ANNEXURE

DISASTER MANAGEMENT PLAN

MERAFONG CITY LOCAL MUNICIPALITY

VERSION 1

Document Information	
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ABBREVIATIONS AND ACRONYMS

ACDS	African Centre for Disaster Studies
CBO	Community based organisation
DMA	Disaster Management Act (Act No. 57 of 2002)
DMIS	Disaster Management Information System
DOC	Disaster Operations Centre
DMAF	Disaster Management Advisory Forum
DMP	Disaster Management Plan
GIS	Geographical Information Systems
GDM	Gauteng Provincial Disaster Management Centre
GPDMF	Gauteng Provincial Disaster Management Framework
GPS	Geographical Positioning System
IDP	Integrated Development Plan
JOC	Joint Operations Centre
WRDDMC	West Rand District Disaster Management Centre
KPA	Key Performance Area
MMMTT	Municipal Mitigation Monitoring Task Team
MDM	Municipal Disaster Management
MFMA	Municipal Financial Management Act No. 56 of 2003
MPS	Maxim Planning Solution
NDM	National Disaster Management Centre
NDMF	National Disaster Management Framework
NGO	Non-governmental organisation
PDM	Provincial Disaster Management Centre
PDMF	Provincial Disaster Management Framework
PFMA	Public Financial Management Act No. 1 of 1999
SDF	Spatial Development Framework

1. EXECUTIVE SUMMARY

The Constitution of the Republic of South Africa (Act 108 of 1996) places a legal obligation on the Government of South Africa to ensure the health (personal and environment) and safety of its citizens. In terms of section 41(1) (b) of the Constitution, all spheres of Government are required to "*secure the well-being of the people of the Republic*". Section 152(1) (d) also requires that local government "*ensure a safe and healthy environment*". In the light of the above, and the established understanding of disaster risk management, the primary responsibility for disaster risk management in South Africa rests with Government.

Section 26(g) of the Municipal Systems Act 32 of 2000 as well as sections 52 and 53 of the Disaster Management Act 57 of 2002 compels each municipal entity to develop a disaster risk management plan as part of and an integrated part of their Integrated Development Plans. This plan establishes the arrangements for disaster risk management within the Merafong City Local Municipality (MCLM) and has been prepared in accordance with the requirements of the Disaster Management Act, 57 of 2002 (the Act) and section 26(g) of the Municipal Systems Act, 2000.

The purpose of the Merafong City Local Municipality Disaster Management Plan (DMP) Level 1 is to document the institutional arrangements for disaster risk management planning which includes the assignment of primary and secondary responsibilities for priority disaster risks posing a threat in the Merafong City Local Municipality. It further provides the broad framework within which the departments will implement the disaster risk management planning requirements of the Act and other entities included in the organisational structure of the Merafong LM. It establishes the operational procedures for disaster risk reduction planning as well as the emergency procedures to be implemented in the event of a disaster occurring or threatening to occur in council's area. It aims to facilitate an integrated and coordinated approach to disaster risk management in the municipality which will ensure that the Merafong City Local Municipality achieves its vision for disaster risk management which is to build a resilient people in the Merafong LM who are alert, informed and self-reliant by establishing risk reduction and resilience building as core principles, and developing adequate capabilities for readiness; and effective and rapid, response and recovery.

This disaster risk management plan is in line with the National Disaster Management Framework and addresses disaster risks though four key performance areas (KPAs) and three Enablers:

- KPA 1: Integrated Institutional Capacity for Disaster Risk Management
- KPA 2: Disaster Risk Assessment
- KPA 3: Disaster Risk reduction
- KPA 4: Response and recovery
- Enabler 1: Information Management and Communication
- Enabler 2: Education, Training, Public Awareness and Research
- Enabler 3: Funding arrangements for Disaster Risk Management

This plan provides a brief background study of the Merafong LM in line with its current Integrated Development Plan (IDP). The Merafong LM disaster risk management plan contains a macro disaster risk assessment based on field research, observation, primary- and secondary data sources. The Merafong LM DMP has as far as possible been imbedded in the current reality of the municipality. The macro disaster risk assessment provides the foundation towards risk reduction planning based on the identified and prioritised disaster risks and vulnerabilities of the Merafong LM. This DMP for the Merafong LM furthermore provides the municipality with a guiding framework for future disaster management planning by the municipality as a whole as required by the Disaster Management Act 57 of 2002 and the Municipal Systems Act 32 of 2000. The relationship between, and different roles and responsibilities of, the West Rand District Disaster Management Centre (WRDDM) and the DM of the Merafong LM are alluded to. This plan also gives guidance in relation to the declaration of a local state of disaster, disaster classification and the institutional arrangement necessary for the successful implementation of the Act. Each section of this plan contains a number of recommendations, which need to be considered and implemented in order for the Merafong LM to obtain the outcomes envisaged by this plan.

Comment: Please take note that due to the impact of the demarcation process, some of the information could not be aligned to Gauteng Province; however the plan is still a draft and will be fine-tuned in collaboration with West Rand District Municipality.

2. INTRODUCTION TO THE PLAN

This Level 1 disaster management plan for the Merafong LM has as much as possible been embedded in the current local reality of the municipality. Therefore, this brief description of the most salient features of the municipality is added to sketch this current local reality. More extensive information can be obtained from the Merafong LM Integrated Development Plan.

2.1 Requirements of a Level 1 Disaster Risk Management Plan

According to the NDMF, a Level 1 Disaster Management Plan applies to national or provincial organs of state or municipal entities that have not previously developed a coherent Disaster Management Plan. It focuses primarily on establishing foundation institutional arrangements for DM, putting in place contingency plans for responding to known priority risks as identified in the initial stage of the DRA, identifying key governmental and other stakeholders, and developing the capability to generate a Level 2 plan. A Level 1 Disaster Management Plan for a local municipality should therefore have the following components:

- Explanation of the institutional disaster management arrangements in the municipality;
    - Political forum for disaster management;
    - Senior management forum for disaster management;
    - Disaster Management Centre (or equivalent);
    - Head of the Disaster Management Centre (or equivalent);
    - Volunteer structures;
- The identification of key governmental and external role-players which needs to be consulted (typically through the senior management forum as above).
- A macro risk profile (hazard, vulnerabilities and capacities) for the area in question;
- Contingency plans for the prioritised risks (as per the macro risk profile);
- Evidence of the ability to generate a Level 2 Disaster Management Plan.

2.2 The custodian of the plan

The Head of the Merafong LM Disaster Management Centre (DM) is the custodian of the disaster management plan for the Merafong LM Municipality and is responsible to ensure the regular review and updating of the plan.

The Head of the Centre will ensure that copies of the completed plan as well as any amendments to the plan are submitted to:

- The West Rand District Disaster Management Centre;
- The Disaster Management Centre of the Gauteng Province;
- The National Disaster Management Centre (NDM);
- The Merafong City Local Municipality ward disaster management structures; and
- Each of the neighbouring municipalities of the Merafong City Local Municipality.

In terms of section 52 of the Act each municipal organ of state and any other municipal entity operating within council's organisational structure is responsible for the development and maintenance of the disaster risk management plan for its functional area. Departmental plans and plans of other entities are an integral part of council's disaster management plan and therefore the head of each department and of each entity must ensure that copies of the plan and any amendments to the plan are submitted to the Merafong City Local Municipality DM.

2.3 The purpose of the plan

The purpose of the Merafong City Local Municipality Disaster Management Plan (DMP) is to document the institutional arrangements for disaster management planning which includes the assignment of primary and secondary responsibilities for priority disaster risks posing a threat in the Merafong City Local Municipality. It further provides the broad framework within which the departments will implement the disaster management planning requirements of the Act and other entities included in the organisational structure of the Merafong City Local Municipality. It establishes the operational procedures for disaster risk reduction planning as well as the emergency procedures to be implemented in the event of a disaster occurring or threatening to occur in council's area. It aims to facilitate an integrated and co-ordinated approach to disaster management in its area of jurisdiction, which will ensure that the Merafong City Local Municipality achieves its vision for disaster management which is to build a resilient people in the Merafong Local Municipal area who are alert, informed and self-reliant by establishing risk reduction and resilience building as our core principles, and developing adequate capabilities for readiness; and effective and rapid, response and recovery.

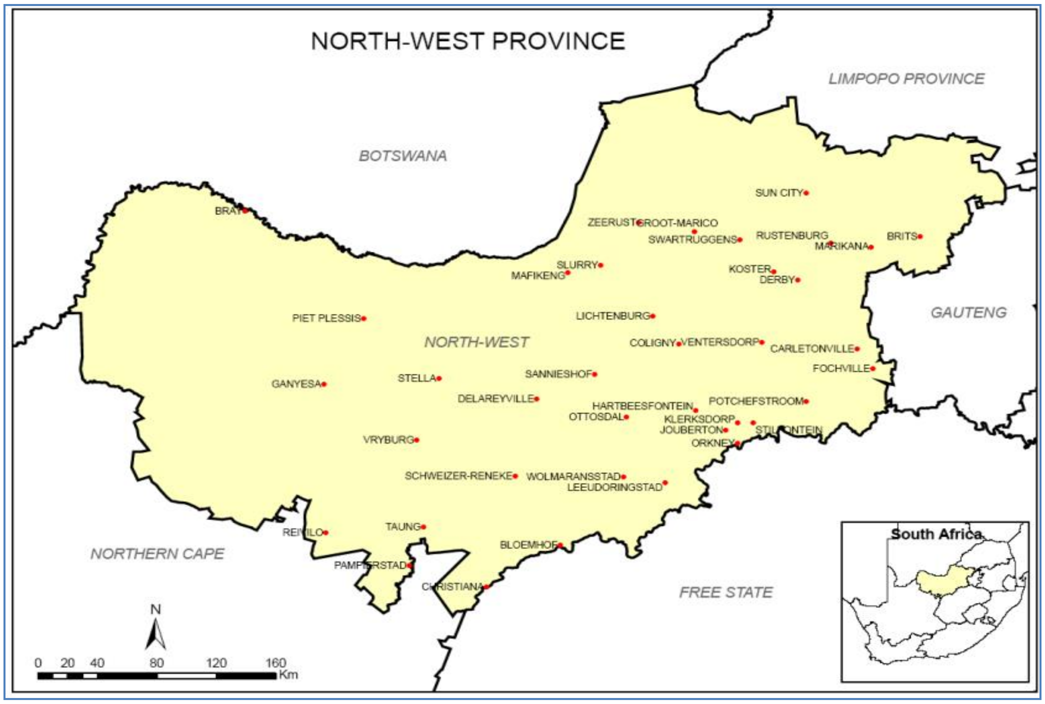
2.3 The Merafong City Local Municipality disaster management context

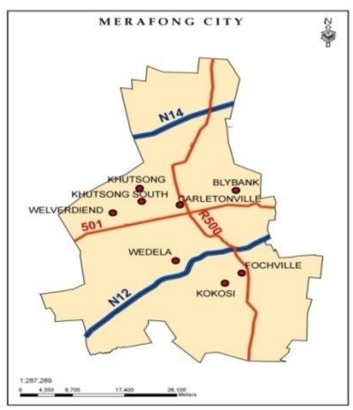
The Merafong City Local Municipality is exposed to a diversity of hazards of natural origin including deforestation, veld fires, severe weather events, drought, floods, fires, motor vehicles accidents and the outbreak of biological diseases such as, tuberculosis, meningitis and cholera. The Merafong City Local Municipality is also exposed to a variety of technological hazards such as the interruption of services, and various forms of pollution.

The vulnerability in the Merafong City Local Municipality that could be exploited by potential hazards is still rooted in profound poverty, lack of diversity in primary (e.g. agriculture) and secondary (e.g. industrial) products, and the lack of education and resources. Despite the number of developmental projects underway in the Merafong City Local Municipality, these are still numerous urban as well as rural communities, which are constantly exposed to conditions of vulnerability. As a result their capacity to withstand, cope with and/or recover from the impact of such natural and anthropogenic risks is severely compromised. This plan will highlight some of the priority areas, which need an urgent developmental initiative to address this disaster risk.

2.4 Background study for the Merafong City Local Municipality

2.4.1 Geographical location





2.4.2 Demographic profile

Merafong City is situated in the Southern District Municipality area of jurisdiction.

The Southern District Municipality has an estimate population of 810 160. The population distribution per Municipality in the area is as follows:

Estimated population and households in Census 2001 and CS 2011

Municipalities	Persons		Households	
	Census 2001	Census 2011	Census 2001	Census 2011
Nw405: Merafong City Local Municipality	210 481	197520	56 336	66 624

Source: Statistic SA, 2011

Dwelling types in Merafong City

Type of dwelling	2001	2011
House/brick structure on separate stand	56%	59.7%
Traditional	1%	0.21%
Flat in block of flats	3%	6.96%
Town/Cluster/Semi-detached house	1%	1.27%
House/Flat/room in backyard	6%	4.3%
Informal dwelling/shack in back yard	9%	5.37%
Informal dwelling/shack NOT in back yard	22%	15.91%
Room/Flat let not in back yard but on shared property	2%	1.94%

Housing Conditions

Formal Dwellings (%)		Informal Dwellings (%)	
Gauteng	73,5	Gauteng	22,7
Merafong City	**72.41**	**Merafong City**	**16.95**

% Distribution of households by tenure status

	Census 2001	Census 2011
Owned and fully paid off	23,2	23.94
Owned but not yet paid off	13,5	5.81
Rented	37,5	48.45
Occupied rent-free	25,8	18.93
Other	0	0,2

% Households using electricity for lighting, cooking and heating

	Census 2001	Census 2011
Lighting	65,1	83
Cooking	53,3	75.89
Heating	51,0	66.78

% Households using latrine, bucket and no toilet facility

	Census 2001	Census 2011
Pit latrine	19,5	13.7
Bucket toilet	2,3	0.37
No toilet	4,1	1.01

% Households by type of refuse disposal

	Census 2001	Census 2011
Removed by Local Authority	85,0	75
No refuse disposal	3,3	4

% Households having access to piped water

	Census 2001	Census 2011
Piped water inside dwelling	40,8	N/a
Piped water inside yard	33,5	93.05
Piped (tap) water to community stand: distance <200m from dwelling	13,2	N/a
Piped water (tap) water to community stand: distance >200m from dwelling	9,5	

2.4.3 Social and Economic trends

Demographic trends

- Economic active population decreased from 75% (2001) to 73% (2007)
- Slight increase in percentage in population dependant on others
- High and climbing HIV infection rate: 8,752 (2004); 12,200 (estimate for 2007)
- Annual AIDS related deaths – 560 (2004); 1,200 (estimate for 2007)

Education profile

- No schooling – 11% compared to 17% in NW and 16% in RSA
- Completed Grade 12 – 20% compared to 26% in NW and 27% in RSA
- Higher education – 2%
- Estimated AWI (Average Waited Income) – R4,809 p.a (2007) compared to R4,635 p.a in NW

HUMAN SETTLEMENT FOR MERAFONG CITY

Proclaimed Townships	Population	Amount of formal Dwelling units	Informal structures	Back Yard Dwellers	Number of stands
Carletonville	22 510	6 465	356		5 526
Welverdiend	1 972	569	21		1 061
Blybank	2 348	711			921
Khutsong (including Khutsong South)	124 268	8487	10 762	8487	9 204
Fochville	12 698	3837			3 588
Kokosi	32 115	3 858	2386	2575	5 259
Greenspark	2 412	215	134	366	436
Wedela	8 751	1 436	462	750	3 522
Sub Total: Towns	**207 074**	**25 578**	**14 121**	**12 178**	**29 517**
Mining Towns:					
Blyvooruitzicht	4 313	1 029 (500)	278		
Cementation	250	12 (0)	70		
Deelkraal	1360	406 (0)	6		
Elandsrand	4 615	550 (2 800)			
Doornfontein	2 361	79 (2 100)			
Driefontein	30 652	842 (10 054)	5400		
Western Deep Levels	9 970	296 (7 013)	600		
Sub Total: Mines	**53 521**	**3 214 (22 467)**	**6 354**		
TOTAL:	**260 595**	**28 792 (22 467)**	**20 475**	**12 178**	**29 517**

Source: Town Planning Section

Note: * An average family size of 3, 3 was used, according to STATS SA for Gauteng Province (Census 2007). 2007 + 1.25% p.a.

Number of Households: 91 504
Number of Hostel dwellers: 22 467

3. KEY PERFORMANCE AREA 1:

INTEGRATED INSTITUTIONAL CAPACITY FOR DISASTER RISK MANAGEMENT IN THE MERAFONG CITY LOCAL MUNICIPALITY

3.1 Institutional arrangements for integrated policy making, direction and the execution of policy and legislation

3.1.1 Objectives

- To establish procedures for the development, approval and implementation of integrated disaster risk management policy, including the making of by-laws, issuing directions and authorisations for the issuing of directives;
- To establish mechanisms which will provide clear direction and allocate responsibilities for the implementation of the Disaster Management Act 57 of 2002 (hereinafter referred to as “the Act”);
- To develop a strategic plan for phasing in and maintaining the requirements of the Act and the national disaster management framework; and
- To establish and maintain effective institutional arrangements to ensure adequate operational capacity for the implementation of the requirements of the Act and to enable stakeholder participation which will promote an integrated and co-ordinated approach to disaster risk management in Council’s area.

3.1.2 Arrangements for integrated policy

3.1.2.1 The Council

Council is responsible to ensure the implementation of the Disaster Management Act, 2002 for the area of the Merafong City Local Municipality as a whole and makes all policy decisions in relation to disaster risk management.
Having consulted with the district municipality in the area (Sections 55(1)(b) and 55(2) of the Disaster Management Act, 2002), the West Rand District has primary responsibility for the co-ordination and management of local disasters threatening to occur or occurring within the area of the district municipality (section 54(1)).

1. Action to be taken:
The Merafong City Local Municipality and the West Rand District must consult and determine primary responsibility as per sections 54 and 55 of the Disaster Management Act for the Merafong City Local Municipality.

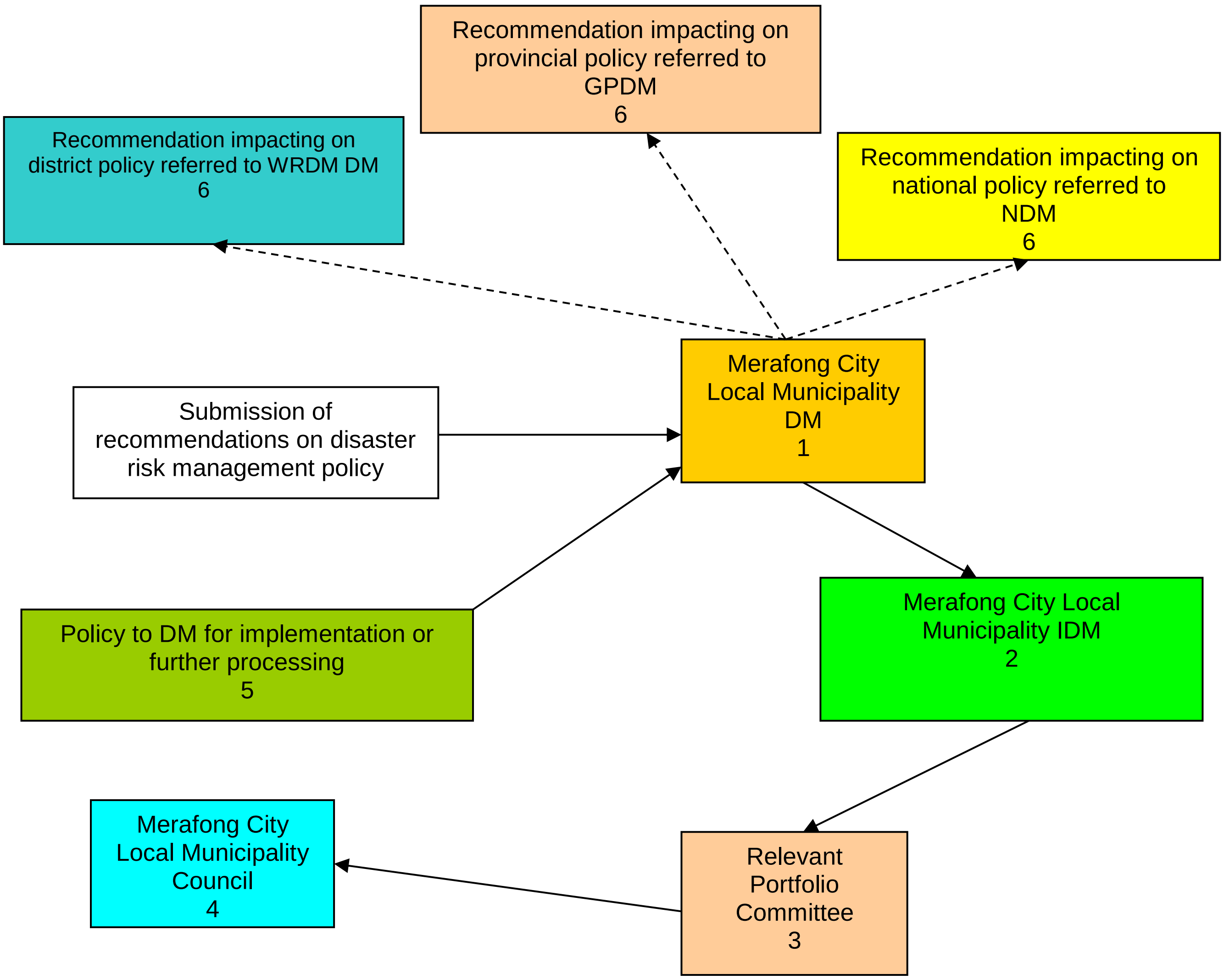
3.1.2.2 The policy making process

Recommendations on matters relating to disasters and disaster risk management policy must be submitted to the Merafong City Local Municipality DM for consideration. The DM will refer the recommendations to the Merafong City Local Municipality Inter-departmental Disaster Risk Management Committee (IDM) for consideration before submitting them to the relevant portfolio committee prior to submitting them to the Council. Policy adopted by Council will then be referred back to the DM for implementation.

The Merafong City Local Municipality DM must ensure that recommendations on policy include details of any financial, constitutional, human resource or interdepartmental implications before they are submitted to the relevant portfolio committee and the Council.

The following flow chart provides a diagrammatic view of the process for the submission recommendations relating to policy.

Figure 1: The Merafong City Local Municipality disaster risk management policy-making framework



2. Action to be taken:
The Merafong City Local Municipality Council should agree on the above policy-making framework and pass a Council resolution in this regard.

3.1.3 Arrangements for direction and execution of policy

3.1.3.1 The Merafong City Local Municipality Disaster Management (Merafong City Local Municipality DM)

Although the Act does not require a disaster risk management centre (DM) to be established within a local municipality, it is recommended in the national framework that all local municipalities identify appropriately qualified staff in their employ to serve as their disaster risk management focal point. The framework further suggests that this person serve on the relevant IDP structures due to the inextricable relationship between disasters and development.

In order to ensure continuous monitoring of progress with regard to the execution of the provisions of the Act the centre responsible for disaster risk management (Disaster risk management Centre) within the municipality must also submit reports in an agreed format on its performance for consideration to every meeting of the Public Safety Portfolio Committee and the West Rand District DMC.

3. Action to be taken: The Merafong City Local Municipality must identify a dedicated focal point for disaster risk management in its municipality, allow this incumbent to serve on the IDP structures, and if appropriate formally establish a DM within its administration.

3.1.3.1.1 Establishment and physical location of the office

In terms of the Act there is no requirement for local municipality to establish a disaster risk management centre or office. It is however recommended within the National Disaster Management Framework that disaster risk management focal points be appointed or identified to deal with issues pertaining to disaster risk management.

4. Action to be taken: The Merafong City Local Municipality must determine whether a formal disaster risk management centre/office will be established. Such an arrangement must be coordinated with the WRDM DMC.

3.1.3.1.2 Location of the disaster risk management function within Council's administration

In terms of section 45(1) (b) of the Act the district disaster risk management centre exercises its powers and performs its duties in accordance with the *directions* of the municipal council and in accordance with the *administrative* instructions of the Municipal Manager. On this basis, it is recommended that the Merafong City Local Municipality DM be handled in a similar manner.

5. Action to be taken: The Merafong City Local Municipality must formally determine the most appropriate location of the LM DM within the administration of the municipality.

