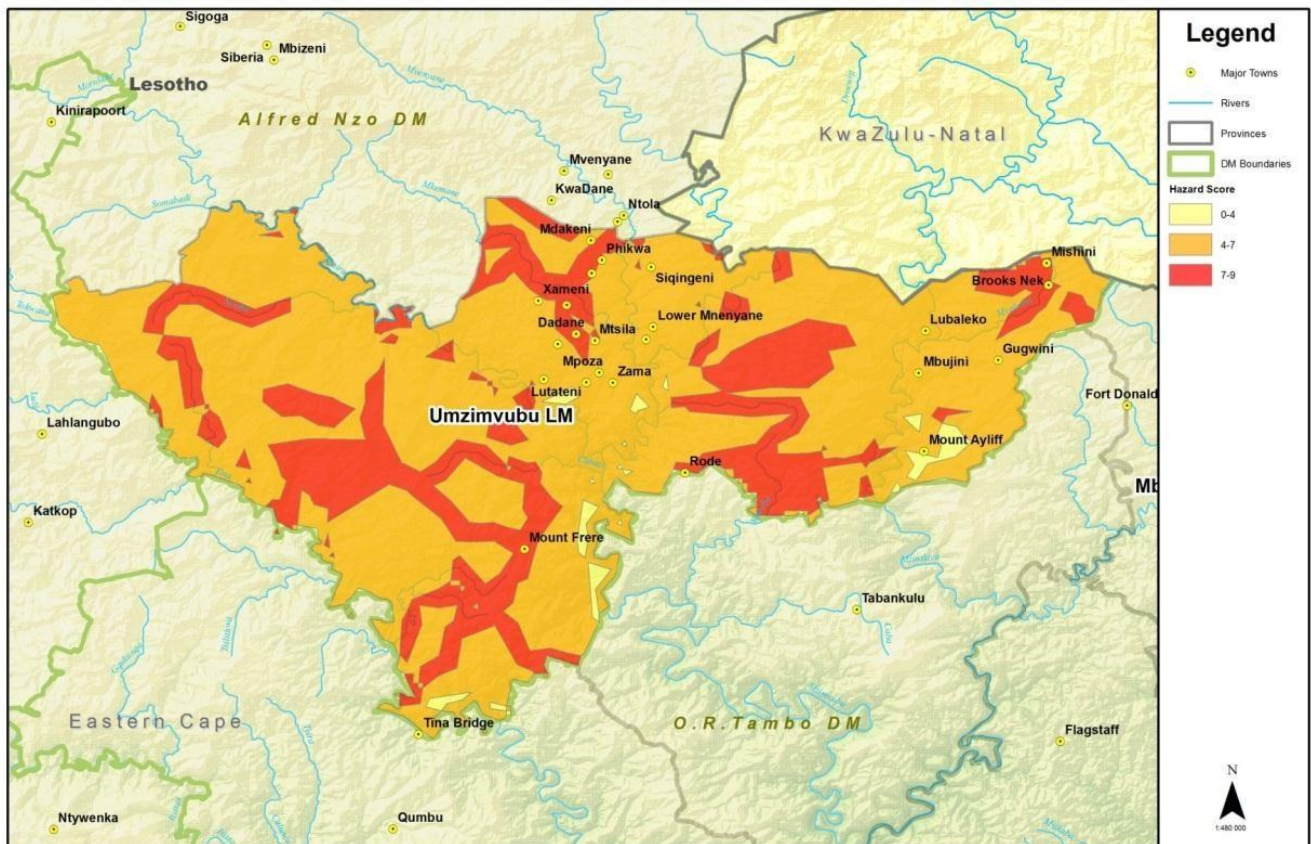
Table 3 gives an overview of the identified hazards for Umzimvubu Local Municipality, and Map 2 illustrated the areas that are exposed to the various identified hazards and combines their respective intensities and probabilities to depict areas that are mostly exposed to these hazards.

Table 3: Identified Hazards in the ULM	
Natural Hazards	
Hydro Meteorological Hazards	
Drought	Hail storms
Erosion	Severe storms
Veldt Fires	Violent wind/Tornadoes
Riverine and Flash Flooding	Snow/Cold snap
	Heat Waves
Biological Hazards	
TB	Measles
Foot and Mouth	Rabies
(Animals) Flu	
Rabies (Human)	
HIV/AIDS	
Geological Hazards	
Earthquake	Landslides/Mudflows
Technological Hazards	
Sewerage and drainage infrastructure failure	Transport related accidents
Hazardous material spillage on roads	Industrial accidents
Illegal Dumping	

Environmental hazards
Air pollution
Water pollution

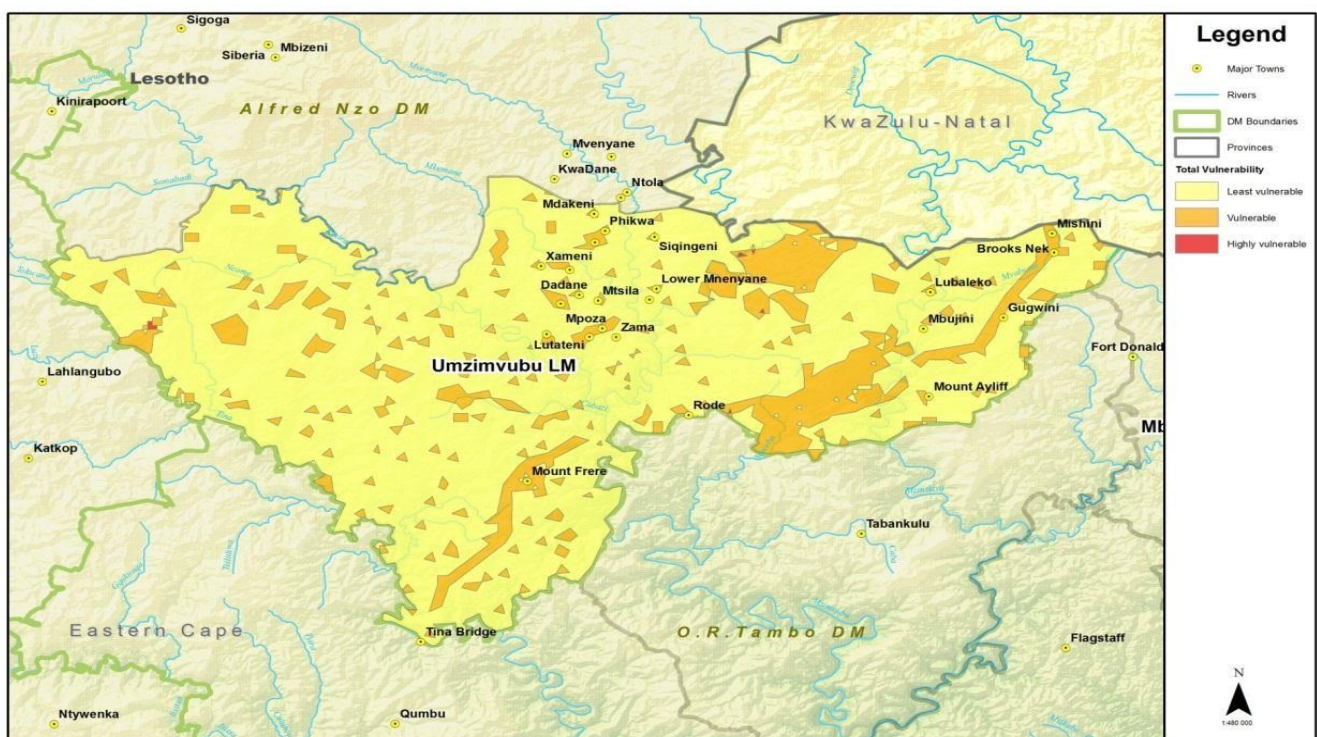
Soil contamination

Map 2: Total Aggregated Hazard Map of the ULM



The total vulnerability profile of Umzimvubu is illustrated in Map 3. This includes the respective social, environmental, economic and critical facilities' vulnerability, which were overlaid, and recalculated to produce the total vulnerability map. The data used to create these maps was taken from ENPAT, RAVA, and StatSA and from the municipality. All the data is represented in separate maps in the complete risk assessment document.

Map 3: Total Vulnerability for the ULM



The table below provides a summary of the results of the risk assessment conducted in ULM, and shows the risk prioritisation in the right-hand column which determines the nature of risk reduction initiatives that should be implemented. More detailed results from the risk assessment report are available in the risk assessment report that accompanies this document.

