

MUSINA MUNICIPALITY
REVIEWED INTEGRATED
DEVELOPMENT PLAN
2005/2006
PHASE 2

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1. BACKGROUND

The Municipal Systems Act, 2000 (Act No. 32 of 2000) prescribes that municipalities should determine a **vision** for long-term development, development **objectives** for the elected term of the council and development **strategies** which are to be aligned with national and provincial sector plans and planning requirements.

These legal requirements correspond perfectly to the requirements of modern municipal management, i.e. all role-players in a municipality need a **joint vision** as a common ground which provides guidance to everybody - the municipal governing bodies as well as the residents - and which gives direction beyond the council's term of office. The council's decisions have to be orientated to clearly defined and agreed **objectives**, which at the same time give orientation to management, and which form the basis for performance management and the accountability of the municipal government towards the residents. The activities of the executive bodies of the council need to be guided and streamlined by **strategies** which are the result of a joint decision-making process in which the executing agencies and all concerned parties are involved (IDP Guidelines, 2001).

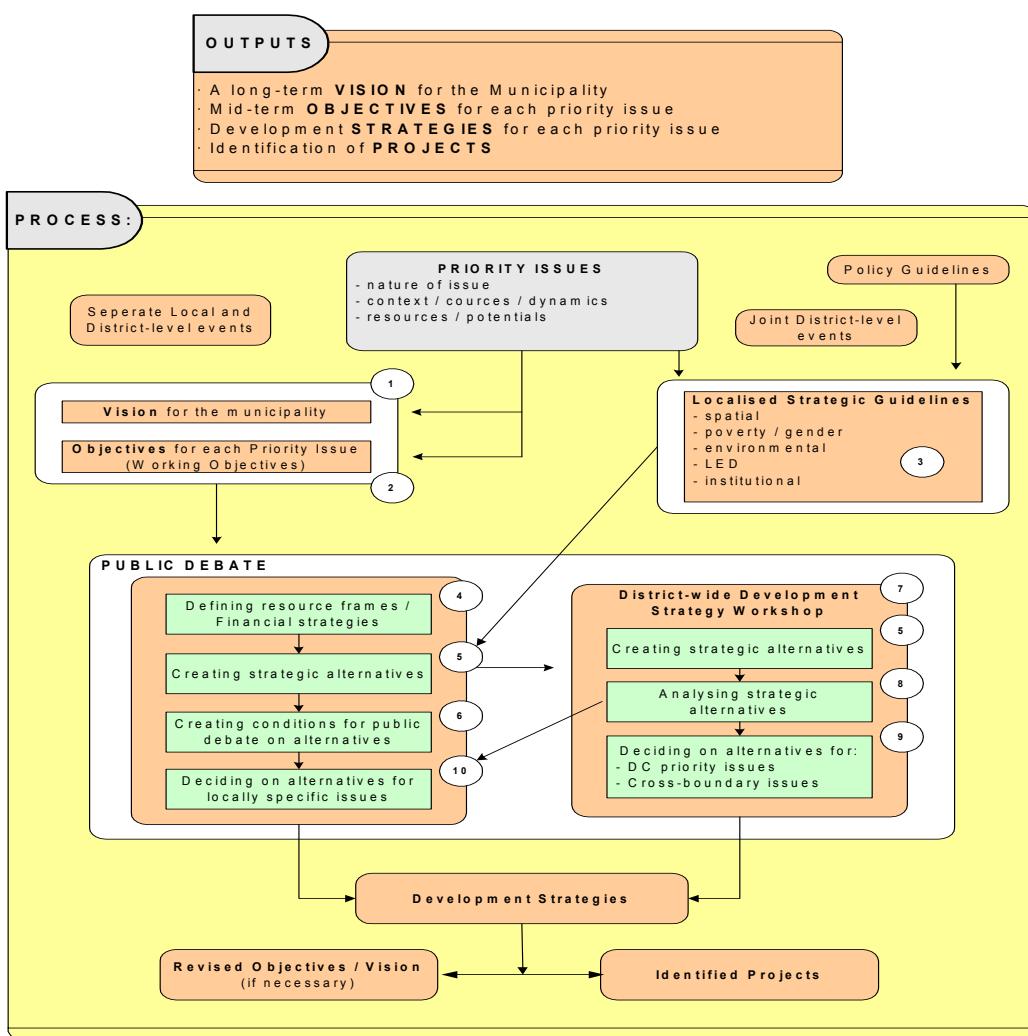


Figure 1: Musina IDP Phase 2 – Strategies (Source: IDP Guidelines, 2001)

2 VISION OF MUSINA MUNICIPALITY

The purpose of setting a vision for a municipality is to inspire, focus the attention and mobilise all residents, communities, stakeholders, politicians and officials in creating the desired future for the municipal area. A vision is a statement of the desired long-term development of the municipality based on the identified priority issues and related to the specific conditions in the municipal area (IDP Guidelines, 2001).

The vision for the Musina Municipality is as follows:

“VEHICLE OF AFFORDABLE QUALITY SERVICES AND SOCIO-ECONOMIC DEVELOPMENT AND COLLECTIVE LEADERSHIP”

3. REVIEW PLAN OF MEETINGS

Table 1.

Analysis Phase

Date	Venue	Time	Meeting Title
14 January 2005	Recreation Hall	09H00	Steering Committee
21 January 2005	Recreation Hall	09H00	Steering Committee
26 January 2005	Recreation Hall	09H00	Steering Committee
09 February 2005	Nancefield Boardroom	18H00	Community

Strategies Phase

Date	Venue	Time	Meeting Title
10 February 2005	Recreational Hall	09H00	Steering Committee

Project Phase

Date	Venue	Time	Meeting Title
15 February 2005	Nancefield Boardroom	18H00	Community

Integration Phase

Date	Venue	Time	Meeting Title
16 February 2005	Recreation Hall	18H00	Steering Committee
24 February 2005	Nancefield Boardroom	18H00	Community

Approval Phase

Approval Phase	Venue	Time	Meeting Title
Date 02 March 2005(until 21 days lapse)	Municipal Manager's Office	07H00 to 16H00	Public comments

4. PUBLIC PARTICIPATION PROCESS

4.1 INTRODUCTION

This section provides a summary of the inputs received during the Consultations/Interviews and Public Participation workshops conducted during the process of reviewing the following plans:

- Disaster Management Plan
- Integrated Waste Management Plan
- Strategic and Environmental Management Plan
- Tourism Plan
- Environmental Management Plan

The Public Participation Process (PPP) took a strong focus on direct and constructive involvement of the Interested and/or Affected Parties (I&AP's), as their inputs, ideas, concerns and visions for Musina Local Municipality will determine the future of the implementation process of the different plans being reviewed.

Approach & Methodology

The PPP has set the following **methodology to ensure involvement from all relevant stakeholders in the study area:**

- Study the existing database on the known structures and contact persons of various government and non-government structures liaising with Communications Manager's office.
- Confirm with officials and representatives to verify relevance of the existing databases (Nelly de Bruyn and others).
- Through proper site visits, telephonic surveys, informal discussions etc., establish a detailed list of any organization or representative structure that might have had interest in the Musina Local Municipality area or its surroundings.
- Consultations with IDP representative structures and other planning forums if any other formal or informal structures exist that should form part of this process.
- With all the above information, draft a new IAP database for this process.

With this database in hand, the full PPP then commenced. In principle the **following PPP** was followed during this project:

4.2 I&AP INVITATIONS & PUBLIC AWARENESS

The following methodology and approach was followed to inform all known I&AP's on the study and invites them to a series of public meetings (refer to Attachment):

- Newspaper articles and advertisement in the Sowetan – National News paper is attached in English;

- Advertisements and A3 leaflets were pasted at several strategic positions around the affected area, example at Post Offices, shopping centres, filling stations hospital etc.
- Telephonic, faxed and e-mail invitations to all key role players of all the known associations and formal structures that have an interest in Musina Local Municipality.
- They kindly forwarded the invitation to all of their members within the Musina Local Municipality area.
- Sending invitations to the Steering Committee members, the 30 representatives of the Disaster Management Committee and IDP Committee members.
- Invitation all ward councillors as advised by the office of the Community Services Manager.
- Commercial farmers in the area where communicated to during the telephonic interviews and they confirmed participation although no representation was experienced during the workshop.

CONSULTATIVE MEETINGS

- The first introductory phase was telephonic interviews which were scheduled and conducted by the different project managers responsible.

The first Stakeholder/Public Meeting was held on the 17th February 2005.

4.3 PROCESS

THE PUBLIC PARTICIPATION WORKSHOP WAS HELD AT A CENTRAL AND WELL-KNOWN VENUE WITHIN THE NANCE FIELD LOCAL COMMUNITY AREA, AT DATE AND TIME THAT SUITED MOST PARTICIPATORS.

THE PROGRAMME FOR THE WORKSHOP AND THE ATTENDANCE REGISTER IS ATTACHED.

All our meetings were conducted in the format consisting of structured and semi-structured group approach. The team explaining the following gave a presentation:

- Introduction of the professional team
- Explaining the purpose of the workshop and public participation process
- Clarifying the review process according to each plan
- Explain data and information collection processes

The floor was then opened for discussion in terms of the stakeholder's expectations from the process and an opportunity to list their issues, concerns, inputs, proposals etc. All comments were recorded in and noted by the different project consultant per area of interest and expertise. People were also given the opportunity to respond and list issues in writing.

At this meeting the public was made aware of the current plans being reviewed and its aims, requesting their inputs and brainstorming some concepts with them.

The first round of meetings was extended to include areas forming part of the larger study area. It was therefore necessary to conclude the meeting by allocating responsibilities to some stakeholders and project leaders to conduct more research on certain issues not agreed upon in preparation for our next consultation.

After discussions and listing of issues, (as it will be tabled in the technical report), the way forward was clarified as follows: 4 days was allocated for issues not resolved to be communicated with the relevant specialists, an indication was given for the dates of second feedback session on the draft report.

An additional meeting was arranged with the IDP committee for further consultations regarding issues around further developments in this area for clarification.

On the basis of the above process, it is concluded that a proper information sharing process was conducted, commitment and interest has been demonstrated and the attendance register attached demonstrates the achievements.

The second Stakeholder/ Public Meeting was held on the 16th March 2005.

THE SECOND PUBLIC PARTICIPATION WORKSHOP WAS HELD AT A CENTRAL VENUE THE MUSSINA LOCAL MUNICIPALITY BOARDROOM.

The objective was give feedback to the stakeholders and to demonstrate how the input they gave had been filtered into the report, and to make sure that all parties have been fairly represented.

4.3.1.1 List of some of the concerns and suggestions raised by the I&AP's

Risk management – around disaster (Mr. Misabeni Khoza)

How the disaster management committee can discuss the principles around Disaster Management and Spatial Development Framework

The question is that how do we manage hazards around the region of Musina. The potential that is likely to happen. And in this case the committee can consider building a centre that will deal with the following.

- Risk treatment
- Provide information
- Encourage farmers including the cattle farming
- Summaries and outline information

The other issue is the adversary forums to consider obtaining more people, realize the issues around disaster management = Training of communities around disaster related matters, by conducting community awareness campaigns, pamphlet distribution after training and educational programmes to be conducted on disaster awareness in schools.

Clear outline of role players during a disaster

There is a great need to ensure that key role players are regularly receiving updated information and meet regularly to ensure preparedness in case of disaster at all times. e.g. traffic department, fire stations, the police, SAP Dog Unit, Transport representatives, First Aid entities and health department representatives and commercial farmers/agricultural and environmental representatives.

Issues that require more emphasis in the report (Ms. Hlengiwe Zulu)

4.3.1.2 Planning for cultural activities for youth development

- Identification of developmental projects inside the town to attract foreign investors.
- The Provincial Tourism Organization must come up with a plan for the area which can be tabled to the Municipality.
- To enforce local (around town) areas of accommodation to have general standards of service delivery in their areas of operation to attract tourists.

4.3.1.3 *Historical Survey – to be elaborated in the report**

These are the area that needs to be taken into consideration.

- Bridge at the border.
- Blacks drop
- Musina Nancifield

Market issues

The Cotton and Citrus fruit market must be created which can be sold nationally and internationally.

And the agricultural opportunities must be taken into consideration.

Musina won family farmers of the year award (this clearly outlines the competitive advantage the area has).

Issues that require more emphasis in the report

Waste Management.

Health Care Waste and General Waste

- To have the existing Waste Information System for Musina Local Municipality linked with the one at Regional Office.
- It must also comply with all waste management rules and regulations.
- Ensure on-going training for people who are involved in waste management.
- Also confirmed that all the plans must be planned together with the district.
- So that together we can help each other on how we can deal with waste.

Land Use

- The Musina region has unclaimed or land that it's not clear who owns it.
- The dumping area in Malale which is not included in the plans
- An illegal dumping area in Beitbridge

Adjustments to the report: In table 3 it needs to be elaborated as to which of these gaps need to be closed or rather how they will be closed.

Section 20 Subsection 21

It should clarify direct responsibilities to be handled by department of Water Quality or Environmental Affairs.

4.3.1.4 **Water Service Development plan**

The report should clearly comment on sewerage management and water management

Show ways of improving levels of competence in this area

It was suggested that solid waste must be addressed as a separate topic on its own precisely because it is one of the dangerous issues around.

Medical Waste.

Guidelines from government on how the Medical Waste can be managed are required.

Defeat project running

Waste Management Bill is one of the most important aspects that needs to deliver how the gaps between the local municipality and the regional level.

Medical Waste is still a sensitive issue.

The Questions asked by participants are:

- Who is responsible for handling medical waste in our region
- We feel participants in this area need to go back to the drawing board and decide on what is best to do in line with legislation.
- Process of obtaining licences is not known, licensing for accelerator as well.

EIA (Environmental Impact Assessment)

The consultant further advised the public about the importance of EIA, precisely because for every project (e.g. construction) conducted by the municipality, an EIA is required. The public further requested that because municipality approves the projects, it should have the responsibility of requesting EIA's.

The third General Public Meeting was held on Saturday, 19th March 2005.

The General Meeting was held, the areas were split into smaller focus groups to ensure more effective involvement and interaction.

RURAL INVESTIGATION IN MALALE

WATER

Our investigation was based on the usage of water and whether other areas have enough water. We found that in Malale area the community is complaining about water. In this community they have a number of taps on one street. In this regard the community requested that because there are some other taps in the store room, it can be very great if those taps can be inserted in the street that do not have the taps.

They use the machine to pump water. The difficulty they encounter is when the machine is stucked. From their information the machine can be stucked for the period of two weeks. During that time they receive water from a truck around the area. Which they are not quite sure of whether the water is clean or not.

No reported diseases in the area. The community requested that it must be the municipality taking responsibility when there is no water, precisely when the machine is broken.

WASTE

In the area of Malale they are dumping their waste in Madimbo village.

There are also two holes which are used to dump waste. The holes are not fenced or protected and they are \pm 100 m from the community. In this regard the hole is not licensed. And in their dumping site they do not separate the bottles, plastics and papers.

The dangerous thing we encountered during our inspection time is that, we found that there were kids playing around the dumping area.