The proposed location of the centre within Council's administration and reporting lines for direction and administrative purposes are illustrated in the chart below

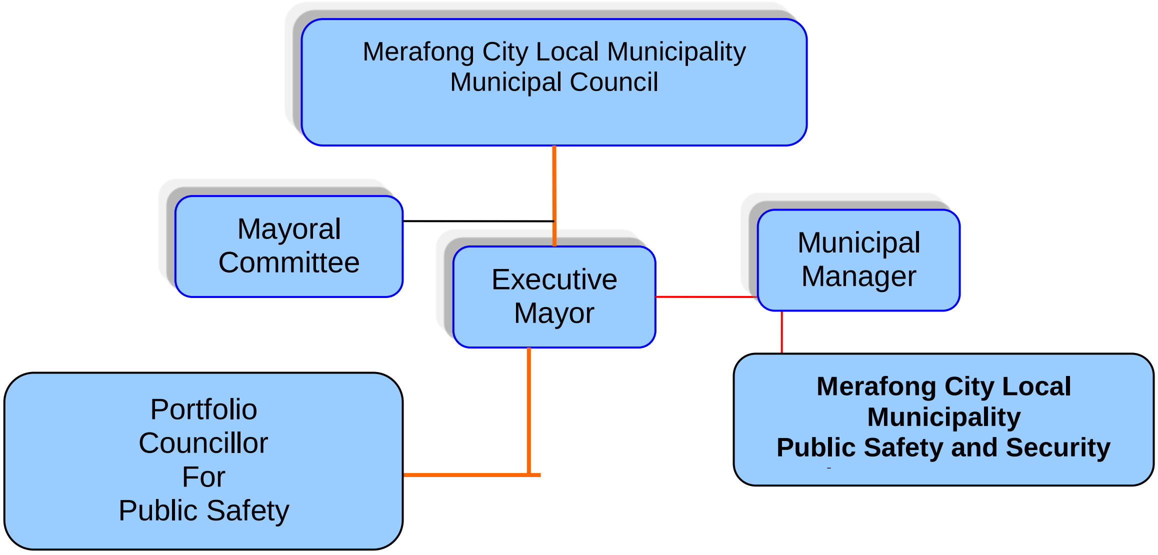


Figure 2: Proposed (2008) placement of the disaster management function within the structure of the Merafong City Local Municipality

3.1.4 Key responsibilities of the Merafong City Local Municipality DM

The key responsibilities of the Merafong City Local Municipality DM will be as follows:

- Establish and maintain adequate institutional capacity to enable the implementation of the requirements of the Act which will promote an integrated and co-ordinated approach to disaster risk management in Council's area subject to the agreement on primary responsibility with the West Rand District DM (see section 54 of the Disaster risk management Act);
- Implement measures to conduct comprehensive and progressive assessments which will contribute to the development of disaster risk profiles which are current and relevant, and which will inform planning and the implementation of risk reduction strategies;
- Facilitate the development, implementation and maintenance of disaster risk management plans, programmes and practices for strategic disaster risk reduction which will ensure that individuals, households, communities, infrastructure and the environment in council's area are resilient to disaster risk;
- Facilitate the development and implementation of contingency plans to ensure rapid, appropriate and effective disaster response and recovery to disasters which occur or are threatening to occur in council's area;
- Develop, establish and maintain a comprehensive information management system, an effective communication system and an accessible public awareness and information service;
- Make provision for accessible training, education and research opportunities for disaster risk management stakeholders in the municipality;
- Make action to be taken regarding the funding for disaster risk management in the council's area of jurisdiction and initiate and facilitate efforts to make such funding available;
- Develop, implement and maintain dynamic mechanisms for monitoring, evaluating and continuously improving disaster risk management practice, projects and programmes;
- Commissioning the development and maintenance of a disaster risk profile for council's area which is current and relevant;
- Ensuring the development, implementation and maintenance of comprehensive disaster risk reduction planning and implementation for council's area by the relevant municipal organs of state and other municipal entities/departments within council's administration, and other municipal entities operating within council's jurisdiction;

- Identifying cross boundary disaster risks which pose a threat to council's area or to neighbouring jurisdictions and facilitating the development, implementation and maintenance of plans to manage such risks;
- Establishing and maintaining an information management system which includes the development and maintenance of a database linked to a Geographical Information System (GIS); hazard maps and risk maps informed by the disaster risk profile; a register of volunteers; a communication directory and a record of available resources;
- Serving as a conduit and repository for information concerning disasters, impending disasters and disaster risk management in general;
- Acting in an advisory and consultative capacity on issues concerning disasters and disaster risk management in the area by the establishment of the Merafong City Local Municipality Disaster risk management Advisory Forum;
- Establishing and maintaining ward disaster risk management structures to deliver services in terms of all of the activities associated with disaster risk management to communities in the areas of the thirty one (31) wards; and to integrate them into the disaster risk management arrangements for the municipality;
- Establishing and maintaining co-operative partnerships with multi-sectoral role players including the private sector in accordance with Chapter 3 of the Constitution and the Integrated Development Plan objectives;
- The establishment, management and maintenance of a unit of volunteers;
- Ensuring adequate capacity to deal with rapid, co-ordinated and effective disaster response and recovery by:
    - facilitating the development, implementation and maintenance of contingency plans for disasters which have been identified in the risk profile as priority risks for council's area;
    - facilitating the development and implementation of standard operating protocols and field operations guides for the various activities associated with disaster response and recovery based on joint standards of practice amongst all relevant role players to ensure rapid and effective responses;
    - developing and maintaining a disaster response and recovery plan incorporating the contingency plans, response and recovery protocols and field operations guides;
    - developing guidelines and the capacity to assess the magnitude and severity or the potential magnitude and severity when a disaster occurs or threatens to occur and determining whether the event should be classified as a local disaster;
    - developing guidelines and the capacity (including in communities known to be at risk to disasters) for conducting initial assessments of damage and adverse effects and the immediate humanitarian needs of those affected;
    - mobilising the necessary resources to provide immediate humanitarian assistance and to restore or make temporary arrangements to maintain critical lifeline services, mission critical systems and business continuity during and immediately after a disaster occurs or when a disaster is threatening to occur; and
    - providing and co-ordinating physical support to communities and the mission critical systems on which they depend, in the event of those disasters which are classified as local disasters.
- Maintaining comprehensive records, documentation and reports of disaster response and recovery operations.

3.1.5 The Internal departments (municipal organs of state) and other municipal entities within the administration of the Merafong City Local Municipality

Each department and other municipal entity within Council's administration must, in terms of section 2 of the Act, assess any national legislation applicable to its function and must advise the Merafong City Local Municipality DM on the state of such legislation.

Disaster risk management activities must be incorporated into the routine activities of each municipal department and of any other municipal entities and their substructures.

3.1.5.1 Assignment of responsibilities

The Disaster Manager and the heads of each department in council's organisational structure will serve as the assigned disaster risk management nodal/focal point for the department and as such will represent the department on the Merafong City Local Municipality Inter-departmental Disaster Management Committee (Merafong City Local Municipality IDM) or Municipal Mitigation Monitoring Task Team (MMMTT) and will be responsible for all aspects of planning and operations relevant to the functional area in that department or entity.

The responsibilities of heads of department in this regard include:

- facilitating and co-ordinating the relevant department or entity's disaster risk management planning and operational activities for risk reduction and for response and recovery;
- ensuring that the planning and operations are consistent with the requirements of the Act and West Rand District disaster management framework;
- ensuring the integration and alignment of the entity's planning and operations with that of the district, provincial and national organs of state and other institutional role players;
- ensuring the integration of the risk reduction and response and recovery planning and operations with councils Integrated Development Planning process, the Spatial Development Framework and Environmental Management Framework;
- ensuring the regular review of plans and that planning remains dynamic and relevant in accordance with developmental changes taking place within, or which may impact on council's area; and
- submitting a copy of the entity's disaster management plan and any amendment thereof to the disaster management centre of the West Rand District, Gauteng Province and to the National Disaster management Centre.

In terms of Sections 47 and 52 of the Act each municipal entity must establish its role and responsibilities in terms of the Act and must assess its capacity to fulfil those requirements. Where capacity is lacking it must be augmented by the sharing of resources between departments, organs of state in the other spheres of government and by entering into partnerships with the private sector, non-governmental organisations and community-based organisations. In this regard mutual assistance agreements and memoranda of understanding (MOU) must be concluded in which the detail, extent and ramifications of such support are recorded.

6. Action to be taken:
The Merafong City Local Municipality must provide clear guidelines as to the roles and responsibilities of municipal entities in disaster management and sign appropriate mutual assistance- or service level agreements for this purpose.

Entities must ensure that their disaster management plans are co-ordinated and aligned with those of other organs of state and institutional role players.

In order to give further effect to the requirements of Sections 47 and 52 of the Act, primary responsibility for the co-ordination and management of disaster management planning and operations for the following functional areas in the Merafong City Local Municipality is assigned as follows:

3.1.5.1.1 The Municipal Manager

The Municipal Manager is responsible to ensure the effective implementation of the requirements of the Disaster management Act, 2002 within the departments and other municipal entities within the Merafong City Local Municipality and for the integration of disaster management plans with the IDP Process.

3.1.5.1.2 The Directorate: Community Services

The SE: Community Services:

- is the disaster management focal point for the department;
- will serve on the Merafong City Local Municipality IDM or MMMTT ; and
- is responsible for the co-ordination of all relevant aspects of disaster management planning and operations in respect of matters related to fire, traffic, licensing, community service and security related matters.
- is responsible for the co-ordination of all relevant aspects of disaster management planning and operations in respect of health, and social related matters.

3.1.5.1.3 The Directorate: Infrastructure Development

The SE: Infrastructure Development

- is the disaster management focal point for the department;
- will serve on the Merafong City Local Municipality IDM or MMMTT; and
- is responsible for the co-ordination of all relevant aspects of disaster risk management planning and operations in respect of matters related to civil works and infrastructure.
- is responsible for the co-ordination of all relevant aspects of disaster risk management planning and operations in respect of matters related to emergency housing and reconstruction

3.1.5.1.4 The Directorate: Economic Development, Planning & Environmental Management

The Director: Economic Development, Planning & Environmental Management

- is the disaster risk management focal point for the department;
- will serve on the Merafong City Local Municipality IDM or MMMTT; and
- is responsible for the co-ordination of all relevant aspects of disaster risk management planning and operations in respect of matters related to economic development.

3.1.5.1.5 The Directorate: Corporate Support Services

The SE: Corporate Support Services:

- is the disaster management focal point for the department;
- will serve on the Merafong City Local Municipality IDM or MMMTT; and
- is responsible for the co-ordination of all relevant aspects of disaster risk management planning and operations in respect of matters related to business continuity, legal services, transport and human resource management.

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3.1.5.1.6 The Directorate: Finance

The Chief Financial Officer:

- is the disaster management focal point for the department
- will serve on the Merafong City Local Municipality IDM or MMMTT.
- is responsible for the co-ordination of all relevant aspects of disaster risk management planning and operations in respect of financial management and procurement

7. Action to be taken: The Municipal Manager in consultation with the SE's and Heads of all departments and other municipal entities must identify all other statutory functionaries in each of the relevant departments or entities who have disaster management responsibilities and the responsibilities in this regard must be recorded in the job descriptions of such functionaries together with key performance indicators. The functionaries so identified will serve as indicated on the Merafong City Local Municipality Interdepartmental Disaster management Committee (IDM) or Municipal Monitoring Mitigation Task Team (MMMTT).

3.1.6 The Merafong City Local Municipality Interdepartmental Disaster management Committee (Merafong City Local Municipality IDMC)[1]

3.1.6.1 Purpose of the IDMC

In order to promote interdepartmental relations and to achieve a co-ordinated, integrated and common approach to disaster risk management by the departments and other internal units in the administration of the municipality (Section 44(1)(b)(i) of the Act) in the development and implementation of appropriate disaster risk reduction methodologies, emergency preparedness and rapid and effective disaster response and recovery capabilities, the Head of the Centre is responsible to establish and sustain an Interdepartmental Disaster Management Committee (IDMC).

In order to ensure that the DM implements disaster management in a manner consistent with the Act, as well as practical to involve all the necessary role players, the head of the DM will establish an IDM with the functionaries as identified.

The committee comprises heads of departments and key personnel with specific technical expertise who have disaster management responsibilities. It facilitates integrated and co-ordinated planning by providing the forum for collaboration on joint cross departmental plans and programmes aimed at disaster reduction and other relevant activities associated with disaster management as required by section 52 of the Act. It acts in support of the Merafong City Local Municipality DM and assists with supervising the preparation, co-ordination, monitoring and review of disaster plans and their integration with the IDP processes.

The committee is chaired by the Head of the DM and shall meet at least quarterly, but is not precluded from meeting more frequently according to current circumstances.

3.1.6.2 Composition of the IDM

The IDM comprises key personnel and relevant role players of the various departments and other internal units in the administration of council who have disaster management responsibilities in their functional area. The permanent members of the IDM are as follows:

[1] See Annexure A: Terms of Reference for the IDM

Office of the Municipal Manager
Manager: Support Services

Directorate: Municipal & Social Services
SE: Municipal & Community Services
Manager: Public Safety & Security
Chief: Traffic & Roads Safety
Chief: Licensing
Practitioner: Environmental Health
Officer Commanding: Fire & Rescue
Officer: Disaster Management

Directorate: Infrastructure Development
SE: Infrastructure Development
Manager: Civil Engineering Services
Manager: Electrical Engineering Service
Manager: Water & Sanitation & Water Care Works

Directorate: Local Economic Development,
Planning & Environmental Management
SE: Economic Growth
Manager: Housing & Administration
Manager: IDP/PMS
Manager: Town Planning
Manager: LED & Tourism

Directorate: Finance
Chief Financial Officer
Deputy Director: Budget & Treasury

Directorate: Corporate Support Services
SE: Corporate Support
Manager: HR/LR
Manager: Administrations
Assistant Director: Legal Services
Manager: Corporate Communication/ Services
Manager: Speaker's Office
Administrator: Chief Whip Office

The composition of the committee does not preclude the co-option of additional key council personnel with disaster management responsibilities to the IDM, if prevailing circumstances demand it. Nor does it preclude the ad hoc co-option of specialised expertise for specific purposes.

Each departmental head will serve as the Focal/Nodal Point for Disaster management for their department's functional area and accordingly is expected to attend meetings of the IDM (see section 3.1.6 above).

The job descriptions of the permanent members serving on the IDM must include a description of their disaster management responsibilities.

3.1.6.3 Responsibilities of the IDM

For the purposes of implementing the requirements of the Act and in particular, Sections 47 and 48 the responsibilities of the IDM include:

For disaster risk reduction planning and operations:

- monitoring, assessing, and co-ordinating council's disaster management planning and implementation, placing particular focus on risk reduction policies, practices and strategies;
- collaborating, co-ordinating and monitoring progress on joint projects and programmes and their integration into the IDP process;
- annually reviewing the council's disaster management framework, departmental disaster management plans, the plans of other internal units within council's administration and the plans of other municipal entities in council's area to ensure that the plans are integrated, current, and consistent with the disaster risk management framework;
- promoting joint standards of practice within and between the departments and other entities within council;
- monitoring progress on the implementation of priority projects aimed at risk reduction;
- participating in desk top exercises bi-annually to remain current on roles and responsibilities in the activation and operation of the Disaster Operations Centre to ensure rapid and efficient response and recovery in the event of a disaster occurring or threatening to occur in council's area; and
- making recommendations to council regarding disaster risk management policy and related disaster management matters.

For contingency planning and disaster response and recovery:

- when a disastrous event occurs or is threatening to occur in the area of a municipality, on receipt of an activation alert from the Head of the DM (or designate), reporting immediately to the District Disaster Management Centre Disaster Operations Centre (DOC);
- conducting initial and specialist post disaster assessments for the department's or entities' functional area;
- ensuring that departments respond rapidly to disasters;
- ensuring efficient and co-ordinated disaster response and recovery operations;
- monitoring progress with, and ensuring that, post disaster reconstruction and rehabilitation projects include measures to reduce risk to similar events in the future;
- ensuring that regular reports on progress with disaster recovery are continuously submitted to council as well as to the DM of the Gauteng Province and NDM via the WRDM DM; and
- ensuring that all documentation and records relating to the disaster are retained and placed in safe-keeping for the purposes of post disaster investigation, inquiry or review.

3.1.6.4 Project Teams and Planning Clusters

The IDM may convene project teams to address specific joint risk reduction priorities including post disaster projects. Teams so convened will act as sub-committees of the IDM for the duration of their task and will determine their terms of reference and outcomes in consultation with the Head of the Centre and the IDM; will plan and manage such multi-disciplinary projects; and will report back to the IDM.

In the context of emergency preparedness, planning clusters will also be convened to address contingency plans for specific priority risks posed by hazards such as storms, floods, drought, fires, epidemics, transportation accidents, oil spills, hazardous material spills, Xenophobic attacks crowd related events. These contingency plans will include strategies and procedures to ensure the implementation of an incident management system, which will establish joint standards of practice and inter-disciplinary co-operation for rapid and effective disaster response capabilities. Such plans will also be subject to consultation within the Merafong City Local Municipality IDM or MMMTT.

3.1.7 Integration with the IDP Process

In order to facilitate the integration of disaster management into the IDP process, the Head of the DM must serve on both the IDP Steering Committee and IDP Representative Forum. All development projects must be referred to the Merafong City Local Municipality DM for comment and input before their submission to council for approval.

3.1.8 Key performance indicators

- The IDM/MMMTT is established and is operating effectively.
- A job description and key performance indicators for the Head of the Office have been developed.
- The Head of the Disaster Management Centre is appointed in terms of a written contract, which includes key performance indicators.
- The Merafong City Local Municipality District Disaster Management Centre is fully established and staffed and is operating optimally.
- Provision has been made for the necessary funding to give effect to the arrangements.
- Accurate records of correspondence, proceedings, meetings and plans are maintained.

3.1.9 Monitoring and evaluation

The Merafong City Local Municipality DM is responsible to ensure that the Office; the departments and other entities within the administration of council and the IDM, and any other decentralised structures conduct self-assessments and peer reviews at least twice a year. Assessment and review reports must be prepared in accordance with the reporting guideline to be developed by the Merafong City Local Municipality DM. Copies of the reports must be submitted to the WRDM DMC. Copies of the reports must be submitted to the GPDM as well as the NDM.

3.2 Arrangements for stakeholder participation and technical advice

3.2.1 Objectives

To establish and cooperative with mechanisms, which will provide for the active participation of all role players and stakeholders, including technical experts, the community and the private sector in disaster risk management planning and operations in the district.

3.2.2 The West Rand District Disaster Management Advisory Forum (WRDM DMAF)

The disaster management focal point of the Merafong City Local Municipality must serve as an active member on the WRDM DMAF. The focal point must report to the IDM on matters pertaining to the WRDM DMAF.

3.2.3 Community/Ward participation

In terms of risk reduction, the local sphere is the first line of defence and in the event of a disaster occurring (or threatening to occur) the community is in reality the first responder.

The Disaster Management Centre is responsible to facilitate and co-ordinate the establishment of a disaster risk management structure such as a committee or forum in each municipal ward to serve as the leadership and co-ordinating element for the purposes of disaster risk management in the ward. This process is to be initiated and managed in consultation and co-operation with the disaster risk management co-ordinating structure of the Merafong City Local Municipality. Ward Disaster risk management structures will adopt a Ward Disaster Management Constitution which will include terms of reference, the allocation of portfolios; operating protocols in terms of disaster risk reduction planning; early warnings; emergency preparedness; emergency communication; data collection; disaster response and recovery; and the recruitment and management of ward volunteers.

Ward DM structures will actively participate in and promote:

- awareness programmes amongst communities in the ward;
- to develop a culture of risk avoidance behaviour to commonly encountered hazards;
- the development of a disaster risk profile, a strategic risk reduction strategy, contingency plans for priority disaster risks and a response and recovery operational guide for their ward; and
- training and capacity building programmes for residents in the ward.

Ward disaster risk management structures must also be capacitated to conduct initial assessments in accordance with the assessment guidelines when disasters occur or are threatening to occur in their ward and to transmit such information to the Merafong Disaster Management Centre.

3.2.4 Disaster risk management Volunteers

In accordance with Sections 44(1)(g) and 58 of the Act, a local municipality might resolve to establish a unit of volunteers. The unit must be established in accordance with the regulations and the policy and procedures as set out in an operational guide pertaining to the recruitment, training and participation of volunteers.

3.2.5 Key Performance Indicators

- Ward structures have been established in the wards and are operating effectively.
- Minutes, records and reports of Ward structures' activities are prepared, maintained and submitted to the Merafong City Local Municipality DM.
- The Unit of Volunteers has been established and is operating effectively.
- Provision has been made for the necessary funding to give effect to the arrangements.
- Minutes, records and reports of the activities of the volunteer reserve are prepared maintained and submitted to the Merafong City Local Municipality DM.

3.2.6 Monitoring and evaluation

The Merafong City Local Municipality DM is responsible to ensure that any established structures (e.g. Ward Forums and the volunteer unit) conduct self-assessments and peer reviews at least twice a year. Assessment and review reports must be prepared in accordance with the reporting guideline to be developed by the Merafong City Local Municipality DM. Copies of the reports must be submitted to the

Merafong City Local Municipality DM. Copies of the reports of the Merafong City Local Municipality DM must be submitted to the PDMC of the Province of Gauteng as well as the NDMC through the West Rand District DMC.

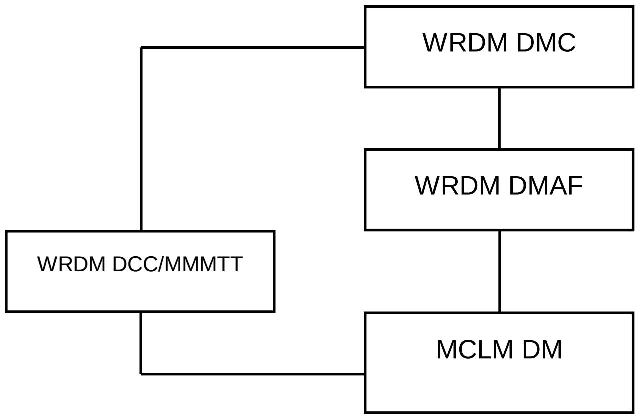
3.3 Arrangements for local, provincial, national and international co-operation

3.3.1 Objective

To establish mechanisms to give effect to the principles of co-operative governance and to ensure the alignment of council's approach to disaster risk management with that of the other spheres and with that of neighbouring authorities; and to establish international links for the purposes of joint standards of practice and keeping pace with global initiatives.

3.3.2 Co-operation with the district municipality

The following diagrammatic representation indicates the mechanisms established to ensure that the provisions of the Act in terms of consultation and co-operation with the District Municipality are complied with.



The Merafong City Local Municipality DM will have representation on the WRDM DMAF (see the WRDM DMF) as well as the WRDM Disaster Risk Management Coordinating Committee (DCC/MMMTT).

3.3.3 Co-operation with the National Disaster Management Centre and the Disaster Management Centre of the Gauteng Province and the West Rand District Disaster Management Centre

In terms of the legislation, communication must be maintained at all times between council's disaster risk management centre, the National Centre, the Disaster Management Centre of the Gauteng Province and the West Rand District DMC.

Council's responsibilities in this regard will be to assist the District, National and Provincial centre to:

- identify and establish communication links with disaster risk management role players in the municipal area;
- develop and maintain an electronic database; and
- develop guidelines for the preparation of and regular review of disaster risk management plans and strategies including contingency plans and emergency procedures and the integration of the concepts and principles of disaster risk reduction with development plans and programmes

Submit to the West Rand District DMC:

- a report at least annually containing the information as prescribed in Section 50 of the Act; and
- a copy of council's disaster plan and any amendment thereto.

- Immediately inform the West Rand District DMC of any disaster which occurs or threatens to occur in council's area; provide information regarding the assessment of the disaster and make recommendations regarding the classification of the disaster as may be appropriate.

3.3.4 Joint co-operation with neighbouring authorities through the DRMAF and DCC

In order to facilitate joint co-operation between council and the neighbouring authorities of:

- Mogale City Local Municipality
- Randfontein Local Municipality
- Westonaria Local Municipality

provision must be made for the representation on the Disaster Risk Management Advisory Forum as well as the DCC of the West Rand District for the purposes of:

- the identification of potential cross boundary threats;
- sharing information on disasters and important risk reduction issues;
- participative disaster risk planning;
- joint contingency planning;
- developing and establishing joint standards of practice;
- information sharing including disaster risk management plans and the dissemination of early warnings;
- clear identification of roles and responsibilities in the event of cross boundary disasters which occur as well as responsibilities for the issue of advisories or early warnings of the potential spread or progress of a significant event or disaster into one or more neighbouring jurisdictions;
- concluding mutual assistance agreements, bilateral and multilateral agreements with clearly defined protocols for the purposes of shared risk reduction initiatives, emergency preparedness and cross boundary response and recovery efforts;
- sharing expertise and the development of disaster assistance response teams;
- establishing strategic communication links, procedures and protocols; and
- creating opportunities for conducting research.

3.3.5 Mutual Assistance Agreements

The Merafong City Local Municipality, District municipalities, Municipal organs of state, and any other entities operating within the administrations of municipalities must assess their capacity to meet their responsibilities for disaster risk reduction, emergency preparedness and response and recovery in terms of the Act. Where required they must enter into partnerships and conclude mutual assistance agreements with other organs of state, the private sector, communities and non-governmental organisations to augment their capacity. Such agreements must be in accordance with the national guidelines.

3.3.6 Key performance indicators

- Arrangements for giving effect to the principles of co-operative governance are established and functioning effectively.
- Provision has been made for the necessary funding to give effect to the arrangements.

- Correct procedures and protocols are followed in establishing the arrangements.
- Mutual assistance agreements and memoranda of understanding, which conform to the national guideline, have been concluded.
- Maintaining accurate records of correspondence, proceedings, meetings and plans.