Table 4: Risk Prioritisation for the ULM

	Hazard			Vulnerability Indices					Managability										Risk	Priority	
	Score: 3=Likely 2=Normal 1=Unlikely	Score: 3=Extreme 2=Moderate 1=Insignificant	Hazard Rating		Score: 1=Not Vulnerable 2=Vulnerable 3=Extremely Vulnerable			Vulnerability Rating	Score: 1=Poor 2=Modest 3=Good								Managability Rating				
Umzimvubu Local Municipality																					
Hazard Type				Probability	Severity		Societal		Economic	Environmental	Critical Facilities	Resource	Training	Early Warning Systems	Response	Existing Risk Reduction		Municipal Management			Public Participation
Severe storms	3	3	9	3	2	3	3	11	1	1	2	2	1	1	1	2	1	12	8.25	high	
River/flood	3	3	9	3	2	3	3	11	1	1	2	1	1	2	1	2	1	12	8.25	high	
Drought	3	3	9	3	3	3	1	10	1	1	2	1	1	1	1	2	1	11	8.1818182	high	
Strong winds	3	3	9	3	2	2	3	10	1	1	2	2	1	1	1	2	1	12	7.5	high	
Veld fires	3	3	9	3	3	3	3	12	1	2	2	2	2	1	1	2	2	15	7.2	high	
Sewerage/drainage	3	3	9	3	3	3	2	11	1	1	2	1	2	1	2	3	2	15	6.6	tolerable	
Desertification	3	2	6	2	3	3	2	10	1	1	1	1	1	1	1	2	1	10	6	tolerable	
Water pollution	3	2	6	3	3	3	2	11	1	1	2	1	1	1	1	3	1	12	5.5	tolerable	
Groundwater pollution	3	2	6	3	3	3	2	11	1	1	2	1	1	1	1	3	1	12	5.5	tolerable	
Illegal dumping	3	2	6	3	2	3	2	10	1	1	1	1	1	1	2	3	1	12	5	tolerable	
Tornado	2	3	6	3	2	2	3	10	1	1	2	2	1	1	1	2	2	13	4.615384615	tolerable	
Environmental/Land degradation	2	3	6	2	3	3	1	9	1	1	1	1	1	1	2	3	1	12	4.5	tolerable	
Human disease	3	3	9	3	3	2	2	10	3	2	2	2	2	2	2	3	2	20	4.5	tolerable	
Lightning	3	2	6	2	2	2	2	8	1	1	1	1	1	1	1	2	2	11	4.363636364	tolerable	
Animal disease	2	3	6	2	3	2	1	8	1	1	1	1	1	1	2	2	1	11	4.363636364	tolerable	
Hazardous Materials Spillage	2	3	6	1	2	3	3	9	1	2	1	2	1	2	1	3	1	14	3.857142857	tolerable	
Landslide	2	2	4	2	2	3	2	9	1	1	1	1	1	1	1	2	1	10	3.6	tolerable	
Air pollution	2	2	4	2	2	3	2	9	1	1	1	1	1	1	1	2	1	10	3.6	tolerable	
Road accidents	3	2	6	3	2	1	3	9	2	2	1	2	2	2	1	3	1	16	3.375	low	
Deforestation	2	2	4	2	1	3	2	8	1	1	1	1	1	1	1	2	1	10	3.2	low	
Cold Snap	2	2	4	2	2	2	2	8	1	1	2	1	1	1	1	1	2	11	2.909090909	low	
Heat waves	2	2	4	2	2	2	1	7	1	1	2	1	1	1	1	1	2	11	2.545454545	low	
Earthquake	1	3	3	2	2	2	2	8	1	1	1	1	1	1	1	2	1	10	2.4	low	
Fog	2	2	4	2	2	2	1	7	2	1	2	1	2	2	3	1	2	16	1.75	low	
Water table flood	1	2	2	2	2	2	2	8	1	1	2	2	1	1	1	2	1	12	1.333333333	low	

14. INFORMATION MANAGEMENT

Effective Disaster Management is dependent on effective information management. This section describes an information management methodology that can be used by Umzimvubu Local Municipality.

14.1 Objective

The immediate objective is the establishment of a disaster information management system in which a geographical information system is used to play out “what if” scenarios taking into account the information needs of the disaster management functionaries and of the community and the information system that must be in place inclusive of the information structure and list of all information that will be available.

14.2 Essential Elements

Three essential elements of a complete information infrastructure are:

- Knowledge infrastructure. Encompasses the systems of measurement, methods of data visualization and exploitation, information analysis, event forecasting, knowledge modelling and data and information management.
- Interconnectivity infrastructure. Encompasses the modes of communication employed to retrieve and distribute data and to disseminate the information products, knowledge and understanding developed within the knowledge infrastructure.
- Integration infrastructure. Encompasses the process needed to ensure that the “mechanical” parts of the system are synchronized and that the “human” parts of the system are cooperating. The integration infrastructure is key to an effective overall information infrastructure as it addresses:
 - The tracking of system performance to user requirements;
 - The definition of standards and protocols necessary to ensure system interfaces are understood;
 - The methods, processes, and procedures to ensure quality and reliability of the knowledge base;
 - The training needed to ensure users can effectively use the system.

14.3 Information Cycle

Information management is a systematic cycle consisting of the following steps:

- Needs identification. The first steps in establishing any information management system are to:
 - Monitor the external environment to identify problems as they evolve and to be responsive to issues that are identified from outside the system;
 - Define the problems to be addressed;
 - Identify the information requirements that flow from them;
 - Identify who is to benefit from the information.
- Collection. The collection plan (data gathering) should focus on the essential elements of information that have been identified, with collection priorities flowing from the profiles of need. In the process of data gathering it is important to employ all the data capture resources available (quantitative and qualitative). As part of the collection process the gathered information must be supplied to those who need it. Another important aspect is to involve the end users of the information in the construction and development of the collection process too not only ensure that their needs are satisfied, but to also maximise acceptance of the process by the users as well as the establishment of solid baseline. Important management functions include planning, organizing, controlling and influencing the collection process.
- Processing. During this stage answers to the various questions are developed by converting data into information. This calls for a system that facilitates the collation, analysis, evaluation and interpretation of the data collected. It is crucial to ensure that information processing for disaster

management is not totally dependent on technology or the skill and experience of one person. Information processing is not the sole responsibility of the disaster manager. Specialists could process data, but the end results need to be made available in a format that is easily understood and applicable. Therefore the aim is to supply the decision maker with information that can clarify particular problems and to make informed choices. As much as possible processing could and should be done during the pre-disaster risk reduction phase so as to ensure effective and timely hazard specific mitigation, prevention and preparedness. The most important attributes of information processing are:

Timeliness – the delivery of data and information in time to drive decision-making;

Consistency – delivery of data and information in a consistent and uniform manner;

Understandability – delivery of data and information in a manner that is appropriate and understandable in the target community,

Accuracy- precision in measurement and observation;

Flexibility, adaptability to multiple situations.

□ Dissemination. The final process in the cycle is the timely distribution of information to those who need it to make decisions. The inherent ability of modern distribution systems to present processed information in a variety of formats greatly assists the dissemination of information and also contributes to better understanding. It is of no use to only know end user information needs, as these needs have to be satisfied and could, *inter alia*, be addressed via:

Simple text descriptions – easily understood and uncomplicated verified facts;

- Levels of warning – brief explanation of the hazard, its progression, cautionary advice and status;
- Simple diagrams – locality maps, north point, scale, full key that is faxable or printable, preferably in black and white;
- Imagery – photographs, aerial photographs, and satellite imagery;
- Interpreted imagery as maps – reflecting pertinent items such as flood lines, lava flows and Access/egress routes;
- Contact details – e-mail addresses, telephone/fax numbers of persons, services and installations;
- Registering for automatic updates – via telephone, e-mail and/or fax – in order to obtain latest developments;
- Meteorological data – updating on changing weather conditions;
- Hazard onset speed/rates – predictions on hazard movement/impact such as flood fronts and fire fronts in order to extrapolate events;
- Web links, addresses/phone/fax indicating “further information” which should include explanations as to value and information type;
- Information on other technology – web sites that refer to radio bulletins and vice versa;
- Documents (downloadable, printable copy-able) publications covering warning notices, access maps and daily bulletins for display/distribution and personal accreditation/identity cards.