TREES

Name of the tree	
1. Marula (Mufula)	8. Munanga (Mushonga)
2. Mopani (Mashonzha)	9. Mutwari (Mushonga)
3. Mudzhimiri (Mashonzha)	10. Munyerenga (Mushonga)
4. Mutanzwa (Mushonga)	11. Musosoto (Mushonga)
5. Muvhuyu (Mushonga)	12. Mufhaladzamakole (Mushonga)
6. Tshikhafushi (Mushonga)	13. Mulivhadza
7. Munembenembe (Mushonga)	14. Musalamarubini (Mushonga)

THE INVESTIGATION IN MADIMBO

WASTE

The dumping site of this area is used by three villages which are Madimbo, Domboni and Malale. The dumping area is not licensed and also not protected. The distance from the dumping area to the community is \pm 100 m. precisely because all these three villages are dumping in the same area; there is no one responsible for making sure that bottles, papers and plastics are separated.

Dumping areas around the streets. We find that there are some small areas of dumping around the street which they are creating smell and are very dangerous precisely kids are playing around the street.

WATER INFORMATION

Water in this village is supplied by the two departments. The department of water affairs and forestry and Musina Local Municipality.

Which during our investigation we found that the people who are supplied by the department of Water affairs they do not receive water in daily basis, the reason being that the person who is responsible for that section does not receive the necessary resources such as Diesel. While the people who are supplied by Musina local Municipality they receive water in daily basis. Currently we can say all of the village inhabitants they receive water very well. The reason being that all of the community members they travel less than 2 km to fetch water.

USAGE OF WATER.

Primarily this information is based on the usage of water from the taps. We found that the community does not take care of the resources that they have, the reason is because in 30 taps that we found, 16 taps were flowing with water for the distance of 25 m from the tap.

INVESTIGATION IN DOMBONI VILLAGE

WATER

Domboni is a village of less than ±50 houses. The water that they receive is from a tank which is in the middle of the village. Where some of the people have to travel more than 5 km to fetch water.

What the community requested is for the Municipality to insert taps on the street like what they did at Madimbo village.

SOCIAL ISSUES

From our investigation the community requested that even though the municipality could fail to deliver water as their request. It would be very grateful to them to receive resources such as school or clinic. The reason is because their children and pregnant woman travel for 18km to get to school and to the clinic. This has shown a great disadvantage to some of the children precisely because they wait until they are 10 or 11 years before they can travel to school. While in the case of education there are some parents employ people who completed their matric to teach their children and they pay them R20.00 monthly per person. Children at the age of 8 – 14 have been raped by the illegal immigrants when they travel to school.

One of the most important aspects which the community encounters is the means of transport. They do not have a transport in their area, precisely the one which can deliver them from their area to town. They have to travel for more than 7km to the tar road.

Burning Issues

-  Electricity
-  Water
-  Schools
-  Clinic

List of issues and concerns raised by the I&AP's

ISSUES, CONCERNS AND SUGGESTIONS RAISED IN THE PREVIOUS MEETINGS AND WORKSHOPS WERE TABLED IN THE STEERING COMMITTEE HELD ON THE 22ND MARCH 2005 MEETING TO SEEK CLARITY AND ALIGNMENT WITH THE GREATER PLAN BEFORE BEING INCORPORATED INTO THE FINAL REPORT.

SUMMARIZED SCHEDULES OF WORKSHOPS AS FOLLOWS:

TABLE 2.

1ST PHASE – TELEPHONIC INTERVIEWS AND ONE ON ONE INTERVIEWS

DATE	TIME	VENUE	AUDIANCE
11 TH TO 15 TH FEBRUARY	AT RANDOM PENDING ON AVAILABILITY OF PARTICIPANTS	TELEPHONIC EMAIL AND PHYSICAL INTERVIEWS	ALL STAKEHOLDERS WHO ARE INTERESTED AND AFFECTED BY THE DEVELOPMENT OF THESE PLANS

2ND PHASE

DATE	TIME	VENUE	AUDIANCE
THURSDAY 17 TH FEBRUARY 2005	08H00 – 16H00 SEE PROGRAMME OF DISCUSSIONS	NANCEFIELD COMMUNITY HALL	MUSSINA COUNCILLORS MUSSINA IDP COMMITTEE MEMBERS MUSSINA DISASTER MANAGEMENT COMMITTEE BUSINESS CHAMBER DWARF REPRESENTATIVES LIMPOPO VALLEY TOURISM ASSOCIATION AND THE SPORT SECTOR AGRICULTURAL SECTOR AND FARMERS REPS MINING SECTOR HEALTH AND HOUSING DEVELOPERS ENVIRONMENTAL AFFAIRS REPRESENTATIVES NGO'S AND LABOUR FORUMS

3RD PHASE – FEEDBACK ON FINAL DRAFT REPORT

DATE	TIME	VENUE	AUDIANCE
WEDNESDAY,	08H00 – 16H00	MUSINA LOCAL	MUSSINA COUNCILORS

16 TH MARCH 2005	FEEDBACK AND RECONFIRMATION OF THE INCLUSION OF ALL INPUT AS AGREED IN THE FIRST WORKSHOP. TAKE IN FURTHER INPUTS WHICH NEEDED CLARITY FROM THE MUNICIPALITY OFFICIALS	MUNICIPALITY MEETING ROOM	MUSSINA IDP COMMITTEE MEMBERS MUSSINA DISASTER MANAGEMENT COMMITTEE BUSINESS CHAMBER DWARF REPRESENTATIVES LIMPOPO VALLEY TOURISM ASSOCIATION AND THE SPORT SECTOR AGRICULTURAL SECTOR AND FARMERS REPS MINING SECTOR HEALTH AND HOUSING DEVELOPERS ENVIRONMENTAL AFFAIRS REPRESENTATIVES NGO'S AND LABOUR FORUMS FIRE STATION REPS AND SAPS
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4TH PHASE – GENERAL PUBLIC MEETINGS – BASED ON FINAL DRAFT REPORT

DATE	TIME	VENUE	AUDIANCE
SATURDAY 19 TH MARCH 2005	08H00 – 16H00 FEEDBACK AND RECONFIRMATION OF THE INCLUSION OF ALL INPUT AS AGREED IN THE FIRST WORKSHOP. TAKE IN FURTHER INPUTS WHICH NEEDED CLARITY FROM THE	MUSINA LOCAL MUNICIPALITY MEETING ROOM	LOCAL COMMUNITIES WITH THE REPRESENTATION OF CLR RAMSUSHWANA AND CLR. MUSSINA COUNCILORS LOCAL COMMUNITIES IN MADIMBO. LOCAL COMMUNITIES IN MALALE AREA THE AREAS WHERE REPRESENTED BY LOCALS REPRESENTING : CHURCH LEADERS AND CHURCH ELDERS COMMUNITY SAFETY FORUM WOMEN AND YOUTH FORUMS DISABLED ORGANISATION

	MUNICIPALITY OFFICIALS		
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STAKEHOLDER INVOLVEMENT

DURING THE PPP ALL STAKEHOLDERS WERE REQUESTED TO RAISE THEIR CONCERNS AND IDEAS AT THE MEETING, BUT SHOULD THEY FEEL OR GATHER DIFFERENT INFORMATION LATER THEY WOULD ALWAYS BE WELCOMED TO MAKE WRITTEN SUBMISSIONS TO THE PROJECT TEAM BEFORE THE DATE OF SUBMISSION TO THE MUNICIPALITY.

IT COULD BE GENERALLY ACCEPTED THAT THE CAMPAIGN OF ADVERTISING THIS PROCESS AND REQUESTING INVOLVEMENT FROM THE PUBLIC WAS SATISFACTORILY.

4.4 CONCLUSION

It is apparent from the outcome of the workshop that Musina communities, with proper communication channels enthusiasm and commitment can be realized.

The success rate of attendance based on the number of R.S.V.P received could be rated at 75% including the audience addressed during Public Meetings.

5 WORKING OBJECTIVES

Section 26(c) of the Municipal Systems Act, 2000 (Act No. 32 of 2000) stipulates that an Integrated Development Plan must reflect, “the council’s development priorities and objectives for its elected term, including its local economic development aims and its internal transformation needs”. Objectives provide direction to the planning and implementation process. The working objectives of the Musina Municipality are as follows:

5.1 INFRASTRUCTURE CLUSTER

The working objectives for the priority issues in the Infrastructure Cluster are presented in table 3.

Table 3: Working objectives for Infrastructure Cluster

PRIORITY ISSUES		WORKING OBJECTIVES	
1	Need for water provision at Madimbo, Malale & Domboni.		<ul style="list-style-type: none">• All residents in Madimbo will be provided with potable water (RDP standards) before end of 2003 - <u>completed</u>• All residents in Madimbo will be provided with erf connections before June 2007
2	Need for sewerage provision at Madimbo, Malale & Domboni.		<ul style="list-style-type: none">• All residential erven in Malale & Domboni will be provided with at least VIP pitlatrines before end of 2003 - <u>completed</u>• All residential erven in Madimbo will be provided with at least VIP pitlatrines before end of 2003 - <u>completed</u>
3	60% of erven in Musina is still served by a septic tank and french drain system.		<ul style="list-style-type: none">• Connect 30% of erven in Musina to the southern oxidation ponds before end of 2005.
4	Municipality must maintain existing bulk infrastructure and ensure that sufficient bulk services will be available for future development.	3, 3 (spatial)	<ul style="list-style-type: none">• Existing bulk service infrastructure will be maintained on a regular basis to ensure effective provision of bulk service.• Existing bulk service infrastructure will be upgraded timeously to ensure availability of bulk services for future development.
5	Need for effective cost recovery for services rendered to the community by the Musina municipality.		<ul style="list-style-type: none">• To implement cost recovery and credit control measures to improve the recovery of costs to deliver municipal services.
6	±25 residential erven in Nancefield (next to cemetery) become waterlogged during heavy rains.		<ul style="list-style-type: none">• Ensure that this area will be habitable during all weather conditions before end of 2004
7	Residential streets in certain areas of Musina & Nancefield are in poor condition.	2 (economic)	<ul style="list-style-type: none">• Upgrade residential streets in Nancefield and Bergview by means of labour intensive methods in phases for the next 3/4 years.
8	The road linkage between Nancefield Proper and Ext 4 is impassable during and immediately after downpours.	2 (economic)	<ul style="list-style-type: none">• To upgrade the link between Nancefield Proper and Nancefield Ext. 4 before end of 2002 to ensure permanent access over drainage channel - <u>DONE</u>
9	Vehicles are speeding in the main streets of Nancefield, which pose a safety risk to residents.		<ul style="list-style-type: none">• To curb/control the speed of vehicles in the main streets of Musina & Nancefield before.

PRIORITY ISSUES		WORKING OBJECTIVES	
10	The access road to Domboni is a private farm road and in a very poor condition.		<ul style="list-style-type: none"> • To improve the quality of the access road to Domboni before end of 2002 - <u>completed</u>
11	No electricity is available at Malale and Domboni.		<ul style="list-style-type: none"> • To provide/facilitate the provision of electricity to residents of Malale before end of 2005 • To provide an economically viable option of electricity provision to residents of Domboni before end of 2005
12	Need for street lighting in residential areas of Nancefield Ext 8.		<ul style="list-style-type: none"> • To provide street lighting to Nancefield Ext. 8 before end of 2004
13	No formal refuse disposal service / facilities are available at Madimbo, Malale & Domboni.	2 (econ omic)	<ul style="list-style-type: none"> • To provide a suitable refuse disposal service to Madimbo, Malale & Domboni before end of 2003.
14	Excessive littering is taking place in Musina/Nancefield - creates a bad impression of the town, block stormwater channels and poses a health risk to the community.	2 (econ omic)	<ul style="list-style-type: none"> • To be one of the cleanest towns in Limpopo.
15	No formal cemeteries exist at Madimbo & Domboni.		<ul style="list-style-type: none"> • To provide accessible legal cemetery facilities to all residents of Madimbo, Malale & Domboni before end of 2004.
16	Cemeteries in Musina and Nancefield are not integrated.		<ul style="list-style-type: none"> • To integrate cemetery facilities in Musina and Nancefield before end of 2004.
17	No street name signs exist in Nancefield, which pose problems for residents and emergency services.	2 (econ omic)	<ul style="list-style-type: none"> • Provide name signs to all streets in Nancefield before end of 2007.
18	There is a lack of public transport from Madimbo, Malale & Domboni to and from Musina.		<ul style="list-style-type: none"> • To facilitate a frequent public transport service between Madimbo, Malale & Domboni and Musina on a continuous basis.

5.2 SOCIAL CLUSTER

The working objectives for the priority issues in the Social Cluster are presented in Table 4.

Table 4: Working Objectives for Social Cluster

PRIORITY ISSUES		WORKING OBJECTIVES	
1 (19)	High percentage of teenage pregnancies & lack of family planning.	3	<ul style="list-style-type: none"> • Co-ordinate the establishment of a municipal / inter-departmental committee before June 2004, to look into issues such as teenage pregnancies, STD's & HIV/ AIDS, child abuse, etc. • To provide children with options to spend their time more constructively. • To educate the youth with respect to teenage pregnancies, STD's & HIV/ AIDS, child abuse, etc.
2 (20)	Low level of education amongst people / illiteracy.		<ul style="list-style-type: none"> • To facilitate the establishment of a ABET co-ordination committee by Feb. 2004.
3 (21)	HIV/AIDS.	1 5	<ul style="list-style-type: none"> • To facilitate the formation of municipal / inter-departmental committee on HIV/AIDS by June 2004 (see priority issue no. 27). • To develop a HIV/AIDS policy before end of 2002 - <u>completed</u> • To facilitate the establishment of a HIV/AIDS Information Centre before end of 2002 (see priority issue no. 31) - <u>completed</u>
4 (22)	Lack of sufficient educational facilities.	2	<ul style="list-style-type: none"> • Establish an Education Coordinating Forum for the Northern Soutpansberg District, before Feb. 2004, consisting of officials of the Municipality, SGB's, principals/ educators and parents to negotiate with the Department of Education to change the existing situation with respect to a lack of sufficient schools and school facilities in the Musina Municipal Area.
5 (23)	Lack of adequate staffed health facilities.	1 3	<ul style="list-style-type: none"> • Finalise the integration of health services and the establishment of a Functional Health District (FHD) before June 2004. • To facilitate the provision of a clinic facility at Malale to be used as a mobile point (satellite clinic) before 2004. • To facilitate the establishment of three additional mobile clinics in the Musina municipal area before 2004. • To facilitate the establishment of a HIV/AIDS Information Centre before end of 2002 - <u>completed</u>.
6 (24)	Lack of welfare facilities.	1, 3	<ul style="list-style-type: none"> • To facilitate the provision of adequate welfare facilities in the Musina municipal area • To facilitate the establishment of a representative welfare coordination committee for the Musina Municipal Area by Feb. 2004 to ensure that all departments/organisations/ NGO's align their efforts and assist each other with welfare services.
7 (25)	Lack of facilities at pension payout points.		<ul style="list-style-type: none"> • To facilitate the provision of adequate facilities for pensioners at pension payout points before end of 2004.

PRIORITY ISSUES		WORKING OBJECTIVES	
8 (26)	Improved service from SAPS.		<ul style="list-style-type: none"> • To assist SAPS to deliver a more effective policing service in the Musina Municipal Area. • To facilitate a good working relationship between the community and SAPS through the existing CPF structure on a continuous basis.
9 (27)	Need for a mobile court at Madimbo, Malale & Domboni area.		<ul style="list-style-type: none"> • To facilitate the establishment of a court in the Madimbo, Malale & Domboni area before end of 2005.
10 (28)	Lack of post office facilities at Madimbo, Malale & Domboni.		<ul style="list-style-type: none"> • To facilitate the establishment of one community post office in the Madimbo, Malale & Domboni area before end of 2004.
11 (29)	Lack of public telephones at Madimbo, Malale & Domboni.	8	<ul style="list-style-type: none"> • To facilitate the provision of reliable public telephones at Madimbo & Malale before end of 2004.
12 (30)	Need for libraries in Musina municipal area.	2	<ul style="list-style-type: none"> • The establishment of one mobile library in the Madimbo, Malale & Domboni area before end of 2004.
13 (31)	Lack of recreation and sports facilities in Madimbo, Malale & Domboni & Nancefield.	1	<ul style="list-style-type: none"> • To develop at least one quality recreational facility in Nancefield before end of 2004. • To arrange for regular maintenance of soccer/netball fields in the municipal area before end of 2003. • To develop at least one quality sport facility in the Madimbo, Malale & Domboni area before end of 2004.