3.3.7 Monitoring and evaluation

The Merafong City Local Municipality DM must conduct self-assessments and peer reviews at least twice a year to establish whether the key performance indicators in respect of the arrangements for local, provincial, national and international co-operation are being met. Assessment and review reports must be prepared in accordance with the reporting guideline to be developed by the Merafong City Local Municipality DM. Copies of the reports must be submitted to the West Rand District DMC.

4. KEY PERFORMANCE AREA 2: DISASTER RISK ASSESSMENT

4.1 Disaster risk assessment

4.1.1 Objective

To conduct disaster risk assessments that are consistent with the national guidelines and the national standard for assessing priority risks and that risk assessments are progressively integrated into developmental planning.

4.1.2 Disaster risk

Disaster risk refers to the probability that there will be a harmful impact of some kind due to the interaction between natural or other *hazards* and conditions of *vulnerability*. This implies that both hazards and vulnerabilities have to be thoroughly assessed in order to compile a risk profile.

4.1.3 Disaster risk assessment

Risk assessment is the first step in planning an effective risk reduction program. It examines the likelihood and outcomes of expected hazard events, including the vulnerability conditions that increase the chances of loss.

All municipal departments in the MCLM must carry out disaster risk assessments for priority risks relevant to their functional area and where possible, these assessments should be undertaken interdepartmentally to avoid duplication of efforts and to ensure uniformity of findings.

Disaster risk assessment planning requires identification of key stakeholders, as well as consultation with them about the design and/or implementation of the assessment and the interpretation of the findings.

Departments and other municipal entities in the MCLM must execute systematic risk assessments in the following instances:

- Prior to the implementation of any municipal disaster risk reduction, preparedness or recovery program;

- As an integral component of the planning phase for large-scale housing, infrastructure or commercial/industrial developments of significance in the municipality;
- As an integral component of the planning phase for significant initiatives that affect the natural environment in the municipality;
- When social, economic, infrastructural, environmental, climatic or other indicators suggest changing patterns of risk that increase the likelihood of significant disaster impacts in the municipality; and
- All proposed risk assessments and related studies must be reviewed and approved by the MCLM DM prior to implementation to ensure consistency in approach.

4.1.4 Situations requiring risk assessments

Risk assessments must be undertaken to:

- ensure that development initiatives maximize their vulnerability reduction outcomes; and
- anticipate and plan for known risks or disasters to prevent losses and limit endangering impacts.

4.1.5 Maximising vulnerability reduction outcomes

With respect to the implementation of the Act, a risk assessment must be undertaken when one or more of the vulnerability reduction criteria (reflected in the table below) are considered priorities in any project or programme initiated by the MCLM.

KEY VULNERABILITY CRITERIA	EXAMPLES OF WHERE RISK ASSESSMENTS MUST BE DONE
Increased sustainability of a development project or programme to support vulnerable households and communities.	As part of the planning for an infrastructural development, for example, assessing the likelihood of extreme weather, flooding, subsidence and other threats damaging the structure, so that these can be factored into the construction specifications.
Reduction of potential harmful consequences associated with industrial, commercial or other developments	As part of environmental impact assessments for large-scale developments, including industrial, commercial and other enterprises that may increase disaster risk.
Increased understanding of a rapidly changing risk for improved risk management planning	In a flood-prone area that experiences considerable population growth and is facing increased land erosion.
Increased robustness of development initiatives in poor communities and areas	In an informal settlement characterised by recurrent ‘small ’and ‘medium-size’ disaster losses that undermine assets and livelihoods.
Management of high-risk periods and conditions to ensure service and/or business continuity	Electricity transmission lines and rail infrastructure, as well as health and emergency services, to ensure these essential services do not ‘fail ’under expected high-risk conditions.
Provision of appropriate support for at-risk activities, services, areas, communities and households following an ‘alert ’.	Following a drought warning or cholera alert in rural areas, to identify communities and households most at risk and to focus or target preparedness and response actions.

Table 1: Criteria for risk assessment

4.1.6 Undertaking assessments for specific known risks or disasters

A disaster risk assessment is required at local level to guide risk reduction efforts for specific known risks or disaster events and processes that:

- are of recurrent high and medium magnitude and may require the support and/or intervention of the MCLM DM;
- occur infrequently or seasonally (for example, veld fires and flooding), have the potential to cause severe loss, and require levels of specialist support not available at local municipality level; and/or
- affect neighbouring districts and have consequences for the MCLM (for example, unplanned cross-border movements and events that require humanitarian or other relief assistance).

2.1.7 The methodology for conducting a disaster risk assessment for the Merafong City Local Municipality

The design and methodology adopted for conducting a disaster risk assessment for the MCLM must be consistent with the national guidelines and standard.

The disaster risk assessment must determine the level of risk in the MCLM by:

- identifying potential hazards and/or threats;
- assessing the conditions of vulnerability that increase the chance of loss for particular elements-at-risk (that is, environmental, human, infrastructural, agricultural, economic and other elements that are exposed to a hazard, and are at risk of loss);
- assessing impact and coping capacity;
- determining the level of risk for different situations and conditions;
- setting priorities for action after prioritising the hazards according to their risk factor; and
- continuously monitoring capabilities, risk maps and risk scenarios.

There are many different methods for carrying out risk assessments. In essence the disaster risk assessment for the MCLM was based on the following methodology, in future assessments it may however be necessary to deviate, amend or adapt the methodology depending on:

- the type of hazard being assessed;
- the characteristics of the area, infrastructure, service or business concerned;
- the urgency of the assessment; and
- the availability of relevant hazard and vulnerability information.

4.1.7.1 Key research questions

The research aim to establish:

- which hazards are the most prevalent in the MCLM area;
- the frequency with which a significant event or disaster is likely to occur;
- which areas, communities or households are most at risk;
- which hazards (of certain intensities) are likely to have the most profound impact on the MCLM;
- what is the probability of the identified hazards impacting on the MCLM within a given time frame;
- what are the existing conditions of vulnerability and capacity (physical, social, economical and environmental) in the MCLM area;
- which vulnerabilities could be exploited by the identified hazards (of different intensity);
- what capabilities or resources exist to manage the risk;

- what are the risk priorities of the MCLM;
- how are vulnerabilities being addressed through the Integrated Development Plan projects and other developmental initiatives;
- what other developmental initiatives are necessary to reduce vulnerability and therefore risk in the MCLM;
- is the risk becoming progressively greater;
- is the risk undermining development progress in the areas, communities and households it affects and if so, is the management of the risk a development priority; and
- in the areas, communities and households at risk are there any other significant risks.

4.1.7.2 Method of investigation

The research design included qualitative methods, in particular workshops. The most prevalent hazards in the MCLM, areas at risk to these hazards as well as levels of vulnerability and coping capacity were deliberated on with disaster management staff members of the MCLM and the WRDM.

In future assessments, a systematic approach must be adopted for the gathering of data which must involve a high level of community participation taking into account local and indigenous knowledge and historical records.

The primary elements of the process comprised of:

- Identification and description of the risk;
- Analysis of the risk; and
- Evaluation of the risk.

4.1.8 Community-based disaster risk assessment

In accordance with the intention of the Act to increase local capacity to minimise the risk and impact of disasters, disaster risk assessment efforts must actively include the participation of vulnerable communities and households, including physically isolated communities and female-headed and child-led households. The information collected using more technically sophisticated methods employed by risk scientists can be significantly enhanced by local and indigenous knowledge relating to disaster management. In addition, the active engagement of special needs groups, such as women, children and the elderly, improves the quality of the assessment findings and increases the likelihood of community ownership in any risk reduction interventions that may follow.

4.1.9 Consolidation and classification of disaster risk information

Hazard and vulnerability assessment findings must be consolidated according to uniform classifications. This facilitates integrated multi-sectoral planning across government departments and with other partners. It also supports risk management co-operation between administrative areas (for example, two or more municipalities) affected by the same risk. In this regard the MCLM DM must ensure that the following internationally recognised classification of hazards provided by the UN's International Strategy for Disaster Reduction (ISDR) is used.

ORIGIN	PHENOMENA/EXAMPLES
Geological hazards	• Tsunamis (also called tidal waves) • Mass earth movements e.g. landslides, rockslides, rock-falls, liquefaction, submarine slides • Subsidence, surface collapse, geological fault activity
Hydrometeorological hazards	• Floods, debris and mudflows • Tropical cyclones, storm surges, thunder / hailstorms, rain and windstorms, and other severe storms • Drought • Desertification • Veldt fires • Heat waves • Sand or dust storms
Biological hazards	• Outbreaks of epidemic diseases • Plant or animal contagion • Extensive infestations
Environmental degradation	• Land degradation; • Deforestation; • Desertification; • Veldt fires; • Loss of biodiversity; • Land, water and air pollution; • Climate change; • Sea level rise; and • Ozone depletion.

Vulnerability must be assessed as social, economic, political, environmental or physical (infrastructural). As vulnerability factors are often the major drivers of disaster risk, rather than external hazard processes, it is critical to identify these during a risk assessment. This provides important insights for developing vulnerability reduction interventions that lower the levels of disaster risk.

4.1.10 Key performance indicators

- All municipal organs of state, other municipal entities and other disaster management role players within the MCLM are aware of the need and obligation to conduct disaster risk assessments;
- The MCLM DM receives a copy of all relevant assessments;
- All IDP projects which relate to disaster risk are submitted to the MCLM DM for approval; and
- There is documented evidence of progressive integration of risk assessment into development planning of the departments, organs of state and other role players in IDPs and annual reports submitted to the MCLM DM.

4.2 Monitoring, updating and disseminating risk information

4.2.1 Objectives

To establish an effective risk monitoring system for priority risks.

4.2.2 Monitoring disaster risks

Just like other risks, disaster risks are not static. They change seasonally and over time. To recognise such changes, and to strategically adjust programmes accordingly, all departments must have monitoring systems in place that are relevant to their specific functional responsibilities. These systems form the basis for sounding timely warnings of, or alerts for, impending threats. They are also essential for monitoring the effectiveness of ongoing risk reduction efforts.

Risk monitoring systems for the MCLM must involve:

- hazard tracking;
- vulnerability monitoring; and
- disaster event tracking.

4.2.2.1 Hazard tracking

Hazard tracking systems monitor the physical phenomena that can trigger disaster events. They include systems that provide seasonal and early warning information on approaching adverse weather conditions.

4.2.2.2 Vulnerability monitoring

Vulnerability monitoring systems are systems that track the ability of communities, households, critical services and natural environments to resist and withstand external threats. Censuses, regular poverty surveys, nutritional surveys and information collected from health clinics provide important insights into changing social vulnerability patterns in at-risk communities (for example, an increase in the number of child-headed households or elderly adults with dependants). As this information is often routinely collected by government services, special surveys or parallel monitoring initiatives are not usually required to gather it.

These quantitative data must be supported by qualitative information that tracks local capabilities to absorb recurrent shocks and stresses, as well as local capacities to resist and recover from external threats.

4.2.2.3 Disaster event tracking

Disaster event tracking systems monitor changing patterns in disaster risk. Increasing or decreasing frequencies of unclassified disaster incidents are sensitive indicators of changing risk patterns in at-risk areas. For instance, a rising incidence pattern of small and medium-size informal settlement fires may represent an early warning of accumulating risks, which may result in a more serious and destructive fire event. It also signals a call for urgent measures to avert the impending disaster.

Information on small and medium ‘undeclared ’events can be found in many different sources, including local newspapers, fire and disaster management reports, and records of Social Services and local NGO’s such as the South African Red Cross Society.

4.2.3 Updating the comprehensive disaster risk assessment for the Merafong City Local Municipality

Disaster risk is dynamic. It is driven by a combination of hazard and vulnerability processes, including changing patterns of land-use, infrastructure development /maintenance, urban growth and settlement densification. Similarly, household size and composition, health status and level of livelihood security affect household potential for loss.

Some risks, particularly those triggered by climate processes, must be reviewed seasonally prior to the rainy season or hot summer months. Other risks, such as riverine flood risk, require extensive flood hydrology investigations, and may be undertaken once during a 20-year period. Municipal organs of state and other municipal entities within the MCLM must seek technical advice from recognised risk specialists to determine the need for updating a comprehensive assessment for a specific risk.

4.2.4 Responsibility for monitoring and updating risk information

The MCLM DM must ensure that all municipal organs of state, other municipal entities within the MCLM and other specialist role players with responsibilities for reducing and managing disaster risks have clear mechanisms in place for:

- accessing and updating relevant hazard and vulnerability information on risks specific to their functional areas; and
- making this information available to the MCLM DM.

In addition the MCLM DM must:

- establish clear mechanisms for accessing, consolidating and updating relevant hazard, vulnerability and disaster occurrence information from specialist government and non-governmental partners responsible for monitoring specific risks, including fire, coastal threats, drought and epidemics;
- develop and implement clear mechanisms for disseminating risk assessment and monitoring information for ongoing planning, as well as for managing conditions of heightened risk;
- establish clear procedures for accessing, interpreting and disseminating timely weather information, particularly when this is associated with potentially endangering rapid-onset storm or cyclone processes, hot dry temperatures, strong winds, heavy rainfalls or snow, ice or fog conditions; and
- ensure that the disaster risk information systems are managed by skilled individuals with both information technology capabilities and disaster risk analytic skills.

4.2.5 Key performance indicators

- The MCLM DM has established and documented clear mechanisms for accessing, consolidating and updating relevant hazard, vulnerability and disaster occurrence information from partners responsible for monitoring specific risks, including fire, drought and epidemics;
- The MCLM DM has established and documented clear mechanisms for disseminating Hazard Risk and Vulnerability (HRV) assessment and monitoring information for ongoing planning, as well as for managing conditions of heightened risk; and
- The MCLM DM has established and documented clear procedures for accessing, interpreting and disseminating timely weather information, particularly when this is associated with potentially endangering rapid-onset storm or cyclone processes, hot dry temperatures, strong winds, heavy rainfalls or snow, ice, hail or fog conditions.

4.3 Ensuring quality control

4.3.1 Objective

To ensure that disaster risk assessments undertaken for priority risks are robust and can reliably inform risk reduction planning.

4.3.2 Capabilities for conducting disaster risk assessments

Disaster risk assessments almost always require specialist input. This applies to both the process of characterising the hazard conditions that can trigger loss, as well as understanding the vulnerability factors that increase the severity of the impact.

However, when working with technical specialists, the commissioning organ of state must define terms of reference that specify *feedback, consultation and capacity-building requirements* by the specialists commissioned. This is particularly important given the complex character of hazard and risk science for non-specialists, and the serious legal and other implications of disseminating incorrect or unverified disaster risk assessment findings, which then inform planning decisions. In South Africa, disaster risks are more significantly shaped by social, economic and environmental conditions than by external threats. It is therefore critical that *HRV assessments should be reality-based* (that is, based on the actual situation 'on the ground'), with field consultations in areas and communities most at risk.

Field consultation increases the accuracy of the HRV assessment findings, provides insight into the vulnerability conditions that can potentially be reduced, and builds a greater sense of responsibility for 'sharing the risk' among the communities affected. In this context, it is critical that the assessment process includes respectful pre-assessment consultation with the affected communities prior to the arrival of external assessment teams, to build a co-operative partnership.

4.3.3 Measures to establish the accuracy of future HRV assessments

Two mechanisms can be used to ensure the accuracy of the disaster risk assessment undertaken to inform area planning:

- establishment of a technical advisory committee external validation; or
- external peer review of methods and findings.

4.3.4 Technical advisory committee

A technical advisory committee, comprising recognised specialists in the hazards, vulnerabilities and risks being assessed, is particularly necessary when complex risk assessments are being carried out. Such a committee can assist with the development of terms of reference, the monitoring of progress, and the validation and/or interpretation of the findings.

4.3.5 Key performance indicators

Disaster risk assessments undertaken show documented evidence of:

- capacity building with respect to the commissioning authority;
- reality-based (that is, based on the actual situation 'on the ground 'or verified by those being assessed), through field consultations in the areas and with communities most at risk from the threat(s)being assessed; and
- consultation with appropriate governmental and other stakeholders about the design and/or implementation of the assessment, as well as the interpretation of the findings.

There is documented evidence in disaster risk assessments undertaken of external validation prior to:

- the publication or dissemination of hazard, vulnerability or risk maps and/or reports for planning purposes; and
- the implementation of risk reduction or other initiatives based on the assessment results.

Ddisaster risk assessments undertaken show documented evidence of technical consultation with the MCLM DM prior to implementation.

4.4 The Disaster Risk Assessment of the Merafong City Local Municipality

4.4.1 Introduction

The data presented here is the product of a workshop conducted with disaster management staff members from the MCLM and the WRDM. As this is a level one plan, the product should be considered and indicative risk profile. It is based on the perceptions of group key informants and not on rigorous fieldwork. A comprehensive risk assessment will make part of a level two and level three DMPs drafted in the future.

Generally, Risk (R) is described as a function of Hazard (H), Vulnerability (V) and Capacity (C), according to the following formula:

$$\mathbf{R = function\ of\ \left(\frac{H \times V}{C}\right)}$$

MCLM and WRDM staff members were asked to identify hazards and name the area's most at risk to these hazards. In addition they were asked to explain why these areas are at risk to the identified hazards and to assess current levels of vulnerability and coping capacity for each identified area in relation to the identified hazards. The following discussion provides an overview of the results.

4.4.1.1 Hazard Assessment

The table below indicates the hazards experienced annually in the MCLM. The probability of a hazard occurring in a given month is indicated as high, medium or low. This aspect is also colour coded:

Probability	Abbreviation	Colour
High	H	Red
Medium	M	Orange
Low	L	Yellow

In addition the normal severity in a given moth in indicted with a score on the following five-point scale:

Score	Severity
5	Catastrophic
4	Major
3	Moderate
2	Minor
1	Insignificant

Table 1: Seasonal hazard calendar for the Merafong City Local Municipality

Priority risk	JAN	FEB	MAR	APL	MAY	JUN	JLY	AUG	SEP	OCT	NOV	DEC
Severe weather events	H4	H4	H4	M3	L1	L1	L1	L1	M3	H4	H4	H4
Flooding	H3	H3	H3	M2	L1	L1	L1	L1	M2	H2	H3	H3
Pandemic/Epidemic Cholera	H2	H2	H2	M2	L2	L2	L2	L2	M2	H2	H2	H2
Structural Fires (formal)	M2	M2	M2	M3	M3	M3	M3	M3	M2	M2	M2	M2
Structural Fires (informal)	L3	L3	L3	H3	H3	H3	H3	H3	M3	L3	L3	M3
Veld fires	M2	M2	L2	M2	H4	H4	H4	H4	H5	H5	M2	M2
Road accidents	H3	M2	H3	H3	M2	M2	M2	M2	M2	M2	H2	H3
Mass events	L3	L3	L3	L3	L3	L3	L3	L3	L3	L3	L3	L3

The table above indicates a host of annual hazards. From these, those with the highest probability seem to be severe weather events, flooding and epidemics in the summer months. Structural fires in informal settlements are highly likely in the winter months while road accidents are a concern around specific dates, in particular school holidays in November to January as well as March.
The following table indicates hazards experienced approximately every five, ten, twenty and fifty years. One in five years hazards are industrial fires and transport accidents involving hazardous materials. Drought is considered a one in ten year hazard, while seismic events were identified as one in twenty years hazards. Urban flooding and dam failures were identified as one in fifty years hazards.

Table 2: One in five, ten, twenty and fifty year hazards for the Merafong City Local Municipality

Priority risk	1:5	1:10	1:20	1:50
Industrial fires	x			
HAZMAT transport/incidents	x			
Seismic/ earthquake			x	
Drought		x		
Urban flooding				x
Dam failure				x

4.4.1.2 Vulnerability Assessment

The above risks impact on local communities in various ways. This section briefly outlines the type of impact each of these hazards may have on affected areas.
Severe weather events have an adverse effect on infrastructure such as houses. This is exacerbated by poor building standards in places. Severe weather events may also lead to the displacement of people, psychological trauma, injuries and increases in crime, as people lose their homes and means of income. Severe weather events lead to negative publicity. Areas may be labelled as "disaster prone". This in turn might spark population growth in other areas. In extreme cases severe weather events might spark political unrest, as authorities are blamed for the situation.
Flooding may have similar impacts to the above. In addition, it might also pose health issues as waterborne diseases spread. It might also damage crops and have an adverse impact on the environment, for example by leading to soil erosion.

Epidemics may have similar effects. Large-scale public health concerns may impact on the local economy as residents have passed away or are ill and thus are not able to work. In extreme cases the coping capacity of medical facilities may be exceeded.
Structural fires in formal areas damage infrastructure. The may impact on the local economy and may lead to increases in insurance claims and premiums for those occupying the buildings. Damage to municipal buildings may impact on service delivery.
Structural fires in informal settlements may lead to the displacement of residents as victims are relocated. In addition to a loss of physical assets (homes), these fires may also lead to fatalities and a loss of income, as fires may have destroyed places of work.
Veld fires can lead to a loss in biodiversity. It can also directly impact on local livelihoods by destroying crops and animal fodder. Herds may also be reduced.
Road accidents may lead to injuries and deaths. Pollution may occur, should hazards chemical be spilt. Accidents may also damage roads and surrounding infrastructure and properties.
Mass events in extreme cases may become violent. People may be injured or die in stampedes. This may also have an economic impact, as many human hours may be lost.

The following table indicates levels of vulnerability and coping capacity for selected settlements regarding annual hazards. Settlements were identified as those most at risk to these hazards.

Vulnerability scores were assigned based on the following scale:

Level of vulnerability	Score
Extremely vulnerable	5
Highly vulnerable	4
Moderately vulnerable	3
Low vulnerability	2
Insignificant vulnerability	1

Capacity scores were assigned based on the following scale:

Level of capacity	Score
Full capacity	1
High capacity	2
Moderate capacity	3
Limited capacity	4
No capacity	5

Table 3: Vulnerability and capacity scores for annual hazards

Priority risk	Settlement	Vulnerability score	Capacity score
Severe weather events			
		4	5
		4	5
Flooding		4	4
			5
			5
		2	2
		2	2
		2	2
		3	2
			2
			1
Priority risk	**Settlement**	**Vulnerability score**	**Capacity score**
Epidemic			4
			5
		4	5
		4	4
Structural fires (formal)	All settlements		

Structural fires (informal)		4	4
		4	5
			5
		4	4
Veld fires	All rural areas		
Road accidents	P111		
	R501		
	N12		
Mass events	Merafong Stadiums (5)		4
	Civic centre		2

The table above indicates that the area's most vulnerable to various hazards. Amongst these.

The following table indicates vulnerability and capacity scores for the most at risk settlements and areas, regarding one in five year events. Vulnerability to these hazards for the most part seems to be low to moderate. Similarly capacity scores seem to be limited or moderate for the most part.

Table 4: Vulnerability and capacity scores for one in five year events

Priority risk	Settlement	Vulnerability score	Capacity score
Industrial fires			2
			3
HAZMAT transport			4
	R 501 to		
	Roads around Greenspark		
Other HAZMAT incidents	Mines	3	3
		3	

The following table indicates vulnerability and capacity scores for various regions regarding one in ten year events. Drought is the only one in ten year event identified.

Table 5: Vulnerability and capacity scores for one in ten year events

Priority risk	Settlement	Vulnerability score	Capacity score
Drought			

The following table indicates vulnerability and capacity scores for various settlements and areas regarding one in twenty year events. Seismic activity is the only identified such event. High vulnerability and no capacity was identified for entire Merafong. .

Table 5: Vulnerability and capacity scores for one in twenty year events

Priority risk	Settlement	Vulnerability score	Capacity score
Earthquake/ Seismic events			

Table 6: Vulnerability and capacity scores for one in fifty year events

Priority risk	Settlement	Vulnerability score	Capacity score
Urban flooding		2	
	All		
		2	
		2	
		2	
Dam failure			

5. KEY PERFORMANCE AREA 3: DISASTER RISK REDUCTION

5.1 A guiding framework for disaster risk management

Although the MCLM Disaster Risk Assessment (MCLMRA) has identified a wide range of risks posing a potential threat to its area, it is not practical nor is it financially achievable to address all the risks simultaneously. Effective and focused disaster risk management planning by all municipal organs of state and other municipal entities can only be achieved through the identification of priority disaster risks and by the identification of the areas, communities and households most at risk to disasters in council's area. It is therefore necessary to adopt a carefully considered process, which will enable this prioritisation.

Part of the prioritisation process will also be to adopt a three-phased approach to disaster risk management planning over a period of two years from the date of implementation of the Act. This does not however imply that once the third phase is completed that the planning process is over. It must be clearly understood that disaster risk management planning is not a stop/start activity or project but a continuous process which of necessity must produce dynamic, real time plans, which remain current in a continuously changing environment. This is of particular relevance in respect of disaster risk reduction plans.

The process of prioritisation for disaster risk planning is also critically informed by the disaster risk assessment findings for the Southern District Municipality.

The disaster management plan of the MCLM must focus on the development of plans and the implementation of explicit programmes, projects and practices which give priority to building resilience and reducing the impact of a wide range of different disaster risks in areas, communities and households known to be prone to risk in its area of jurisdiction.