14.4 Functions

The information management system must be able to perform all of the following functions:

- Hazard, vulnerability and risk analysis;
- Quantitative and qualitative research coordination;
- Data administration;
- Baseline data identification;
- Effective communication and secure data sharing;
- Monitor preparedness, mitigation and preventative planning and implementation;
- Volunteer administration;
- Operate an early warning network;
- Early warning evaluation;

- Event mapping;
- Emergency response and specific tasking (activation);
- Resource deployment and monitoring;
- Monitor and evaluate:
- Response
- Rehabilitation
- Reconstruction
- Executive Briefings;
- Control documentation – Standard Operating Procedures (SOPs), protocols, reports, framework for strategic decision taking, job descriptions, checklists etc.
- Identification of gaps in information.

14.5 Information and Geographical Information System

As a proactive measure to prepare for event response, a geographical information management system must be utilized to enter crucial data into prior to a disaster to provide a base map for change detection, probable damage assessment, and the presentation of scientific verifiable impacts.

GIS can, for risk assessment purposes, be applied as follows:

- ☐ Hazard mapping. A very common use of GIS in risk assessment is the preparation of hazard maps e.g. for cities, regions or an entire country and large tracts of space. Hazard maps serve as risk zone identifiers, are easy to understand and are of great help to planners and developers, since they serve as a quick identifier of risk prone areas.
- ☐ Threat maps. The purpose of threat maps is to quickly communicate the risks to people and can be overlapped with population and land use maps to arrive at meaningful conclusions. These maps could be supplied to the media for effective warning communication.
- ☐ Government planning for disaster management. It is well known that regional planners require sophisticated risk assessment tools and GIS can not only reflect spatial and non-spatial data, but can also contain built in risk assessment programmes that allow planners and disaster management functionaries to simulate disaster scenarios and graphically view the potential damages and affected areas as well as plan rescue operations.

14.6 Community Information Needs

The disaster manager must make sure that community information needs will:

- ☐ Increase their capacity to prepare, prevent and mitigate for and respond and recover from a disaster in their specific environment.
- ☐ Address social, cognitive and organizational needs in the pre- and post-disaster phases as well as response needs.
- ☐ Support the changing roles of individuals and organizations, as there is a need to adapt to shifting needs during disasters without compromising established disaster management guidelines.

The disaster management centre must provide information to communities in a form that will allow them to make their own decisions. Emergency managers need the knowledge, skills and attitudes to enable them to work with communities rather than just for them. This statement implies a partnership between the disaster manager and the different communities in the area of responsibility.

15. DISASTER RISK REDUCTION PLANS

Disaster risk reduction plans providing for prevention and mitigation strategies have been compiled based on best practice and capacity within ULM.

The risk reduction plans outlined in this document and its annexures which are implementable must be considered for inclusion within the IDP projects of the municipality and if included must be budgeted for in terms of the operating and capital budgets of the municipality. Each project should be evaluated to determine which municipal department can lead its implementation. When a lead department is assigned through consensus in the DMAF, such a lead department must manage all planning and budgeting processes for said project. The Disaster Management department of the Umzimvubu Local Municipality must assist in this regard.

Where the proposed project falls outside the mandate of the municipality, the municipality should establish a lobbying and monitoring mechanism to motivate the need for the project in the correct governmental or societal sector and to track progress on the project. It is anticipated that many projects will need to be executed on a partnership level, and in such cases the department of the municipality responsible for service delivery partnerships should take the lead with support from the Umzimvubu Disaster Management Centre.

15.1 Risk reduction plans for the Umzimvubu Municipality

Risk reduction project proposals for priority risks are listed in the attached risk reduction plan document.

15.2 Risk reduction capacity for the Umzimvubu Municipality

The organizational structure for risk reduction within the municipality includes Umzimvubu Disaster Management, the Umzimvubu Local Disaster Management Advisory Forum, the top management team of the Umzimvubu Local Municipality, the focal points for disaster management within district and local municipal departments operating within the municipality, departmental planning groups, risk reduction project teams and preparedness planning groups.

The total structure of the municipality, with every member of personnel and every resource should also be committed to disaster risk reduction.

On-going capacity building programmers will be required to ensure the availability of adequate capacity for risk reduction.

16. PREPAREDNESS PLANS

Preparedness plans are compiled in order to enable fast and efficient response to predicted and unpredicted emergencies.

In case of an emergency, the user of this document should immediately turn to the attached preparedness plan for guidelines on managing response.

16.1 Preparedness plans of the Umzimvubu Local Municipality

Risk-specific preparedness plan proposals for priority risks are listed in the attached preparedness plan document, along with a standard response procedure for Disaster Management. The risk-specific preparedness plans have been compiled based on the capacity assessment within the Local Municipality as well as best practice.

16.2 Preparedness capacity for the Umzimvubu Local Municipality

The organisational structure for preparedness within the municipality includes Umzimvubu Disaster Management, the Disaster Management Advisory Forum, the top management team of the Umzimvubu Municipality, the focal points for disaster management within local and district municipal

departments operating within the municipality, departmental planning groups, preparedness planning groups, Joint Response & Relief Management Teams, Recovery & Rehabilitation Project Teams, and the Umzimvubu Disaster Management Communications Centre.

The total structure of the municipality, with every member of personnel and every resource can potentially form part of preparedness capacity.

On-going capacity building programmes will be required to ensure the availability of adequate capacity for disaster preparedness.

The Umzimvubu Disaster Management Communications Centre is responsible for the operational procedures associated with day-to-day operational response to emergencies by municipal departments.

The Umzimvubu Disaster Management Communications Centre and the Umzimvubu top management team are jointly responsible for the emergency management policy framework and organisation that will be utilized to mitigate any significant emergency or disaster affecting the municipality.

17. RESPONSE & RECOVERY

During response and recovery operations the relevant disaster preparedness plans of the municipality will be executed by the disaster management structures.

17.1 Response Procedure

During Disaster Response the Unified Command approach will be implemented. The basic steps and actions of the response and relief management procedure are summarised below.

Table 5: Steps in the response and relief procedure

Number	Steps	Components
S1	Notification and Activation	Detection Mobilisation
S2	Rapid Assessment	Rapid Assessment
S3	Integrated Structure	Unified Incident Management FCP / On-site JOC Team Coordinator Inner Cordon Outer Cordon
S4	Re-Assess	Resources Hazard Situation
S5	Objectives	Determine objectives
S6	Plan of action	Planning Implementation
S7	Monitor / evaluate / review	Monitor / evaluate / review
S8	Close and document	Close incident Document Incident

This procedure is compatible with KPA 4 of the South African National Disaster Management Framework.

17.1.1 Notification/activation

During the notification phase, it must be ensured that management and operational staff are informed and mobilised as speedily and effectively as possible. To facilitate the foregoing it is imperative that 24 hour duty and standby rosters are kept current and available at the 24 hour communication facilities for the Umzimvubu Local DMC and all service communications centres who have an emergency and/or Disaster response role in the Municipality.

Such call-out lists must indicate the first response mobilisation and 2nd line responders clearly.

It is therefore necessary to design Standardised response procedures and protocols for specific incidents and also consider variables such as season and time of day.

17.1.2 Rapid Initial Assessment

The basis for any effective response is the initial rapid but accurate on-scene assessment of the situation i.e. nature of the hazard, resource requirements, immediate threats to people, property and the environment, magnitude and boundaries of current and possible future impacts, and to be able to communicate this information in a predetermined standardised format. Rapid and effective response can also be facilitated if a standardised initial report-back includes response suggestions and needs. The rapid initial assessment must be as accurate as possible with accurate predictions of what may still occur.

17.1.3 Establish response management structure

Once the initial response has commenced and services arrive on the scene, the process for the implementing of the secondary response must be initiated as soon as possible. This response must be based on the needs received from the scene as a result of the rapid assessment.

This response must build on existing response levels and strengthen the deployments and actions on scene.

Structures to coordinate response

The establishment of a structure to manage, co-ordinate and integrate response actions at the scene of an incident is imperative and a priority for all services involved at an incident. Such a basic structure should be contained in a “Standardised Incident Management Plan” agreed to beforehand by all role-players.

There are a number of essential elements to the structure and principles, which should be observed at all times.

Flexible organization

The composition of the organisation must be adapted to the size, magnitude and nature of the incident. The organisation must be adapted (increased or decreased) as circumstances dictate.

Standardised Terminology

All services must be informed and be familiar with the organisation and terms used by services, which may be involved in an incident.

Tactical Incident Management facilities / structures

As part of the management structure, there are a number of essential facilities / structures, which may need to be established at the scene of an incident, these can include:

- Outer perimeter / cordon / public exclusion zone;
- Inner perimeter;
- Establishing a landing zone;
- Staging area;
- Incident command post;
- Casualty clearing post;
- Information point / media liaison;
- Communications network;
- Access control to incident site and emergency infrastructure.