5.3 SPATIAL, LAND REFORM AND ENVIRONMENTAL CLUSTER

The working objectives for the priority issues in the Spatial, Land Reform and Environmental Cluster are presented in Table 5.

Table 5: Working Objectives for Spatial, Land Reform and Environmental Cluster

PRIORITY ISSUES		WORKING OBJECTIVES	
1 (32)	A need for land reform programmes exists in the Musina municipal area.	1 (econ omic)	<ul style="list-style-type: none"> • To liaise with the Land Claims Commissioner on progress made with land claims in the Musina Municipal Area and to inform the communities in this regard. • To facilitate at least one agricultural settlement scheme for farm workers before end of 2004.
2 (33)	A need exists at Madimbo, Malale & Domboni to upgrade informal land rights (PTO's) to full ownership (title deeds).		<ul style="list-style-type: none"> • To upgrade the land-use rights of at least one settlement before the end of 2004.
3 (34)	Need for low-income housing units in the Musina Municipal Area	1 (econ omic)	<ul style="list-style-type: none"> • To eradicate the existing backlog of low-income housing units (5471 units) before end of 2005. • To provide ±500 low-income housing units per year (additional to afore-mentioned backlog) in the Musina Municipal Area for the financial years 2004/05, 2005/06 & 2006/07.

PRIORITY ISSUES		WORKING OBJECTIVES	
4 (35)	Need to consolidate legislation applicable to land-use/development planning.		<ul style="list-style-type: none"> • To draft a single uniform land-use scheme for the Musina Municipal Area in terms of the Land Use Management Act (still to be promulgated) before end of 2005 to replace the various existing legislation/ordinance/ proclamations applicable in the area.
5 (36)	Lack of environmental information and policy guidelines in the Musina Municipal Area.		<ul style="list-style-type: none"> • Develop and implement an environmental policy and management plan for the Musina Municipal Area by 2004/05.

5.4 ECONOMIC CLUSTER

The working objectives for the priority issues in the Economic Cluster are presented in Table 6.

Table 6: Working Objectives for Economic Cluster

PRIORITY ISSUES		WORKING OBJECTIVES	
1 2 (37- 38)	The economy of Musina is declining. There is a shortage of job opportunities and job creation in the Musina municipal area.	2	<ul style="list-style-type: none"> • To formulate a municipal Local Economic Development (LED) policy by June 2004 to ensure co-ordination and sustainability of all job creation projects. • To facilitate the implementation of LED projects in the Musina Municipal Area. • To make use of labour intensive techniques for infrastructure projects.
3 (39)	Farms have the potential to create employment for the people in the Musina municipal area. Foreign labour is currently occupying these jobs.	1	<ul style="list-style-type: none"> • Musina Municipality to initiate a partnership with the Department of Labour, Musina Recruitment Agency, Cosatu, NGO's, SAPS, SANDF and Farmer's Associations to do joint programmes to educate and encourage local people to engage in farm work activities - before June 2004.
4 (40)	The tourism sector is poorly developed at present.	1	<ul style="list-style-type: none"> • To develop a municipal tourism strategy by the end of 2004. • To facilitate the establishment of Arts & Craft centre along the N1 before end of 2004 • To create a database of all existing and potential tourism opportunities within the municipality before end of 2004.

5.5 INSTITUTIONAL CLUSTER

Table 7: The working objectives for the priority issues in the Institutional Cluster

PRIORITY ISSUES		WORKING OBJECTIVES	
1 (41)	Need for a service delivery policy.		<ul style="list-style-type: none"> To develop a service delivery policy by June 2004 that will facilitate the implementation of delivering services which will in no way compromise the council's commitment to its mission and vision.
2 (42)	The development of a performance management system and job descriptions for certain officials.	3, 4	<ul style="list-style-type: none"> To develop a performance management system by the end of June 2002 - <u>completed</u> To facilitate community participation within the performance management process. To develop job descriptions for all staff before the end of February 2002, to ensure improved performance at all levels - <u>completed</u>
3 (43)	Need to improve community participatory processes.		<ul style="list-style-type: none"> To establish ward committee structures before June 2004. To develop the capacity of ward committee members and ward councillors to ensure sustainability - continuous. To improve the public relations capacity of council on a continuous basis. To establish a community information centre before end of 2003 - <u>completed</u>
4 (44)	Lack of productivity of officials at lower levels.	2	<ul style="list-style-type: none"> To develop a performance management system by the end of June 2002 which includes incentives for employees - <u>completed</u> To review the human resource policies of the organization by the end of June 2002 - <u>completed</u> To develop job descriptions of all staff before the end of February 2002 and ensure that they understand them - <u>completed</u> To develop procedure manuals for all departments before 2004
5 (45)	Lack of human resource capacity.		<ul style="list-style-type: none"> To develop alternative training methodology such as on-the-job training and mentoring. To identify alternative sources of funding so as to employ additional staff.
6 (46)	Lack of communication between management and frontline staff.		<ul style="list-style-type: none"> To develop an internal communication plan for the Musina municipality by the end of 2004. To develop mechanisms to ensure that all staff are part of the decision-making processes of the council.
7 (47)	Need for vending points at Nancefield, Madimbo, Malale & Domboni.	5 (infra structure)	<ul style="list-style-type: none"> Establish a mobile vending point in Harper, Campbell & Nancefield before end of 2005. Establish vending points in Madimbo, Malale & Domboni before end of 2004.
8 (48)	Need to establish satellite municipal office at Nancefield Ext. 6 and Madimbo, Malale & Domboni.	5 (infra structure)	<ul style="list-style-type: none"> Establish satellite municipal offices in Madimbo & Malale before end of 2004. Establish at least two satellite municipal offices in the commercial farming areas (Schuitdrift, Hope farm, Mopane, Weipe or Pontdrift) before end of 2005.
9 (49)	Need for extension to Civic Centre in terms of office accommodation and equipment.		<ul style="list-style-type: none"> Extend and equip existing Civic Centre to ensure that the municipality can render an efficient and integrated service, which is customer focused, to all areas within its jurisdiction - <u>completed</u>

PRIORITY ISSUES		WORKING OBJECTIVES	
10 (50)	Need to revise and draft new by-laws and a service delivery and tariff policy.		<ul style="list-style-type: none"> • To revise and draft new by-laws and a service delivery and tariff policy before June 2004.
11 (51)	Need reliable data on unemployed and senior citizens who cannot afford the services provided by the Municipality.		<ul style="list-style-type: none"> • To lodge an investigation wrt. persons who qualify for indigent support and the long-term financial implications for the Municipality - <u>completed</u>
12 (52)	Need to solve the transfer of residential erven to individuals in Nancefield X5, X6, & X7		<ul style="list-style-type: none"> • Solve the problems regarding the right of occupancy of residential erven in Nancefield X5, X6 & X7 and outstanding debt to service charges to effect the transfer of erven to rightful occupants.
13 (53)	Status of personnel and responsibility of fire brigade.		<ul style="list-style-type: none"> • Facilitate discussions with Vhembe District Municipality to resolve the functioning & responsibilities of rendering a fire brigade service to the Musina Municipal Area before end of 2005.

6 STRATEGIC GUIDELINES

Strategy decisions of a municipality have to be informed by two aspects: firstly by the local context, i.e. the municipality's priority issues, its vision and its objectives and secondly by national and provincial strategy guidelines. Those in charge of making strategy decisions should not only know the relevant national and provincial guidelines and strategies, but also reach an understanding on what these guidelines and strategies mean to the municipality (IDP Guidelines, 2001).

6.1 LOCALISED SPATIAL STRATEGIC GUIDELINES

6.1.1 THE DEVELOPMENT FACILITATION ACT, 1995 (ACT NO. 67 OF 1995)

The DFA Chapter 1 principles are a set of interrelated intentions (desirable intentions) to guide land planning and development in South Africa. They are necessary to entrench a more equitable and developmental planning system for the country. The principles apply to all forms of planning which affect land development including spatial planning and policy formulation, planning of settlements or parts of settlements, decisions of local authorities affecting land development and all legislation, including all land control systems and instruments affecting the development of land. The intention of the principles are to change the land planning system to one which is proactive, developmental and more managerially-based and to positively accommodate the needs of all people, not just those of the wealthier minority. The localised strategic guidelines are indicated in Table.

Table 8: Localised Spatial Strategic Guidelines - Development Facilitation Act, 1995

DFA Principle	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
3(1)(a)	Policy, administrative practice and laws should provide for urban and rural land development and should facilitate the development of formal and informal, existing and new settlements.	<ul style="list-style-type: none"> Any form of land development in the Musina municipal area, including Musina, Madimbo, Malale, Domboni & commercial farming areas; New subsidised housing schemes in urban & rural areas; Whole of the municipal area, i.e. urban and rural areas. 	<ul style="list-style-type: none"> Equal weight and status should be given to land development processes in urban (Musina) and rural (Madimbo, Malale, Domboni & commercial farms) areas; Utilise appropriate township establishment processes to create/extend new residential areas with secure tenure for residents; Development activities are required (equally) in urban as well as rural areas in the municipal area.
3(1)(b)	Policy, administrative practices and laws should discourage the illegal occupation of land, with due recognition of informal land development processes.	<ul style="list-style-type: none"> Whole of the municipal area, i.e. urban and rural areas. 	<ul style="list-style-type: none"> No settlement/occupation of land will be allowed in the Musina municipal area without following a legal establishment process; Land for settlement should be provided at a rate that meets the demand.
3(1)(c) (i)	Policy, administrative practice and laws should promote efficient and integrated land development in that they promote the integration of social, economic, institutional and physical aspects of land development.	<ul style="list-style-type: none"> All land development-planning activities undertaken in the Musina municipal area. 	<ul style="list-style-type: none"> An integrated and holistic approach should be followed with all land related planning and development activities; All social, economic, institutional, physical and environmental issues should be considered during planning processes.
3(1)(c) (ii)	Policy, administrative practice and laws should promote integrated land development in rural and urban areas in support of each other.	<ul style="list-style-type: none"> All new urban development in or surrounding Musina and 3 rural settlements 	<ul style="list-style-type: none"> New development in and surrounding Musina and 3 rural settlements should be done in a way that considers the influence and impact of such development on the adjacent rural, undeveloped land.
3(1)(c) (iii)	Policy, administrative practice and laws should promote efficient and integrated land development in that they promote the availability of residential and employment opportunities in close proximity to or integrated with each other.	<ul style="list-style-type: none"> All new land development in Musina and Madimbo, Malale & Domboni 	<ul style="list-style-type: none"> New land development in Musina (residential, business, office, industrial) should be located as such to minimise the distance between places of residence and the CBD and industrial areas; New low-income housing development should be located as such to promote the integration of Harper with Musina; New land development at Madimbo and Malale should be directed towards the existing provincial road system to enhance the efficiency of public transportation.
3(1)(c) (iv)	Policy, administrative practice and laws should optimise the use of existing resources including	<ul style="list-style-type: none"> All new land development in Musina and Madimbo, 	<ul style="list-style-type: none"> New land development should be located as such to optimise the utilisation of existing infrastructure (e.g.

DFA Principle	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
	such resources relating to agriculture, land, minerals, bulk infrastructure, roads, transportation and social facilities.	Malale & Domboni	<ul style="list-style-type: none"> roads, schools, water, clinics, etc.); New land development should take inherent qualities of land parcels into account, e.g. minerals, good quality soils, etc.).
3(1)(c) (v)	Policy, administrative practice and laws should promote a diverse combination of land uses.	<ul style="list-style-type: none"> All new land development in Musina and Madimbo, Malale & Domboni 	<ul style="list-style-type: none"> New land development should promote the establishment of a range of different types of land-uses, especially at places of high accessibility.
3(1)(c) (vi) & (vii)	Policy, administrative practice and laws should: <ul style="list-style-type: none"> discourage the phenomenon of "Urban Sprawl" in areas and contribute to the development of more compact towns and cities, and Contribute to the correction of the historically distorted spatial patterns of settlement. 	<ul style="list-style-type: none"> All new land development in Musina 	<ul style="list-style-type: none"> New land development should promote the compaction of the urban area of Musina.
3(1)(c) (viii)	Policy, administrative practice and laws should encourage environmentally sustainable land development practices and processes.	<ul style="list-style-type: none"> All land development in the Musina municipal area 	<ul style="list-style-type: none"> Any land development should: <ul style="list-style-type: none"> minimise interference with natural environment; avoid settlement in places of hazard or high risk, e.g. flood plains; avoid settlement on unique natural habitats of flora and fauna; avoid air and water pollution; and promote recycling of waste in forms in which they can be reabsorbed into the natural environment
3(1)(d)	Members of communities affected by land development should actively participate in the process of land development	<ul style="list-style-type: none"> All new land development in the Musina municipal area 	<ul style="list-style-type: none"> See DFA principle
3(1)(e)	The skills and capacities of disadvantaged persons involved in land development should be developed.	<ul style="list-style-type: none"> New engineering infrastructure projects New housing projects 	<ul style="list-style-type: none"> Local labour/communities should be utilised in community-based projects initiated by provincial and local government; The capacity/skills of local labour/communities should be developed during such projects.
3(1)(f)	Policy, administrative practice and laws should encourage and optimise the contributions of all sectors of the economy (government and non-government) to development.	<ul style="list-style-type: none"> All new land development in the Musina municipal area 	<ul style="list-style-type: none"> Public-private partnerships for land development should be promoted; Clear guidance should be given to the private sector (developers) and NGO's which department/s are responsible for specific functions which are relevant to land development and which legislation is administered by which department or level of government.

DFA Principle	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
3(1)(g)	Laws procedures and administrative practice relating to land development should be clear and generally available... provide guidance... promote trust and acceptance...give content to the fundamental rights set out in the Constitution.	<ul style="list-style-type: none"> • All new land development in the Musina municipal area 	<ul style="list-style-type: none"> • A positive and constructive relationship should be encouraged between the Musina municipality and other role-players involved in land development
3(1)(h)	Policy, administrative practice and laws should promote sustainable land development at the required scale.	<ul style="list-style-type: none"> • All new land development in the Musina municipal area 	<ul style="list-style-type: none"> • Is the proposed development within the financial (capital & operational), institutional and administrative capacity of the Musina municipality? • Do the communities involved in the land development project have reasonable access to work opportunities, social facilities and basic services necessary to support community and individual life? • Are all environmental considerations taken into account? • Can the community afford the proposed land development in terms of service charges, rates and other expenses (e.g. transport costs)? • Are all physical conditions which might affect the development taken into account, e.g. floodlines, geological formations, hazardous mining areas, etc?
3(1)(i)	Policy, administrative practise and laws should promote speedy land development.	<ul style="list-style-type: none"> • All new land development in the Musina municipal area 	<ul style="list-style-type: none"> • Will new legislation regarding land-use/ development planning promote speedy land development in the Musina municipal area?
3(1)(j)	Each proposed land development area should be judged on its own merits and no particular use of land, such as residential, commercial, conservation, industrial, community facility, mining, agricultural or public use, should be regarded as being less important or desirable than any other use of land.	<ul style="list-style-type: none"> • All new land development in the Musina municipal area 	<ul style="list-style-type: none"> • No specific land-use will be promoted/ prioritised as a matter of principle at the expense of other land-uses.
3(1)(k)	Land development should result in security of tenure, provide for the widest possible range of tenure alternatives, including individual and communal tenure, and in cases where land development takes the form of upgrading an existing settlement, not deprive beneficial occupiers of homes or land or, where it is necessary for land or homes occupied by them to be utilised for other purpose, their interest in such land or homes should be reasonably accommodated in some other manner.	<ul style="list-style-type: none"> • All new land development in the Musina municipal area 	<ul style="list-style-type: none"> • Security of tenure should be promoted by the proposed land development; • Upgrading of land tenure schemes, or any other land development project, should minimise the dislocation of existing occupants; • If dislocation of occupants is inevitable, alternative and secure arrangements should be made to accommodate such "beneficiary" occupants.