5.1.1 The Disaster Risk Management Planning Framework

This section aims to establish a structure for effective management of disasters in the MCLM. All aspects of disaster risk management can be covered by the Disaster Management Planning Framework (DMPF), as in Figure 3: The Disaster Management Planning Framework: Future assessments and planning below. The DMPF includes Disaster Rick Reduction (DRR) planning as well as Contingency planning.

5.1.1.1 Disaster risk reduction planning

On the left-hand side of the framework, 'Disaster Risk Reduction Planning', consist of Vulnerability Reduction Planning and Specific Risk Reduction Projects. Vulnerability Reduction Planning focuses on the general vulnerabilities that are present in the municipality as a whole. The Specific Risk Reduction Projects include on one hand future developments (planned for though the IDP) that should be assessed and on the other hand any area where a combination of vulnerabilities, hazards and/or a lack of capacities pose a specific (or combination of) high risk(s) to the population, infrastructure and environment.

5.1.1.2 Contingency planning

The right-hand side of the framework focuses on contingency planning. This type of planning has two components: for the most prevalent hazards, the municipality should have contingency plans in place that can be activated before or during the impact of a specific hazard (‘Hazard Specific Contingency Plans’).

As it is impossible to plan for every hazard, the contingency planning should also include generic plans. For the purpose of drawing up such plans, the most important issues have been listed in the framework (public health, command and control, shelter etc.)

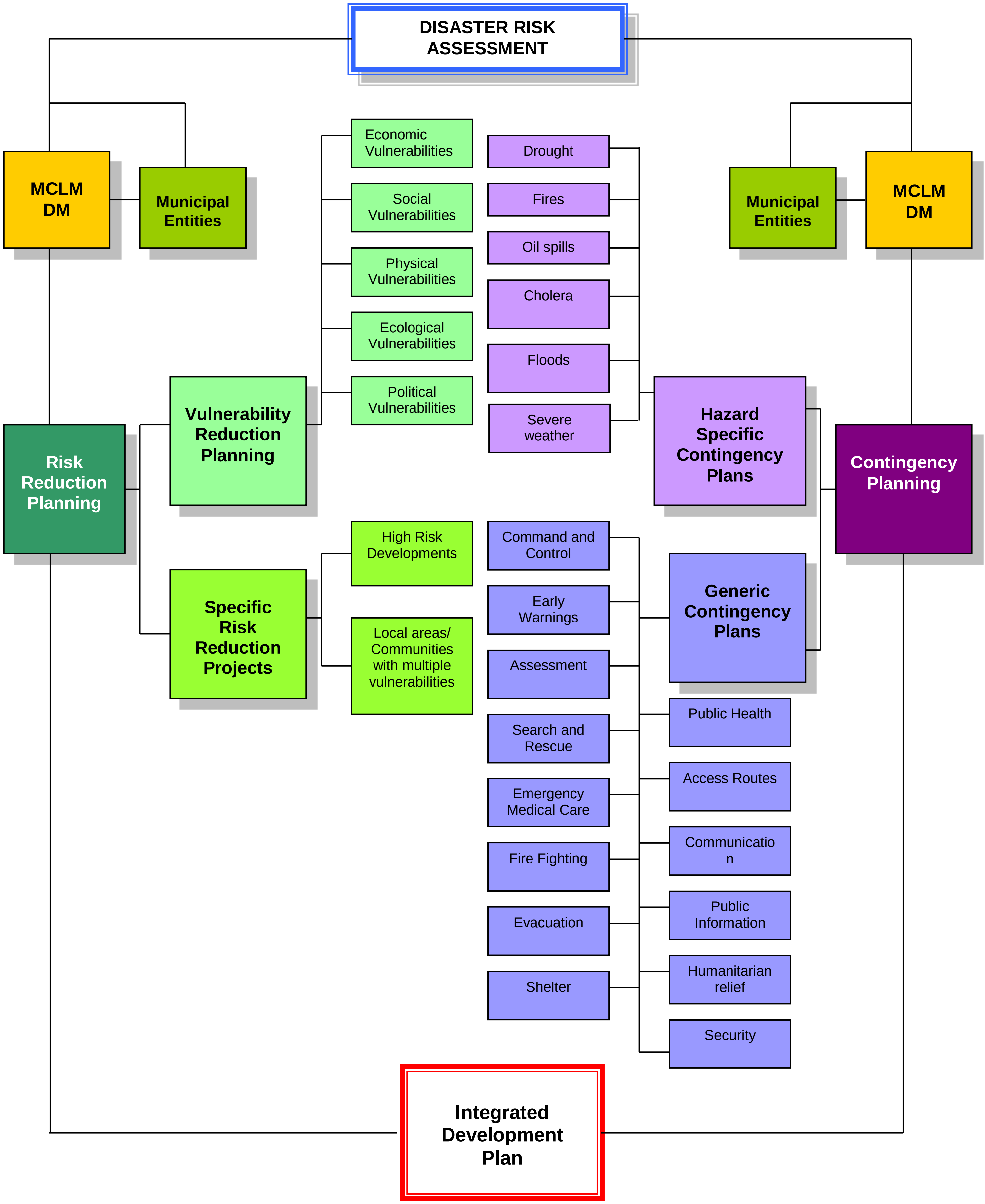


Figure 3: **The Disaster Management Planning Framework: Future assessments and planning**

Risk of a certain hazard can change over time. it is therefore necessary that all aspects of the framework are adapted accordingly. Continuous assessment is necessary for a sound and ground-truthed disaster risk management planning.

The six most prevalent threats are listed in the contingency planning section (see Figure 3 above). When contingency plans are written, tested and updated for these plans, the MCLM should strive to also cover 'less prevalent risks' in the 'Hazard Specific Contingency Plans'. Contingency plans should also be tested and evaluated regularly, and updated accordingly.

14. Recommendation:
a. Hazard specific contingency plans for all priority risks should be developed as a matter of urgency through a participatory process.
b. Generic response and recovery plans should be identified and development.

5.1.2 Integration with IDP

In accordance with the National Disaster Management Framework, the Disaster Management Act as well as the Municipal Systems Act, disaster risk management plans developed by municipalities must be incorporated into the IDP, funding and implementation processes.

At the same time, the IDP should take into account the findings of the municipal disaster management structures. All current and future IDP and development plans should be evaluated by the MCLM DM for the following purposes:

- To assess their consistency with the MCLM Disaster Management Plan;
- To determine the disaster risk inherent to the project;
- To determine the possible risk and vulnerability reduction inherent to the project; and
- To assess their relevance as to the priorities of the disaster risk assessment.

No IDP project should be allowed to continue without the assessment and approval of the disaster risk management officer. Council should take into account the comments made by the disaster risk management officer, and has full accountability for any decisions not in line with the recommendations of the disaster risk management officer.

8. Recommendation:
The MCLM Council should establish a mechanism for the assessment of all current and future development projects in terms of their disaster risk.

5.2 Inputs to the planning process

From the DMPF above, it becomes clear that a prerequisite to all planning is the Disaster Risk Assessment. Not mentioned in the DMPF – but equally important - are the other inputs to the planning process, such as:

- the West Rand District Disaster Management Framework and Disaster Management Plan,
- the Gauteng Provincial Disaster Management Framework and Disaster Management Plan,
- the National Disaster Management Framework and Disaster Management Plan;
- the Disaster Management Act, 57 of 2002; and
- The IDP of the MCLM.

Memoranda of Agreement and Memoranda of Understanding with role-players;

- cooperation with other disaster management structures (such as the DMs of neighbouring municipalities, the district and the province); and

- any other relevant data and information pertaining to developmental initiatives.

Furthermore, disaster risk management should take into account people's needs and priority issues (in line with section 53.1 (b) of the Act): the perception of what people experience as 'disasters', 'hazards', 'vulnerabilities' or a 'lack of capacity' should be one of the major inputs to the planning process.

5.3 Phased approach in DM Planning

As mentioned above, it is impossible to cover all aspects of disaster risk management at once, therefore a three-phased (levels) approach is proposed.

3.3.1 Levels of planning

The National Disaster Management Framework proposes three levels of Disaster Management Plans. The three phases/levels in the process are the following:

5.3.1.1 Level 1 Disaster Management Plan

A Level 1 Disaster Management Plan applies to national or provincial organs of state and municipal entities that have not previously developed a coherent disaster management plan. It focuses primarily on establishing foundation institutional arrangements for disaster risk management, putting in place contingency plans for responding to known priority threats, identifying key governmental and other stakeholders and developing the capability to generate a Level 2 Disaster Management Plan.

5.3.1.2 Level 2 Disaster Management Plan

A Level 2 Disaster Management Plan applies to national, provincial and municipal organs of state that have established the foundation institutional arrangements, and are building the essential supportive capabilities needed to carry out comprehensive disaster risk management activities. It includes establishing processes for a comprehensive disaster risk assessment, identifying and establishing formal consultative mechanisms for development of disaster risk reduction projects and introducing a supportive information system and emergency communications capabilities.

5.3.1.3 Level 3 Disaster Management Plan

A Level 3 Disaster Management Plan applies to national, provincial and municipal organs of state that have established both the foundation institutional arrangements for disaster risk management and essential supportive capabilities. The plan must specify clear institutional arrangements for coordinating and aligning the plan with other governmental initiatives and plans of institutional role players. It must also show evidence of informed risk assessment and ongoing risk monitoring capabilities as well as relevant developmental measures that reduce the vulnerability of disaster-prone areas, communities and households.

The visits in the Municipality by the ACDS have established the necessary capacity in the municipality; it is the responsibility of the MCLM Council and the DM to sustain and expand this capacity, and to put it to use for the implementation of the next levels.

The Level 2, mainly focusing on the DRA, is discussed below in Key Performance Area 2. It should again be stressed that the DRA is a continuous process to be taken further by the DM and the relevant stakeholders. The Level 2 also comprehends the formalisation of the consultation of and cooperation with stakeholders and DMAF and IDM.

The third level of the Disaster Management Planning includes all other processes and planning as mentioned in the framework.

5.3.2 Implementation of the levels of Disaster Management Plans

The National Disaster Management Framework foresees that within one year of the commencement of the Act (on 1 July 2004), all municipal organs of state will have submitted to the NDM at a minimum, Level 1 Disaster Management Plans (by 1 July 2005). Within two years of the commencement of the Act (1 July 2006), all municipal organs of state will have submitted at a minimum, Level 2 Disaster Management Plans. Within four years of the commencement of the Act (1 July 2008), all municipal organs of state will have submitted Level 3 Disaster Management Plans.

The municipal organs of state must specify which one of the three specified Disaster Management Planning Levels is most appropriate for their respective capabilities, experience and functional responsibilities. They must also indicate proposed steps that will allow progress to more advanced planning levels.

6. KEY PERFORMANCE AREA 4: RESPONSE AND RECOVERY

In order to achieve the requirements of the Act calling for an integrated and co-ordinated policy that will provide for rapid and effective response to disasters and to post disaster recovery, it is imperative that mechanisms are put in place which leaves no room for confusion when a significant event or disaster occurs or is threatening to occur in council's area. This requires clear allocation of roles and responsibilities and concisely defined procedures and protocols for all operational personnel, other relevant role players, communities at risk, and the public in general. This key performance area seeks to ensure that disaster response and recovery planning for the MCLM achieves these objectives.

6.1 Preparedness and early warning

6.1.1 Objectives

To establish effective early warning systems in the MCLM that will ensure:

- rapid and effective actions by essential and emergency services;
- that households, communities and areas at risk are able to respond timely and appropriately; and
- in order to avert or reduce the potential impacts on people in terms of health, personal injury, loss of life, damage to property, infrastructure or environments.

The MCLM DM is primarily responsible to ensure that it has the technical capacity to identify and monitor hazards and must ensure that mechanisms are in place for the receipt, dissemination and appropriate responses to standard early warnings issued by organs of state tasked with primary responsibility for a specific hazard.

The MCLM DM is responsible to prepare and issue hazard warnings of significance for the municipal area in a timely and effective manner and to ensure that the warnings are disseminated to those communities known to be most at risk to the hazard including those in isolated and/or remote areas. Warnings must include information and guidance that will enable those at risk to increase their safety and take risk avoidance measures to reduce losses.

The MCLM DM must identify and establish strategic inter-sectoral, multidisciplinary, and multi-agency communication mechanisms for the purpose of disseminating warnings including emergency communication systems accessible to communities at risk (CARs). Communication mechanisms must include protocols to ensure appropriate institutional reactions to early warnings as well as protocols for reporting by essential and emergency services of significant events, which occur or are threatening to occur in council's area to the MCLM DM. This will enable the MCLM DM to track developments so that timely and effective actions can be taken in the event of a situation deteriorating. The MCLM DM must in turn further disseminate the information to the WRDM DMC for further dissemination to any neighbouring DMs and/or authorities, which may be affected as well as to the, GPDMC and NDMC.

The MCLM DM must provide support to vulnerable communities within their area of jurisdiction and facilitate the implementation of programmes in CARs to make them aware of the hazards to which they are exposed and the specific actions they should take to reduce the impact. Programmes of this nature must take into account and add value to indigenous knowledge.

9. Action to be taken:
a. The MCLM must assess its current capacity to deliver multi-hazard early warnings to communities most at risk in line with its risk profile and priorities.
b. The MCLM to develop and implement appropriate early warning systems in conjunction with the West Rand District DM.
c. The MCLM DM must establish unambiguous early warning triggers and thresholds for the timely activation of warnings.

6.1.2 Key Performance Indicators

- Technical capacity has been developed to implement early warning systems that will enable an alert, informed and self-reliant public in the MCLM.
- Mechanisms have been implemented to enable strategic intersectoral, multidisciplinary, and multi-agency communication mechanisms for Council's area including emergency communication systems accessible to communities at risk (CARs).

6.2 Disaster Assessment

6.2.1 Objective

To establish clear procedures to be followed to ensure immediate and appropriate response and relief operations when significant events and disasters occur or are threatening to occur in the MCLM.

6.2.2 Disaster Assessment

Uniform methods and guidelines for conducting initial on site assessments of both damage and needs when significant events or disasters occur or are threatening to occur are critical tools for informed decision making to:

- establish what resources are necessary to ensure the delivery of immediate, effective and appropriate response and relief to affected areas and communities; and
- ensure business continuity.

Municipal organs of state tasked with primary responsibility for dealing with disasters[2] as a result of a particular hazard must therefore ensure that mechanisms are developed and implemented which will enable rapid and meaningful initial assessments to be conducted when a significant event or disaster occurs in the MCLM in order to determine the extent of the area affected, population, damage to critical infrastructure, lifeline facilities, property, and the environment; and that such assessments are conducted in accordance with national operational guidelines

Those agencies in the MCLM tasked with primary responsibility for co-ordinating specific activities associated with disaster response and relief such as emergency medical care, search and rescue, evacuation, shelter, and humanitarian relief must prepare operational guidelines which will ensure that immediate and meaningful initial assessments are conducted in respect of immediate needs of those affected.

The MCLM DM must ensure that the information contained in the guidelines is also disseminated to the relevant role-players in communities and/or areas at risk. The MCLM DM must ensure that the dissemination of the guidelines must be complimented by training and capacity building to ensure their correct application.

Protocols must be developed and implemented to ensure that the results of initial assessments are included in the situation reports of significant events and disasters, which are transmitted to the, WRDM DMC, the GPDMC and the NDMC.

10. Action to be taken:
The MCLM DM to develop standard checklists and guidelines for disaster assessment in line with national, provincial and district guidelines.

6.2.3 Key Performance Indicators

The MCLM DM has developed and implemented mechanisms for disaster assessment in accordance with national guidelines.

6.3 Integrated Response and Recovery Plans

6.3.1 Objective

To ensure integrated response and recovery operations when significant events and/or disasters occur or are threatening to occur in the area of MCLM.

6.3.2 Contingency plans

The various annexures to this plan contains generic contingency plans as developed by a multi-stakeholder workshop within the MCLM. These plans include integrated response to:

- Search and Rescue;
- Evacuation and Sheltering;
- Relief and Logistics;
- Industrial Accidents; and
- Access Control and Security.

[2] As per section 55 of the Disaster Management Act.

Each of these plans contains a number of generic actions, which will remain the same for any response to any given hazard. It remains imperative that these plans are tested through desktop exercises in 2009 in order to refine and align these plans with the development of the hazard specific contingency plans.

11. Action to be taken: The DM must ensure that the generic contingency plans are tested and aligned with the development of hazard specific contingency plans.

The MCLM DM is further responsible to ensure the development of contingency plans for specific known hazards of rapid onset, which have been identified in the findings of the disaster risk assessment as priority risks in the area of the MCLM. These include:

- Severe weather events
- Flooding
- Pandemic/Epidemic
- Structural Fires (formal)
- Structural Fires (informal)
- Veld fires
- Road accidents
- Mass events

The purpose of such plans is to integrate and co-ordinate multidisciplinary efforts to minimise or limit the potential impact of such events on communities and areas at risk; damage to infrastructure; and the interruption of essential services and business continuity.

Specific responsibility for the development of such plans must be allocated to the specific organ of state or municipal entity, which has been identified as the lead agency and is assigned primary responsibility for that particular risk. For example fire response and recovery would involve the combined efforts of many stakeholders but the primary responsibility must be allocated to a specific organ of state with the other stakeholders assuming secondary responsibilities. In the case of riverine floods for example the Department of Water Affairs and Forestry would be the lead agency assigned primary responsibility; whereas in the case of other types of flooding and extreme weather events the MCLM DM would be the lead agency.

In the event of slow onset events the responsibility rests with the organ of state allocated primary responsibility to establish and co-ordinate multidisciplinary efforts to minimise potential loss. For example in the case of drought the Department of Agriculture would be the lead agency. In order to facilitate the planning process, and in keeping with the already developed contingency plans, Annexure 1-5 can be utilised in this regard, as templates for additional plans.

12. Action to be taken: The MCLM in cooperation with the West Rand District DMC through the respective IDMs and DMAFs should determine lead agencies for the prioritised hazards in the MCLM.

6.3.3 Operational plans for disaster response and recovery

The MCLM DM is responsible to ensure the development of operational plans for disaster response and recovery when a disaster occurs or threatens to occur in the MCLM area of jurisdiction and the facilitation of rehabilitation and reconstruction programmes and projects. Such plans must be prepared consistent with the national guidelines.

The MCLM DM must ensure effective *strategic* co-ordination and management of response and recovery operations for its area.

The MCLM DM has primary responsibility to facilitate:

- the development of a standard operational guide for the establishment of Joint Operations Centers (JOCs) to ensure the effective ***tactical*** co-ordination and management of response and recovery operations for major incidents and significant events which occur or threaten to occur in the area of the MCLM.

- and to ensure that each response agency identified in the MCLM which can contribute to the response and recovery efforts – whether it be an essential service; an emergency service; community volunteer; a non-governmental organization; a community based organization; or a private sector agent – prepares and submits an operational plan applicable to their particular functional area which is in accordance with the national field operation guidelines (FOGs).

Operational plans must include SOPs, which must be formulated within the relevant legislation, regulations and standards.

13. Action to be taken: a. The MCLM must ensure that clear guidelines in line with national requirements are provided to all organs of state, which must compile operational disaster response, and recovery plans. b. The MCLM DM must ensure that primary and secondary responsibilities are allocated for the performance of onsite ***operational*** activities associated with disaster response. In this regard lead agents must be identified and tasked with the primary responsibility for the overall control of specific on site operations such as evacuation, shelter, search and rescue, emergency medical services, firefighting, and other response activities.

7.3.4 Incident Management System (IMS)

Incidents and emergencies handled on a daily basis by emergency and essential services personnel are routinely managed by an Incident Commander of a particular agency. On the other hand however, in the case of significant events and disasters, which occur or are threatening to occur, an incident management system must be implemented to ensure a systematic approach to the effective application of facilities, personnel, equipment, resources, procedures and communication. An incident management system provides for a participative approach to the management of the event; the clear allocation of responsibilities; and includes mechanisms for strategic, tactical as well as operational direction.

Accordingly the MCLM DM must introduce an incident management system in its area of jurisdiction, which ensures that all response and recovery planning and operations comply with the regulations and is consistent with the National Standard Incident Management System (IMS) introduced by NDM in terms of the National Disaster Management Framework. Apart from the identification and assignment of specific roles and responsibilities for each activity associated with response and recovery, the system must provide mechanisms to determine the level of implementation according to the magnitude and the capacity of the agency to deal with it. Provision must be made for the development of partnerships between agencies, which facilitate the involvement of the private sector, NGOs, traditional leaders, technical experts, communities and volunteers.

The system must take into account the conditions in South Africa where frequent significant events occurring on a daily basis require extraordinary measures but which <u>do not necessarily</u> justify the declaration of a local state of disaster.

In order to track escalation of incidents 'trigger' indicators must be clearly identified for reporting of incidents to the MCLM DM. For example routine reporting to MCLM DM of all veld and forest fire incidents when fire danger rating indices are at certain levels or reporting of all incidents which require a predetermined level of response.

Terminology included in the IMS for the identification of stakeholders responsible for direction, control and co-ordination of an event at the operational, tactical and strategic levels as well as for the title used for each level must be in accordance with the national IMS.

14. Action to be taken:
a. The MCLM DM must introduce an incident management system, which ensures that all response and recovery planning and operations comply with the regulations and is consistent with the National Standard Incident Management System (IMS).
b. The MCLM DM must identify clear trigger events and thresholds in order to provide response activation.

6.3.5 Activation and mobilisation

The MCLM DM must ensure that mechanisms for the activation and mobilisation of all resources including the deployment and application of volunteers must be clearly set out in the operational plans.

15. Action to be taken:
Mechanisms for the activation and mobilisation of resources should be clearly indicated in the respective contingency plans of the MCLM.

6.3.6 Delegation of responsibility

Response and recovery plans must make provision for the delegation of responsibilities of the Head of the MCLM DM and the assignment of alternate arrangements for MCLM DM as a contingency in the event that the MCLM DM itself is affected and unable to continue to operate.

16. Action to be taken:
The MCLM DM should ensure that alternative arrangements for the continuous operation of the MCLM DM is made with neighbouring municipalities through the West Rand District DMC.

6.3.7 Emergency communication

In view of the critical role of ***inter-agency*** communication in the management of incidents, significant events and disasters, the MCLM DM must give priority attention to the development of an emergency communication system for this purpose.

17. Action to be taken:
The MCLM DM in partnership with the West Rand District DMC must develop an effective and robust emergency communication system.

6.3.8 Media relations

Responsibilities and protocols for the issue of media liaison press releases, media interviews in the event of a disaster occurring or threatening to occur must be predetermined by the MCLM DM.

18. Action to be taken: The MCLM DM in cooperation with the Department: Corporate Services must develop clear guidelines for media and press liaison.

6.3.9 Key Performance Indicators

- Primary responsibility for contingency planning and co-ordination of known priority risks has been assigned and those agencies in supporting roles have been identified and responsibilities have been assigned.
- Contingency plans for known priority risks have been developed by municipalities, municipal organs of state and other municipal entities in the MCLM and are current.
- Mechanisms for the annual review and updating of contingency plans have been established.
- Field Operation Guides (FOG) for the various activities associated with disaster response and recovery for the MCLM have been developed and implemented.
- Mechanisms for the annual review and updating of FOGs have been established.
- An Incident Management System has been introduced and is operating effectively.
- Mechanisms for monitoring and reviewing the effective application of the IMS in the MCLM and for making consequential adjustments are established and implemented.

6.4 Relief measures

6.4.1 Objective

To ensure that relief operations following significant events and/or disasters, which occur in the area of the MCLM, are co-ordinated and equitably distributed.

The MCLM DM must ensure that all relief operations are managed in accordance with the national guidelines in term of standards, practices and regulating mechanisms.

The MCLM DM must develop a FOG, which clearly allocates responsibilities and sets out the procedures for:

- the release of appeals for donations;
- standards of relief;
- the duration of relief efforts; and
- the acceptance of external assistance.

19. Action to be taken: The MCLM DM to develop a FOG for the management of disaster relief.

6.4.2 Key Performance Indicators

- a FOG for the management of relief operations in the MCLM DM, which conforms to national guidelines, has been developed and implemented.
- Progressive monitoring and review of the guidelines is undertaken annually, based on lessons learnt.

6.5 Rehabilitation and Reconstruction Process

6.5.1 Objective

To ensure that all rehabilitation and reconstruction strategies conducted following a disaster in the MCLM are implemented in an integrated and developmental context

6.5.2 Establishing project teams for integrated rehabilitation and reconstruction

In order to ensure a holistic approach to rehabilitation and reconstruction following a significant event or a disaster in the MCLM, the West Rand District DMC, and the organ of state tasked with primary responsibility for a known hazard must facilitate the establishment of project teams for specifically for this purpose. Checks and balances must be affected to ensure that projects and programmes maintain a developmental focus.

Project Teams established for this purpose will determine their own terms of reference and performance indicators and will report on progress to the West Rand District DMC and/or the MCLM DM.

6.5.3 Key Performance Indicators

- Mechanisms for the establishment of post disaster project teams for rehabilitation and reconstruction are in place and implemented.
- Mechanisms for monitoring rehabilitation and reconstruction projects are established.
- Progress reports on rehabilitation and reconstruction projects are prepared and submitted to the West Rand District DMC, the DMC of the Gauteng Province and the NDMC.