The above elements are to be described in Standard Operating Procedures.

On-Site Incident Coordination Point

This is an on-scene facility where tactical decision-making and control of inter-disciplinary co-ordination takes place. Also known as Incident Command Post (ICP), On-site JOC / Forward Control or Command Post (FCP).

This is the single point of command for all on-site operations during the response phase of an emergency and will be located at an appropriate location at or near the scene of the emergency, normally within the outer perimeter. The incident Commanders / Managers from key response agencies will operate under Unified Command to co-ordinate incident operations.

Joint Incident Management Team / Unified Command

One of the main objectives to ensure effective on-scene management of services is to establish a “Unified Incident Management” system. This system allows for a structure whereby overall incident objectives and strategies can be formulated.

In incidents involving multiple jurisdictions, a single jurisdiction with multi-agency involvement, or multiple jurisdictions with multi-agency involvement, unified command allows agencies with different legal, geographic, and functional authorities and responsibilities to work together effectively without affecting individual agency authority, responsibility, or accountability.

In this regard it is important that the representatives be suitably mandated and takes full responsibility and charge of its service at that level.

It will ensure that the agreed upon operational plan and integrated tactical strategies are implemented by making optimum use of available resources.

It is normally structured to facilitate activities in five major functional areas:

- ☐ Command,
- ☐ Operations,
- ☐ planning,
- ☐ Logistics, and
- ☐ Finance and administration.

This organisation should also include the following elements depending on the situation;

- ☐ Safety
- ☐ Media / public liaison – information
- ☐ Liaison – supporting agency / jurisdiction liaison (Disaster Management is well-placed for this)

Depending on the situation the estimated duration of the incident must be established in order to plan the need for the rotation of staff and to plan meals, etc.

Determining the primary role-player for an incident or activity

If a situation occurs where there is no immediate agreement between parties regarding who should be the primary role-player in a specific emergency situation, a pre-determined procedure should be followed to resolve the issue.

Communications

Local Municipality communication networks and structures are described within the institutional arrangements section of this plan.

17.1.4 Re-assess

The first very important step after the Joint Incident Management Team has been established is for them to re- assess the situation. During this process, there are three aspects which must be addressed.

Re-assess Resources

The team need to establish:

- Present deployment and how effective it is
- Possible further immediate, medium and long-term resource needs.

An analysis of special equipment and services and needs must be done at this stage.

- When evaluating the mobilising of additional resources the following needs must be taken into account;
- The type of human resources required i.e. skills and type of tasks to be performed;
- What equipment and supplies is required and which must come first (Priorities);
- Who will be responsible for the control of essential supplies;
- Which essential services are required and/or should be restored first (Priorities);
- Observe and ensure that supply chain management / logistics are complied with (Accountability);
- Possible invoking of mutual aid arrangements and/or other formalised agreements.



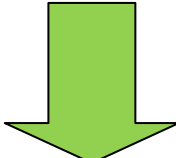
Re-assess Hazard

A thorough analysis of the potential impact of the hazard must be made. In this regard the following should be assessed;

- ☐ Present impact;
- ☐ Potential hazard impact (worst case scenario);
- ☐ Also think beyond present situation;
- ☐ Obtain specialist input;
- ☐ Consider implementation of risk specific plans;

Re-assess Situation

In this regard the following aspects must be carefully analysed and assessed;

Look up - Establish present weather and get prediction for next 24 hours. It is important to look at the impact of the weather may have on the situation and what short and long term – changes may are predicted.	
Look around - Look at the topography and natural environment and establish what effect it would have on the hazard behaviour and impact	
Look down - Look at the built environment, the natural environment and the economic activities and establish how the hazard can possibly affect these activities. It is also important to consider/establish land owner and type of facility – e.g. key points being affected.	

Do a complete evaluation to establish the severity and implications of the problem (direct and indirect implications)

17.1.5 Establish incident management objectives

Once the re-assessment have been completed the team should decide on the incident management objectives, and the following should receive attention;

Broad statement of intent

Think strategically

Determine priorities

Ensure public protection and secure affected area

It is important that emergency worker and public protection be observed throughout the process of setting objectives.

17.1.6 Plan of action

Once the incident management objectives are complete a well framed and well prepared plan of action is essential for the effective execution of the operation.

- To plan effectively the following should be considered:
- Situational analysis (Clearly mapped);
- Resource status and response levels (Accurate recording);
- Think of worse-case scenario (Think ahead);
- Plan for all phases (response, relief, recovery, rehabilitation and reconstruction);
- Decide on key objectives and responsibilities;
- Consult with external organisations;
- Protective actions (Response activities);
- Protective action strategies (Response management strategies);
- Incident Communication planning (Radios, IT, Public and Media);

- Develop alternatives (think beyond the normal);
- Review alternatives;
- Decide on plan of action.

17.17 IMPLIMENTATION

Once a decision has been made on the plan of action the plan must be communicated clearly to all role-players. In this regard, the following should receive particular attention:

- ☐ Communicate objectives, responsibilities, timeframes clearly;
- ☐ Action tasks clearly and to specific services and/or sections;
- ☐ Motivate staff and support implementation throughout.

17.1.8 Strategic Response Management Structure

Disaster Operations Centre/Joint Operations Centre

The Disaster Operations Centre is an off-site, centralised facility, which is provided by the Local Municipality Disaster Management Centre, where multi-disciplinary co-ordination and strategic decision-making takes place. It is a fully equipped dedicated facility within the Umzimvubu Disaster Management Centre.

For the purpose of multidisciplinary strategic management of response and recovery operations, this facility must be capable of accommodating any combination of emergency and essential services representatives, including all relevant role players and stakeholders identified in response and recovery plans.

This facility must be activated when a local, provincial or national disaster occurs or is threatening to occur within the boundaries of the District.

The Disaster Operations Centre may be activated immediately upon receipt of information of a specific type of incident, or may be activated upon request or advice of the joint incident management team(s) at the scene of the incident(s).

Initial Strategic Situation Analysis

- Once the initial activation has taken place the following should take place;
- Convene meeting in the JOC;
- Review situation on available information;
- All possible role-players must be identified and mobilised if not yet present;
- Identify and appoint incident coordinator;
- Ensure all services required have been activated and are responding to their areas of responsibility;
- Compile initial situation report for distribution to all stakeholders, internal and external;
- Establish public notification needs;
- Establish public safety advisory needs;
- Generate media release for public communication;
- Monitor, assess and support services on-scene;
- Establish possible resource needs;
- Evaluate resources available vs resources possibly required;
- Establish availability of resources, consult database;

Establish possible need for invoking mutual aid agreements and do initial notifications of possible support required;

Monitor, re-assess and adapt strategy.

Structures to provide relief

Additional off-site structures may need to be established to provide relief, these could include

- Mass Care centres;
- Victim information centres;
- Reconciliation areas (where victims and their friends / family can be reunited);
- Data processing centres;
- Media briefing facilities;
- Counselling facilities;
- Animal holding areas.

17.1.9 Monitor/Evaluate

The successful implementation and execution of any plan is very dependent on sustained and effective monitoring and evaluation of its effectiveness.

This must be ensured by observing the following principles;

- To constantly receive and evaluate feedback reports from line departments
- To regularly direct requests and ask questions
- To take note of and observe status changes on an on-going basis
- To analyse actions and anticipate problems/changes (be flexible)
- To regularly re-assess the situation and the effectiveness of actions and adapt strategies as circumstances dictate. Repeat process - Schedule meetings at specific agreed regular times.

17.1.10 Close incident & document

Once an incident has been effectively managed and services can return to normal operations, the following actions must be taken:

17.1.11 De-mobilise

Once the response to an incident is completed and there is consensus amongst all role-players that the point has been reached for services to stand-down from the incident and to return to their normal activities, the demobilisation phase is reached.

Ensure that all services have received de-mobilising orders and are reporting to their work stations.

17.1.12 Complete Review (Post Mortem)

After each incident, copies of all messages, reports and incident logs of all services must be submitted to the Umzimvubu Local DMC for joint analysis and review. There must be a formal and structured critical review of all actions and all findings and/or areas of concern must be recorded and included in a report with the necessary recommendations and/or corrective actions to improve response in future.

17.1.13 Corrective actions

Corrective action plans must be drawn up and are designed to implement changes that are based on lessons learned and recommendations made from reports and reviews after actual incidents or from training and exercises.