DFA Principle	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
3(1)(l)	A competent authority at national, provincial and local government level shall co-ordinate the interests of the various sectors involved in or affected by land development so as to minimise conflicting demands on scarce resources	<ul style="list-style-type: none"> • All new land development in the Musina municipal area 	<ul style="list-style-type: none"> • The interests of different sectors, interest groups and stakeholders in land development should be co-ordinated by the public sector; • Any public resources that are committed to land development should benefit the public at large; • The local authority should take the lead in resolving conflicts that arise between the different sectors and interest groups around land development projects.
3(1)(m)	Policy, administrative practice and laws relating to land development should stimulate the effective functioning of a land development market based on open competition between suppliers of goods and services.	<ul style="list-style-type: none"> • All new land development in the Musina municipal area 	<ul style="list-style-type: none"> • Does the land development project interfere in the normal operations of the open market? • Does the land development project promote competition?

6.1.2 WHITE PAPER ON SOUTH AFRICAN LAND POLICY, APRIL 1997

The White Paper sets out the vision and implementation strategy for South Africa's land policy; a policy that is just, builds reconciliation and stability, contributes to economic growth and bolsters household welfare.

Table 9: Localised Spatial Strategic Guidelines - White Paper on South African Land Policy, 1997

NO.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
	<ul style="list-style-type: none"> • Land is a basic human need and government must address landlessness to remedy the unacceptable unequal distribution of land in South Africa. • Priority is to be given to the poor who are in need of land to contribute to income and food security. 	<ul style="list-style-type: none"> • Agricultural land that is currently being leased from the State by farmers. • Farm workers living on commercial farms. • All new low-income housing projects in Musina/Nancefield, Madimbo, Malale & Domboni • Agricultural land that is currently being leased from the State by farmers. • Farm workers living on commercial farms. • All new low-income housing projects in Musina/Nancefield, Madimbo, Malale & Domboni 	<ul style="list-style-type: none"> • Does the land project assist landless people to obtain access to and security in land? • Does the land project target marginalized groups in need of land, including women, evicted and labour tenants and landless farmworkers?
	<ul style="list-style-type: none"> • Government is committed to facilitate the 	<ul style="list-style-type: none"> • Agricultural land that is currently being 	<ul style="list-style-type: none"> • Is the Musina municipality sufficiently

<p>expression of the demand for land of needy communities and inform people about land reform programmes.</p> <ul style="list-style-type: none"> • The participation of communities and individuals as partners with government and other agencies is necessary. Decisions must be taken democratically at local level. • Gender equity • Land reform projects must be economically viable and environmentally sustainable. • Municipal commonages should be utilised for land reform projects. • Tenure reform must allow people to choose the tenure system which is appropriate to their circumstances. • To establish procedures for the rapid release of land for development. 	<p>leased from the State by farmers.</p> <ul style="list-style-type: none"> • Farm workers living on commercial farms. • All new low-income housing projects in Musina/Nancefield, Madimbo, Malale & Domboni • Agricultural land that is currently being leased from the State by farmers. • Farm workers living on commercial farms. • All new low-income housing projects in Musina/Nancefield, Madimbo, Malale & Domboni. • All new land development in the Musina municipal area. • All land reform projects in the Musina municipal area. • Undeveloped land surrounding Musina that is owned by the Musina municipality. • Madimbo, Malale & Domboni • Musina municipality 	<p>informed about the land needs of communities?</p> <ul style="list-style-type: none"> • Are communities sufficiently informed about the land reform/housing options available from government? • Are important decisions regarding the land development project taken on community level and on a democratic basis? • Does the project bring about equitable opportunities for both men and women? • See White Paper principle. • The municipal commonage should be effectively utilised to assist poor communities to supplement their incomes and address local economic development. • The upgrading of informal land rights in rural settlements should be consistent with the wishes and needs of the majority of the community. • New ordinances/regulations applicable to land-use/development planning should promote the rapid release of land for development.
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6.1.3 THE HOUSING ACT, 1997 (Act No. 107 of 1997), HOUSING WHITE PAPER & NATIONAL HOUSING CODE, MARCH 2000

The Housing Act, 1997 sets out the general principles applicable to housing development that national, provincial and local spheres of government must adhere to, encourage and promote. The principles contained in the Housing Act, 1997 (Act No. 107 of 1997) covers the principles of the Housing White Paper.

Table10: Localised Spatial Strategic Guidelines - The Housing Act 1997

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
2(1)(a)	<ul style="list-style-type: none"> Government must give priority to the needs of the poor in respect of housing development. 	<ul style="list-style-type: none"> New housing development in the Musina municipal area. 	<ul style="list-style-type: none"> Priority should be given to housing projects for the poor communities in the municipal area.
2(1)(b)	<ul style="list-style-type: none"> Meaningful consultation should take place with individuals and communities affected by housing development. 	<ul style="list-style-type: none"> - do - 	<ul style="list-style-type: none"> Is the affected community involved in the housing development process or sufficiently consulted?
2(1)(c) (i)	<ul style="list-style-type: none"> Housing development should provide as wide a choice of housing and tenure options as is reasonably possible. 	<ul style="list-style-type: none"> - do - 	<ul style="list-style-type: none"> The needs of the affected community regarding desired housing options and land tenure should be established.
2(1)(d) (ii)	<ul style="list-style-type: none"> Housing development should be economically, fiscally, socially and financially affordable and sustainable. 	<ul style="list-style-type: none"> - do - 	<ul style="list-style-type: none"> Does the municipality have the capacity to plan, implement and maintain the housing project? Does the community have the capacity to afford the envisaged housing project and to pay for future service rates?
2(1)(e) (iii)	<ul style="list-style-type: none"> Housing development should be based on integrated development planning. 	<ul style="list-style-type: none"> - do - 	<ul style="list-style-type: none"> Did the proposed housing project go through all the phases (strategy/project/integration) of the integrated development planning process?
2(1)(f) (iii)	<ul style="list-style-type: none"> Housing development should be administrated in a transparent, accountable and equitable manner, based on the principles of good governance. 	<ul style="list-style-type: none"> - do - 	<ul style="list-style-type: none"> All new housing development processes should be transparent; Are appropriate monitoring mechanisms put in place for the housing development process? Are standards and targets set for the housing development process?
2(1)(d)	<ul style="list-style-type: none"> Government should encourage and support individuals and communities, including co-operatives, associations and other community based bodies, in fulfilling their own housing needs in a way that ensures skills transfer and community empowerment. 	<ul style="list-style-type: none"> - do - 	<ul style="list-style-type: none"> Local communities, contractors, developers and consultants should be utilised as far as reasonably possible to execute new housing projects; Capacity building, skills transfer and upward mobility for unskilled and skilled men and women in the housing field should take place during the planning and construction phases of new housing projects.
2(1)(e) (i)	<ul style="list-style-type: none"> Consumer education and protection should be promoted in respect of housing development. 	<ul style="list-style-type: none"> - do - 	<ul style="list-style-type: none"> Beneficiaries of the housing project should be informed of the technical, legal and financial aspects of the housing process.
2(1)(e) (iii)	<ul style="list-style-type: none"> Socially and economically viable communities and safe and healthy living conditions should be promoted in respect of housing development. 	<ul style="list-style-type: none"> - do - 	<ul style="list-style-type: none"> The beneficiary community of any new housing development should have reasonable access to essential social facilities; Basic water and sewerage infrastructure (at least RDP level) should be provided to all new housing developments.

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
2(1)(e) (iv)	<ul style="list-style-type: none"> The process of racial, social, economic and physical integration in rural and urban areas should be promoted in respect of housing development. 	- do -	<ul style="list-style-type: none"> Does the project promote the process of racial, social, economic and physical integration in Musina?
2(1)(e) (v)	<ul style="list-style-type: none"> The effective functioning and equitable access to the housing market should be promoted. 	- do -	<ul style="list-style-type: none"> All new housing developments should produce quality housing units to ensure a future capital value for beneficiaries; All individuals qualifying for a housing subsidy will have equal access to housing opportunities in the Musina municipal area
2(1)(e) (vi)	<ul style="list-style-type: none"> Equality in respect of gender, race, class, etc. should be promoted in respect of housing development. 	- do -	<ul style="list-style-type: none"> All individuals qualifying for a housing subsidy will have equal access to housing opportunities in the Musina municipal area
2(1)(e) (vii)	<ul style="list-style-type: none"> Higher densities in respect of housing development should be promoted to ensure the economic utilisation of land and services. 	- do -	<ul style="list-style-type: none"> Higher residential densities should be pursued in new housing developments - the needs of communities should however be taken into account.
2(1)(e) (viii)	<ul style="list-style-type: none"> The meeting of special housing needs, including those of the disabled, should be promoted. 	- do -	<ul style="list-style-type: none"> Were special housing needs, e.g. the needs of disabled people, accounted for in the design of the housing project?
2(1)(e) (ix)	<ul style="list-style-type: none"> The provision of community and recreational facilities in residential areas should be promoted. 	- do -	<ul style="list-style-type: none"> Even for community and recreational facilities should be provided in new residential layout plans according to prescribed standards.
2(1)(e) (x)	<ul style="list-style-type: none"> The housing needs of marginalized groups, including women and other disadvantaged groups should be promoted. 	- do -	<ul style="list-style-type: none"> What steps were taken to include women and other disadvantaged groups in the housing development process?
2(1)(f)	<ul style="list-style-type: none"> Housing development should consider and address the impact on the environment. 	- do -	<ul style="list-style-type: none"> An environmental Scoping Report should be conducted in terms of the Environment Conservation Act, 1989 for any new housing development project.
2(1)(g)	<ul style="list-style-type: none"> Housing development in rural and urban areas should not be inhibited 	- do -	<ul style="list-style-type: none"> See Housing Act principle.
2(1)(h)	<ul style="list-style-type: none"> All sections of the Constitution should be respected, protected, promoted and fulfilled. 	- do -	<ul style="list-style-type: none"> Is the proposed housing development process in line with the Bill of Rights in Chapter 2 of the Constitution and all other applicable provisions of the Constitution?
2(1)(i)	<ul style="list-style-type: none"> Strive to achieve consensus regarding policies among the three spheres of government in respect of housing development policies 	- do -	<ul style="list-style-type: none"> Are the principles of co-operative government and intergovernmental relations referred to in section 41 of the Constitution, adhered to?
2(1)(j)	<ul style="list-style-type: none"> The principles of the DFA should be observed and adhered to. 	- do -	<ul style="list-style-type: none"> Are the principles of the DFA applied to the housing development project?

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
	<ul style="list-style-type: none"> The following guidelines are applicable with respect to roles and responsibilities in terms of the National Housing Code: Conditions not conducive to health and safety of the inhabitants should be prevented or removed; Engineering services should be provided in an economically efficient manner; Housing delivery goals should be set; Land should be identified and designated for housing development; A public environment that is conducive to housing development should be created and maintained and it should be financially and socially viable; Promote the resolution of conflicts arising in the housing development process; 		
	<ul style="list-style-type: none"> Provide bulk engineering services and revenue generating services in so far as specialist utility suppliers do not provide such services. 		

6.1.4 THE LAND-USE MANAGEMENT BILL, 2001 & THE WHITE PAPER ON SPATIAL PLANNING AND LAND-USE MANAGEMENT

The Minister of Land Affairs, as the Minister responsible for land, proposes to introduce the Land-Use Management Bill to parliament that provides a uniform, effective and efficient framework for spatial planning and land use management in both urban and rural contexts. The most dramatic effect of the Bill is that it will rationalise the existing plethora of planning laws into one national system that will be applicable in each province, in order to achieve the national objective of wise land use. The basis of the system will be principles and norms aimed at achieving sustainability, equality, efficiency, fairness and good governance in spatial planning and land use management. The decisions of planning authorities, whether related to the formulation of plans such as IDPs or the consideration of land development applications such as rezonings, must all be consistent with these principles and norms. The Land-Use Management Bill will take effect on a date to be determined by the President by proclamation. The localised strategic guidelines are indicated in Table.

Table 11: Localised Spatial Strategic Guidelines - The Land-use Management Bill, 2001

Section	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
5	The sustainable management and use of the resources making up the natural and built environment and includes the following norms:	<ul style="list-style-type: none"> • All new spatial planning, land-use management and land development processes and decisions in the Musina municipal area. 	
5(a)	<ul style="list-style-type: none"> • The land may only be used or developed in accordance with the law; 	- do -	<ul style="list-style-type: none"> • Is the existing legislation applicable to the land development area being used?
5(b)	<ul style="list-style-type: none"> • The general interest as reflected in national, provincial and local policies should enjoy preference over private interests in spatial planning, land-use management and land development processes and decisions; 	- do -	<ul style="list-style-type: none"> • The general interest of the land development project should enjoy preference over private interests.
5(c)	<ul style="list-style-type: none"> • Disaster management, including prevention and mitigation, should be an integral part of all spatial planning, land-use management and land development; 	- do -	<ul style="list-style-type: none"> • Are prevention and mitigation measures set for the proposed land development project?
5(d)	<ul style="list-style-type: none"> • The protection of existing natural, environmental and cultural resources should be the primary aim in spatial planning, land-use management and land development processes and decisions; 	- do -	<ul style="list-style-type: none"> • An environmental Scoping Report should be conducted in terms of the Environment Conservation Act, 1989 for all land development projects that may have an influence on the environment.
5(e)	<ul style="list-style-type: none"> • Land used for agricultural purposes should only be reallocated to other uses where real need exists and prime agricultural land should remain in production. 	- do -	<ul style="list-style-type: none"> • See Land-Use Management Bill principle.
6	Everyone affected by spatial planning, land-use management and land development actions or decisions must enjoy equal protection and benefits, and no unfair discrimination should be allowed, and includes the following norms:	<ul style="list-style-type: none"> • All new spatial planning, land-use management and land development processes and decisions in the Musina municipal area. 	
6(a)	<ul style="list-style-type: none"> • Public involvement in land-use planning and development must be inclusive of all persons and groups with an interest in the matter being decided; 	- do -	<ul style="list-style-type: none"> • A proper public participation process should be followed for all spatial planning, land-use management and land development actions or decisions in the Musina municipal area.
6(b)	<ul style="list-style-type: none"> • Benefits and opportunities flowing from land development should be shared by previously disadvantaged communities and areas; 	- do -	<ul style="list-style-type: none"> • How does previously disadvantaged communities and areas benefit from the proposed land development?