6.6 Monitoring of incidents and significant events, disaster reviews and reports

6.6.1 Objective

To establish mechanisms for monitoring and reviewing incidents and significant events to facilitate early warnings and to review disasters to evaluate effectiveness and for the purposes of improved planning and operations.

6.6.2 Monitoring incidents and significant events

The MCLM DM must establish mechanisms and harness the necessary expertise to enable the monitoring of trends and tracking patterns of major incidents and significant events as well as minor incidents, which could serve as early warnings. For example by monitoring a series of smaller incidents the identification of an increase of the scale and frequency of the incidents could serve as an early warning of more significant events of the same nature.

20. Action to be taken: The MCLM DM should establish a mechanism for the continuous monitoring of different events. Also see section 3.1 above.

6.6.3 Disaster reviews and reports

In order to learn lessons from previous experience and to improve performance the MCLM DM must ensure that reviews are conducted routinely following all significant events and disasters occurring in its area. Such reviews are in addition to the reports required in terms Section 50 of the Disaster Management Act, 2002 and must be fully documented as they will also serve as valuable training aids.

Reviews must be conducted in accordance with the review programme developed by the NDM.

The MCLM DM must ensure that resources are made available and that organs of state tasked with primary responsibility for specific known hazards make provision in budgets for conducting reviews.

6.6.4 Key Performance Indicators

- Mechanisms for progressive monitoring and research of incidents and significant events for the purposes of identifying trends and patterns which could serve as early warnings have been developed and provision has been made for funding.
- Review and research reports on significant events and trends are prepared in accordance with the national review programme and are routinely submitted to the West Rand District DMC, DM of the Gauteng and the NDMC.
- Review and reports on actual disasters are routinely submitted to the West Rand District DMC, the DMC of the Gauteng Province and the NDMC.

7. ENABLER 1: INFORMATION MANAGEMENT AND COMMUNICATION

Knowledge management, although a very broad term, relates to all the information needs and applications in order for the MCLM to effectively reduce disaster risk. This KPA will be addressed by focussing on information management and communication, education and training, public awareness and research.

7.1 Information management and communication

7.1.1 Objective

- To develop a comprehensive disaster risk management information system.

7.1.1.1 The Merafong City Local Municipality Disaster Management Information System (DMIS)

Disaster management is a collaborative process that involves all spheres of government, as well as NGOs, the private sector, a wide range of capacity-building partners and communities. It also requires capabilities to manage risks on an ongoing basis, and to effectively anticipate, prepare for, and respond to a diverse range of natural and other threats.

Effective, co-ordinated and integrated disaster risk management is dependent on an adequate and reliable information system. It is a critical instrument to ensuring that the MCLM has the capabilities to manage risk on a continuous basis; to effectively monitor disaster and risk trends and patterns for the municipality for the purposes of planning and preparedness. It is also key to ensuring rapid and effective decision making and response to disasters and major incidents.

The MCLM must ensure that the DM has the necessary capacity and appropriately skilled human resources to manage and maintain such a system and that the MCLM DMIS is consistent with the national guideline for a disaster management information system.

21. Recommendation:
The MCLM to consider implementing a basic database of information relating to all matters of disaster risk management and its' role players as per chapters 16 and 17 of the Disaster Management Act.

7.1.2 Strategic Communication

In order to implement effective disaster risk management, the MCLM DM must establish and maintain an integrated communication system for the municipality, which will enable effective communication links amongst disaster risk management role players and stakeholders.

The communication system must include a directory of role players, which is in accordance with section 16 of the Act as well as telecommunication capabilities. The system must be compatible with that of the district and provincial DM's systems and must comply with the national guidelines. For the purposes of effective incident management and joint operations it must have the capacity to enable interagency communication amongst essential and emergency services.

The communication system must also make provision for the ongoing identification and engagement of innovative and meaningful locally-based communication and early warning methods, especially in remote, technologically isolated areas. These modes of communication must include the use of volunteers from local communities, the employment of indigenous knowledge and practices as well as co-operation with NGOs and CBOs.

The MCLM DM must establish mechanisms for the receipt, evaluation and dissemination of early warnings on a 24 hour basis. These mechanisms must include capabilities to enable two way emergency communications with communities at risk and must take into account the difficulties associated with communication with remote and technologically isolated areas.

The MCLM must ensure that the DM has the necessary capacity and appropriately skilled human resources to manage and maintain such a system.

The MCLM and the KKDM DM, operating a central communication centre in partnership, should jointly evaluate their capacities and needs, and design and implement a strategic communication system.

7.1.3 Key Performance Indicators

- The disaster risk management information system has been established in accordance with the national framework and is functional.
- Mechanisms have been established to ensure that the disaster management information system including the electronic database is updated, maintained and tested at regular intervals.
- Functional communication links between all necessary role players and systems to support the activities of the DM have been established and are maintained.

7.1.5 Monitoring and Evaluation

In order to ensure that an effective communication system is maintained the MCLM DM must develop and implement mechanisms for ongoing testing of the communication system and the preparation and submission of reports in this regard. The mechanisms must include regular communication exercises and test calls.

A continuous system of updating the information in the database must also be implemented to ensure the data is up to date and relevant.

8. ENABLER 2: EDUCATION, TRAINING, PUBLIC AWARENESS AND RESEARCH

8.2 Education and Training

8.2.1 Objectives

- To promote and facilitate non-accredited and accredited education and training opportunities for all disaster risk management stakeholders in the MCLM.
- To identify and implement appropriate disaster risk management training programmes for schools in the area to increase knowledge and capacity.
- To identify and implement appropriate disaster risk management training programmes for the communities to increase knowledge and capacity.
- To ensure that traditional knowledge and coping strategies are included in the training programmes where appropriate.

8.2.2 Schools Programmes

Efforts should be made to implement disaster risk management training programmes in schools, for the purposes of disseminating information on disaster risk management and risk avoidance. The creation of programmes in schools, focusing on relevant and appropriate aspects of disaster risk management, must be encouraged.

22. Recommendation
The MCLM DM to approach the local Department of Education and relevant Schools Governing Bodies in order to jointly implement schools awareness programmes focussing on the most prevalent hazards in the particular areas.

8.2.3 Dissemination and use of traditional knowledge

All training and awareness programmes undertaken within the MCLM must take into account indigenous knowledge relating to disaster risk management, as per section 7(2)(j).

23. Recommendation
All traditional leaders in the MCLM area of responsibility to be made aware of disaster risk management issues, co-opted to the DMAF (where applicable) and traditional knowledge must be incorporated into the MCLM disaster risk management planning and awareness programmes.

8.2.4 Community training programmes

Education and training programmes for communities must focus on risk awareness, risk reduction and preparedness. Where appropriate, communities must be given the opportunity to modify and enhance training programmes through the inclusion of indigenous knowledge, practices and values, and the incorporation of local experience of disaster and disaster risk management. Cognisance of the risk assessment for the area must be taken when such programmes are developed.

24. Recommendation
The MCLM to utilise the envisaged ward disaster risk management structures to serve as a mechanism for community training.

8.2.5 Government Officials and relevant role players

Training programmes for government officials and policy makers must include modules on planning, hazards, prevention, risk reduction and preparedness.

8.2.6 Key Performance Indicators

- An assessment of disaster risk management education and training needs is conducted annually.
- Appropriate courses have been identified for the relevant interest groups.
- A disaster risk management education and training programme is developed for each financial year and is implemented.
- Comprehensive reports on education and training conducted in the municipality are submitted annually to the District and Provincial DMs.

8.2.7 Monitoring and Evaluation

The MCLM DM must establish mechanisms for reporting progress with the disaster risk management education training programmes in the municipality and must submit reports annually to the District and Provincial DMs.

25. Recommendation
The MCLM should develop a policy with regards to education and training in the field of disaster risk management, and that the necessary funding is made available.

8.3 Public Awareness

8.3.1 Objective

- To develop and implement a public awareness programme which insures an alert, informed and self-reliant public in the MCLM.

8.3.2 Public Awareness Policy

An integrated public awareness strategy to promote a culture of risk avoidance among all role players and across all departments must be developed and implemented. Such a strategy is necessary for the promotion of an informed, alert and self-reliant society capable of playing its part in supporting and co-operating with the municipality in all aspects of risk and vulnerability reduction.

The ability of the public to understand the nature of commonly encountered hazards in their communities to manage and reduce risks; to develop risk avoidance behaviour patterns; and to respond appropriately and timeously when disasters occur or are threatening to occur, is dependent on knowledge and access to reliable information.

In order to inculcate risk-avoidance behaviour by all stakeholders, public awareness campaigns aimed at raising consciousness about disaster risks must provide information on how to reduce vulnerability and exposure to hazards.

Public information should be disseminated through the media, schools, and public gatherings and through any other suitable network.

8.3.3 Media involvement

The local print and radio media should be involved in efforts to increase community awareness and therefore should be included in the public awareness campaigns as far as possible.

8.3.4 Key Performance Indicators

- A public awareness policy with specific focus on risk reduction has been developed and implemented.
- Risk reduction is the focus of all disaster risk management awareness programmes.
- Awareness of disaster risk management is widespread and risk avoidance behaviour is an integral part of the daily lives and activities of the public of the MCLM.

8.3.5 Monitoring and Evaluation

The MCLM must conduct regular surveys and introduce other innovative mechanisms to evaluate the effectiveness of the public awareness programmes and must compile reports on the findings. The outcome of such initiatives must be used to inform future planning.

26. Recommendation
That the MCLM develop a policy with regards to a public awareness programme, and ensure that the necessary funding is available.

8.4 Research

In order to stay abreast with a dynamic changing environment, the MCLM must ensure a continued research agenda is developed in order to better disaster risk management practices and information.

8.4.1 Objective

- Promotion and facilitation of disaster risk management research.

8.4.2 Research Programmes

The MCLM DM must establish mechanisms to promote and support disaster risk management research in the municipality. In this regard the MCLM DM must enter into discussions with institutions of higher learning and other technical experts to identify appropriate research mechanisms.

All research programmes should firstly be focussed on the risk profile of the MCLM and to address critical issues of vulnerability. In the light of the fact that scientific research is a specialised field, the MCLM should engage institutions of research as partners to address identified issues.

8.4.3 Evaluations and feedback

The MCLM DM must ensure that relevant information identified through the research process is incorporated into the necessary planning and awareness processes of the MCLM, with a view of reducing disaster risk.

8.4.4 Key Performance Indicators

- Mechanisms are established for promoting and facilitating disaster risk management research in the municipal area.

8.4.5 Monitoring and Evaluation

The MCLM DM must establish mechanisms for reporting progress with the disaster risk management research programmes in the municipality and must submit reports annually to the district and provincial disaster management centres.

27. Recommendation
That the MCLM develop networks with institutions of higher learning and other role-players involved with research in the area, in order to pool information and to include relevant information in training, education and awareness programmes.

9. ENABLER 3: FUNDING ARRANGEMENTS FOR DISASTER RISK MANAGEMENT

Section 7(2)(k) of the DMA requires that the national disaster management framework makes provision for *"a framework within which organs of state may fund disaster risk management with specific emphasis on preventing or reducing the risk of disasters, including grants to contribute to post-disaster recovery and rehabilitation and payment to victims of disaster and their dependants"*. Given the provisions of the Act, funding arrangements must be designed in a manner that ensures that disaster risk management activities are funded adequately and in a sustainable way. This enabler describes the disaster risk management funding arrangements for MCLM departments.

Objective

The objective of Enabler 3 is to establish mechanisms for the funding of disaster risk management in the MCLM.

9.1 Legislative framework for funding arrangements

The following primary legislation provides the context within which funding arrangements for disaster risk management should be designed:

- Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996);
- Disaster Management Act, 2002, (Act No. 57 of 2002);
- Public Finance Management Act, 1999 (Act No. 1 of 1999) (PFMA);
- Municipal Finance Management Act, 2003 (Act No. 53 of 2003) (MFMA); and
- Municipal Systems Act, 2000 (Act No. 32 of 2000).

The Constitution assigns exclusive or concurrent functions to different spheres of government. Schedule 4 of the Constitution designates disaster risk management as a concurrent national and provincial competence. However, the Act places the responsibility for certain disaster risk management activities squarely within the local government sphere. For example, section 23(7) of the Act states that until a disaster is classified as either a national or a provincial disaster, it must be regarded as a local disaster.

In terms of section 10A of the Municipal Systems Act as amended, the disaster risk management function imposes new constitutional obligations on local government. These obligations are that the responsible Cabinet member, MEC or other organ of state must take appropriate steps to ensure sufficient funding and capacity-building initiatives as may be needed for the performance of the assigned function. Since disaster risk management at municipal level encompasses a wide range of activities (including disaster risk reduction, preparedness, response and recovery), funding mechanisms must be designed to allocate optimal resources to each of these activities.

Chapter 6 of the Disaster Management Act outlines two principles that should be applied to funding the cost of a disaster when such an event is declared. Firstly, section 56(2) of the Act states that in the event of a disaster, 'national, provincial and local organs of state may financially contribute to response efforts and post-disaster recovery and rehabilitation'. Secondly, the Act assigns the responsibility for repairing or replacing infrastructure to the organ of state responsible for the maintenance of such infrastructure. Section 57 of the Act, however, provides some leeway for a municipality government to request financial assistance for recovery and rehabilitation from provincial and/or national government.

The Act attempts to encourage budgeting for disaster recovery and rehabilitation through threshold funding. Section 56(3) allows the Minister to prescribe a percentage of the budget of a municipal department and entities as a threshold for accessing national funding for disaster response efforts. The extent to which an organ of state has implemented disaster risk reduction efforts will be taken into account when requests for disaster response and post-disaster rehabilitation funding are considered.

The broad funding guidelines set out in sections 56 and 57 of the Act make access to disaster recovery and rehabilitation funding contingent on organs of state earmarking funds for disaster risk reduction activities. This principle reduces the risk of moral hazard behaviour on the part of municipal departments and entities by ensuring that they budget for all disaster risk management activities. In this way, national government does not implicitly guarantee the provision of financial assistance to organs of state for disasters that could have been reasonably prevented or reduced in some way.

Apart from the Act, there are other legislative provisions that govern the release of funds for disaster recovery and rehabilitation. Sections 16 and 25 of the PFMA allow the Minister of Finance or relevant MEC to appropriate funds from their respective revenue funds for use in emergency situations. Funds released in terms of these provisions must be reported to the provincial legislature, and to the Auditor-General within 14 days of their authorisation. In addition, these funds must be attributed to a vote when the adjustments budget is passed.

Similarly, section 29 of the MFMA allows the Mayor of a municipality to authorise unforeseeable and unavoidable expenditure in an emergency. Such expenditure must be ratified by the council in an adjustments budget within 60 days of the expenditure having been incurred. Furthermore, section 29(2)(b) of the MFMA states that unforeseeable and unavoidable expenditure may not exceed a percentage of the budget. This restricts the amount of funds available to respond to emergencies. This percentage must be prescribed by National Treasury in regulations.

9.2 Principles underpinning funding arrangements

Any funding arrangement must be consistent with the principles set out in the DMA and any other related legislation. It should be borne in mind that disaster risk management has certain unique characteristics which differ markedly from public services such as education and street lighting. Disasters are by their very nature unpredictable and require an immediate and decisive response. It is vital, therefore, that a balance is struck in the financing framework between the need for financial controls and oversight and the need to ensure that rapid response and recovery are not compromised. Section 214(2)(j) of the Constitution explicitly mentions 'the need for flexibility in responding to emergencies or other temporary needs' as one of the criteria for the equitable division of nationally collected revenue among the three spheres of government.

9.3 Overview of funding arrangements

Funding arrangements for disaster risk management must be based on the legislative framework outlined in section 10.1 above and take into account the various criteria for an optimal funding mechanism.

9.3.1 Funding options for disaster risk management

The responsibilities imposed by the Act on municipal departments and entities require substantial start-up costs, including both investments in infrastructure for municipal disaster risk management centres as well as funding for capacity building. The start-up costs associated with the MDM must therefore be covered by the normal budgeting process of the MCLM. The incorporation of disaster risk management within other MCLM departments should also enjoy attention and provision should be made for any costs incurred in this institutional capacity building exercise.

The DMA assigns responsibility for the management of local disasters to municipalities. If municipalities are unable to perform this function because of a lack of institutional capacity, then responsibility for managing the disaster is escalated to provincial level. However, the relevant municipality is generally the organ of state closest to the disaster, and can often therefore respond the fastest. The option of providing no funding will thus create inefficiencies in the system by limiting the ability of municipal departments and entities to engage in disaster risk reduction activities and also respond effectively to disasters.

10.3.2 Funding arrangements in the Merafong City Local Municipality

Each municipality department must include disaster risk management activities as part of their annual budget. All aspects and responsibilities described in this plan must be taken into consideration when budgeting for disaster risk management. Each department and division should ensure that their budgets for disaster risk management are aligned with the strategic objectives of the MCLM. Such alignment must also aim towards the reduction of duplication and/or address the lack of appropriate budgeting for disaster risk management.

9.4 Key performance area 1: Integrated institutional capacity for disaster risk management and Enabler 1: Information management and communication

KPA 1 focuses on creating the institutional capacity within all MCLM departments for the purpose of disaster risk management. It describes the various intergovernmental structures that facilitate consultation on issues relating to disaster risk management; key responsibilities of the MDM and the minimum infrastructural requirements for the establishment of the MDM.

Enabler 1 focuses on the establishment of a comprehensive information management and communication system to ensure that all role-players have access to reliable hazard and disaster risk information for the purposes of effective disaster risk management and risk reduction planning. The NDMF requires that the cost of developing an information management and communication system is included in the start-up costs for disaster risk management centres.

9.4.1 Funding options

To establish integrated institutional capacity to enable the effective implementation of disaster risk management policy and legislation, funding will be required for the ongoing operations of the MDM. This will be budgeted for through the normal municipal budgeting process.

9.4.2 Key performance indicators

- The MDM has an adequate allocated budget for ongoing disaster risk management activities in the MCLM according to legislative requirements and municipal policies.

10.5 Key performance area 2: Disaster risk assessment

9.5.1 Funding options

Disaster risk assessments should be funded through the budgets of the relevant municipal department and entity. Section 20 of the Act requires the NDM to provide guidance to organs of state on ways of determining levels of risk and vulnerability. Similarly, section 33 enjoins the PDM to provide guidance to organs of state on disaster risk assessments. In the same manner the MDM must provide guidance to municipal departments and entities on conducting disaster risk assessments. The use of a standard format for disaster risk assessments will contribute towards reducing the variability of costs across the various municipal departments and entities. Costs involved in updating disaster risk assessments must be budgeted for on a regular basis.

Expenditure incurred in monitoring disaster risk must be part of the routine operation of the relevant municipal department and entity and the MDM, and must be budgeted for accordingly.

9.5.2 Imperatives

Disaster risk assessments must be funded through the recurrent budgets of municipal departments and entities. The costs of initial disaster risk assessments undertaken by municipal departments and entities must be included in the start-up costs and funded through the local government conditional grant.

9.5.3 Key performance indicators

- Disaster risk assessment is a budgeted for and is a cost item on the budget of each municipal department and entity.

9.6 Key performance area 3: Disaster risk reduction

In terms of funding arrangements, this KPA can be separated into disaster risk management planning and disaster risk management implementation. The Act requires all spheres of government to plan and implement disaster risk reduction projects and programmes in line with the IDP of the municipality.

9.6.1 Funding options

Disaster risk management planning must be included in the IDP of the MCLM. Sectoral plans must also include specific disaster risk management plans for the relevant departments within the municipality. These planning processes must be funded through the budgets of the relevant municipal departments and entities. If disaster risk management planning is integrated into general IDP processes, then little or no additional budgetary allocation for disaster risk management will be required.

Municipal departments and entities must include risk reduction as part of a broader strategy to reduce the overall risk and fiscal exposure of their organisations. In addition, risk reduction activities, including preparedness, must be part of the operational activities of the various municipal departments and entities and must be reflected in their plans and budgets. Any new infrastructure developments should include the costs of structural mitigation measures.

When additional expenditure is required to develop structural mitigation infrastructure, municipal departments and entities must establish whether they could fund such projects from their own resources. If they lack funds to implement these projects, they must include the costs of structural mitigation infrastructure in their three-year capital plans. The MCLM must prioritise these projects in its IDP.

Section 19 of the MFMA requires that a municipality conduct a feasibility study before it can budget for a capital project. The feasibility study must include disaster risk assessment findings and recommendations for disaster risk reduction. If the project goes ahead, the cost estimate of mitigation infrastructure or measures should be included in the total cost of the project. Funds can be accessed either through the B component grant for basic services infrastructure, or through the P component grant for any additional funds required to reduce risks associated with existing infrastructure. The benefit of this option is that the conditionality of the grant can help to ensure that disaster risk reduction is integrated into infrastructure development, thus reducing the risk of disasters in the long term.

In the case of activities or projects aimed at preventing or reducing a national priority disaster risk, municipal departments and entities may apply for additional funding from the NDM. The NDM may choose to place a limit on the funding available per project.

9.6.2 Preparedness

In terms of the Act, section 53(j) states that municipal disaster management plans 'must facilitate maximum emergency preparedness'. The Act prescribes one of the means through which this can be done in section 58(1), which provides metropolitan or district municipalities with the option of establishing units of volunteers to participate in disaster management. The FFC has noted that there are costs involved in emergency preparedness, such as the costs of recruiting, training and mobilising volunteers. Since disaster management is deemed to be a new constitutional function for local government, strong arguments can be made for funding the costs associated with preparedness, including the recruitment and training of volunteers, through an increase in the equitable share. Alternatively, the costs may be funded through the budgets of municipal departments and entities. However, a drawback of this option is that preparedness activities may be underfunded. In addition, municipalities may not have sufficient resources to fund the extra costs associated with preparedness.

9.6.3 Imperatives

Cost expenditure on routine disaster risk management activities must be funded through the budgets of the relevant municipal department or entity.

Preparedness must be funded through the budgets of municipal departments and entities as part of their routine disaster risk management activities.

Additional structural mitigation infrastructure must be funded through local government conditional infrastructure grants.

9.6.4 Key performance indicators

- Budgets in all municipal departments and entities include the costs of routine disaster risk reduction measures and activities.
- Preparedness actions are funded through the recurrent budgets of all relevant municipal departments and entities.
- Feasibility studies for capital projects include information drawn from disaster risk assessments and appropriate disaster risk reduction measures.
- Capital budgets clearly reflect the cost of disaster risk reduction.

9.7 Key performance area 4: Response and recovery

Chapter 6 of the Act governs the funding arrangements for disaster response and recovery and rehabilitation and reconstruction. Section 56(3) requires that organs of state set aside a percentage of their budgets for post-disaster recovery efforts. Access to national funding is dependent on whether the organ of state affected by the disaster had taken sufficient risk reduction measures to reduce the severity and magnitude of the disaster.

9.7.1 Funding options

The main activities within the broad scope of disaster response and recovery include:

- Early warnings;
- Disaster response and recovery operations;
- Relief measures; and
- Rehabilitation and reconstruction.

9.7.1.1 Early warning

The development, implementation and dissemination of early warnings form part of the routine planning processes undertaken by municipal departments and entities and must therefore be funded through their existing budgets. The MDM plays a significant role in identifying and monitoring potential hazards and disseminating early warnings. These activities must be funded through the MDM budget.

9.7.1.2 Disaster response and recovery operations

The importance of rapid response in the event of a disaster cannot be underestimated. Funds need to flow quickly to support response and recovery efforts. Rescue efforts, provision of immediate basic services, emergency health services and critical infrastructure repair all form part of response and recovery.

Currently there are no dedicated funding mechanisms for disaster response and recovery operations, and resources are not released quickly enough to maximise the effectiveness of response activities. The use of section 16 of the PFMA as a mechanism to release emergency funds from the central contingency fund is problematic as it requires ministerial authorisation, which increases the lead time between the declaration of a disaster and access to emergency funds.

Funding response and recovery

The fundamental principle underpinning provisions relating to funding in the Act is that all municipal departments and entities must budget for costs involved in disaster response and recovery. This principle places the onus for funding the initial costs associated with a disaster on the municipal departments and entities involved in response and recovery operations. Once budgets for response and recovery activities have been exhausted, the relevant municipal departments and entities may request financial assistance from provincial and/or national government. Financial assistance will only be provided after taking into account the disaster risk reduction measures taken prior to the onset of the disaster.

The Act entrenches this principle of self-funding by allowing the Minister designated to administer the Act to prescribe a percentage of the budget of a municipal department and entity that will act as a threshold for accessing future funds from the central contingency fund.

The National Disaster Management Framework suggests that the Merafong City Local Municipality allocates a threshold of 1% of its own revenue to funding response and recovery (see Table 7.2 in the National Disaster Management Framework).
This threshold must be viewed within the context of the magnitude and extent of a disaster. The threshold must be reviewed at least two years after the publication of the framework, once information on the costs of different disasters is available.

Once the MCLM has exhausted its thresholds, it should then request financial assistance from the Gauteng Provincial Government. If the equitable share increases, then the basis for determination of the threshold percentages can be changed to the total revenue received by the municipality.