Such actions and recommendations must include time frames and deadlines for implementation.

17.2 Hazard-specific contingency actions

Hazard-specific contingency action plans must be developed by the ULM DMC in conjunction with the technical task teams.

17.2.1 Floods

Additional hazard-specific contingency options could include:

- a) Mobilising swift water rescue capacity;
- b) Mass evacuation;
- c) Monitoring for water-borne diseases;
- d) Determine the need for emergency shelter;
- e) Determine the need for emergency sustenance and transport.

17.2.2 Severe Storms and Strong Winds

Additional hazard-specific contingency options could include:

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

17.2.3 Structural and Veld fires

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;
- Determine the need for emergency sustenance and transport.

17.2.4 Drought

Additional hazard-specific contingency options could include:

Implement water management plan (water restrictions);

- Deployment of agricultural extension officers to advise on drought response measures and drought resistant cultivars / species;
- Set up environmental monitoring stations;
- Increase reach of potable water-distribution systems;
- Prospect for underground water-sources;
- Establish water recycling capacity;
- Monitor nutrition levels among affected population.

17.3 Declaration of a state of disaster and disaster classification

It is advisable that the Umzimvubu Municipal Council adopts a formal policy for the declaration of a local state of disaster. Such a policy will replace this section of the plan which provides a general description of issues surrounding the declaration of a state of disaster.

When a disastrous event occurs or is threatening to occur in the area of the municipality, the DMC / Section will determine whether the event is a disaster in terms of the Act, and, if so, the Head of the Centre will immediately:

- Initiate efforts to assess the magnitude and severity or potential magnitude and severity of the disaster;
- Alert Disaster Management role-players in the municipal area that may be of assistance in the circumstances;
- Initiate the implementation of the disaster response plan or any contingency plans and emergency procedures that may be applicable in the circumstances; and
- Inform the Alfred Nzo District Disaster Management Centre and the Eastern Cape Provincial Disaster Management Centre of the disaster and its initial assessment of the magnitude and severity or potential magnitude and severity of the disaster.

When informing the Eastern Cape Provincial Disaster Management Centre the Umzimvubu Disaster Management Centre may make recommendations regarding the classification of the disaster as may be appropriate.

Irrespective of whether a local state of disaster has been declared or not, the local municipality is primarily responsible for the co-ordination and management of local disasters that occur in its area.

Whether or not an emergency situation is determined to exist, municipal and other agencies may take such actions under this plan as may be necessary to protect the lives and property of the inhabitants of the municipality.

Declaration of a local state of disaster: In the event of a local disaster the relevant municipal council may by notice in the provincial gazette declare a local state of disaster if existing legislation and contingency arrangements do not adequately provide for the municipality to deal effectively with the disaster; or other special circumstances warrant the declaration of a local state of disaster.

If a local state of disaster has been declared, the Council may make by-laws or issue directions, or authorise the issue of directions to:

- Assist and protect the public;
- Provide relief to the public;
- Prevent or combat disruption; or
- Deal with the destructive and other effects of the disaster.

18 TESTING AND REVIEW OF THE PLAN

The municipality will regularly review and update its plan, as required by Section 48 of the Disaster Management Act, 2002. The Disaster Management Advisory Forum shall be responsible for the review of the municipal disaster management plan on an annual basis. In order to test the viability of plans and prepare response capacities, comprehensive exercises in the form of walk through, table top and simulation exercises can be implemented. Such exercises aim to fully capacitate response agencies and relevant role-players for the possible event of an emergency. This also allows for all role players as well as Disaster Management Officials to orientate themselves towards existing plans, and creates a general awareness in the ULM across a variety of disciplines.

Action: The ULMAF will implement an annual review of this plan, and consider implementing a comprehensive simulation exercise program to test all preparedness plans in the area in order to ensure readiness in the ULM.

19 ANNEXURES

Annexure A: Disaster Risk Reduction Plan for priority risks Annexure

B: Disaster Risk Preparedness Plan for priority risks Annexure

C: Emergency Numbers List for Umzimvubu

Annexures to be developed by the Umzimvubu Disaster Management Centre:

- Standard Operating Procedures and Field Operation Guides for each identified hazard;
- Assignment of primary and supporting role-players for disaster risks;
- Information and communication systems description;
- Contact details for the Disaster Operations Centre representatives from the relevant role-players for each hazard.

20. REFERENCE DOCUMENTS/ BIBLIOGRAPHY

The following served as reference documents:

- Alfred Nzo District Municipality Draft Disaster Management Framework
- Agricultural Disaster Risk Management: Agricultural Drought Management Plan, Department of Agriculture, Aug 2007.
- Constitution of the Republic of South Africa, 1999.
- Disaster Management Act, 2002 (Act 57 of 2002)
- National Disaster Management Framework, 2005 (Government Notice 654 of April 2005: A Policy Framework for Disaster Risk Management in South Africa)
- Fire Brigade Services Act (Act 99 of 1997) as amended.
- Fund Raising Act (Act No 107 of 1978) (FRA)
- Local Government: Municipal Systems Act, 2000 (Act 32 of 2000).
- Major Hazardous Installations Regulations of the Occupational Health and Safety Act
- Road Traffic Act

- Social Assistance Act, 1992 (Act no 59 of 1992)

Most important research publications bibliography:

Architectural Framework for Disaster Management Information Systems. Canada Centre for Remote Sensing. Ottawa, Ontario. 2004.

Benson,C; Twigg, J. 2004. "Measuring Mitigation". Methodologies for assessing natural hazard risks and the net benefits of mitigation – A scoping study. Provention Consortium. Available at: <http://www.proventionconsortium.org/?pageid=37&publicationid=34#34>

Charlotte Benson; John Twigg with Tiziana Rossetto. 2007. Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organisations. Provention Consortium. Available at: <http://www.proventionconsortium.org/?pageid=37&publicationid=132>

Colombo, Alessandro G.; Vetere Arellano, Ana Lisa. 2003. *Lessons Learnt from Forest Fire Disasters*. European Commission Joint Research Centre, Available at: <http://www.preventionweb.net/english/professional/publications/v.php?id=1571>

CONCERN. 2005. *Approaches to Disaster Risk Reduction*. Emergency Unit. Available at: http://www.concernusa.org/media/pdf/2007/10/Concern_ApproachesToDRR%20paper%20-%20final.pdf

Cuny, F.C. 1986. *Principles of Disaster management. Lesson 3: Information Management*. Available at: <http://pdm.medicine.wisc.edu/Volume14/cuny.htm>

EWCI. 2003. *Early Warning of Wildland Fires*. EWCI Conference October 2003.

Flood Preparedness Planning. Asian Disaster Management News. Vol 12 no 3, July – September 2006. Available at: <http://sdmassam.nic.in/download/flood-preparedness.pdf>

Fuerth, L. 1997. *Harnessing Information and Technology for Disaster Management*. The Global Disaster Information Network. Disaster Information Task Force Report. Available at: http://www.westerndisastercenter.org/DOCUMENTS/DITF_Report.pdf

Gupta, A. 2000. *Information Technology and Natural Disaster Management in India*. National Centre for Disaster Management. Indian Institute of Public Administration. New Delhi, India. Available at: <http://www.gisdevelopment.net/aars/acrs/2000/ts8/hami0001pf.htm>

Herath, S. 2006. *Geographical Information Systems in Disaster Reduction*. Institute of Industrial Science. The University of Tokyo. Japan. Available at: [http://www.adrc.asia/publications/Venten/HP/Paper\(Herath\).htm](http://www.adrc.asia/publications/Venten/HP/Paper(Herath).htm)

Marburger, J.H. Editor. 2005. *Grand Challenges for Disaster Management*. National Science and Technology Council. Committee on Environmental and Natural Resources. Available at: http://www.ostp.gov/pdf/sdr_grand_challenges_for_disaster_reduction.pdf

Mark Pelling, Andrew Maskrey, Pablo Ruiz and Lisa Hall. Editors. 2004. *Reducing Disaster Risk. A Challenge for Development*. UNDP. Available at: http://www.undp.org/cpr/whats_new/rdr_english.pdf

Rachel Roach; Seren Boyd. 2006. *Adapting to Climate Change. Challenges and Opportunities for the Development Community*. Tearfund. Available at:

<http://www.tearfund.org/webdocs/website/Campaigning/policy%20and%20research/Adapting%20to%20climate%20change%20discussion%20paper.pdf>

Tearfund 2006. *Disaster Risk Reduction. Multi-Stakeholder Flood Mitigation in Malawi: A Case Study*. Available at: <http://tilz.tearfund.org/Topics/Disasters/Case+studies/DRR+Case+studies.htm>

UNISDR. 2004. *Environmental Protection & Disaster Risk Reduction. A Community Leader's Guide*. ISDR/UNEP. Available at:

<http://www.preventionweb.net/english/professional/publications/v.php?id=8548>

UNISDR. 2007. *Drought Reduction Framework and Practices: Contributing to the Implementation of the Hyogo Framework for Action*. Available at:

http://www.unisdr.org/eng/about_isdr/isdr-publications/10-drought-risk-reduction/drought-risk-reduction.pdf

UNISDR. 2007. *Environment and Disaster Risk. Emerging Perspectives*. ISDR/UNEP. Available at: http://www.unisdr.org/eng/about_isdr/isdr-publications/joint-pub/Environment_and_disaster_risk.pdf

UNISDR. 2008. *Linking Disaster Risk Reduction and Poverty Reduction. Good Practices and Lessons Learnt*.