Section	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
6(c)	<ul style="list-style-type: none"> The appropriateness of land use or development must be determined on the basis of its impact on society as a whole rather than only the applicant or immediate neighbours. 	- do -	<ul style="list-style-type: none"> See Land-Use Management Bill principle.
7	Efficiency requires that the desired result of land-use must be produced with the minimum expenditure of resources, and includes the following norms:	<ul style="list-style-type: none"> All new spatial planning, land-use management and land development processes and decisions in the Musina municipal area. 	
7(a)	<ul style="list-style-type: none"> Land development should promote development of compact human settlements, combating low intensity urban sprawl; 	<ul style="list-style-type: none"> - do - 	<ul style="list-style-type: none"> New land development should promote the compaction of the urban area of Musina.
7(b)	<ul style="list-style-type: none"> Areas where people live and work should be close to each other; 	- do -	<ul style="list-style-type: none"> New land development in Musina (residential, business, office, industrial) should be located as such to minimise the distance between places of residence and the CBD and industrial areas; New low-income housing development should be located as such to promote the integration of Harper with Musina; New land development at Madimbo & Malale should be directed towards the existing provincial road system to enhance the efficiency of public transportation. How do the proposed spatial planning, land-use management or land development actions or decisions affect the adjacent municipalities actions or decisions?
7(c)	<ul style="list-style-type: none"> Plans of contiguous municipalities should relate positive to each other. 	- do -	
8	Integration requires that the separate and diverse elements involved in development planning and land-use should be combined and co-ordinated into a more complete or harmonious whole, and includes the following norms:	<ul style="list-style-type: none"> All new spatial planning, land-use management and land development processes and decisions in the Musina municipal area. 	
8(a)	<ul style="list-style-type: none"> Spatial planning, land-use management and land development processes and decisions should take account of the sectoral policies of other spheres and departments of government; 	<ul style="list-style-type: none"> - do - 	<ul style="list-style-type: none"> Is the land development project in line with the relevant national and provincial sector policies?
8(b)	<ul style="list-style-type: none"> Spatial planning, land-use management and land development processes and decisions should promote efficient, functional and 	- do -	<ul style="list-style-type: none"> An integrated and holistic approach should be followed with all land related planning and development activities;

Section	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
8(c)	integrated settlements; <ul style="list-style-type: none">• Spatial planning, land-use management and land development processes and decisions should be determined by the availability of appropriate services and infrastructure, including transport infrastructure;	- do -	<ul style="list-style-type: none">• All social, economic, institutional, physical and environmental issues should be considered during planning processes;• See Principle 7(b).• Are the availability of existing services and infrastructure, including public transport, taken into account during the planning of the land development project?
8(d)	<ul style="list-style-type: none">• Spatial planning, land-use management and land development processes and decisions should promote racial integration;	- do -	<ul style="list-style-type: none">• Hoe does the proposed land development project promote racial integration in the Musina municipal area?
8(e)	<ul style="list-style-type: none">• Spatial planning, land-use management and land development processes and decisions should promote mixed-use development.	- do -	<ul style="list-style-type: none">• New land development should promote the establishment of a range of different types of land-uses, especially at places of high accessibility;• See DFA Principle 3(1)(c)(vi)
9	Fair and good governance requires that spatial planning, land-use management and development must be democratic, legitimate and participatory, and includes the following norms: <ul style="list-style-type: none">• Spatial planning, land-use management and land development processes and decisions should be lawful, reasonable and procedurally fair;• Affected communities/parties have a right to access of information pertinent to land-use and development plans;• Capacities of affected communities should be enhanced to enable them to participate meaningfully in development and planning affecting them;• Forums at which land-use management and land development decisions are taken should be open to the public;• The names and contact details of officials	<ul style="list-style-type: none">• All new spatial planning, land-use management and land development processes and decisions in the Musina municipal area. <p>- do -</p>	<ul style="list-style-type: none">• See Land-Use Management Bill principle.• Everyone whose rights are adversely affected by spatial planning, land-use management and land development decisions has a right to be given written reasons.• Are all interested and affected parties participating in the programme/ process/project?• What measures were taken to ensure participation by disadvantaged communities in the programme/process/ project?• See NEMA Principle 2(4)(f).• See Land-Use Management Bill principle.• See Land-Use Management Bill principle.
9(a)			
9(b)			
9(c)			
9(d)			
9(e)			

Section	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
9(f)	<p>with whom the public should communicate with respect to spatial planning, land-use management and land development matters must be publicised;</p> <ul style="list-style-type: none"> • Spatial planning, land-use management and land development decisions should be taken within pre-determined time frames. Accessible participatory structures should be created to allow interested and affected parties to express their concerns or support for any land development decision at an early stage in the decision-making process. 	- do -	<ul style="list-style-type: none"> • Are time-frames set for proposed land development projects/processes and is the community aware of such time-frames? • Are participatory structures in place to allow the community to express their concerns or support for the land development project/decision?

6.2 LOCALISED ENVIRONMENTAL STRATEGIC GUIDELINES

6.2.1 NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998

The Chapter 1 principles of the National Environmental Management Act, 1998 (NEMA) apply throughout South Africa to the actions of all organs of State that may significantly affect the environment.

Table 12: Localised Environmental Strategic Guidelines - National Environmental Management Act, 1998

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
2(2)	<ul style="list-style-type: none"> • Environmental management must place people and their needs at the forefront of its concern and serve their physical, psychological, developmental, cultural and social interests equitably. 	<ul style="list-style-type: none"> • All new land development in the Musina municipal area 	<ul style="list-style-type: none"> • See NEMA principle
2(3)	<ul style="list-style-type: none"> • Development must be socially, environmentally and economically sustainable. 	<ul style="list-style-type: none"> • All new land development in the Musina municipal area 	<ul style="list-style-type: none"> • See DFA Principles 3(1)(d)(ii), 3(1)(c)(viii), 3(1)(h); • See White Paper on Spatial Planning and Land-use Management - Principle 1.
2(4)(a)	<ul style="list-style-type: none"> • During any land development the following factors should be considered: 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • An environmental Scoping Report should be conducted in terms of the Environment Conservation Act, 1989 for all land development projects that may have an influence on the environment.

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
2(4)(i)	<ul style="list-style-type: none"> The disturbance of ecosystems and the loss of biological diversity; 	<ul style="list-style-type: none"> All new land development in the Musina municipal area 	<ul style="list-style-type: none"> An environmental Scoping Report should be compiled during the planning of new projects that indicate the impact on the environment.
2(4)(ii)	<ul style="list-style-type: none"> Avoid or minimise pollution and degradation of the environment; 	<ul style="list-style-type: none"> All new land development in the Musina municipal area 	<ul style="list-style-type: none"> - do -
2(4)(iii)	<ul style="list-style-type: none"> Avoid or minimise the disturbance of landscapes and sites that constitute the community's cultural heritage; 	<ul style="list-style-type: none"> All new land development in the Musina municipal area, including heritage sites and landscapes with potential to be developed for tourism purposes. 	<ul style="list-style-type: none"> An environmental Scoping Report should be compiled during the planning of new projects that indicate the impact on the environment and cultural heritage sites; Are the conditions and the principles of the National Heritage Resources Act, 1999 taken into account?
2(4)(iv)	<ul style="list-style-type: none"> Avoid or minimise generation of waste, re-use or recycle waste where possible and dispose waste in a responsible manner; 	<ul style="list-style-type: none"> The development of new refuse disposal sites at Madimbo, Malale & Domboni, as well the operation of the existing refuse disposal site at Musina. 	<ul style="list-style-type: none"> An environmental Scoping Report should be compiled for the identification and development of new refuse disposal sites; Recycling of waste should be promoted throughout the Musina municipal area.
2(4)(v)	<ul style="list-style-type: none"> The use of non renewable natural resources should be responsible and equitable and takes into account the consequences of the depletion of the source; 	<ul style="list-style-type: none"> Projects to be undertaken to create job opportunities that have an impact on natural resources, e.g. agriculture, stone crushing, tourism, etc. 	<ul style="list-style-type: none"> An environmental Scoping Report should be compiled during the planning of new projects that indicate the impact on the environment.
2(4)(vi)	<ul style="list-style-type: none"> The development and use of renewable resources and the ecosystems of which they form part should not exceed the level beyond which their integrity is jeopardised; 	<ul style="list-style-type: none"> All land development projects that may have a major influence on the characteristics of existing ecosystems or change such ecosystems. 	<ul style="list-style-type: none"> - do -
2(4)(vii)	<ul style="list-style-type: none"> A risk-averse and cautious approach is applied which takes into account the limits of current knowledge about consequences of decisions and actions. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> - do -
2(4)(viii)	<ul style="list-style-type: none"> Negative impacts on the environment and people's environmental rights should be anticipated and prevented or minimised. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> An environmental Scoping Report should be compiled during the planning of new projects that indicate the impact on the environment and people's environmental rights.
2(4)(b)	<ul style="list-style-type: none"> Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> See NEMA principle

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
	the selection of the best practicable environmental option.		
2(4)(c)	<ul style="list-style-type: none"> Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> See NEMA principle
2(4)(d)	<ul style="list-style-type: none"> Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> Every resident in the Musina municipal area will have equal access to environmental resources, benefits and services; What measures were taken to ensure access to environmental resources, benefits and services to disadvantaged communities?
2(4)(e)	<ul style="list-style-type: none"> Responsibility for the environmental health and safety consequences of a policy programme, project, product, process service or activity exists throughout its life cycle. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> See NEMA principle
2(4)(f)	<ul style="list-style-type: none"> The participation of all interested and affected parties in environmental governance must be promoted and all people must have the opportunity to develop the understanding skills and capacity necessary for achieving equitable and effective participation and participation by vulnerable and disadvantaged persons must be ensured. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> Are all interested and affected parties participating in the programme/ process/project? What measures were taken to ensure participation by disadvantaged communities in the programme/process/ project?
2(4)(g)	<ul style="list-style-type: none"> Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge including traditional and ordinary knowledge. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> Were the environmental needs of all communities, including traditional needs, taken into account?
2(4)(h)	<ul style="list-style-type: none"> Community well-being and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> What steps are built into the land development process to educate or make the community aware of environmental issues relating to the project?
2(4)(i)	<ul style="list-style-type: none"> The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated and decisions must be 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> An environmental Scoping Report should be compiled during the planning of new projects that make proposals regarding the social, economic and environmental impacts of the proposed development.

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
	appropriate in the light of such consideration and assessment.		
2(4)(j)	<ul style="list-style-type: none"> The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected. 	<ul style="list-style-type: none"> All land development projects that may be harmful to human health or the environment. 	<ul style="list-style-type: none"> Are workers properly informed about the possible harmful effects (if any) that the development may pose to their health or the environment?
2(4)(k)	<ul style="list-style-type: none"> Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> Is all information relevant to the land development process/ project open for public scrutiny? Are the reasons for making decisions on sensitive issues/applications revealed to the public?
2(4)(l)	<ul style="list-style-type: none"> There must be intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment. 	<ul style="list-style-type: none"> Musina municipal area 	<ul style="list-style-type: none"> See NEMA principle
2(4)(m)	<ul style="list-style-type: none"> Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures. 	<ul style="list-style-type: none"> Musina municipal area 	<ul style="list-style-type: none"> See NEMA principle
2(4)(n)	<ul style="list-style-type: none"> Global and international responsibilities relating to the environment must be discharged in the national interest. 	<ul style="list-style-type: none"> Musina municipal area 	<ul style="list-style-type: none"> See NEMA principle
2(4)(o)	<ul style="list-style-type: none"> The environment is held in public trust for the people, the beneficial use of the environmental resources must serve the public interest and the environment must be protected as the people's common heritage. 	<ul style="list-style-type: none"> Musina municipal area 	<ul style="list-style-type: none"> See NEMA principle
2(4)(p)	<ul style="list-style-type: none"> The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> See NEMA principle
2(4)(q)	<ul style="list-style-type: none"> The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted. 	<ul style="list-style-type: none"> All land development projects that may have an influence on the environment. 	<ul style="list-style-type: none"> What measures were taken to ensure participation by women and the youth in the land development programme/process/ project?
2(4)(r)	<ul style="list-style-type: none"> Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar 	<ul style="list-style-type: none"> Musina municipal area 	<ul style="list-style-type: none"> See NEMA principle

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
	systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.		

6.2.2 NATIONAL HERITAGE RESOURCES ACT, 1999 (ACT NO. 25 OF 1999)

Section 38 of the National Heritage Resources Act (NHRA), 25 of 1999 makes provision for an impact assessment to be done when heritage resources may be affected by any development.

Table 13: Localised Environmental Strategic Guidelines - National Heritage Resources Act, 1999

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
Section 38	<p>There are two basic components to the impact assessment process:</p> <ul style="list-style-type: none"> • <u>The heritage component of the Environmental Impact Assessment (EIA)</u>: An EIA is normally called for in terms of the Environmental Conservation Act, 1989, the Mineral Act, 1991 and the Development Facilitation Act, 1995. The NHRA makes it compulsory for SAHRA to have insight, comment and make recommendations on the Heritage component of an EIA. The consenting authority cannot give consent for the development until SAHRA is satisfied that its requirements have been met. • <u>The Heritage Impact Assessment (HIA)</u>: If an EIA is not called for in terms of the above 3 sets of legislation then an HIA must be conducted in the following circumstances: <ul style="list-style-type: none"> ○ Any linear development exceeding 300 metres (a pipeline, power line, etc); ○ Any construction of a bridge or structure longer than 50 metres; ○ Any development exceeding 5000 square metres; ○ Any rezoning, change of land use or township establishment in terms of local by-laws or the DFA; ○ When SAHRA requires that an EIA or HIA should be conducted. 	<ul style="list-style-type: none"> • Any area in the Musina Municipal Area where development may affect heritage resources. 	<ul style="list-style-type: none"> • See NHRA requirements.
	If an EIA or HIA is not required or called for in the urban environment (structures) then you need a permit for any alteration or demolition of any structure older than 60 years (section 34 of the NHRA).	<ul style="list-style-type: none"> • Any structure in the Musina Municipal Area 	<ul style="list-style-type: none"> • See NHRA requirement.

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
		that is older than 60 years.	

6.3 LOCALISED INSTITUTIONAL STRATEGIC GUIDELINES ALISED SERVICE DELIVERY GUIDELINES

6.3.1.1 The White Paper on Local Government, March 1998, Section F

The White Paper focuses on the transformation of service delivery systems such as the development of a regulatory framework for municipal public-private partnerships. Each municipality is encouraged to develop its own institutional transformation programme and adopt the options, which are best suited to its circumstances.

6.3.1.2 The Municipal Systems Act, 2000, Chapter 8

Chapter 8 of the MSA makes provision for the delivery of services by outlining the mechanisms and criteria that could be used by municipalities.

Table 14: Localised Service Delivery Guidelines

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
Section F,(2) Part 2: Provision of services	<ul style="list-style-type: none"> Various approaches to service delivery are outlined which municipalities may use. Their choices should be guided by clear criteria such as coverage, cost, quality and socio-economic objectives. Explores the various internal and external mechanisms, which a municipality could use for the provision of services. This section of the MSA outlines the criteria and process for deciding on the appropriate mechanism for service delivery. 	<ul style="list-style-type: none"> Musina municipality 	<ul style="list-style-type: none"> Assess the current service delivery mechanisms in relation to council meeting its requirements for service delivery, i.e. does council have the necessary capacity to deliver services and projects as identified in the IDP? The policy should reflect different options for service delivery which council may use in future such as partnerships with CBOs and NGOs, contracting out of services, leasing and concessions, public-private partnerships, and building on existing capacity; Criteria should be developed by the municipality when assessing various options; Do the service delivery agreements involving competitive bidding take into account the legislative requirements as indicated in Sections 83

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
			<ul style="list-style-type: none"> and 84 of the Municipal Systems Act? Council needs to establish performance-based contracts that it may enter into with external service providers if the need arises.