The department must ensure mechanisms are put in place by which funding can be accessed from the MCLM central contingency reserve. Such mechanisms must be linked to strict guidelines and should only be accessible once a disaster has been declared in terms of the DMA.

9.7.1.3 Relief measures

The aim of relief measures is to provide immediate access to basic necessities for those severely affected by disasters. The National Disaster Fund, disburses funds for emergency relief to communities.

These funds are budgeted for in the Department of Social Development's vote. Provincial departments of social services and poverty alleviation also provide relief to affected communities. The MCLM must establish a mayoral discretionary fund aimed at providing relief to local communities.

Action to be taken:

9.7.1.4 Rehabilitation and reconstruction

The Act places the onus for rehabilitation and reconstruction of infrastructure on the municipal departments and entities responsible for maintaining such infrastructure. However, rehabilitation is not only limited to infrastructure repair, it also includes rehabilitation of the environment and communities. Rehabilitation and reconstruction projects can be funded through:

- Own budgets;
- Conditional grants;
- Reprioritisation within existing capital budgets; and
- Access to the central contingency fund.

The methods of funding rehabilitation and reconstruction are complementary rather than competing. Ideally, municipal departments and entities should fund their expenditure on rehabilitation and reconstruction from their budgets up to the threshold. The next alternative should be to reprioritise within their capital budgets. The use of funds from the contingency reserve should be considered only as a last resort.

Own budgets
Thresholds are applicable not only to response and recovery operations but also to rehabilitation and reconstruction. Depending on the extent of infrastructural damage, municipal departments and entities may be able to fund rehabilitation and reconstruction costs from their own budgets up to the threshold. Rehabilitation and reconstruction costs are generally high, so municipal departments and entities may need to fund these costs from a combination of sources, including own budgets, reprioritisation and the central contingency fund.

Conditional grants
Municipalities can access funding through the Municipal Infrastructure Grant (MIG). The MIG formula differentiates between new and rehabilitated infrastructure in a ratio of 80:20. Since the MIG augments the capital budget as a whole and is not a project-by-project grant, it is possible for municipalities to use part of the allocation for post-disaster rehabilitation purposes.

9.7.2 Imperatives

The dissemination of early warnings must be funded through the budgets of municipal departments and entities as part of their routine disaster risk management activities.

Measures need to be implemented to ensure that disaster response and recovery operations are funded through the budgets of municipal departments and entities up to the prescribed threshold. Once the threshold is reached, additional funding would be needed to be accessed through the central contingency fund.

Funding mechanisms for relief measures need to be reviewed in order to reduce the time it takes victims of disasters to gain access to relief assistance.

As far as possible municipal departments and entities must fund rehabilitation and reconstruction projects from their own budgets and conditional grants.

Mechanisms for the rapid release of funds from the central contingency reserve for the reconstruction of basic service infrastructure where infrastructure is needed to safeguard lives and livelihoods must be developed.

9.7.3 Key performance indicators

- The development, implementation and dissemination of early warnings are funded through the recurrent budgets of the relevant municipal department and entities.
- The percentage of the budget of a municipal department and entity as a threshold for accessing additional funding from provincial and national government for response and recovery efforts has been established and implemented.
- Response and recovery efforts are funded through budgeted threshold allocations.
- A mechanism has been developed to ensure rapid access to national funds for disaster response.
- Municipal departments and entities have budgeted for threshold allocations.
- People, households and communities affected by a disaster have immediate access to relief measures.
- Financial thresholds for rehabilitation and reconstruction funding have been set.
- Rehabilitation and reconstruction efforts are funded through a combination of own budgets, reprioritisation, budgeted threshold allocations and conditional grants.

9.8 Enabler 2: Education, training, public awareness and research

Education, training, public awareness and research are crucial to the success of disaster risk management and disaster risk reduction strategies. It is envisaged that education, training and research initiatives as well as broad-based public awareness programmes will be undertaken by a range of municipal departments and entities and other institutions.

9.8.1 Funding options

The various initiatives within the scope of this enabler are broadly grouped as follows:

- Education and training;
- Integrated public awareness; and
- Research programme and information and advisory services.

Education and training

The MDM must make budgetary provision for the implementation of a national needs and resources analysis to determine the disaster risk management education, training and research needs of those involved in disaster risk management across sectors, levels and disciplines in the MCLM.

Integrated public awareness strategy

The MDM is responsible for developing an integrated public awareness strategy to encourage a culture of risk avoidance in all municipal departments and entities and in communities. In addition, municipal departments and entities are required to formulate appropriate public awareness campaigns within the framework of the integrated public awareness strategy. The MDM must budget for the development and implementation of such a strategy.

Line departments involved in public awareness programmes must budget for the development and implementation of programmes relevant to their functional areas. In addition, they must be able to access funds for specific programmes aimed at creating awareness around municipal priority disaster risks from the MDM. The MCLM must include public awareness campaigns in community participation processes. In this way, they will not require additional funds for these programmes.

The MCLM should also forge links with CBOs, NGOs and the private sector in order to share costs for dedicated public awareness programmes that focus on priority risks.

Research programme and information and advisory services

Once the MDMC has developed its research agenda, it should approach various other government departments, international donor organisations, private companies, research foundations and NGOs to fund disaster risk management research. The MDM must also allocate a portion of its budget to research activities and routine post-disaster reviews. Technical line departments that are regularly affected by disasters must budget for research on priority risks and disaster risk reduction.

The content of the information management database must be electronically accessible to any person free of charge. The cost of information provision and advisory services should be kept to a minimum and funded through the budget of the MDM awareness programmes that focus on priority risks.

9.8.2 Imperatives

The costs associated with accredited education and training must be recovered through SETAs. This should be seen as the funding mechanism of choice. The costs associated with education and training programmes that are not accredited must be funded through the budgets of the relevant municipal department and entity.

The cost of research must be funded through the budgets of the MDM and by the private sector, research foundations, NGOs and donors.

9.8.3 Key performance indicators

- There is documented evidence of an increase in expenditure on accredited education and training programmes.
- Municipal departments and entities recover their expenditure on accredited education and training from the relevant SETAs.
- The conditions of the MSIG have been extended to cater for disaster risk management education and training programmes.
- All municipal departments and entities involved in public awareness budget for integrated public awareness programmes.
- Partnerships between municipal departments and entities and the private sector, NGOs and CBOs, exist for the purpose of funding public awareness programmes and projects.
- Funds are available from government departments, international donor organisations, private companies, research foundations and NGOs for research programmes.

ANNEXURE 1: CONTINGENCY PLAN FOR IDENTIFICATION, ACCESS CONTROL AND SECURITY

LEAD AGENT: SAPS

SUPPORTING AGENT: SANDF, PRIVATE SECURITY FIRMS, HEALTH SERVICES, DEPARTMENT OF HOME AFFAIRS

Document Information		
Document Version Number	Version 001	
Document Type	Generic Contingency Plan	
Short Title	Identification, access control and security plan	
Long Title	Identification, access control and security generic contingency plan	
Applicability	Circumstances: Access control, identification and security during a major incident. Functions: To guide and direct access assistance in terms of security needs	
Status	e.g. Draft.	

Main Contributors	• SAPS
	    o Health services
	    o Traffic
	    o Fire Brigade Services
	• District Disaster Management Centre	

Author	Draft 001: Disaster Management Centre	
Date of this Compilation	2 March 2009	
Signed off	**Proposed by: Date**	**Authorised by: Date**
	______________________ [name here] ______________________ [name here] ______________________ [add more names if required here] ______________________ [add more names if required here]	______________________ [name here] ______________________ [name here] ______________________ [add more names if required here] ______________________ [add more names if required here]
Other contingency plans which has a direct bearing on this contingency plan	• Emergency Communication Contingency Plan • Emergency Financial Procedures • Search and Rescue Plan • Evacuation and Shelter Plan • Relief and Logistics Plan • Industrial accident Plan	

1. AIM OF THE PLAN

The aim of this contingency plan is to ensure the identification of key personnel/ role players, access to, and security of major incidents sites in the MCLM

2. SCOPE OF THE PLAN

This plan applies to the occurrence of any major incident within the MCLM. This plan is developed to control the access of key role players and personnel to and from a major incident seen. This plan further applies where security is needed where a large group of civilians have been evacuated due to a major incident within the district.

This plan applies to the following circumstances:

- Major incidents (industrial, civil unrests, fire related, flooding and displacements) as well as a disaster.
- Multi-disciplines involved
- Incidents with a significant impact
- Once a JOC is activated

This plan does not apply to the following circumstances:

- Where any other contingency plan, emergency procedure is sufficient to cope with the situation.
- This plan does not apply in the event that the Gauteng Provincial Disaster Management Centre or the National Disaster Management Centre have activated one of their contingency plans pertaining to this specific hazard type, circumstances and geographical area
- This plan does not apply in the event that any security-providing agent (SAPS, SANDF) has already implemented their own contingency plan within the district.

3. Primary responsibility

The South African Police Services has primary responsibility in the coordination of citizen evacuations, access and control as well as security. The following persons should be contacted immediately once the agreed thresholds have been breached:

Line of management	Name	Designation	Cell no	Work no
1st order	Maj. Kock	SAPS	082 463 7046	0187879330
2nd order	Col. Gasa	SAPS	071 675 7343	0187839043/4
3rd order	Lt. van der Merwe	SAPS	084 587 8994	0187839043/4

4. SECONDARY RESPONSIBILITY

The MCLM Disaster Management has secondary responsibility in the coordination of citizen evacuations. The following persons should be contacted immediately once the agreed thresholds have been breached:

Line of management	Name	Designation	Cell no	Work no	E-mail
1st order	Elias Koloi	HOC (WRDMDM)	0832676601	0114115000	ekoloi@wrdm.gov.za
2nd order	L Rabotapi	SANDF	0731647073	0182891370	
3rd order (NOTE: can be more than 3)	Moses Masalesa	TRAFFIC	0836487590	0187889739	mmasalesa@merafong.gov.za

5. PHASES OF ACTION

Action Steps:

Action and steps to be take:

Identification, Access Control and Security Planning

No.	Action(s)	Start & End Date	Responsible Person and partnership	Output
1	Identify the specific threat: 1.1 The SAPS as well as the disaster management centre is responsible for identifying a specific threat. 1.2 Establish the JOC, in conjunction with the incident command.		**SAPS, HOC** **SAPS, HOC**	
2	Determine role players: 2.1 Determined by JOC 2.2 Activated by SAPS and head commander of the incident command. 2.3 When JOC thinks it necessary.		**SAPS, head of JOC** **SAPS**	
3	Cordon the area off: 3.1 SAPS, traffic and SANDF responsible. 3.2 Determined by JOC.		**SANDF, SAPS** **SAPS**	
4	Evacuate the people: 4.1 Responsibility of SAPS, SANDF, traffic and DM. 4.2 Identifying a determined designated area.		**SAPS, SANDF, Traffic** **JOC**	
5	Report at a nodal point: 5.1 Responsibility of SAPS, DM and SANDF. 5.2 Procedure determined by the JOC.		**SAPS, SANDF, DM** **JOC**	
6	Holding area: 6.1 Responsibility of SAPS, SANDF and DM. 6.2 Procedure determined by the JOC.		**SAPS, SANDF, DM** **JOC**	
7	Determine entry and exit routs: 7.1 Responsibility of SAPS, DM, SANDF, traffic and transport department. 7.2 Procedure determined by the JOC.		**SAPS, SANDF, DM, Traffic, Dept. Transport** **JOC**	

8	Inform the media, public and politicians: 8.1 Activation of public information contingency plan. 8.2 Database created by DM, SAPS and home affairs. 8.3 DM used as a central operating area. 8.4 Monitored and coordinated by JOC. 8.5 Information communicated through the public information plan.		**JOC** **DM, HA, SAPS** **DM** **JOC** **JOC**	
9	Activate other role players and resources: 9.1 The SAPS and DM is responsible. 9.2 Determined by JOC.		**JOC** **JOC**	
10	Decide upon specific routes: 10.1 Determined by JOC, traffic, Dept. Transport.		**JOC**	
11	System to classify the role players and zones: 11.1 Responsibility of SAPS, JOC, DM,		**JOC**	
12	Accreditation system: 12.1 Determined by JOC and SAPS. 12.2 Activated, determined by incident command, SAPS, JOC. 12.3 Responsibility of SAPS, traffic, DM and private security firms. 12.4 All role players identified by the JOC accredited. 12.5 Accreditation done at the entrance to the incident scene as determined by the JOC.		**JOC, SAPS** **IC, JOC, SAPS** **JOC** **JOC** **JOC**	
13	Activating resources: 13.1 Responsibility of JOC.		**JOC**	
14	Determine transportation grid: 14.1 Responsibility of traffic, dept. Traffic. 14.2 Determined by JOC.		**Traffic, dept Transport** **JOC**	
15	Determine possible entry and exit points: 15.1 Activation of transport contingency plan.		**JOC**	
16	Consider secondary risks (Knock-on effects): 16.1 Responsibility of JOC.		**JOC**	
17	Method of identification: 17.1 Determined by SAPS, SANDF, traffic and private security firms.		**SAPS, SANDF, Traffic, PSF**	
18	Registration for different zones: 18.1 Responsibility of JOC and SAPS.		**JOC, SAPS**	
19	Media liaison:			

	19.1 Activation of public information contingency plan.		**JOC**	
20	Communication to internal and external role players, air traffic: 20.1 Responsibility of JOC. 20.2 Activation of emergency communication contingency plan.		 **JOC** **JOC**	
21	Crowd management: 21.1 Responsibility of SAPS and SANDF.		 **SAPS, SANDF**	
22	Visible policing: 22.1 Responsibility of SAPS. 22.2 Normal crime prevention and crowd control procedures implemented by SAPS.		 **SAPS** **SAPS**	
23	Trauma and counselling: 23.1 The need determined by JOC. 23.2 Main role players identified by JOC. 23.5 Budget responsibility of WRDM, finance department.		 **JOC** **JOC** **Dept. Finance**	
24	Establish of traffic warning zone: 24.1 Responsibility of traffic and department of transport.		 **Traffic, dept. Transport**	
25	Determine loading zones: 25.1 Determined by JOC.		 **JOC**	
26	De-zone the area: 26.1 Responsibility of SAPS.		 **SAPS**	
27	De-JOC: 27.1 Role players identified by SAPS and DM. 27.4 De-JOC phase determined by JOC.		 **SAPS, DM** **JOC**	
28	Constant monitoring of the situation: 28.1 JOC coordinates and monitors.		 **JOC**	

6. CHAIN OF MANAGEMENT (also referred to as "chain of command")

7. COMMUNICATION

This section should give clear guidance as to the lines of communication relating to the generic action(s) in question. This section must contain a list of contact detail (24 hour basis) of all the relevant role-players, which needs to be contacted. This communication structure should be directly linked to the incident management model employed by the FDDM.

Name	Designation	Cell no.	Home Tel no:	Work Tel no:	E-mail
Maj. Kock	SAPS	082 463 7046		0187879330	
E Koloi	HOC	0832676601		0114115000	ekoloi@wrdm.gov.za
L Rabotapi	SANDF	0731647073		0182891370	
M Masalesa	Traffic	0836487590		0187889739	mmasalesa@merafong.gov.za
N Mfene	Health Service	0712032717		0182975060	NMfen@nwgp.gov.za
N Khats	Fire	078 203 5662		0187862224	

8. LOGISTIC SUPPORT

Logistical support entails any special considerations, which will be necessary for the effective implementation of this contingency plan. Such support might relate to pre-arrangements with external role-players (e.g. for the provision of food and shelter). Aspects included under this section should assume that these resources would be available once called upon by the department/municipal entity.

Set-up of special databases
Radio communication
Distinguish between logistics for internal needs and external needs

9. SPECIAL CONSIDERATIONS AND KNOCK-ON EFFECTS

- Development and updating of existing resources database (internal and external)
- Clarification of the role of SAPS and SANDF
- Wrong information, misleading the public
- Public unrest
- Crime
- Disease outbreak

ANNEXURE 2: CONTINGENCY PLAN FOR EVACUATION AND SHELTERING

LEAD AGENT: SAPS, DM

SUPPORTING AGENT: SANDF, TRAFFIC, HEALTH SERVICES, DEPARTMENT OF HOME AFFAIRS

Document Information		
Document Version Number	Version 001	
Document Type	Generic Contingency Plan	
Short Title	Evacuation and Sheltering plan	
Long Title	Evacuation and Sheltering generic contingency plan	
Applicability	Circumstances: Evacuation and Sheltering of citizen during a major incident. Functions: To guide and direct the evacuation and sheltering of citizens during a major accident	
Status	e.g. Draft.	
Main Contributors	• SAPS o Health services o Traffic o Fire Brigade Services • District Disaster Management Centre	
Author	Draft 001: Disaster Management Centre	
Date of this Compilation	2 March 2009	
Signed off	**Proposed by: Date**	**Authorised by: Date**
	________________ [name here] ________________ [name here] ________________ [add more names if required here] ________________ [add more names if required here]	________________ [name here] ________________ [name here] ________________ [add more names if required here] ________________ [add more names if required here]
Other contingency plans which has a direct bearing on this contingency plan	• Emergency Communication Contingency Plan • Emergency Financial Procedures • Search and Rescue Plan • Access control and Security Plan • Relief and Logistics Plan • Industrial accident Plan	

7. AIM OF THE PLAN

The aim of this contingency plan is to ensure the safe and orderly evacuation of citizens as well as sheltering during or after major incidents within the MCLM

8. SCOPE OF THE PLAN

This plan applies to the occurrence of any major incident within the MCLM. This plan is developed to evacuate and shelter affected citizens during or after a major incident seen.

This plan applies to the following circumstances:

- Major incidents (industrial, civil unrests, fire related, flooding and displacements) as well as a disaster.
- Multi-disciplines involved
- Incidents with a significant impact
- Once a JOC is activated

This plan does not apply to the following circumstances:

- Where any other contingency plan, emergency procedure is sufficient to cope with the situation.
- This plan does not apply in the event that the Gauteng Provincial Disaster Management Centre or the National Disaster Management Centre have activated one of their contingency plans pertaining to this specific hazard type, circumstances and geographical area
- This plan does not apply in the event that any security-providing agent (SAPS, SANDF) has already implemented their own contingency plan within the district.

9. PRIMARY RESPONSIBILITY

The South African Police Services and Disaster Management Centre have primary responsibility in the coordination of citizen evacuations, sheltering access and control as well as security. The following persons should be contacted immediately once the agreed thresholds have been breached:

Line of management	Name	Designation	Cell no	Work no	Home no	E-mail
1st order	Maj. Kock	SAPS	082 463 7046	0187879330		
2nd order	D Lesotho	DM	0784591175	0187889721		dlsotho@merafong.gov.za
3rd order	N Khats	DM	078 203 5662	0114115000		wmyburg@wrdm.gov.za

10. SECONDARY RESPONSIBILITY

The Local, Provincial Traffic departments, Fire and SANDF have secondary responsibility in the coordination of citizen evacuations. The following persons should be contacted immediately once the agreed thresholds have been breached:

Line of management	Name	Designation	Cell no	Work no	E-mail
1st order	Nthako	PT		0112784000	
2nd order	L Rabotapi	SANDF	0731647073	0182891396	
3rd order (NOTE: can be more than 3)	Moss Masalesa	LT	0836487590	0187889739	mmasalesa@merafonh.gov.za

11. PHASES OF ACTION

Action Steps:

Action and steps to be take: Evacuation and Sheltering Planning				
No.	**Action(s)**	**Start & End Date**	**Responsible Person and partnership**	**Output**
1	Identify the specific threat: 1.3 The SAPS as well as the disaster management centre is responsible for identifying a specific threat. 1.4 Establish the JOC, in conjunction with the incident command.		**SAPS, HOC** **SAPS, HOC**	
2	Determine role players: 2.1 Determined by JOC 2.2 Activated by SAPS and head commander of the incident command. 2.3 When JOC thinks it necessary.		**SAPS, head of JOC** **SAPS**	
3	Cordon the area off: 3.1 SAPS, traffic and SANDF responsible. 3.2 Determined by JOC.		**SANDF, SAPS** **SAPS**	
4	Evacuate the people: 4.1 Responsibility of SAPS, SANDF, traffic and DM. 4.2 Identifying a determined designated area.		**SAPS, SANDF, Traffic** **JOC**	
5	Report at a nodal point: 5.1 Responsibility of SAPS, DM and SANDF. 5.2 Procedure determined by the JOC.		**SAPS, SANDF, DM** **JOC**	
6	Holding area: 6.1 Responsibility of SAPS, SANDF and DM. 6.2 Procedure determined by the JOC.		**SAPS, SANDF, DM** **JOC**	

7	Determine entry and exit routs: 7.1 Responsibility of SAPS, DM, SANDF, traffic and transport department. 7.2 Procedure determined by the JOC.		**SAPS, SANDF, DM, Traffic, Dept. Transport** **JOC**	
8	Inform the media, public and politicians: 8.1 Activation of public information contingency plan. 8.2 Database created by DM, SAPS and home affairs. 8.3 DM used as a central operating area. 8.4 Monitored and coordinated by JOC. 8.5 Information communicated through the public information plan.		**JOC** **DM, HA, SAPS** **DM** **JOC** **JOC**	
9	Activate other role players and resources: 9.1 The SAPS and DM is responsible. 9.2 Determined by JOC.		**JOC** **JOC**	
10	Decide upon specific routes: 10.1 Determined by JOC, traffic, Dept. Transport.		**JOC**	
11	System to classify the role players and zones: 11.1 Responsibility of SAPS, JOC, DM,		**JOC**	
12	Accreditation system: 12.1 Determined by JOC and SAPS. 12.2 Activated, determined by incident command, SAPS, JOC. 12.3 Responsibility of SAPS, traffic, DM and private security firms. 12.4 All role players identified by the JOC accredited. 12.5 Accreditation done at the entrance to the incident scene as determined by the JOC.		**JOC, SAPS** **IC, JOC, SAPS** **JOC** **JOC** **JOC**	
13	Activating resources: 13.1 Responsibility of JOC.		**JOC**	
14	Determine transportation grid: 14.1 Responsibility of traffic, dept. Traffic. 14.2 Determined by JOC.		**Traffic, dept Transport** **JOC**	
15	Determine possible entry and exit points: 15.1 Activation of transport contingency plan.		**JOC**	
16	Consider secondary risks (Knock-on effects): 16.1 Responsibility of JOC.		**JOC**	
17	Method of identification: 17.1 Determined by SAPS, SANDF, traffic and private security firms.		**SAPS, SANDF, Traffic, PSF**	

18	Registration for different zones: 18.1 Responsibility of JOC and SAPS.		**JOC, SAPS**	
19	Media liaison: 19.1 Activation of public information contingency plan.		**JOC**	
20	Communication to internal and external role players, air traffic: 20.1 Responsibility of JOC. 20.2 Activation of emergency communication contingency plan.		**JOC** **JOC**	
21	Crowd management: 21.1 Responsibility of SAPS and SANDF.		**SAPS, SANDF**	
22	Visible policing: 22.1 Responsibility of SAPS. 22.2 Normal crime prevention and crowd control procedures implemented by SAPS.		**SAPS** **SAPS**	
23	Trauma and counselling: 23.1 The need determined by JOC. 23.2 Main role players identified by JOC. 23.5 Budget responsibility of FDDM, finance department.		**JOC** **JOC** **Dept. Finance**	
24	Establish of traffic warning zone: 24.1 Responsibility of traffic and department of transport.		**Traffic, dept. Transport**	
25	Determine loading zones: 25.1 Determined by JOC.		**JOC**	
26	Provide basic services 26.1 Activate Relief and Logistics Contingency Plan		**JOC**	
27	De-zone the area: 27.1 Responsibility of SAPS.		**SAPS**	
28	De-JOC: 28.1 Role players identified by SAPS and DM. 28.4 De-JOC phase determined by JOC.		**SAPS, DM** **JOC**	
29	Constant monitoring of the situation: 29.1 JOC coordinates and monitors.		**JOC**	

12. CHAIN OF MANAGEMENT (also referred to as "chain of command")

7. COMMUNICATION

This section should give clear guidance as to the lines of communication relating to the generic action(s) in question. This section must contain a list of contact detail (24 hour basis) of all the relevant role-players, which needs to be contacted. This communication structure should be directly linked to the incident management model employed by the FDDM.