ISDR. Available at: <http://www.preventionweb.net/english/professional/publications/v.php?id=3293>

20.1 Disaster Preparedness Plan: Fire

No	What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
1	Inform Fire Services	First person to notice incident	Local authority fire call centre	Immediately	To respond resources
2	Respond resources	Fire Services Control Centre	Local authority fire call centre	Immediately	To limit impact
3	For facilities: Activate facility fire teams	Facility manager or as per plan	Facility manager's office	Immediately when the incident is reported	To contain situation
4	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
5	For facilities: Evacuate	Evacuation teams / SAPS / Fire	At facility	ASAP	To prevent injury/deaths
6	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
7	Assess Situation	First Responders on scene	At scene	On arrival	To determine needs
8	Request additional resources	First Responders on scene	From scene through local authority fire call centre	After assessment	To manage situation
9	Implement appropriate emergency	First responders on scene	At scene	On arrival	To protect life and property and neutralize any
10	Setup command post	Senior officer on site	Safe area on site	Immediately	To plan and implement
11	Establish incident management plan	Services on scene	On scene	ASAP	To effect appropriate immediate response and
12	Assess impact	Services on scene	On scene	Immediately	To determine future relief
13	Notify Disaster Management team if major	Services on scene / Senior officer on scene	From command post	As soon as required	To facilitate multidisciplinary co-ordination and major
14	Crowd and traffic control	SAPS, Traffic, Law Enforcement	Around scene	Immediately	To control people and traffic at the incident

15	Assemble joint incident management team	Senior representatives of all services on scene	At appropriate single command post, in case of	Immediately once more than one service working on	To ensure multidisciplinary coordination that enables
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No	What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
16	Design joint incident action plan	Joint incident management team	Command post / ECP	ASAP	To manage situation
17	Implement joint plan of	Joint incident management team	On scene	ASAP	To normalize situation
18	Seek missing people	Search team/ Fire/ EMS/ SAPS	Through the whole building /	ASAP once missing people have been reported	To rescue missing persons
19	Treat injured people	Trained first aid team/ EMS / Fire	At the first aid post / triage area	Immediately when injury is reported	To treat injuries
20	Inform next of kin of injured people	Facility manager / SAPS / EMS	At the facility manager /	Immediately when injury is reported	To inform family members of the conditions of the injured
21	Monitor actions	Joint incident management team	On scene	Ongoing during incident	To ensure effective planning
22	Area /Facility clean-up	All services	On site	On completion of rescue/ immediate emergency	To prevent further incidents/
23	On-site inspection	EMS/ Traffic/ Fire / SAPS	On scene	On completion of emergency actions	To ensure site is safe for use again
24	Stand down	All services	On scene	Once site is declared safe	To normalize services
25	De- brief	All role-players	Pre-determined venue	Within one week	To evaluate actions and improve future response
26	Update plans and procedures	All role-players	At service HQ	ASAP	Effective service delivery

11.2 Disaster Preparedness Plan: Flooding

	What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
1	Notify response teams (Municipal engineering, SAPS, Fire & Rescue, EMS, SANDE, SANDF, SAHOD)	Local Authority	24 Hour Call centre	Immediately	To activate response teams
2	Activate response teams	Local Disaster Management and Services Standby Teams	From locations/ standby positions	Immediately	To assess impact and actions required
3	Identify affected and damaged area	Local Disaster Management and Services Standby Team	In affected area	Immediately	To determine the extent of the damage in order to
4	Determine impact	Local Disaster Management and Services Standby Teams	At affected area	Immediately	To determine the actions and level of response required
5	Implement appropriate emergency response	First responders on scene	At scene	On arrival	To protect life and property and neutralize any impacting
6	Activate JOC	Head of DMC and senior management of all services / Local Disaster Management and Services Standby Team	DMC or alternative	Immediately if major flooding incident	To plan strategically and coordinate multidisciplinary response
7	Assess information	All services	JOC	Immediately	To plan actions
8	Design plan of action	DM Co-ordination Team / JOC Team	JOC	After assessment	To facilitate response and relief
9	Implement response actions	Local Disaster Management Team, SANDE, SAPS, EMS	Affected area	ASAP	To prevent injury / mortality and to provide basic needs /
10	Provide relief	Relevant Stakeholders	At affected area / relief centre	After assessment	To minimize impact
11	Mopping up	Relevant Stakeholders	Affected area	ASAP	To normalize community
12	Assess possibility of further flooding	Local Disaster Management Team, SAWS	Entire area	Immediately	To minimize and/or prevent further disruption /
13	Issue early warning to areas vulnerable to further	Local Disaster Management Team, SAWS	Vulnerable areas	Immediately	To minimize and/or prevent further disruption /
14	Institute recovery measures	ANDM DMC, Treasury, Relevant	JOC	Once situation is under control	To restore normal activities in area

11.2	Disaster Preparedness Plan: Flooding				To prevent loss of life and
	Road closures	Municipality / Prov Traffic	On Site	ASAP	

	What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
16	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
17	Arrange temporary accommodation	Municipality / Social services/ NGO's	Available venues	When needed	To provide temporary accommodation – emergency shelter
18	Organize medical search parties	EMS / Fire & Rescue	On site	ASAP if people reported missing / unaccounted for	To treat medical cases
19	Flood management	Department of Water Affairs	On site and downstream	ASAP	To manage the effects of the flood
20	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
21	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
22	Verification of impact assessment	Province / ULMC / 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

11.3 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
1	Confirm and establish the extent of the drought affected area	Municipal Water, Department of Water Affairs	At affected areas	ASAP	To assess the extent of the situation
2	Notification and activation	DMC	LA 24 hour control centre	ASAP	To activate response teams
3	Activate response teams	LA 24 hour control centre	LA 24 hour control centre	ASAP	To assess and determine needs
4	Activate DMC JOC	DMC	DMC or appropriate alternative	ASAP	To co-ordinate actions
5	Determine specific areas affected	Survivors and emergency services	In area	ASAP	To determine needs and strategies
6	Collate info and establish a record keeping system	JOC Team	JOC	ASAP	To determine priorities
7	Determine priorities	JOC Team	At affected areas	ASAP	To provide relief to affected people
8	Identify alternative water supply and establish plan of action	JOC Team	JOC	After initial assessment	To provide relief to affected people
9	Establish Media Liaison, feed media information regarding mitigatory	JOC Team	JOC	Throughout the drought situation	By informing the media and public, water conservation behaviors can be ensued.
10	Monitor and re-assess the situation	JOC Team	Affected areas	After initial assessment and planning	To evaluate actions
11	Adapt planning if necessary	JOC Team	JOC	ASAP	To facilitate normalization
12	Establish a central call	Local authority	Affected area	As needed	To address shelter / housing needs
13	Determine short, medium and long term	JOC Team	JOC	ASAP	To plan service restoration

11.3	Disaster Preparedness Plan: Drought				
14	Develop drought management plans and	JOC Team	JOC	ASAP	To normalize and resettle area
15	Implement drought management plans and	JOC Team	Affected areas	After initial emergency response	To normalize and resettle area
16	Monitor actions	JOC Team	JOC	Ongoing	To ensure effective planning

	What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
17	Stand down	All services	Deployment points	Once area is declared safe	To normalize services operations
18	De- brief	All role-players	Pre-determined venue	Within one week	To evaluate actions and improve future response
19	Update plans and procedures	All role-players	DMC	ASAP	Effective service delivery