6.3.2 LOCALISED PERFORMANCE MANAGEMENT GUIDELINES

6.3.2.1 The White Paper on Local Government, March 1998, Section B

Performance management has been identified as one of the inter-related approaches, to achieve the outcomes of a developmental local government system.

6.3.2.2 Municipal Systems Act, 2000, Chapter 6 and Chapter 7, Part 4

Chapter 6 of the MSA, makes provision for the establishment of a performance management system, and outline the core components of such a system. Chapter 7, Part 4, deals with the need for the municipal manager to ensure that job descriptions are developed for each post on the staff establishment.

Table 15: Localised Performance Management Guidelines

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
Section B (3.2) Chapter 6, sections 38 – 49 Chapter 7, Part 4, sec. 66(1)(a)	<ul style="list-style-type: none"> Performance management is critical in ensuring that plans are being implemented, have the desired developmental impact, and that resources are being used efficiently A municipality must establish a performance management system taking into account the core components and ensure community involvement. The municipal manager must provide job descriptions for each post within the policy framework determined by the council and subject to any applicable legislation. 	<ul style="list-style-type: none"> Musina municipality <p>- do -</p>	<ul style="list-style-type: none"> The performance management system should have the ability to be used by both the municipality and community to assess performance; The community and all staff of the municipality should form part of the process of developing the PMS; The PMS should include all core components as indicated in the Municipal Systems Act; The municipal manager and all HoDs should sign performance agreements. Develop job descriptions / duty sheets for all other employees which spells out the job functions, conditions of employment and remuneration.

6.3.3 LOCALISED COMMUNITY PARTICIPATION GUIDELINES

6.3.3.1 The White Paper on Local Government, March 1998, Section B

One of the strengths of integrated development planning is that it recognizes the linkages between development, delivery and democracy. Building local democracy is central to the role of local government.

6.3.3.2 Municipal Structures Act, 1998, Chapter 4, Part 4

The Municipal Structures Act makes provision for the establishment of ward committees in metropolitan and certain types of local municipalities. The Act also outlines the roles and functions of these ward committee structures.

6.3.3.3 Municipal Systems Act, 2000, Chapter 4

There is a need for municipalities to develop a culture of municipal governance. This chapter outlines the mechanisms, processes and procedures for community participation.

Table 16: Localised Community Participation Guidelines

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
Section B (3.3)	<ul style="list-style-type: none">Municipalities require active participation by citizens at four levels:<ul style="list-style-type: none">As voters;As citizens who express their views;As consumers and end-users;As organized partners.	<ul style="list-style-type: none">Musina municipalityEntire Musina Area	<ul style="list-style-type: none">The community should actively participate in the IDP process, the development of the PMS, monitoring and reviewing the performance of council, the preparation of the budgets, and the provision of municipal services;Is there a mechanism, which currently exists to facilitate the co-ordination of these processes?Are ward committee structures established as outlined in the Municipal Structures Act?The capacity of ward committees, including ward councillors and officials, should be developed to ensure that meaningful and sustainable participation takes place.
Chapter 4, Part 4	<ul style="list-style-type: none">Certain municipalities may have ward committees. The establishment of ward committees is to enhance participatory democracy in local government. Municipalities may make administrative arrangements to enable ward committees to perform their functions and exercise their powers effectively.	- do -	
Chapter 4,	<ul style="list-style-type: none">The community should participate in the affairs of the municipality. Municipalities should contribute	- do -	<ul style="list-style-type: none">Develop a culture of governance within the municipality;

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
sections 16 - 22	to building the capacity of the local community to enable it to participate in the affairs of the municipality. Municipalities must set in place appropriate communication mechanisms to communicate with the community.		<ul style="list-style-type: none"> • Do our officials and councillors have the necessary skills to interact with the community? • Is it feasible to establish a community information centre?

6.3.4 LOCALISED STRATEGIC GUIDELINES TO IMPROVE THE PRODUCTIVITY OF OFFICIALS AT THE LOWER LEVELS

6.3.4.1 White Paper on Local Government, March 1998, Section F

This section deals with the need for municipalities to develop three sets of capacities in order to improve performance, which are:

Strategic capacity to assess, plan and develop innovative programmes;

Directing or integrating capacity and resources;

A community orientation to inform a user-friendly, relevant and quality service to local communities.

6.3.4.2 Municipal Systems Act, 2000, Chapter 6 and Chapter 7

Chapter 6 makes provision for the establishment of a performance management system, which could be used to monitor the performance of staff. Certain sections in Chapter 7 outlines the roles and responsibilities of the staff of the municipality which they need to comply with and the responsibility of the municipal manager and the managers directly accountable to him / her to ensure the implementation and provision of services by the administration.

Table17: Localised Strategic Guidelines to Improve the Productivity of Officials at the Lower Levels

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
Section F Sections 50, 51(b) (c) (e) (h) (i) (l) (m), 55, 56, 57, and Part 4 Schedule 2	<ul style="list-style-type: none"> The development of new capacities and approaches should go hand in hand with measures to enhance accountability of the administration and build relationships of mutual respect and confidence between councillors and the administration; There are basic values governing local public administration which is embodied in section 195 (1) of the Constitution; The administration must carry out its functions delegated to it by management and be involved in all management decisions as far as is practical. The municipality should also provide a working environment which is equitable, fair, open and non-discriminatory 	<ul style="list-style-type: none"> Musina municipality 	<ul style="list-style-type: none"> What incentives exist to motivate staff to improve productivity? Are there appropriate internal communication systems set in place to ensure that all staff is part of most strategic planning processes? Develop a human resource policy which covers issues as stipulated in Chapter 7, section 67 of the MSA, such as recruitment, selection and appointment of staff, conditions of services, promotion and demotion of staff, etc. The localized strategic guidelines that applies to priority area 2, will apply here as well.

6.3.5 LOCALISED STRATEGIC GUIDELINES TO DEAL WITH LACK OF HUMAN RESOURCE CAPACITY

6.3.5.1 White Paper on Local Government, March 1998, Section F

A need for a national local government training system has been identified. The training of councillors should be the responsibility of SALGA.

6.3.5.2 Municipal Systems Act, 2000, Chapter 7, Part 4

Section 68 deals with the need for the municipality to ensure that the human resource capacity is developed to a level that enables it to perform its functions and exercise its powers in an economical, effective, efficient and accountable way.

Table 18: Localised Strategic Guidelines to Deal with Lack of Human Resource Capacity

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
Section F (4) Section 68(1), (2), (3)	<ul style="list-style-type: none"> • A need for a national local government training system; • Provision for training / capacity building of human resources is made as well as the accessing of funding through the budget and SETA LG 	<ul style="list-style-type: none"> • Musina municipality 	<ul style="list-style-type: none"> • Implement the skills development plan and if necessary apply for funding to SETA; • Does the council have the finances to employ additional staff? • What other options exist for the council to ensure that it continues to deliver services? • The strategic guidelines for priority area 1 should apply here as well, i.e. the different methods for service delivery.

6.3.6 LOCALISED STRATEGIC OBJECTIVES TO IMPROVE THE COMMUNICATION BETWEEN MANAGEMENT AND FRONTLINE STAFF

6.3.6.1 Municipal Systems Act, 2000, Chapter 7

Municipalities should establish clear relationships, and facilitate co-operation, co-ordination and communication between political structures, the administration and the local community.

Table 19: Localised Strategic Objectives to Improve the Communication between Management and Frontline Staff

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
Section 51	<ul style="list-style-type: none"> • The municipality must establish clear relationships, and facilitate co-operation, coordination and communication between the various stakeholders. 	<ul style="list-style-type: none"> • Musina municipality 	<ul style="list-style-type: none"> • The council should develop and implement a communication plan which will deal with issues of communication with the public as well as internally; • Does the council have a newsletter? • How does council currently communicate with the community? • How does management ensure that all staff is part of most strategic decision-making processes?

6.4 LOCALISED ECONOMIC STRATEGIC GUIDELINES

6.4.1 LOCAL ECONOMIC DEVELOPMENT FUND POLICY, AUGUST, 1999

The LEDF provides financial support to municipalities engaging in projects that will lead to job creation, poverty alleviation and redistribution.

Table 20: Localised Economic Strategic Guidelines - Local Economic Development Fund Policy, 1999

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
	<ul style="list-style-type: none"> To give financial support to projects that will lead to poverty alleviation. 	<ul style="list-style-type: none"> The whole of the municipality area (both urban and rural areas). 	<ul style="list-style-type: none"> LED projects should aim at alleviating poverty.
	<ul style="list-style-type: none"> To give financial support to projects that will promote the empowerment of women. 	- do -	<ul style="list-style-type: none"> Are the LED project/s promoting the empowerment of women?

6.4.2 WHITE PAPER ON SOCIAL WELFARE (1997) & SOUTH AFRICAN CONSTITUTION, CHAPTER 2

Table 21: Localised Economic Strategic Guidelines - White Paper on Social Welfare (1997) & South African Constitution

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
	<ul style="list-style-type: none"> The poor or the most vulnerable must be given special attention towards poverty alleviation. 	<ul style="list-style-type: none"> The whole of the municipality area (both urban and rural areas). 	<ul style="list-style-type: none"> The poor or the most vulnerable communities in the Musina Municipal Area will receive priority with respect to the allocation of poverty alleviation / LED projects. •
	<ul style="list-style-type: none"> Women and children must also be given a priority on poverty alleviation programmes. 	- do -	<ul style="list-style-type: none"> Are women and children involved in job creation projects?
	<ul style="list-style-type: none"> Attention must also be given to those people in rural areas, informal settlements and parts of urban areas where people are not integrated into the mainstream of society. 	<ul style="list-style-type: none"> Nancefield, Madimbo, Malale & Domboni and the commercial farming areas. 	

6.4.3 RECONSTRUCTION AND DEVELOPMENT PROGRAMME DOCUMENT, 1994

All policies affecting health must take into consideration the fact that South Africa is an integral part of the Southern African region and has regional responsibilities to prevent and to combat the spread of disease. One of the first priorities is to draw all the different role players and services into the NHS.

Table 22: Localised Economic Strategic Guidelines - RDP, 1994

No.	PRINCIPLES & NORMS	LOCAL AREAS WHERE IT MAY APPLY	LOCAL STRATEGIC GUIDELINE OR QUESTION FOR ASSESSING STRATEGIES AND/OR PROJECTS
	<ul style="list-style-type: none"> To integrate services on HIV/AIDS and STD's. 	<ul style="list-style-type: none"> The whole of the municipality area (both urban and rural areas). 	<ul style="list-style-type: none"> Are services that are provided by stakeholders on HIV/AIDS, integrated?
	<ul style="list-style-type: none"> To find mechanism to co ordinate all services geared towards the prevention of HIV/AIDS and the cure for STDs. 		<ul style="list-style-type: none"> Is there a structure in the municipality that co-ordinates services on STD's, HIV/AIDS in the Musina Municipal Area?

7 RESOURCE FRAMES AND FINANCIAL STRATEGIES

7.1 RESOURCE FRAMES

After defining objectives, investigation was made into the amount of financial (internal & external), human/institutional and natural resources that can be made accessible for implementing activities related to these objectives. Preliminary decisions were made by the municipality on the share of internal resources to be allocated to the different priority issue / objectives (IDP Guidelines, 2001). The numbering of the priority issues will remain the same as in paragraph 9 (Priority Issues in Context: In-Depth Analysis) of the Phase 1 document.

7.1.1 INFRASTRUCTURE CLUSTER

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED				Estimated impact on operational budget	
				FINANCIAL		Human, Institutional			
				Internal	External				
1	Need for water provision at Madimbo, Malale & Domboni.	<ul style="list-style-type: none"> All residents in Madimbo, Malale & Domboni will be provided with potable water (RDP standards) before end of 2003 - <u>completed</u> All residents in Madimbo, Malale & Domboni will be provided with erf connections before June 2007 	<ul style="list-style-type: none"> Malale R320,000 Madimbo R650,000 Domboni R30,000 	<ul style="list-style-type: none"> None None None 	<ul style="list-style-type: none"> R320,000 to be accessed from CMIP. R650,000 to be accessed from CMIP. R30,000 to be accessed from CMIP. 	<ul style="list-style-type: none"> 3 additional general workers needed 	<ul style="list-style-type: none"> 3 general workers @ R50,000 p/y = R150,000 General expenditure R50,000 p/y Maintenance R50,000 p/y Approx. total - R250,000 p/y 		
2	Finalised in 2002/03								
3	Need to upgrade sewerage system of Musina	<ul style="list-style-type: none"> Connect 30% of erven in Musina to the southern oxidation ponds before end of 2005. 	<ul style="list-style-type: none"> R4m in 2004/05 and R3m p/y for the next 3 years (internal reticulation) R180,000 (upgrading of ponds) 	<ul style="list-style-type: none"> None None 	<ul style="list-style-type: none"> R4m to be accessed from CMIP, donor funding or concession arrangement R180,000 to be accessed from CMIP or Loans 	<ul style="list-style-type: none"> 3 additional general workers needed None 	<ul style="list-style-type: none"> 3 general workers @ R50,000 p/y = R150,000 None 		
4	Municipality must	<ul style="list-style-type: none"> Existing bulk service 	<ul style="list-style-type: none"> Upgrade 	<ul style="list-style-type: none"> R180 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 		

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED			Estimated impact on operational budget	
				FINANCIAL		Human, Institutional		
				Internal	External			
	maintain existing bulk infrastructure and ensure that sufficient bulk services will be available for future development.	<p>infrastructure will be maintained on a regular basis to ensure effective provision of bulk service.</p> <ul style="list-style-type: none"> Existing bulk service infrastructure will be upgraded timeously to ensure availability of bulk services for future development. 	<p>southern oxidation ponds - R180,000</p> <ul style="list-style-type: none"> Upgrade bulk water infrastructure - R11m Upgrade bulk water infrastructure - 100 new residential erven at Malale - R140,000 	,000				
				<ul style="list-style-type: none"> None None 	<ul style="list-style-type: none"> R11m - to be accessed from CMIP or Loans R140,000 - to be accessed from CMIP or Loans 	<ul style="list-style-type: none"> See PI-3 (spatial cluster) See PI-3 (spatial cluster) 	<ul style="list-style-type: none"> See PI-3 (spatial cluster) See PI-3 (spatial cluster) 	
			<ul style="list-style-type: none"> 154 new residential erven at Madimbo - R300,000 Upgrading of existing main gravity pipelines from storage reservoirs to Musina - R2,632m Electricity for 500 new residential erven at 	<ul style="list-style-type: none"> None None None 	<ul style="list-style-type: none"> R300,000 - to be accessed from CMIP or Loans R2,632m approved by CMIP R1.35m - to be accessed from CMIP or Loans 	<ul style="list-style-type: none"> See PI-3 (spatial cluster) None 1 x electrician needed 	<ul style="list-style-type: none"> See PI-3 (spatial cluster) None 1 electrician @ R140,000 p/y 	