Name	Designation	Cell no.	Work Tel no:	E-mail
Maj Kock	SAPS	082 463 7046	0187879330	
E Koloi	HOC	083 267 6601	0114115000	ekoloi@wrdm.gov.za
L. Rabotapi	SANDF	0731647073	0182891396	
M. Masalesa	Traffic	0836487590	0187889739	Mmasalesa@merafong.gov
N. Mojanaga	Health Service		0184644075	nmojanaga@nwpg.gov.za
N Khats	Fire	078 203 5662	0187862224	

8. LOGISTIC SUPPORT

Logistical support entails any special considerations, which will be necessary for the effective implementation of this contingency plan. Such support might relate to pre-arrangements with external role-players (e.g. for the provision of food and shelter). Aspects included under this section should assume that these resources would be available once called upon by the department/municipal entity.
Set-up of special databases
Radio communication
Distinguish between logistics for internal needs and external needs

9. SPECIAL CONSIDERATIONS AND KNOCK-ON EFFECTS

- Development and updating of existing resources database (internal and external)
- Clarification of the role of SAPS and SANDF
- Wrong information, misleading the public
- Public unrest
- Crime
- Disease outbreak

ANNEXURE 3: CONTINGENCY PLAN FOR INDUSTRIAL/ MINING INCIDENTS FIRE SEARCH AN RESCUE

Document Information		
Document Version Number	Version 00.08	
Document Type	Contingency Plan	
Short Title	Fire, Search and Rescue	
Long Title	Contingency Plan for Fire, Search and Rescue	
Applicability	This plan applies in the case of a major fire within the West Rand District, where the need arises for search and rescue operations.	
Status	Draft	
Main Contributors	DM, ACDS	
Author		
Date of this Compilation	2 March 2009	
Signed off	**Proposed by: Date**	**Authorised by: Date**
	______________________ [name here] ______________________ [name here] ______________________ [add more names if required here] ______________________ [add more names if required here]	______________________ [name here] ______________________ [name here] ______________________ [add more names if required here] ______________________ [add more names if required here]
Other contingency plans which has a direct bearing on this contingency plan	• Evacuation and Sheltering Contingency Plans • Identification, Access control and Security Contingency Plans • Relief and Logistics Contingency Plans • Major Industrial/Mining Accident	

1. AIM OF THE PLAN

The aim of this plan is to ensure coordinated actions or responses to fire, search and rescue related actions associated with major incidents/disasters in the MCLM.

2. SCOPE OF THE PLAN

This plan applies to the occurrence of any fire, industrial incident or major incident within the municipal area of the MCLM, which requires a fire, search and rescue orientated response.

This plan applies to the following circumstances:

- Run-away fires in informal settlements
- Multiple structural fires
- Fires involving flammable liquids
- Uncontrolled seasonal bush fires
- Major hazardous installation
- Escalation to such an extent that it poses a threat to surrounding communities
- High rise building fires
- Air field fires
- Industrial accidents

Definition of resource depletion:

- When 70 % of resources are depleted;
- Activation of contingency plan by Senior Fire Officer
- Activation of off-duty personnel;
- Speed at which incident progresses/aggravates
- Activation of mutual aid agreement

Does not apply to:

a. Forewarning (through the MCLM, Gauteng or a national early warning system) is of such a nature that no timely intervention is needed immediately in order to mobilize additional resources to ensure this event does not escalate into a disaster.
b. The responsible municipal department or entity is convinced that their current resources will not soon be depleted.
c. The given hazard has not already breached the agreed upon threshold for normal operations (as per the hazard specific contingency plans).

This plan does not apply in the event that the Gauteng Provincial Disaster Management Centre or the National Disaster Management Centre have activated one of their contingency plans pertaining to this specific hazard type, circumstances and geographical area"

3. PRIMARY RESPONSIBILITY

The primary responsibility lies with the municipal fire services, which will retain ownership of this plan.

Line of management	Name	Designation	Cell no	Work no	E-mail
1st order	E. Koloi	Chief Commander, Fire Services	0832676601	0114115000	ekoloi@wrdm.gov.za
2nd order	N. Katz	Deputy Chief Commander, Fire Services	078 203 5662	0187716023	Station10@wrdm.gov.za

4. SECONDARY RESPONSIBILITY

Assisting the fire department is EMRS, SAPS, DM, private ambulances and fire services, FPA's, departments of traffic, social services, department of finance and the SANDF.

Line of management	Name	Designation	Cell no	Work no	E-mail
1st order	Rose Mere	EMRS	0833193439	0184862805	
2nd order	Maj. Kock	SAPS	082 463 7046	0187879330	
3d order	David Lesotho	DM	0784591175	0187889721	dlesotho@merafong.gov.za
4th order	Netcare	Private Ambulances and Private Fire Services	911		
5th order	Nthako	Traffic (provincial and local)		0112784000	
6th order	A Schlebusch	Social Services	0824462523	0184625031	AnnatjieS@nwpg.gov.za
7th order	T. Wienekus	Finance	0833019576	0187889551	twienekus@merafong.gov.za
8th order	L. Rabotapi	SANDF	0731647073	0182891370	

5. PHASES OF ACTION

Action Steps:

Action and steps to be take:

Fire, Search and Rescue Planning

No.	Action(s)	Start & End Date	Responsible Person and partnership	Output
1	Expand incident command to a JOC: 1.5 Head of incident command responsible. 1.6 Establish the JOC, in conjunction with the incident command.		**IC** **IC, HOC**	
2	Determine role players: 2.1 Determined by JOC		**Fire, head of JOC**	
3	Cordon the area off: 3.1 SAPS, traffic and SANDF responsible.		**SANDF, SAPS**	
4	Access control and security: 4.1 Responsibility of JOC, SAPS activate access control and security contingency plan		**SAPS** **JOC**	
5	Report at a nodal point: 5.1 Responsibility of SAPS, DM and SANDF. 5.2 Procedure determined by the JOC.		**SAPS, SANDF, DM** **JOC**	
6	Contact South African Weathers services: 6.1 Responsibility of fire representative in JOC .		**JOC, Fire Services**	
7	Evacuate all people who are in danger:		**SAPS, SANDF, DM,**	

	7.1 Responsibility of SAPS, JOC, DM, SANDF, traffic and transport department. 7.2 Activate evacuation and sheltering contingency plan		**Traffic, Dept. Transport** **JOC**	
8	Inform the media, public and politicians: 8.1 Activation of public information contingency plan. 8.2 Database created by DM, SAPS and home affairs. 8.3 DM used as a central operating area. 8.4 Monitored and coordinated by JOC. 8.5 Information communicated through the public information plan.		**JOC** **DM, HA, SAPS** **DM** **JOC** **JOC**	
9	Activate other role players and resources: 9.1 The SAPS and DM is responsible. 9.2 Determined by JOC.		**JOC** **JOC**	
10	Fire breaks 10.1 Responsibility of Fire department		**Fire**	
11	Crowd control and crime prevention 11.1 Responsibility of SAPS, SANDF		**SAPS, SANDF**	
12	Activating resources: 12.1 Responsibility of JOC.		**JOC**	
13	Consider secondary risks (Knock-on effects): 13.1 Responsibility of JOC.		**JOC**	
14	Media liaison: 14.1 Activation of public information contingency plan.		**JOC**	
15	Communication to internal and external role players, air traffic: 15.1 Responsibility of JOC. 15.2 Activation of emergency communication contingency plan.		**JOC** **JOC**	
16	Trauma and counselling: 16.1 The need determined by JOC. 16.2 Main role players identified by JOC. 16.3 Budget responsibility of MCLM, finance department.		**JOC** **JOC** **Dept. Finance** **Social Services**	
17	Establish of traffic warning zone: 17.1 Responsibility of traffic and department of transport.		**Traffic, dept. Transport**	
18	De-zone the area: 18.1 Responsibility of SAPS.		**SAPS**	
19	De-JOC: 19.1 Role players identified by SAPS and DM. 19.2 De-JOC phase determined by JOC.		**SAPS, DM** **JOC**	

20	Constant monitoring of the situation: 20.1 JOC coordinates and monitors.		**JOC**	

2. CHAIN OF MANAGEMENT (also referred to as "chain of command")

7. COMMUNICATION

This section should give clear guidance as to the lines of communication relating to the generic action(s) in question. This section must contain a list of contact detail (24 hour basis) of all the relevant role-players, which needs to be contacted.

This communication structure should be directly linked to the incident management model employed by the MCLM.

Name	**Designation**	**Cell no.**	**Work Tel no:**	**E-mail**
Maj. Kock	SAPS	082 463 7046	0187879330	
E Koloi	HOC	0083 267 6601	0114115000	ekoloi@wrdm.gov.za
Tswite	SANDF	0786613613		
M Masalesa	Traffic	0836487590	0187889739	mmasalesa@merafong.gov.za
N Mfene	Health Service	0712032717	0182975060	NMfene@nwgp.gov.za
N Khats	Fire	078 203 5662	0187879300	
CE Spies	Head of communication at the FDDM	083645798	0187889598	cespies@merafong.gov.za

3. LOGISTIC SUPPORT

Logistical support entails any special considerations, which will be necessary for the effective implementation of this contingency plan. Such support might relate to pre-arrangements with external role-players (e.g. for the provision of food and shelter). Aspects included under this section should assume that these resources would be available once called upon by the department/municipal entity.

Knock-effects:

- Smoke inhalation and secondary effects caused by the fire
- Environmental pollution
- Poor visibility, causing further problems on roads
- Crowd control, crime prevention problems
- Panic, road congestion and further disruption caused by the fire
- Financial implications

ANNEXURE 4: CONTINGENCY PLAN FOR INDUSTRIAL/ MINING INCIDENTS

LEAD AGENT: SAPS, FIRE SERVICES, DM
SUPPORTING AGENT: SANDF, TRAFFIC, HEALTH SERVICES, DEPARTMENT OF HOME AFFAIRS, MINIG OR PRIVATE INDUSTRIAL COPANIES

<table>
<tr><th colspan="3">Document Information</th></tr>
<tr><td>Document Version Number</td><td colspan="2">Version 001</td></tr>
<tr><td>Document Type</td><td colspan="2">Generic Contingency Plan</td></tr>
<tr><td>Short Title</td><td colspan="2">Industrial/Mining Accident Plan</td></tr>
<tr><td>Long Title</td><td colspan="2">Industrial or Mining Accident Evacuation generic contingency plan</td></tr>
<tr><td>Applicability</td><td colspan="2">Circumstances:
Response and Activity during a major industrial or mining incident.
Functions:
To guide and direct the response, coordination and actions to be taken during a major industrial or mining accident</td></tr>
<tr><td>Status</td><td colspan="2">e.g. Draft.</td></tr>
<tr><td>Main Contributors</td><td colspan="2">• SAPS
    o Traffic
    o Fire Brigade Services
• District Disaster Management Centre</td></tr>
<tr><td>Author</td><td colspan="2">Draft 001: Disaster Management Centre</td></tr>
<tr><td>Date of this Compilation</td><td colspan="2">2 March 2009</td></tr>
<tr><td>Signed off</td><td>Proposed by: Date</td><td>Authorised by: Date</td></tr>
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[add more names if required here]</td></tr>
<tr><td>Other contingency plans which has a direct bearing on this contingency plan</td><td colspan="2">• Emergency Communication Contingency Plan
• Emergency Financial Procedures
• Search and Rescue Plan
• Access control and Security Plan
• Relief and Logistics Plan
• Industrial accident Plan</td></tr>
</table>

13. AIM OF THE PLAN

The aim of this contingency plan is to ensure that the correct response and actions are taken during and after the event of a major industrial or mining incident, or disaster

14. SCOPE OF THE PLAN

This plan applies to the occurrence of any major incident within the WRDM. This plan is developed to insure the immediate, correct and sufficient response to the occurrence of a major industrial or mining accident within the WRDM.

This plan applies to the following circumstances:

- Major incidents (industrial, civil unrests, fire related, flooding and displacements) as well as a disaster.
- Multi-disciplines involved
- Incidents with a significant impact
- Once a JOC is activated

This plan does not apply to the following circumstances:

- Where any other contingency plan, emergency procedure is sufficient to cope with the situation.
- This plan does not apply in the event that the Gauteng Provincial Disaster Management Centre or the National Disaster Management Centre have activated one of their contingency plans pertaining to this specific hazard type, circumstances and geographical area
- This plan does not apply in the event that any security-providing agent (SAPS, SANDF) has already implemented their own contingency plan within the district.

15. PRIMARY RESPONSIBILITY

The Fire Services and Disaster Management Centre have primary responsibility in the coordination of a major industrial or mining accident. The following persons should be contacted immediately once the agreed thresholds have been breached:

Line of management	Name	Designation	Cell no	Work no	E-mail
1st order	N Khats	Fire Services	078 203 5662	0187862224	
2nd order	David Lesotho	DMO	0784591175	018788 5721	dlesotho@merafong.gov.za

16. SECONDARY RESPONSIBILITY

The SAPS, Local, Provincial Traffic departments, Private Mining Rescue Units and SANF have secondary responsibility in the coordination of citizen evacuations. The following persons should be contacted immediately once the agreed thresholds have been breached:

Line of management	Name	Designation	Cell no	Work no	E-mail
1st order	Maj. Kock	SAPS	082 463 7046	0187879330	
2nd order (NOTE: can be more than 4)	Supt. N Masalesa P Olivier W Sosibo J Songela	LT	 0836427383 0836427379 0836427382 0836487571	 0187889736 0187869840 0187889731 0187869736	 nmasalesa@merafong.gov.za polivier@merafong.gov.za wsosibo@merafong.gov.za jsongela@merafong.gov.za

17. PHASES OF ACTION

Action Steps:

Action and steps to be take: Industrial/Mining Accident Planning				
No.	**Action(s)**	**Start & End Date**	**Responsible Person and partnership**	**Output**
1	Identify the specific threat: 1.7 The Fire Services as well as the disaster management centre is responsible for identifying a specific threat. 1.8 Establish the JOC, in conjunction with the incident command.		**Fire Services, HOC** **Fire Services, HOC**	
2	Determine role players: 2.1 Determined by JOC 2.2 Activated by Fire Services and head commander of the incident command. 2.3 When JOC thinks it necessary.		**Fire Services, head of JOC** **SAPS**	
3	Cordon the area off: 3.1 SAPS, traffic and SANDF responsible. 3.2 Determined by JOC.		**SANDF, SAPS** **SAPS**	
4	Evacuate the people: 4.1 Responsibility of SAPS, SANDF, traffic and DM. 4.2 Identifying a determined designated area.		**SAPS, SANDF, Traffic** **JOC**	
5	Contain possible chemical/industrial spills: 5.1 Responsibility of Fire Services, DM. 5.2 Procedure determined by the JOC.		**Fire Services, DM** **JOC**	
6	Activation of specialised units: 6.1 Responsibility of Fire Services, Finance and DM. 6.2 Procedure determined by the JOC.		**Fire Services, Finance, DM** **JOC**	
7	Determine entry and exit routs: 7.1 Responsibility of SAPS, DM, SANDF, traffic and transport department. 7.2 Procedure determined by the JOC.		**SAPS, SANDF, DM, Traffic, Dept. Transport** **JOC**	
8	Inform the media, public and politicians: 8.1 Activation of public information contingency plan. 8.2 Database created by DM, SAPS and home affairs. 8.3 DM used as a central operating area. 8.4 Monitored and coordinated by JOC. 8.5 Information communicated through the public information plan.		**JOC** **DM, HA, SAPS** **DM** **JOC** **JOC**	

9	Activate other role players and resources: 9.1 The Fire Services and DM is responsible. 9.2 Determined by JOC.		**JOC** **JOC**	
10	Decontamination of site: 10.1 Determined by JOC, traffic, Department of Health and Environmental Services.		**JOC**	
11	Medical care 11.1 Need for medical care determined by JOC, Department of Health and Private Medical Institutions		**JOC**	
12	Constant evaluation of situation 12.1 Determined by and monitored JOC		**JOC**	
13	Activating resources: 13.1 Responsibility of JOC.		**JOC**	
14	Consider secondary risks (Knock-on effects): 14.1 Responsibility of JOC.		**JOC**	
15	Media liaison: 15.1 Activation of public information contingency plan.		**JOC**	
16	Communication to internal and external role players, air traffic: 16.1 Responsibility of JOC. 16.2 Activation of emergency communication contingency plan.		**JOC** **JOC**	
17	Crowd management: 17.1 Responsibility of SAPS and SANDF.		**SAPS, SANDF**	
18	Visible policing: 18.1 Responsibility of SAPS. 18.2 Normal crime prevention and crowd control procedures implemented by SAPS.		**SAPS** **SAPS**	
23	Trauma and counselling: 23.1 The need determined by JOC. 23.2 Main role players identified by JOC. 23.5 Budget responsibility of FDDM, finance department.		**JOC** **JOC** **Dept. Finance**	
24	Establish of traffic warning zone: 24.1 Responsibility of traffic and department of transport.		**Traffic, dept. Transport**	

25	Determine loading zones: 25.1 Determined by JOC.		**JOC**	
26	Provide basic Medical Care 26.1 Department of Health		**JOC**	
27	De-zone the area: 27.1 Responsibility of SAPS.		**SAPS**	
28	De-JOC: 28.1 Role players identified by Fire Services and DM. 28.4 De-JOC phase determined by JOC.		**SAPS, DM** **JOC**	
29	Constant monitoring of the situation: 29.1 JOC coordinates and monitors.		**JOC**	

18. CHAIN OF MANAGEMENT (also referred to as "chain of command")

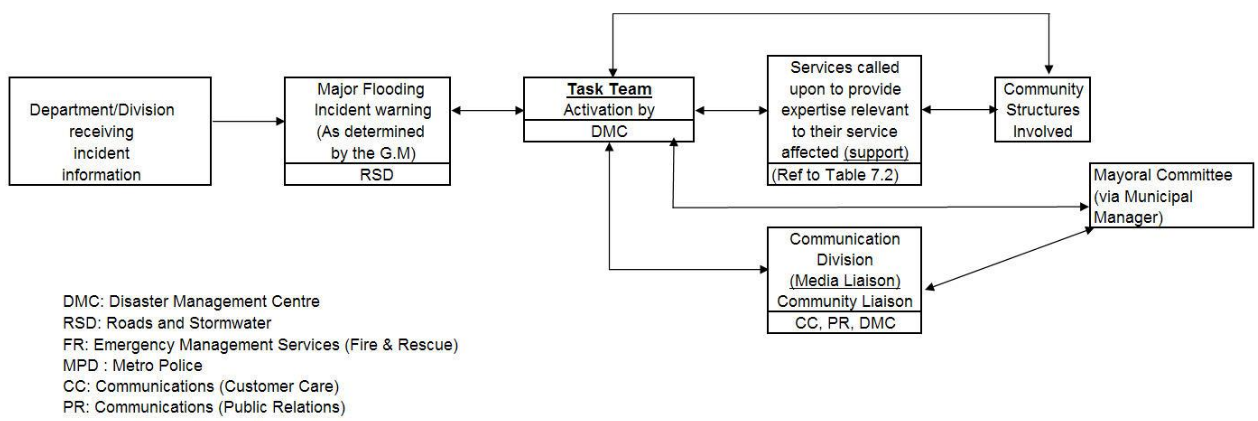

Figure 7.1: Typical Flow Chart 1: Chain of Command at Strategic Level during Major Flooding Incident

This section should clearly spell out the chain of management. This chain of management must be linked to all phases as described above. Diagrams (such as the one below) can be used to facilitate understanding and decision-making.

7. COMMUNICATION

This section should give clear guidance as to the lines of communication relating to the generic action(s) in question. This section must contain a list of contact detail (24 hour basis) of all the relevant role-players, which needs to be contacted. This communication structure should be directly linked to the incident management model employed by the FDDM.

Name	Designation	Cell no.	Work Tel no:	E-mail
N Khatz	Fire Services	078 203 5662	0187862224	
Maj. Kock	SAPS	082 463 7046		
E Koloi	HOC	083 267 6601	011 411 5000	ekoloi@wrdm.gov.za

L Rabotapi	SANDF	0731647073	0182891370	
M Masalesa	Traffic		0187889739	mmasalesa@merafong.gov.za
N Mfene	Health Service	0712032717	0182975060	NMfene@nwgp.gov.za

8. LOGISTIC SUPPORT

Logistical support entails any special considerations, which will be necessary for the effective implementation of this contingency plan. Such support might relate to pre-arrangements with external role-players (e.g. for the provision of food and shelter). Aspects included under this section should assume that these resources would be available once called upon by the department/municipal entity.
Set-up of special databases
Radio communication
Distinguish between logistics for internal needs and external needs

9. SPECIAL CONSIDERATIONS AND KNOCK-ON EFFECTS

- Development and updating of existing resources database (internal and external)
- Clarification of the role of SAPS and SANDF
- Wrong information, misleading the public
- Public unrest
- Crime
- Disease outbreak

ANNEXURE 5: CONTINGENCY PLAN FOR RELIEF AND LOGISTICS

LEAD AGENT: DM **SUPPORTING AGENT: FINANCE DEPARTMENT**

<table>
<tr><th colspan="3">Document Information</th></tr>
<tr><td>Document Version Number</td><td colspan="2">Version 001</td></tr>
<tr><td>Document Type</td><td colspan="2">Generic Contingency Plan</td></tr>
<tr><td>Short Title</td><td colspan="2">Relief and Logistics</td></tr>
<tr><td>Long Title</td><td colspan="2">Relief and Logistics Generic Contingency Plan</td></tr>
<tr><td>Applicability</td><td colspan="2">Circumstances:
Where people need to be relieved during an incident or disaster
Functions:
To guide and direct incident assistance in terms of Relief and Logistics needs</td></tr>
<tr><td>Status</td><td colspan="2">Draft</td></tr>
<tr><td>Main Contributors</td><td colspan="2">• Finance
• Fire
• Technical services
• SANDF
• Public works
• Department of transport (provincial)
• Traffic
• Communication department
• SA Red Cross Society</td></tr>
<tr><td>Author</td><td colspan="2">Draft 001: Disaster Management Centre</td></tr>
<tr><td>Date of this Compilation</td><td colspan="2">2 March 2009</td></tr>
<tr><td>Signed off</td><td>Proposed by: Date</td><td>Authorised by: Date</td></tr>
<tr><td></td><td>[name here]

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<tr><td>Other contingency plans which has a direct bearing on this contingency plan</td><td colspan="2">• Emergency Communication Contingency Plan
• Fire Search and Rescue Contingency Plan
• Evacuation and Shelter Contingency Plan
• Industrial accident Contingency Plan</td></tr>
</table>

19. AIM OF THE PLAN

The aim of this contingency plan is to ensure the coordinated provision of logistics and relief measure to affected communities due to major incidents within the MCLM.

20. SCOPE OF THE PLAN

This plan applies to the occurrence of any hazard within the municipal area of the WRDM, which requires an evacuation of the citizens in the area under threat and providing relief for these citizens.

This plan applies to the following circumstances:

- Out of the ordinary situation
- When people have been physically or geographically displaced
- Life threatening situations
- In the absence of community resources to cope with the situation
- An extra ordinary event that causes major disruption within the community

This plan does not apply to the following circumstances:

a. Forewarning (through the WRDM, Gauteng Provincial or a national early warning system) is of such a nature that timely intervention is needed immediately in order to mobilise additional resources to ensure this event does not escalate into a disaster.
b. The responsible municipal department or entity is convinced that their current resources will not soon be depleted.
c. The given hazard has not already breached the agreed upon threshold for normal operations (as per the hazard specific contingency plans).

This plan does not apply in the event that the Gauteng Provincial Disaster Management Centre or the National Disaster Management Centre have activated one of their contingency plans pertaining to this specific hazard type, circumstances and geographical area.