20.4 Disaster Preparedness Plan: Severe Storms and Strong Winds

	What must be done	Who must do it	Where it must be done	When it must be done	Why it must be done
1	Send out early warning messages	South African Weather Service (SAWS)	SAWS Control Centre	ASAP	To warn of threatening weather systems
2	Notify all relevant role-players to be on standby	SAWS, DMC	SAWS Control Centre, DMC	ASAP	To avail role-players in case the need to respond arises
3	Notification and activation	DMC	LA 24 hour control	ASAP	To activate response teams
4	Activate response teams	LA 24 hour control centre	LA 24 hour control	ASAP	To assess and determine needs, respond to emergency situation
5	Activate DMC JOC	DMC	DMC or appropriate alternative	ASAP	To co-ordinate actions – evacuations, emergency housing etc.
6	Determine specific areas affected	Survivors and emergency services	In area	ASAP	To determine needs and strategies
7	Collate info	JOC Team	JOC	ASAP	To determine priorities
8	Determine priorities	JOC Team	At affected areas	ASAP	To provide relief to affected
9	Identify emergency housing, feeding, restoring critical infrastructure	JOC Team	JOC	After initial assessment	To provide relief to affected
10	Establish Media Liaison, feed media	JOC Team	JOC	Throughout emergency situation	By informing the media and the public, the public have access to information and are capacitated
11	Implement, monitor and re-assess the situation	JOC Team	Affected areas	After initial assessment and planning	To evaluate actions, and amend if needed
12	Adapt planning if necessary	JOC Team	JOC	ASAP	To facilitate normalization
13	Determine short, medium and long term	JOC Team	JOC	ASAP	To plan service restoration
14	Monitor actions	JOC Team	JOC	Ongoing	To ensure effective planning

20.4 Disaster Preparedness Plan: Severe Storms and Strong Winds					
15	Stand down	All services	Deployment points	Once area is declared safe	To normalize services operations
16	De- brief	All role-players	Pre-determined venue	Within one week	To evaluate actions and improve future response
17	Update plans and procedures	All role-players	DMC	ASAP	Effective service delivery

21 ANNEXURE B:DISASTER RISK REDUCTION GUIDELINE

21.1 Disaster Risk Project Proposals: Fire

The objectives of all fire risk reduction fire projects should be to reduce fire hazards in the Umzimvubu Local Municipality.

Risk Reduction Category	Risk Reduction Project Proposals	Responsible Role Players
Physical Planning Measures	1 Build fire stations	Dept. of Public Works, Fire Services
	2 Plan and provide for buffer zone between residential and vegetation areas	Town Planning, Fire Services
	3 Plan and provide access roads for fire trucks in informal settlements	Fire Services, Dept. of Public Works, Town Planning
	4 Plan to prevent Illegal electricity connections in informal settlements	Eskom, Disaster Management
	5 Plan fire services in line with new development needs	Fire Services
	6 Ensure that development of dwellings does not take place before adequate bulk services are provided	Town Planning, Dept of Human Settlements
	7 Encourage and facilitate Integrated catchment management planning	Dept. of Agriculture, Dept. of Water Affairs, Department of Environmental Affairs
Engineering & Construction Measures	8 Ensure compliance with fire regulations and by-laws	Fire Service
	9 Install fire alarms in buildings	Private Owners
	10 Plan and provide fire escape routes and doors	Private owners, Fire Services
	11 Plan and provide fire breaks in high risk vegetation areas	Dept of Environmental Affairs, Fire Services
	12 Provide suitable roads as evacuation routes in informal settlements	Dept. of Public Works
	13 Provide informal areas with fire-resistant materials	Dept. of Local Government, Dept. of Human Settlements
	14 Plan and develop fire early warning systems	Fire Services, Disaster Management
	15 Provide additional fire hydrants	Dept. of Public Works, Town Planning, Fire Services
	16 Research and upgrading / improvement of firefighting equipment/ trucks/ hydrants	Fire Services, Disaster Management
	17 Install watch towers, fire breaks, fire extinguishers in forestry areas	Dept. of Water Affairs and Forestry
	18 Improve the quality and provide appropriate of firefighting equipment at all levels	Fire Services and Disaster Management
Economic Measures	19 Ensure that fire hydrant water supply is sufficient in higher lying areas	Dept of Water Affairs
	20 Provide for capital projects in municipal budget	All relevant departments
	21 Provide funds for upgrading of fire equipment	Fire Services and Disaster Management

Risk Reduction Category	Risk Reduction Project Proposals	Responsible Role Players
	22 Fines for illegal electrical connections	Eskom, Law Enforcement
	23 Implement program to decrease high risk housing	Disaster Management, Dept of Human Settlements
	24 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	Fire Services, Dept. of Local Government
	25 Rural areas property rebates for areas under conservation	Dept. of Environmental Affairs, Dept. of Human Settlements
	26 Action plans in place	All role-players
	27 Reaction plan in place	All role-players
Management & Institutional Measures	28 Train fire marshals for commercial/industrial complexes	All role-players
	29 Appoint / train appropriate staff	All role-players
	30 Conduct fire and evacuation drills	All role-players
	31 Ensure evacuation doors are unlocked	All role-players
	32 Running of programs for prevention of arson	All role-players
	33 Maintenance program for fire extinguishing equipment	All role-players
	34 Identify and procure appropriate equipment	All role-players
	35 Structured and sustained fire-prevention inspections	All role-players
	36 Cleaning of undergrowth around buildings	All role-players
	37 Train and deploy fire fighting volunteers at fire stations and road works	Fire Services
	38 Identifying high risk fire areas (hotspots)	Fire Services, Disaster Management
	39 Identify safer alternatives for cooking and lighting i.e. stoves, lamps etc	Fire Services

40	Ensure correct storage of combustible materials	All role-players
41	Develop and implement maintenance programs for of access routes in high risk fire areas	Dept. of Transport
42	Train and develop fire response teams	Fire Services
43	Training at all levels to improve the implementation of incident command system as a standard operating procedure	All role-players
44	Establish and support Fire Protection Association	Fire Services, Disaster Management

Risk Reduction Category	Risk Reduction Project Proposals	Responsible Role Players
	45 Develop area fire management plans	Fire Services
	46 Refrain from using recycling cardboard containers for recycling of paper	All role-players
	47 Revisit policy for evicting shack dweller	Fire Services
Societal Measures	48 Develop fire evacuation procedures for commercial/industrial complexes	All role-players
	49 Declare non-smoking areas	All role-players
	50 Prohibit fires in high risk areas	All role-players
	51 Conduct fire hazard awareness programs	Fire Services, Disaster Management
	52 Conduct community awareness programs in communities	Fire Services, Disaster Management
	53 Implement community based programs for the proper care/maintenance of electrical equipment	Eskom
	54 Include fire prevention education in school curriculum	Fire Services, Disaster Management, Dept. of Education
	55 Include disaster risk management in school curriculum	Disaster Management, Dept. of Education
	56 Implement fire education, fire risk awareness, recruitment of volunteer fire fighters, social responsibility, ownership system e.g. hydrants	Fire Services, Disaster Management

21.2 Disaster Risk Project Proposals: Flooding

The objectives of all flood related risk reduction projects should be to reduce flooding events in the Umzimvubu Local Municipality.

Risk Reduction Category	Risk Reduction Project Proposals	Responsible Role-Player
Physical Planning Measures	1 The enforcement of Environmental Impact Assessment with all development projects (EIA)	Dept. of Environmental Affairs
	2 Plan for the Upgrading of existing infrastructure to cope with new developments.	Dept. of Public Works, Town Planning
	3 Identification and plotting of vacant high risk flood areas for future reference and avoid human settlements in such areas	Dept. of Human Settlements, Disaster Management
	4 Avoid development and settling of communities along rivers and within the flood line	Dept. of Water Affairs, Law Enforcement, Disaster Management,
	5 Identify alternate suitable venues/facilities for emergency services	Disaster Management
	6 Apply Low intensity land use in 1:100 flood line areas	Dept. of Water Affairs, Town Planning, Disaster Management