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED				Estimated impact on operational budget	
				FINANCIAL		Human, Institutional			
				Internal	External				
			<p>Nancefield - R1.35m</p> <ul style="list-style-type: none"> • New oxidation ponds for new residential extensions to the south of Nancefield X8 - R8m • 8km power transmission line (11KV) in Limpopo River - R800,000 • Pumps & equipment at Shaft No. 5 - R600,000 	<ul style="list-style-type: none"> • None • None • R600 ,000 	<ul style="list-style-type: none"> • R8m to be accessed from CMIP or Loans • R800,000 to be accessed from Loans • None 	<ul style="list-style-type: none"> • 8 additional general workers needed • None • None 	<ul style="list-style-type: none"> • 8 general workers @ R50,000 p/y = R400,000 p/y • None • None 		
5	Need for effective cost recovery for services rendered to the community by the Musina municipality.	<ul style="list-style-type: none"> • 75% of water consumers in Nancefield will be connected to a pre-paid water supply system before end of 2006 • 75% of consumers in Madimbo, Malale & Domboni will be connected to a pre-paid water and electricity supply system before end of 2007 	<ul style="list-style-type: none"> • R800,000 p/y over 4 years • R300,000 p/y over 4 years 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • To be accessed from CMIP or Implementation of Water Services Projects (DWAF) or other governmental grants 	<ul style="list-style-type: none"> • 2 additional financial clerks needed 	<ul style="list-style-type: none"> • 2 financial clerks @ R100,000 p/y = R200,000 		
6	±25 residential erven in Nancefield (next to cemetery) become waterlogged during heavy rains.	<ul style="list-style-type: none"> • Ensure that this area will be habitable during all weather conditions before end of 2004 	<ul style="list-style-type: none"> • R1.4m 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • R1.4m 	<ul style="list-style-type: none"> • Existing staff sufficient 	<ul style="list-style-type: none"> • None 		
7	Residential streets in certain areas of Musina &	<ul style="list-style-type: none"> • To pave (concrete) ±1.5km of streets per year in Nancefield by means of labour intensive 	<ul style="list-style-type: none"> • R2.7m in 2003/04 & R1.2m p/y 	<ul style="list-style-type: none"> • R2.7 & R1.2 • None 		<ul style="list-style-type: none"> • None - contract workers 	<ul style="list-style-type: none"> • None 		

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED			Estimated impact on operational budget	
				FINANCIAL		Human, Institutional		
				Internal	External			
	Nancefield are in poor condition.	methods for the next 4 years. <ul style="list-style-type: none"> To revamp (fog spray) and provide curbing for 25% of streets in Bergview per year for the next 4 years. 	over next 3 years <ul style="list-style-type: none"> R800,000 in 2003/04 & R400,000 p/y over 3 years 	m p/y over 3 years <ul style="list-style-type: none"> R800 ,000 & R400 ,000 p/y over 3 years 	• None	• None - contract workers	• None	
8	Finalised in 2002/03							
9	Vehicles are speeding in the main streets of Musina & Nancefield, which pose a safety risk to residents.	• To provide speed restriction devices in main streets of Nancefield.	• R125,000 p/y over 3 years	• R125 ,000	• None	• Existing staff sufficient	• None	
10	Finalised in 2002/03							
11	No electricity is available at Malale and Domboni.	• To facilitate (ESKOM) the provision of electricity to residents of Malale before end of 2005. <ul style="list-style-type: none"> To provide an economically viable option of electricity provision to residents of Domboni before end of 2005. 	• N/a - ESKOM's responsibility <ul style="list-style-type: none"> N/a - DME provides funding for solar energy provision 	• N/a <ul style="list-style-type: none"> N/a 	• N/a <ul style="list-style-type: none"> N/a 	• No impact <ul style="list-style-type: none"> No impact 	• None <ul style="list-style-type: none"> • None 	
12	Need for street lighting in residential areas of Nancefield Ext 8.	• To provide high mast street lighting to Nancefield Ext. 8 before end of 2004.	• R750,000	• None	• To be accessed from CMIP	• None	• Maintenance - R40,000	
13	Develop refuse disposal facility at	• Register refuse disposal facility before end of 2004.	• R140,000	• R140 ,000	• N/a	• No impact	• R252,000 p/y for contractor	

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED				Estimated impact on operational budget	
				FINANCIAL		Human, Institutional			
				Internal	External				
	Madimbo, Malale & Domboni.	• Fence refuse disposal facility before end of 2005							
14	Excessive littering is taking place in Musina - creates a bad impression of the town, block stormwater channels and poses a health risk to the community	• To be one of the cleanest towns in Limpopo - use contract workers to collect refuse • Provide dustbins at strategic locations for public usage. • Organise "cleanest school" and "cleanest neighbourhood/settlement" competitions.	• R312,000 p/y • R38,000 p/y • R5,000 p/y	• R312 ,000 p/y • R38, 000 p/y • R5,0 00 p/y	• None • None • None	• None - contract workers • No impact • No impact	• None • None • None	• None • None • None	
15	No formal cemeteries exist at Madimbo & Domboni.	• To provide accessible legal cemetery facilities to all residents of Madimbo & Domboni before end of 2004.	• R500,000	• None	• R500,000 - CMIP, grants and/or loans	• 2 additional general workers needed	• 2 general workers @ R50,000 p/y = R100,000		
16	Cemeteries in Musina and Nancefield are not integrated.	• To upgrade one cemetery facility for usage by all residents in the urban areas of Musina and Nancefield before end of 2004. •	• R600,000	• None	• R600,000 - CMIP, grants and/or loans	• Existing staff sufficient	• None		
17	No street name signs exist in Nancefield, which pose problems for residents and emergency services.	• To provide 25% of streets in Nancefield, annually, with name signs for the next 4 years.	• R50,000	• R50, 000	• None	• Existing staff sufficient	• None		
18	There is a lack of public transport from Madimbo, Malale & Domboni to and from Musina.	• To facilitate a frequent public transport service between Madimbo, Malale & Domboni and Musina on a continuous basis.	• None	• None	• None	• No impact	• None		

7.1.2 SOCIAL CLUSTER

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED			Estimated impact on operational budget
				FINANCIAL	Human, Institutional		
Internal	External						
1 (19)	High percentage of teenage pregnancies & lack of family planning.	<ul style="list-style-type: none"> Co-ordinate the establishment of a municipal / inter-departmental committee before end of 2003, to look into issues such as teenage pregnancies, STD's & HIV/ AIDS, child abuse, etc. To provide children with options to spend their time more constructively. To educate the youth with respect to teenage pregnancies, STD's & HIV/ AIDS, child abuse, etc. 	<ul style="list-style-type: none"> None R20,000 	<ul style="list-style-type: none"> None R20,000 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact No impact 	<ul style="list-style-type: none"> R2,000 None
2 (20)	Low level of education amongst people / illiteracy.	<ul style="list-style-type: none"> Facilitate the establishment of a ABET co-ordination committee before June 2004. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> R2,000
3 (21)	HIV/AIDS	<ul style="list-style-type: none"> To facilitate the formation of municipal / inter-departmental committee on HIV/AIDS before end of 2003 (see PI-1). To develop a HIV/AIDS policy before end of 2002. To facilitate the establishment of a HIV/AIDS Information Centre before end of 2002 (see PI-5). 	<ul style="list-style-type: none"> None Completed Completed 	<ul style="list-style-type: none"> None N/a N/a 	<ul style="list-style-type: none"> None N/a N/a 	<ul style="list-style-type: none"> No impact N/a N/a 	<ul style="list-style-type: none"> R2,000 N/a N/a
4 (22)	Lack of sufficient educational facilities.	<ul style="list-style-type: none"> Establish an Education Coordinating Forum for the Northern Soutpansberg District, before February 2004, consisting of officials of the Municipality, SGB's, principals/ educators and parents to 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> R5,000

2 Refers to numbering of issues in Phase 1 document.

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED				Estimated impact on operational budget	
				FINANCIAL		Human, Institutional			
				Internal	External				
		negotiate with the Department of Education to change the existing situation with respect to a lack of sufficient schools and school facilities in the Musina Municipal Area.							
5 (23)	Lack of adequate staffed health facilities.	<ul style="list-style-type: none"> Finalise the integration of health services and the establishment of a Functional Health District (FHD) before end of 2004. To facilitate the establishment of three additional mobile clinics in the Musina Municipal Area before 2004. To facilitate the provision of a clinic facility at Malale to be used as a mobile point before 2004 and to be fully staffed before 2004. To facilitate the establishment of a HIV/AIDS Information Centre before end of 2002. 	<ul style="list-style-type: none"> None None None Completed 	<ul style="list-style-type: none"> N/a N/a N/a N/a 	<ul style="list-style-type: none"> N/a N/a N/a N/a 	<ul style="list-style-type: none"> No impact No impact No impact N/a 	<ul style="list-style-type: none"> R5,000 R5,000 R5,000 N/a 		
6 (24)	Lack of welfare facilities.	<ul style="list-style-type: none"> To facilitate the provision of adequate welfare facilities in the Musina Municipal Area. To facilitate the establishment of a representative welfare coordination committee for the Musina Municipal Area before February 2004 to ensure that all departments/ organisations/ NGO's align their efforts and assist each other with welfare services. 	<ul style="list-style-type: none"> None None 	<ul style="list-style-type: none"> None None 	<ul style="list-style-type: none"> None None 	<ul style="list-style-type: none"> No impact No impact 	<ul style="list-style-type: none"> N/a R5,000 		
7 (25)	Lack of facilities at pension payout points.	<ul style="list-style-type: none"> To facilitate the provision of adequate facilities for pensioners at pension payout 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> R5,000 		

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED				Estimated impact on operational budget
				FINANCIAL		Human, Institutional		
		Internal	External					
		points before end of 2004.						
8 (26)	Improved service from SAPS.	<ul style="list-style-type: none"> To assist SAPS to deliver a more effective policing service in the Musina Municipal Area. To facilitate a good working relationship between the community and SAPS through the existing CPF structure 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> R5,000 	
9 (27)	Need for a court at Madimbo, Malale & Domboni area.	<ul style="list-style-type: none"> To facilitate the establishment of a court in the Madimbo, Malale & Domboni area before end of 2005. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> R5,000 	
10 (28)	Lack of post office facilities at Madimbo, Malale & Domboni.	<ul style="list-style-type: none"> To facilitate the establishment of one community post office in the Madimbo, Malale & Domboni area before end of 2004. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> R5,000 	
11 (29)	Lack of public telephones at Madimbo, Malale & Domboni.	<ul style="list-style-type: none"> To facilitate the provision of reliable public telephones at Madimbo & Malale before end of 2004. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> R5,000 	
12 (30)	Need for libraries in Musina municipal area.	<ul style="list-style-type: none"> The establishment of one mobile library in the Madimbo, Malale & Domboni area before end of 2004. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> None 	
13 (31)	Lack of recreation and sports facilities in Madimbo, Malale & Domboni & Nancefield.	<ul style="list-style-type: none"> To develop at least one quality recreational facility in Nancefield before end of 2004. To arrange for regular/annual maintenance of soccer/netball fields in the municipal area. To develop at least one quality sport facility in the Madimbo, Malale & Domboni area before 	<ul style="list-style-type: none"> R100,000 None R1m 	<ul style="list-style-type: none"> R100,00 None None 	<ul style="list-style-type: none"> None None R1m from Department of Sport 	<ul style="list-style-type: none"> 3 general workers needed 2 general workers needed 2 general workers needed 	<ul style="list-style-type: none"> 3 general workers @ R50,000 p/y = R150,000 Maintenance R25,000 p/y Maintenance & upgrading R130,000 p/y 2 general workers @ R50,000 p/y = 	

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED			Estimated impact on operational budget
				FINANCIAL		Human, Institutional	
				Internal	External		
		end of 2004.					R100,000 Maintenance R30,000 p/y

7.1.3 SPATIAL, LAND REFORM & ENVIRONMENTAL CLUSTER

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED				Estimated impact on operational budget	
				FINANCIAL		Human, Institutional			
				Internal	External				
1 (32)	A need for land reform programmes exists in the Musina municipal area.	<ul style="list-style-type: none"> Facilitate the establishment of a Land Reform Forum for the Musina Municipal Area Arrange workshops to capacitate municipal officials wrt. land reform policies and practises To liaise with the Land Claims Commissioner on progress made with land claims in the Musina Municipal Area and to inform the communities in this regard. To facilitate at least one agricultural settlement scheme for farm workers before end of 2004. Land Reform Forum complete survey wrt. farm workers 	<ul style="list-style-type: none"> None None Not known at this stage Not known at this stage R30,000 	<ul style="list-style-type: none"> None None None None 	<ul style="list-style-type: none"> None None None Grants available form the Dept. of Land Affairs Nkuzi Development Ass. 	<ul style="list-style-type: none"> No impact No impact No impact No impact No impact 	<ul style="list-style-type: none"> R5,000 R5,000 R5,000 R2,000 None 		
2 (33)	A need exists at Madimbo, Malale & Domboni to upgrade informal land rights (PTO's) to full ownership (title deeds).	<ul style="list-style-type: none"> To upgrade the land-use rights of at least one settlement before the end of 2004. 	<ul style="list-style-type: none"> ±R150,000 (±250 erven) 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> ±R150,000 to be accessed from DLA or DLGH 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> None 		
3 (34)	Need for low-income housing units.	<ul style="list-style-type: none"> To eradicate the existing backlog of low-income housing units (5741 units) before end of 2005. To provide ±500 low-income housing units per year (additional to afore-mentioned backlog) in the Musina Municipal Area for the financial 	<ul style="list-style-type: none"> R39.7m R11.5m p/y for 3 years 	<ul style="list-style-type: none"> None None 	<ul style="list-style-type: none"> To be accessed from DLGH To be accessed from DLGH 	<ul style="list-style-type: none"> 8 general workers needed. 4 additional technicians needed. 	<ul style="list-style-type: none"> 8 general workers @ R50,000 p/y = R400,000. 4 technicians @ R140,000 p/y = R560,000. Covered under PI-5 		

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED			Estimated impact on operational budget	
				FINANCIAL		Human, Institutional		
				Internal	External			
		years 2004/05, 2005/06 & 2006/07				<ul style="list-style-type: none"> 2 financial clerks needed See PI-5 (Infrastructure cluster). 	(Infrastructure cluster).	
4 (35)	Need to consolidate legislation applicable to land-use/development planning.	<ul style="list-style-type: none"> To draft a single uniform land-use scheme for the Musina Municipal Area in terms of the Land Use Management Act (still to be promulgated) before end of 2004. 	<ul style="list-style-type: none"> R300,000 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> R300,000 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> None 	
5 (36)	Lack of environmental information and policy guidelines in the Musina Municipal Area.	<ul style="list-style-type: none"> Finalise environmental assessment by 2004 Finalise Strategic Environmental Assessment by 2005 	<ul style="list-style-type: none"> R75,000 R150,000 	<ul style="list-style-type: none"> None None 	<ul style="list-style-type: none"> To be accessed from grants (DBSA) or Vhembe DM 	<ul style="list-style-type: none"> No impact No impact 	<ul style="list-style-type: none"> None None 	

7.1.4 ECONOMIC CLUSTER

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED			Estimated impact on operational budget	
				FINANCIAL		Human, Institutional		
				Internal	External			
1 2 (37-38)	The economy of Musina is declining There is a shortage of job opportunities and job creation in the Musina municipal area	<ul style="list-style-type: none"> Establish LED Committee and capacitate members To formulate a municipal Local Economic Development (LED) policy by the June 2004 to ensure co-ordination and sustainability of all job creation projects. To do a feasibility study for LED projects in the Musina Municipal Area. To make use of labour intensive techniques for infrastructure projects. 	<ul style="list-style-type: none"> R30 000 None R60,000 	<ul style="list-style-type: none"> None None None 	<ul style="list-style-type: none"> R30 000 from DPLG or Vhembe DM None R60,000 from DPLG or Vhembe DM 	<ul style="list-style-type: none"> No impact No impact No impact 	<ul style="list-style-type: none"> None None None 	
3 (39)	Farms have the potential to create employment for the people in the Musina Municipal Area. Foreign labour is currently occupying these jobs.	Musina Municipality to initiate a partnership with the Department of Labour, Musina Recruitment Agency, Cosatu, NGO's, SAPS, SANDF and Farmer's Associations to do joint programmes to educate and encourage local people to engage in farm work activities - by 2004.	None	None	None	No impact	<ul style="list-style-type: none"> R2,000 	
4 (40)	The tourism sector is poorly developed at present.	<ul style="list-style-type: none"> To develop a municipal tourism strategy by the end of 2004. To facilitate the establishment of Arts & Craft centre along the N1 before end of 2004. 	<ul style="list-style-type: none"> R40,000 R350,000 	<ul style="list-style-type: none"> None None 	<ul style="list-style-type: none"> R40,000 to be accessed from DFED or DPLG R350,000 to be accessed from TIL, DFED or UNOPS 	<ul style="list-style-type: none"> No impact 2 general workers & 1 Admin worker needed. 	<ul style="list-style-type: none"> None 2 general workers @ R50,000 p/y = R100,000. 1 Admin worker @ R100,000 p/y = R100,000. 	