21. PRIMARY RESPONSIBILITY

The WRDM Disaster Management Centre and South African Police Services have primary responsibility in the coordination providing relief and logistics during and after the event of a major incident:

Line of management	Name	Designation	Cell no	Work no	E-mail
1st order	E Koloi	DM/HOC	083 267 6601	011 411 5000	ekoloi@wrdm.gov.za
2nd order	Maj. Kock	SAPS	082 463 7046		

22. SECONDARY RESPONSIBILITY

Department of housing, Social Services and Finance has secondary responsibility in the coordination of citizen evacuations. The following persons should be contacted immediately once the agreed thresholds have been breached:

Line of management	Name	Designation	Cell no	Work no	E-mail
1st order	A Nieuwoudt	Housing and Finance	0829205222	0187869621	cwanieuwoudt@merafong.gov.za

2nd order	Ms D Maseloane	Social Services		0187860841	
3rd order (NOTE: can be more than 3)	AR Ngwenya	Finance		0187869551	twienekus@merafong.gov.za

PHASES OF ACTION

Action steps:

Action and steps to be take: Relief and Logistics Contingency Planning Cluster				
No.	**Action(s)**	**Start & End Date**	**Responsible Person and partnership**	**Output**
1	Create a disaster fund: 1.1 The department of finance and DM is responsible 1.2 The fund must be established as soon as normal financing is depleted		**Finance, DM**	
2	Identify logistical requirements: 2.1 The DM and SAPS is responsible 2.2 Establishing a JOC		**DM, SAPS** **DM, SAPS**	
3	Determine number of people affected: 3.1 DM and Social Services is responsible		**DM, SS**	
4	Determine relief period: 4.1 Finance, DM, Social services and SAPS is responsible 4.2 Asses and determine affected communities 4.3 Operations will be done from DM 4.4 Keep record of affected communities		**Finance, SAPS, SS** **DM, SS, Det. Of Housing** **HOC** **Home affairs, SS**	
5	Identify external relief: 5.1 Finance and DM is 5.2 Liaise and coordinate with advisory forum		**DM, Finance** **HOC**	
6	Identify temporary shelter: 6.1 DM and Town Planning is responsible		**DM, TP**	
7	Communicate clearly with affected population: 7.1 DM and WRDM communications officer is responsible		**DM, Head of Communications**	
8	Determine basic needs: 8.1 DM, Social Services and finance is responsible 8.2 Determine time frame for relief		**DM, SS, Finance** **DM, Finance**	
9	Register people on register:			

	9.1 DM, SAPS, Home Affairs is responsible 9.2 Procedure determined by JOC 9.3 Registration to commence as soon as a area have been identified, and people are evacuated		**HA, DM, SAPS** **JOC** **JOC**	
10	Quantify relief package: 10.1 Social Services, DM and Finance is responsible		**DM, SS, Finance, JOC**	
11	Ablution facilities: 11.1 Technical Services, Finance and JOC is responsible		**TS, JOC, Finance**	
12	Activation of transportation contingency plan: 12.1 The JOC is responsible		**JOC**	
13	Identify storehouse area: 13.1 The DM and Technical Services is		**TS, DM**	
14	Manage unsolicited relief donations: 14.1 The DM is responsible 14.2 Coordinate with religious leaders, churches and NGO's		**DM** **RL, Churches, NGO's**	
15	Establish relief fund: 15.1 Finance is responsible		**Finance**	
16	Supply chain management: 16.1 The DM is responsible 16.2 Coordination through JOC		**DM** **JOC**	
17	Registration of relief organizations: 17.1 DM, JOC and Finance is responsible 17.2 Coordinate through advisory forum		**JOC, Finance, DM** **HOC**	
18	Media liaison: 18.1 The JOC and head of FDDM communications are responsible 18.2 Activate Public Information contingency plan		**Head of comss, JOC** **JOC**	
19	Access control and security: 19.1 SAPS, SANDF, Traffic and Private Security Firms are responsible 19.2 Activate access control and security contingency plan		**SAPS, SANDF, Traffic, PSF** **JOC**	
20	Culture and religious considerations: 20.1 Social Services and DM are responsible 26.2 Coordination with religious leaders, NGO's and churches		**SS, DM** **Advisory Forum**	
21	Safety and security:			

	21.1 SAPS and SANDF are responsible		**SAPS, SANDF**	
22	Interpreters: 22.1 The JOC will establish the need 22.2 Finance will be responsible for a budget		**JOC** **Finance**	
23	Setting up a info / call centre: 23.1 The DM and Head of WRDM Communications are responsible 23.2 Call centre will function as information centre, lost and found and awareness centre		**HOC, Head of comms**	
24	Relief for animals: 24. SPCA and Environmental Affairs and Health services will be responsible		**SPCA, EA, HS**	

6. CHAIN OF MANAGEMENT (also referred to as "chain of command")

This section should clearly spell out the chain of management. This chain of management must be linked to all phases as described above. Diagrams (such as the one below) can be used to facilitate understanding and decision-making.

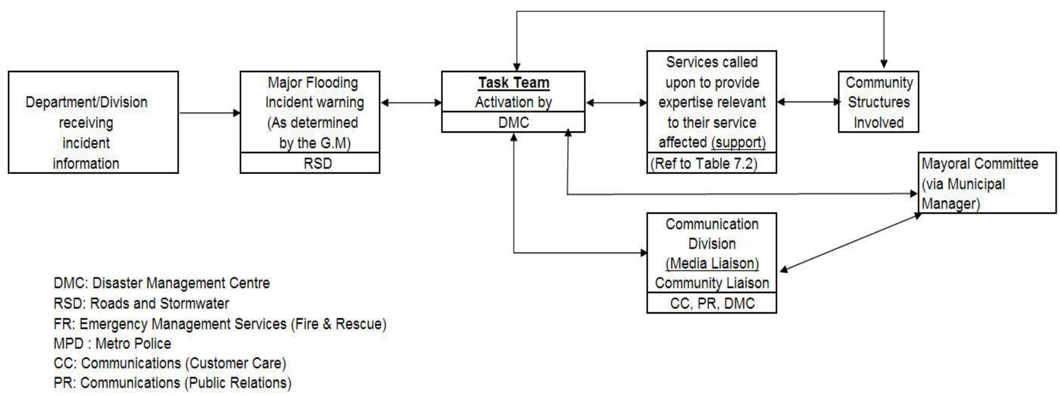

Figure 7.1: Typical Flow Chart 1: Chain of Command at Strategic Level during Major Flooding Incident

7. COMMUNICATION

This communication structure should be directly linked to the incident management model employed by the FDDM.

Name	Designation	Cell no.	Work Tel no:	E-mail
A Fourie	Coordinator EOC	083 460 8460	011 951 3000	afourie@wrdm.gov.za
C Spies	Manager Corporate Communication	0836457986	0187889598	cespies@merafong.gov.za

8. LOGISTIC SUPPORT

- All relevant role-players in terms of transport, basic services and health services
- SANDF
- SAPS
- Traffic
- NGO's
- Department of Health – Mobile Clinics
- Technical Services
- Public works

9. SPECIAL CONSIDERATIONS AND KNOCK-ON EFFECTS

- Increase of number of affected people (escalation of survivors)
- Resistance against relocation
- Development and updating of Relief and Logistics database (internal and external)
- Safety and security of relocation area and property
- Service level agreements with external service providers
- Link to Finances cluster contingency plan

ANNEXURE J 6.1

DOLOMITE RISK MANAGEMENT PLAN

MERAFONG CITY LOCAL MUNICIPALITY

WHO SHOULD COMPLAINTS BE REPORTED TO?

During normal working hours : Office Civil Engineering: 018 788 9602
During week-ends/holidays : Standby Personnel
During an emergency (urgent) disaster : Manager Civil Engineering: S. Manganyi: 018 788 9780/
083
637 0803

E. LIST OF KEY PERSONNEL

NAME	DESIGNATION	TELEPHONE
Moyo	Manager Civil Eng	018 788 9780/
E Mantjane	Manager: Water Services	018 788 9784 /
A. Phephetheni	Roads & Stormwater	018 788 9771 / 082 857 9976
	Chief B. Inspector	018 788 9691

DOLOMITE RISK MANAGEMENT STRATEGY

DOLOMITE RISK MANAGEMENT

CONTENT

Section A: Background
Section B: The problem.
Section C: How do we deal with the problem?
Section D: Legal implications
Section E: Critical issues.
Section F: The solution! Way forward.
Section G: Specific recommendations

SECTION A:

Background:

GEOLOGY OF GAUTENG

General info:

Dolomite occurs in various parts of the country
25% Of Gauteng Province Is Dolomitic
5% to 10% of S.A.
Commercial, Industrial Mining And Economic Centre Of S.A.
3-4 million people live on dolomite in region
Distribution of dolomite Merafong
50% of Merafong is underlain by dolomite.
Problems are occurring elsewhere in dolomite areas, but not on the scale of Merafong's problems.
What is dolomite?
Dolomite is a rock.
Calcium carbonate
Dissolves in water over millions of years.
Caves form in the dolomite.
Soil overlying the rock can collapse into the caves.

Caves ------------------------>

SECTION B:

The problem!
What are sinkholes and dolines?
Sinkholes are:
Are catastrophic
Are typically circular
May be 1m to 100m in diameter
May be 1m to 100m deep.
May cause loss of life/damage to property
38 deaths, 32 in this area.

Dolines are:
Less sharply defined
Occur slowly
Tens of metres to kilometres
Typically 0,5 t0 1m deep
Causes of sinkholes and dolines
Water infiltration into the ground e.g. from leaking water pipelines, sewers, storm water canals and pipes, ponding against houses, etc.
Artificial lowering of groundwater by mining activity, farming activity.
96% of sinkholes are man-induced.
Sinkholes on wet services routes
Ingress water triggers sinkhole
Ground water level draw down
Dolomitic profile showing soil filled fracture zones
Sinkhole formation due to leaking wet services
Sinkhole formation due to dewatering

SECTION C:

How do we deal with the problem?
To prevent or manage the situation, we need to understand that:
Sinkholes and dolines are rarely ‘acts of God’.
Human activities cause sinkhole and doline formation.
Negligence often results in sinkholes/dolines.
Actions taken:
Sites are investigated and classified.
Sites are classified into risk classes.
Use three broad categories: Low, medium and high risk.
Precautionary measures are applied in relation to the risk.
Develop appropriately in relation to risk.
Do not develop high-risk areas.

SITE INVESTIGATIONS INVOLVE:

Field mapping
Gravity surveys
Drilling boreholes
Digging test pits
Laboratory tests
Analysis
Risk Zoning

INHERENT RISK CHARACTERISATION AND ANTICIPATED NUMBER OF GROUND-MOVEMENT EVENTS

Risk & land use
Development on dolomite is feasible:
it must be appropriate in relation to the risk

MERAFONG: DOLOMITE AREAS

Merafong
In excess of 400 sinkholes and dolines have developed in the Merafong Region caused by both infiltrating water and dewatering

SECTION D:

Legal considerations
Merafong City Council could face potential claims.
Current knowledge of the problem makes the Council, Councillors and officials liable if positive action is not taken.
Failure to take appropriate and
urgent action may impose a legal liability in terms of:
The Occupational Health and Safety Act (Act 85 of 1993)
Dereliction of duty
Section 12 of Act 95 of 1998 (NHBRC)
Act 103 (1977) National Building Regulations
SANS 10400-B
Disaster Management Act
Municipal Systems Act 2000.
Section 152 of the Constitution of South Africa Act 108 of 1996, states "object of local government …
Section 1(d) ….to promote safe and healthy environment."
Section 24 of the Constitution states: " Everyone has the right to (a) an environment that is not harmful to their health or well-being."
Section 4 of the Local government: Municipal Systems Act, No32 of 2000, Section 4(2) (i) states:
The Council of a municipality ….has the duty to …(i) promote a safe and healthy environment in the municipality."
Council has knowledge of a problem and must act positively and be seen to act.
Council now possess knowledge …i.e. 'harm is foreseeable'
Steps must be taken to mitigate the risk in problem areas.

Section 12, Act 95 of 1998 requires:

That all new Greenfields sites are investigated, Peer Reviewed and enrolled.
Council for Geoscience, STC and NHBRC must approve.
Includes all housing, including owner-builder.
Individual erven must now be approved and enrolled.
Merafong must have a DRMS.
Act is strictly applied.
Section 2.8.1 of Part 1 of the NHBRC Manual:
The risk of sinkhole and doline formation shall be established ….in townships or parts thereof (including individual erven) where dolomite is directly at surface or dolomite is covered by surficial rocks of thickness less than:
60m in non-dewatered areas with controls.
100m in dewatered areas or areas with no controls

NHBRC REQUIRES:

Geotechnical report
B4 certificate
Township services certificate
Township layout
Water, sewer and storm water design
Precautionary/foundation designs for D3 areas.
Dolomite Risk Management Strategy
Construction monitoring
Construction report
EF003 certificates for each stand.
A1 form if changing in Soil Site Class Designation
Water Precautionary Measures
Minimum standards for water precautionary measures are outlined in Section 2.8.3, Part 1 and 2, Home Building Manual, Revision 1, February 1999.

SECTION E:

Critical issues:
Safety matters
Legal considerations.
Administrative matters.

CRITICAL ISSUES:

Situation in Khutsong deteriorating.
Informal areas at risk
Council for Geosciences 1989 and Intraconsult 1997: "Freeze old Khutsong."
This did not occur.
Zone 3 and 4 areas –disaster area.
Poor storm water management, services of inappropriate design and depth due to poor slope
Any new areas (private or state funded) require a DRMS.
Blybank and Khutsong South developments require DRMS for approval.
Inadequate capacity to monitor and ensure quality control w.r.t. infrastructure

Issue of individual stands in Khutsong, WELVERDIEND AND in Carletonville must be dealt with.
Future safe development requires a DRMS.
Fruitless expenditure on sinkholes
Targeted EXPENDITURE IS essential, avoid fruitless expenditure on capital projects in high risk (IHRC 6) areas
Must prevent loss of confidence in Merafong
NHBRC will require proof of a DRMS.
Need to ensure safety of Community.
Need to protect Municipal assets.
Need to protect private residential property.
Need to protect commercial property
Need to legally protect Council and officials.

SECTION F:

The Solution!

The way forward
Council has reacted positively
Council has already reacted positively to the threat.
Merafong is currently implementing a comprehensive, Integrated Dolomite Risk Management Strategy.
BASIC PRINCIPLE OF A DRMS
(DOLOMITE RISK MANAGEMENT STRATEGY)
HAZARD
+
RISK MANAGEMENT
=
ACCEPTABLE RISK
HAZARD
+
NO OR POOR RISK MANAGEMENT
=
UNACCEPTABLE RISK

Risk Management Strategy involves setting in place policies and procedures (by-laws) to reduce likelihood of sinkholes and dolines forming in dolomite areas of Merafong
Section 12 of Act 95 of 1998 requires a Dolomite Risk Management Policy signed by the Municipal Manager
(Typically 5 to 10 pages)
ESSENTIAL ELEMENTS OF DRMS:
Risk assessment of Merafong: Use existing data plus strategic new data where required.
Assemble data on sinkholes/dolines.
Formulation of planning development policy for township establishment in terms of risk.
Control development: Ensure appropriate development in relation to risk .
Prioritise Medium and Low Risk areas for development.
High risk areas for agricultural use or special commercial uses .
Check list for Building Plans and inspection of sites and services.
Appropriate infrastructure design in relation to risk. Formulate policy.
Appropriate and proactive maintenance in relation to risk.
Assess integrity of existing water bearing services (Initially samples to establish status quo followed by medium-long term programme).
Systematically budget for and upgrade inappropriate and old services.
Civil engineers to sign NHBRC Compliance Certificate for Services.

Design a maintenance policy/guidelines in compliance with National Standards.
Monitor GWL's and abstraction in sensitive areas.
Cover residential, municipal and commercial areas.
Strive towards compliance with GFSH-2 and new SANS 10400.
Need check list of submissions to Council for new developments e.g. Storm water plan, monitoring plan, etc.
Databank: Create an interactive Geographical Information System.
Determines budgeting for upgrading of civil engineering infrastructure.
Guidelines on reacting to and rehabilitating sinkhole.
Emergency Reaction Plan.
Dolomite Risk Management Committee.
Need education and awareness programme.
Need Vigilance.
DRM System involves:
Layer 1: Base geology
Layer 2: Gravity and borehole data.
Layer 3: Geohydrology
Layer 4: Sinkhole database
Layer 5: Dolomite risk zoning
Layer 6: Municipal buildings and private properties.
Layer 7: Water bearing services
Layer 8: Damaged property, buildings, evacuated areas.
Layer 9: Monitoring work.
Layer 10: Safe development priority areas
LAYER 2
To succeed,
The strategy must permeate every level and every aspect of Merafong Council's decision making in dolomite areas.
All maintenance and land use decisions within Merafong should be made in the context of the structured, holistic, risk management strategy
DRMS will assist in solving problems identified:
Individual stands.
Remove impediment to development.
Improve safety.
Assist in motivating further funding.
Reduce water wastage, saving money (e.g. PWD & RWB).

<u>SECTION G</u>:

Specific recommendations on way forward

<u>RECOMMENDATION 1</u>: FOCUS OF SAFE DEVELOPMENT

Khutsong South region should be focus of land policy.
Approximately 2000 ha currently under investigation between Carletonville and Welverdiend
Only area not on dolomite with be potential for safe development.
First 600ha investigated proven to yield safe land.
Blybank is developable but no additional land is available beyond the current approved area.
Small pockets of land within Carletonville can be considered for development. However, costs dictate more affordable forms of housing.
People wishing to live off the dolomite at Wedela, Fochville should be encouraged to do so.

<u>RECOMMENDATION 2</u>: INFORMAL SETTLEMENTS

Informal settlements are on high risk i.e. Risk Class 5 and 6 land.
People are daily at risk.
Upgrading institutions will not be approved due to unsafe land and high densities.
Council for Geoscience and NHBRC will not be able to approve and state will not spend funds in these areas.
All informal settlements should be relocated to Khutsong South and Extensions.

<u>RECOMMENDATION 3</u>: OLD KHUTSONG

Area is Zone 3 and 4.
Freeze Khutsong.
Storm water and sewers are a problem in Khutsong Proper.
Cost of replacing sewers is prohibitive and stability problems will re-occur.
De-densify sub-areas (Risk Class 5 and 6 areas) of old Khutsong to Khutsong South.
Assess costs and motivate to National treasury and Dept. Local Government and Land Affairs (Est. 1500 homes).
Communicate need to Community.
Present problem and seek financial assistance from Provincial and Central Government to finance.

<u>RECOMMENDATION 4</u>: Khutsong Extensions 2 and 3
Predominately Zone 3 Khutsong Extensions 2 and 3. Zone 4 sub-areas.
Freeze Khutsong Extensions 2 and 3.
Upgrade sewers and storm water in Khutsong Extension 2 and 3.

<u>RECOMMENDATION 5</u>: Residential stands sold in Khutsong Extensions 2 and 3
Predominately Zone 3 Khutsong Extensions 2 and 3. Zone 4 sub-areas.
Individual certification of each stand will be required. (NHBRC EF0003 certificate)
Due to poor stability conditions, Council for Geoscience and NHBRC unlikely to approve.
Council should provide alternative safe stands in Khutsong South to owners.

<u>RECOMMENDATION 6</u>: Community facilities, churches
It is recommended that new investments in Community Facilities, churches, etc. take place in Khutsong South and new Extensions.
Council should provide stands to replace those sold to Churches.
<u>RECOMMENDATION 7</u>: High risk land in Khutsong South.

Portions of high-risk land have been removed from the proposed

Khutsong South development.
Must prevent re-occurrence of the current crises i.e. informal settlements on dangerous ground.
Must develop agricultural and commercial programmes. Seek agricultural subsidies.

RECOMMENDATION 8: UPGRADING OF SERVICES IN KHUTSONG.
Khutsong Proper, Khutsong Extensions 1, 5 and 6 is problematic. No further fruitless expenditure. Relocate.
Khutsong Extensions 2 and 3: Upgrade storm water, sewer and water systems. No further development. De-densify (backyard dwellings).

RECOMMENDATION 9: Stands within Carletonville sold by council to individuals.

All stands now require NHBRC approval and certification (Section 12, Act 95 of 1998).
For the issuing of certificate an investigation is required.
Expenditure on investigations improves safety and confidence in the area.
Empower potential purchasers. All potential buyers of stands in Carletonville from Council should be handed an information leaflet on the NHBRC requirements.
Recommend that investigation of new residential stands collectively undertaken by Council and sold with costs of investigation included.

RECOMMENDATION 10: EDUCATION CAMPAIGN.

Sinkholes in Khutsong and temporary closure of Carletonville Police Station following a sinkhole generated concern.
Create an awareness campaign.
Use leaflets with rates and taxes accounts
Use local media.

RECOMMENDATION 11: BOREHOLE CENSUS IN BOSKOP-TURFFONTEIN COMPARTMENT.

Boskop-Turffontein Compartment requires monitoring.
All borehole data should gathered.
All new borehole data in Khutsong South

RECOMMENDATION 12: SPECIFIC INCLUSION IN DRMS FOR KHUTSONG SOUTH.

Merafong City should pass a resolution committing itself to groundwater level monitoring in Khutsong South.
Keep Council for Geoscience and NHBRC informed.
Seek authority through by-laws to control abstraction (e.g. Centurion).
Require that all boreholes are registered.

RECOMMENDATION 13: Dolomite stability of Welverdiend.

Welverdiend has not been assessed.
The area should be investigated and risk zoned.
Risk zoning is required for the DRMS.

RECOMMENDATION 14: DRMS for townhouse developments and complexes.

Body Corporates and inhabitants of Complexes should be made aware of the need for Risk Management on their properties.

An information sheet and checklist should be sent out or made available at Council to provide guidance.
By-laws.

RECOMMENDATION 15: All REPAIR WORK TO CURRENT INDUSTRY STANDARDS.

All repair work; maintenance work etc should meet the minimum standards of the SABS 400, the new SANS 10400 and Council for Geoscience and NHBRC requirements.

RECOMMENDATION 16: Dolomite Risk Management Committee

Establish a Dolomite Risk Management Committee
Include Municipal Engineer, Council Members, Planning Representative, Municipal Manager, Specialist Consultant, etc.

RECOMMENDATION 17: Rooipoort School?

Area of high-risk dolomite.
School specially built on mattress on rock, etc
Control situation?

CONTINGENCY PLANS AND EMERGENCY PROCEDURES

COMMUNITY SERVICES	SUPPORT SERVICES	INFRASTRUCTURE DEVELOPMENT	LOCAL ECONOMIC DEVELOPMENT	FINANCE
Public Safety and Security	Human Resources	Civil Engineering	Marketing	Income
Sports, Libraries, Arts, Recreation & Culture	Secretariat Legal Services	Electrical Engineering	Housing	Expenditure
Health & Environment	Administration	Fleet Management	Town Planning	Procurement

EXTERNAL SUPPORT SERVICES		
1.1.1.1.1.1 NAME	1.1.1.1.1.2 CONTACT PERSON	1.1.1.1.1.3 TELEPHONE NUMBER
West Rand District Municipality	E Koloi	011-9513000 / 083 267 6601
South African Police Services	Fochville – Superintendent H Maas Carletonville – Maj. Kock	018-7716303 / 0828008072 018-7881332 / 082 463 7046
South African National Defense Force	Petrus Groenewald	018-7874244 / 0827555015
Mine Security	Goldfields – Billy Krugel Anglogold – Boet van den Heever Durban Roodepoort – Japie Storm	018-7818079 018-7003821 018-7899030
Hospital	Matron T K Kgomongwe CEO – L Dukwana	018-7872111 / 0823560093 018-7872111
Mortuaries	Fochville AVBOB – Mr E Britz Carletonville AVBOB – Mr W Meyer	0187715225 / 0847357086 018-7862216 / 0829231893
General Suppliers of food and essential goods	President Supermarket (F/ville) – Mr B Synodonis Pick ‘n Pay (C/ville) Pick ‘n Pay (Jurie van Aswegen) Friendly Grocer – Manny Catelo SPAR – Tasos Athanasiatis Shoprite – Jaap Appelman	018-7716300 018-7862040 018-7862040 018-7874761 018-7886233 018-7874845
Emergency Medical Services	Attached	

SECTION	NAME	ADDRESS	TEL. NO. (W)	TEL. NO. (H)
Strategic Executive Support Services	Adv. Conjwa		018-7889503	
	H Bredenkamp	12 Ida Street	018-7889514	018-7861769

SUPPORT SERVICES

Move to the disaster management centre
Report incident to office of the Executive Mayor and the Municipal Manager
Obtain all possible information relating to the situation
Co-ordinate action pertaining to administration, warnings and communication
Instruct relevant officials to go to scene if necessary
Communicate with relevant support services e.g. SANDF and SAPS

5.5.6 FINANCE

DESIGNATION	NAME	ADDRESS	TEL. NO. (W)
CFO	AR Ngwenya		018-7889552
Act. Manager: Finance	S Manzi		018-7889553
Manager: Income	D Schmidt		018-7889554
Manager: Internal Audit	M Chauke		018-7889621

Purchasing of foodstuffs and essential goods
Receiving of food, goods and equipment
Record keeping of purchased items.

5.5.7 LOCAL ECONOMIC DEVELOPMENT

DESIGNATION	NAME	ADDRESS	TEL. NO. (W)
Acting Executive Director Economic Development & Planning	Evelyn Segakweng		018-7889528
Manager: Housing	N M Jofile		
Manager: Marketing	C E Spies		018-7889692
Manager: Town Planning	J E Smit		018-7889688

Liaise with media regarding disaster to ensure proper coverage
Co-ordination and provision of transitional areas and alternative re-location areas if necessary
Communication regarding emergency housing and evacuation

5.5.8 INFRASTRUCTURE DEVELOPMENT

DESIGNATION	NAME	ADDRESS	TEL. NO. (W)	TEL. NO. (H)
Executive Director Infrastructure Development	Mr Maja		018-7889651	
Manager: Electrical Engineering	E Shange	42 Andries Street	018-7889655	083 6487611
Manager: Civil Engineering	Moyo		018-788-9780	

Oyo

5.5.9 COMMUNITY SERVICES

DESIGNATION	NAME	ADDRESS	TEL. NO. (W)	TEL. NO. (H)
Executive Director Community Services	Z Hobe	138 Onyx Drive	018-7889642	083 648 7587
Manager: Public Safety & Security	M Masalesa	Potchefstroom	018-7889739	083 648 7590
Act. Manager: Sport, Libraries, Arts, Recreation & Culture	F Seatlholo		018 788 9500	

After receiving a message regarding a disaster, mobilise the Disaster Management Centre (control room)
Move to disaster area with EMS personnel to evaluate
Mobilise personnel according to situations
Liaise with external support services for preparedness
Record keeping of injured
Emergency water provision including the purification and treatment
Mobilise clinic personnel
Provide emergency food, goods and equipment
Assist with transportation of the above to disaster and transitional areas
Medical doctors to assist with treatment and issuing of death certificates if necessary
Provision of protective clothing when handling corpses
Provision of emergency accommodation and/or temporary (transitional) camps
Establish and manage a pest control team if necessary
Constant communication between EMS – Disaster Management team and Executive Mayor's office
Assist with mass burials of corpses and clean-up actions.