Risk Reduction Category	Risk Reduction Project Proposals	Responsible Role-Player
	7 Study and understand the impact of climate change on development	Dept. of Environmental Affairs, Disaster Management
	8 Signage	Dept. of Public Works
	9 Asset management	Dept. of Public Works
	10 Maintenance	Dept. of Public Works
Engineering & Construction Measures	11 Study EIA to inform construction and building measures	Dept. of Public Works, Dept. of Human Settlements
	12 Identifiable flood measuring and early warning systems	Dept. of Water Affairs, South African Weather Service, Disaster Management
	13 Plan and Build retention dams to reduce risk of flooding	Dept. of Water Affairs
	14 Restore and maintain water catchment areas	Dept. of Water Affairs
	15 Build retaining walls to protect buildings	Dept. of Water Affairs
	16 Improve and upgrade storm water reticulation systems regularly	Dept. of Public Works
	17 Develop and maintain Early warning systems	Disaster Management, South African Weather Service, Dept. of Water Affairs
	18 Develop and maintain sustained cleaning programs for rivers and dams	Dept. of Water Affairs
	19 Plan bigger capacity dams to regulate flow of water	Dept. of Water Affairs
	20 Implement programs and measures to prevent erosion	Dept. of Environmental Affairs, Dept. of Water Affairs
	21 Plan and erect Visible warning signs in low lying areas	Dept. of Water Affairs
Economic Measures	22 Provide for disaster relief funds	Disaster Management
	23 Adequate provision for the for maintenance of storm water systems	Dept. of Public Works
	24 Farmers developing areas for agricultural use in flood prone areas should pay increases insurance on crops in those areas	Dept. of Agriculture
Management	25 Plan for the support for affected communities	Dept. of Social Development
	26 Develop and maintain flood Emergency response teams	Disaster Management
	27 Develop and supervise Maintenance programs	Dept. of Water Affairs

& Institutional Measures	28 Ensure that SOP for disasters are developed and maintained	Disaster Management
	29 Facilitate Strategic planning of resources to cover all areas during emergencies	Dept. of Water Affairs, Disaster Management
	30 Plan and ensure Strategic distribution of disaster management resources across area	Disaster Management

Risk Reduction Category	Risk Reduction Project Proposals	Responsible Role-Player
	31 Ensure the provision of Emergency flood kits	Disaster Management, Dept. of Human Settlements, Dept. of Water Affairs, EMS
	32 Mutual aid agreements to be established for relief and response	All role-players
	33 More command centre vehicles	All emergency role-players
Societal Measures	34 Develop Awareness training and workshops in high risk areas	Disaster Management, Dept. of Water Affairs
	35 Develop and inform communities of response actions to early warning systems	South African Weather Services, Disaster Management
	36 Ensure Coordination and cooperation with NGO's	Disaster Management
	37 Community awareness	Dept. of Water Affairs, Disaster Management
	38 Early warning systems	South African Weather Services, Disaster Management

21.3 Disaster Risk Project Proposals: Storms / Severe Weather/Strong Wind

All Storms/Severe Weather/Strong Winds Projects should aim to reduce the levels risk of communities, structures and organisations vulnerable to effects of this hazard.

Risk Reduction Category	Risk Reduction Project Proposals	Responsible Role-Players
Physical Planning Measures	1 Enforcing of building codes to ensure buildings can withstand severe weather prevalent in area	Law enforcement
	2 Considering weather conditions and storm / severe weather occurrence in development planning, zoning and land-use management.	Town Planning, Dept. of Human settlements, South African Weather Service
	3 Identification and plotting of vacant high risk areas for future reference to avoid human settlements in such areas	Disaster Management, South African Weather Service
	4 Retro-fitting of vulnerable buildings to ensure resilience to storms and severe weather	Dept. of Public Works, Dept. of Human Settlements
	5 Implement storm attenuation measures such as windbreaks in high risk areas.	Dept. of Public Works
	6 Identify alternate suitable venues/facilities for emergency services	Disaster Management
	7 Study and understand the impact of climate change on development	Disaster Management, South African Weather Service
Engineering & Construction Measures	8 Develop and maintain severe weather early warning systems	Disaster Management, South African Weather Service
	9 Lightning conductors on roofs in high risk areas	Dept. of Public Works
	10 Implement robust construction methods according to building codes and known severe weather occurrence	Dept. of Public Works

	11 Provide robust community facilities that are less vulnerable to severe weather and can be used as temporary emergency shelter	Disaster Management
	12 Ensure known severe weather occurrences are considered in all municipal infrastructure construction projects	Dept. of Public Works
Economic Measures	13 Pro-active maintenance	Private property owners, all role players
	14 Adequate provision for the maintenance buildings to reduce vulnerability to severe weather	Private property owners, all role players
	15 Procure insurance on important infrastructure that can be damaged by severe weather	Private property owners, all role players
	16 Institute and enforce fines or other punitive measures for non-adherence to building codes	Law Enforcement
Management & Institutional Measures	17 Plan for the support of affected communities	Dept. of Social Development
	18 Develop and maintain storm damage and search & rescue emergency response teams	Disaster Management and all Emergency Response role-players
	19 Develop and implement preventative maintenance programs	All role-players

Risk Reduction Category	Risk Reduction Project Proposals	Responsible Role-Players
	20 Ensure that standard operating procedures for disasters are developed and maintained	Disaster Management, All role players
	21 Facilitate strategic planning of resources to cover all areas during emergencies	Disaster Management and all Emergency Response role-players
	22 Plan and ensure strategic distribution of disaster management resources across area	Disaster Management
	23 Educate building inspectors and infrastructure maintenance teams on known severe weather threats	Disaster Management
	24 Mutual aid agreements to be established for relief and response	Disaster Management and all role-players
	25 Ensure availability of mobile command vehicles	Disaster Management and Emergency Response Role-players
	26 Identifying hotspots / high risk areas – develop database of severe weather events and damage / impact experienced.	Disaster Management, and all affected role players
Societal Measures	27 Develop Awareness training and workshops in high risk areas	Disaster Management
	28 Develop and inform communities of response actions to early warning systems	Disaster Management, South African Weather Services
	29 Ensure Coordination and cooperation with NGO's	Disaster Management and all role-players
	30 Community awareness	Disaster Management
	31 Collect community-based information on past severe weather events and make publicly available for school and research projects.	Disaster Management

21.4 Disaster Risk Project Proposals: Drought

Drought risk reduction project objectives should include:

- Increased capacity of all communities, organisations and areas to cope with the possible impacts of a drought situation;
- To minimise the probability of a drought occurring in the first place.

Risk Reduction Category	Risk Reduction Project Proposals	Responsible Role-Players
Physical Planning Measures	1 Identify drought prone areas	Dept. of Water Affairs, Disaster Management
Economic Measures	2 Disaster relief funds from National Government	Disaster Management
	3 Water-use taxations	Dept. of Water Affairs
	4 MOU's with suppliers of emergency water supplies	SANDEF, NGO's, Disaster Management, Dept. of Water Affairs
Management &	5 Develop institutional capacity for management of possible drought situation	Dept. of Water Affairs, Disaster Management

Risk Reduction Category	Risk Reduction Project Proposals	Responsible Role-Players
Institutional Measures	6 Good response support services (department of water and agriculture, police, SANDF etc.)	All relevant role-players
	7 Identify mass feeding facilities	Disaster Management
	8 Develop plans for emergency feeding of animals	Dept. of Agriculture
	9 Develop Mutual aid agreements and MOU's for identified tasks	Disaster Management and all relevant Role- Players
	10 Plan for emergency responders management and care	Disaster Management
	11 Strict enforcement of water restrictions in identified drought prone areas	Dept. of Water Affairs, Local Municipalities
Societal Measures	12 Public Education campaigns regarding water saving	Dept. Water Affairs, Disaster Management
	13 Develop self-reliant communities/emergency preparedness for in case water resources should stop	Disaster Management

22 ANNEXURE C: KEY STAKEHOLDERS CONTACT LIST/ EMERGENCY NUMBERS LIST FOR UMZIMVUBU LOCAL

Emergency Contact Detail Sheet					
Hazard	Affected Area	Lead and Supporting Agencies	Contact Person	Contact Details	
Severe Storms	ULM	Alfred Nzo Disaster Management Centre	Mr Onke Diko	Tel	(039) 254 0748
				Fax	(039) 254 0747
				Cell	079 361 3325
River/Flash Floods	ULM	Alfred Nzo Disaster Management Centre	Mr Onke Diko	Tel	(039) 254 0748
				Fax	(039) 254 0747
				Cell	079 361 3325
Drought	ULM	Department of Agriculture	To Be Confirmed	Tel	
				Fax	
				Cell	
Strong Winds	ULM	Alfred Nzo Disaster Management Centre	Mr Onke Diko	Tel	(039) 254 0748
				Fax	(039) 254 0747
				Cell	079 361 3325
Veldt Fires	ULM	Alfred Nzo Disaster Management Centre	Mr Onke Diko	Tel	(039) 254 0748
				Fax	(039) 254 0747
				Cell	079 361 3325