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED				Estimated impact on operational budget	
				FINANCIAL		Human, Institutional			
				Internal	External				
		<ul style="list-style-type: none"> To create a database of all existing and potential tourism opportunities within the municipality before end of 2004. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Request Tourism Board to provide 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> Maintenance = R50,000 None 		

7.1.5 INSTITUTIONAL CLUSTER

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED				Estimated impact on operational budget	
				FINANCIAL		Human, Institutional			
				Internal	External				
1 (41)	Need for a service delivery policy.	<ul style="list-style-type: none"> To develop a service delivery policy before June 2004 that will facilitate the implementation of delivering services which will in no way compromise the council's commitment to its mission and vision. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> None 		
2 (42)	The development of a performance management system and job descriptions for certain officials.	<ul style="list-style-type: none"> Train all staff members on the performance management system after the pilot project 	<ul style="list-style-type: none"> R28,000 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> R28,000 from DPLG 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> None 		
3 (43)	Need to improve community participatory processes.	<ul style="list-style-type: none"> To develop the capacity of ward committee members and ward councillors to ensure sustainability - continuous. To improve the public relations capacity of council on a continuous basis. To establish a community information centre before end of 2005. 	<ul style="list-style-type: none"> R60,000 None None 	<ul style="list-style-type: none"> None None None 	<ul style="list-style-type: none"> R60,000 from DPLG None Premier's office establish information centre - Cost 	<ul style="list-style-type: none"> No impact No impact None 	<ul style="list-style-type: none"> R30,000 p/y R15,000 p/y None 		

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED				Estimated impact on operational budget	
				FINANCIAL		Human, Institutional			
				Internal	External				
						unknown at this stage			
4 (44)	Lack of productivity of officials at lower levels.	<ul style="list-style-type: none"> To review the human resource policies of the organization by the end of June 2002. (Part of EE Review plan, Customer Services training done). Develop and review existing procedure manuals 	<ul style="list-style-type: none"> None-Done internally R110,000 	<ul style="list-style-type: none"> N/a None 	<ul style="list-style-type: none"> N/a R110,000 from MSP 	<ul style="list-style-type: none"> No impact No impact 	<ul style="list-style-type: none"> None None 		
5 (45)	Lack of human resource capacity.	<ul style="list-style-type: none"> To develop alternative training methodology such as on-the-job training and mentoring. To identify alternative sources of funding so as to employ additional staff. 	<ul style="list-style-type: none"> R90,000 p/y for next 4 years To be dealt with during Project Phase 	<ul style="list-style-type: none"> R90,000 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> None 		
6 (46)	Lack of communication between management and frontline staff.	<ul style="list-style-type: none"> To develop an internal communication plan for the Musina Municipality by the end of 2002. To develop mechanisms to ensure that all staff are part of the decision-making processes of the council. To develop IT system set-up to link management and supervisors 	<ul style="list-style-type: none"> Internal - no cost Internal - no cost R100,000 for IT system 	<ul style="list-style-type: none"> None None R100,000 	<ul style="list-style-type: none"> None None None 	<ul style="list-style-type: none"> No impact No impact No impact 	<ul style="list-style-type: none"> None None R200,000 p/a for IT specialist 		
7 (47)	Need for vending points at Nancefield, Madimbo, Malale & Domboni.	<ul style="list-style-type: none"> Establish a mobile vending point in Harper, Campbell & Nancefield before end of 2005. Establish vending points in Madimbo, Malale & Domboni before end of 2004. 	<ul style="list-style-type: none"> None-equipment exists R220,000 (equipment + system) 	<ul style="list-style-type: none"> None None 	<ul style="list-style-type: none"> None R220,000 to be accessed from Transitional Grant 	<ul style="list-style-type: none"> No impact Need two additional staff + general expenses R80 000 = R280,000 	<ul style="list-style-type: none"> R15,000 p/y 2 financial clerks @ R100,000 p/y = R200,000 + General expenses R80 000 = R280,000 		
8 (48)	Need to establish satellite	<ul style="list-style-type: none"> Establish satellite municipal offices in Malale by 2004. 	<ul style="list-style-type: none"> R320,000 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> R320,000 to be accessed 	<ul style="list-style-type: none"> See PI-7 wrt. 	<ul style="list-style-type: none"> 2 x R5,000 = R10,000 		

PRIORITY ISSUES		WORKING OBJECTIVES	Estimated amount needed/allocated to priority issue (excl. operational cost)	RESOURCES AVAILABLE/NEEDED				Estimated impact on operational budget	
				FINANCIAL		Human, Institutional			
				Internal	External				
	municipal office at Malale & commercial farming areas	<ul style="list-style-type: none"> Establish at least two satellite municipal offices in the commercial farming areas (Schuitdrift, Hope farm, Mopane, Weipe or Pontdrift) before end of 2005 	<ul style="list-style-type: none"> 2 x R100,000 = R200,000 R500,000 for office equipment 	<ul style="list-style-type: none"> None None 	<ul style="list-style-type: none"> from Transitional Grant R200,000 to be accessed from Transitional Grant R500,000 to be accessed from Transitional Grant 	<ul style="list-style-type: none"> additional staff needed Need two additional staff + general expenses No impact 	<ul style="list-style-type: none"> 2 financial clerks @ R100,000 p/y = R200,000 + General expenses R90 000 = R290,000 No impact 		
9 (49)	Finalised in 2002/03								
10 (50)	Need to revise and draft new by-laws and a service delivery and tariff policy.	<ul style="list-style-type: none"> To finalise and draft new by-laws and a service delivery and tariff policy by June 2004. 	<ul style="list-style-type: none"> R160,000 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> R160,000 from MSP and Transitional Grant 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No impact 		
11 (51)	Finalised in 2002/03								
12 (52)	Need to solve the transfer of residential erven to individuals in Nancefield X5, X6, & X7	<ul style="list-style-type: none"> Solve the problems regarding the right of occupancy of residential erven in Nancefield X5, X6 & X7 and outstanding debt to service charges to effect the transfer of erven to rightful occupants. 	<ul style="list-style-type: none"> None at this stage. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 		
13 (53)	Finalise status of personnel and responsibility of fire brigade.	<ul style="list-style-type: none"> Facilitate discussions with Vhembe District Municipality to resolve the functioning & responsibilities of rendering a fire brigade service to the Musina Municipal Area before end of 2005. 	<ul style="list-style-type: none"> None at this stage. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No impact 		

8 DESIGNING STRATEGIES & IDENTIFYING PROJECTS

Alternative solutions were generated to address each of the priority issues. These alternatives were analysed and the most appropriate and realistic alternatives were identified and strategies were formulated accordingly. Strategies indicate the ways by which objectives shall be achieved with the available human, financial and natural resources available in the municipality. Projects were identified as part of the strategy phase (IDP Guidelines, 2001).

INFRASTRUCTURE CLUSTER

Priority issue		Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p)?	Projects/actions sufficient?	New projects
1	Need for water provision at Madimbo, Malale & Domboni.	<ul style="list-style-type: none"> Provide residents of Madimbo, Malale & Domboni with potable water by means of erf connections by 2007 	<ul style="list-style-type: none"> Municipality to lodge separate applications for CMIP funding to provide water by means of erf connections to Madimbo, Malale & Domboni. 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Provide residents of Malale & Domboni with potable water by means of erf connections
2	Finalised in 2002/03						
3	60% of erven in Musina is still served by a septic tank and french drain system.	<ul style="list-style-type: none"> Connect 30% of erven in Musina to the southern oxidation ponds before end of 2005. 	<ul style="list-style-type: none"> Extend existing oxidation ponds and provide internal sewerage reticulation in phases. Obtain external loans (DBSA) to upgrade sewerage system or lodge application for CMIP funding on an annual basis until funding 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Upgrading of southern oxidation ponds (R180,000) (p). 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Upgrade southern oxidation ponds. Install internal sewerage reticulation in Musina (30% of erven by 2005).

Priority issue	Working objectives	Strategies	Any existing projects/ actions?	Projects/actions in progress (x) or in pipeline (p)?	Projects/ actions sufficient?	New projects	
		<p>is made available or negotiate with private sector companies with respect to concluding a concession arrangement to install sewerage reticulation and upgrade sewerage works.</p>					
4	Municipality must maintain existing bulk infrastructure and ensure that sufficient bulk services will be available for future development.	<ul style="list-style-type: none"> Existing bulk service infrastructure will be maintained on a regular basis to ensure effective provision of bulk service. Existing bulk service infrastructure will be upgraded timeously to ensure availability of bulk services for future development. 	<ul style="list-style-type: none"> Assess condition of existing bulk infrastructure and implement a multi-year maintenance programme to ensure reliable service provision. Assess capacity of existing bulk infrastructure to accommodate future development as envisaged by the IDP and implement a multi-year upgrading programme to ensure the availability of sufficient bulk infrastructure. Access funding from CMIP or budget internally in phases. 	<ul style="list-style-type: none"> No No Yes No 	<ul style="list-style-type: none"> None None None None 	<ul style="list-style-type: none"> N/a N/a No N/a 	<ul style="list-style-type: none"> Draft multi-year maintenance programme in accordance with IDP. Draft multi-year upgrading programme in accordance with IDP. Upgrade bulk water and sewerage infrastructure to provide bulk services for 500 new residential erven at Nancefield. Construct new oxidation ponds to accommodate future residential extensions to the south of Nancefield X8

Priority issue	Working objectives	Strategies	Any existing projects/ actions?	Projects/actions in progress (x) or in pipeline (p)?	Projects/ actions sufficient?	New projects
			<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • N/a 	<ul style="list-style-type: none"> • Upgrade bulk water infrastructure to provide bulk services for 100 new residential erven at Malale.
			<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • N/a 	<ul style="list-style-type: none"> • Upgrade bulk water infrastructure to provide bulk services for 154 new residential erven at Madimbo.
			<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • R2,6m approved by CMIP (p) 	<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Upgrade existing main gravity pipeline from the storage reservoirs to Musina.
			<ul style="list-style-type: none"> • Yes 	<ul style="list-style-type: none"> • Yes, 4,2km power line completed 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • Construct 12km power transmission line (11KV) in Limpopo River
			<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • N/a 	<ul style="list-style-type: none"> • Pumps and equipment for underground reservoir at Shaft No. 5.

Priority issue		Working objectives	Strategies	Any existing projects/ actions?	Projects/actions in progress (x) or in pipeline (p)?	Projects/ actions sufficient?	New projects
5	Need for effective cost recovery for services rendered to the community by the Musina municipality	<ul style="list-style-type: none"> To implement cost recovery and credit control measures to improve the recovery of costs to deliver municipal services. 	<ul style="list-style-type: none"> Obtain CMIP funding or other governmental grants to implement pre-paid water metering system in phases over the next 4 years. 	<ul style="list-style-type: none"> Yes - 25% of consumers provided with pre-paid meters 	<ul style="list-style-type: none"> Provide 1000 consumers in Musina & Nancefield with pre-paid meters (x). 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Connect 75% of water consumers in Nancefield to a pre-paid water metering system before end of 2006 Connect 75% of water consumers in Madimbo, Malale & Domboni to a pre-paid water metering system before end of 2007
6	±25 residential erven in Nancefield (next to cemetery) become waterlogged during heavy rains.	<ul style="list-style-type: none"> Ensure that this area will be habitable during all weather conditions before end of 2004 	<ul style="list-style-type: none"> Allocate funds from internal budget to buy materials (stormwater piping) and use existing staff and equipment to drain area. 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Drain waterlogged area by means of stormwater piping
7	Residential streets in certain areas of Musina & Nancefield are in poor condition.	<ul style="list-style-type: none"> Upgrade residential streets in Nancefield and Bergview by means of labour intensive methods in phases for the next 3 years. 	<ul style="list-style-type: none"> Allocate internal funding on an annual basis (next 3 financial years) to appoint contractors to pave (concrete) roads in Nancefield. 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Pave ±1.4km of streets in Nancefield (x) 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Pave (concrete) ±1.5km of streets per year in Nancefield by means of labour intensive methods for the next 3 years.

Priority issue	Working objectives	Strategies	Any existing projects/ actions?	Projects/actions in progress (x) or in pipeline (p)?	Projects/ actions sufficient?	New projects	
		<ul style="list-style-type: none"> Allocate internal funding on an annual basis (next 3 financial years) to appoint contractors to revamp (fog spray) and provide curbing for streets in Bergview. 	• Yes	<ul style="list-style-type: none"> Fog spray ±25% of streets in Bergview (x) 	• No	<ul style="list-style-type: none"> Revamp (fog spray) and provide curbing for 25% of streets in Bergview per year for the next 3 years. 	
8	Finalised in 2002/03						
9	Vehicles are speeding in the main streets of Musina & Nancefield, which pose a safety risk to residents.	<ul style="list-style-type: none"> To curb/control the speed of vehicles in the main streets of Musina & Nancefield over next 3 years Allocate funds from internal budget to buy materials and use existing staff and equipment to construct speed restriction devices in main streets of Musina & Nancefield. 	• Yes	<ul style="list-style-type: none"> In progress in Nancefield (x) - 	• No	<ul style="list-style-type: none"> Construction of 35 speed restriction devices p/y in main streets of Musina for the next 3 years. 	
10	Finalised in 2002/03						
11	No electricity is available at Malale and Domboni.	<ul style="list-style-type: none"> To facilitate the provision of electricity to residents of Malale before end of 2005 To provide an economically viable option of electricity provision to residents of Domboni before end of 2005 	<ul style="list-style-type: none"> Negotiate with ESKOM to electrify Malale in 2005 as part of ESKOM's rural electrification programme. Identify developers to submit a business plan to ESKOM for the electrification of Domboni. 	<ul style="list-style-type: none"> No No 	<ul style="list-style-type: none"> Yes, Malale on ESKOM electrification programme for 2004/05 None 	<ul style="list-style-type: none"> N/a N/a 	<ul style="list-style-type: none"> Electrification of Malale Electrification of Domboni
12	Need for	<ul style="list-style-type: none"> To provide street lighting 	<ul style="list-style-type: none"> Obtain funding from 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes, CMIP 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Construct high mast

Priority issue		Working objectives	Strategies	Any existing projects/ actions?	Projects/actions in progress (x) or in pipeline (p)?	Projects/ actions sufficient?	New projects
	street lighting in residential areas of Nancefield Ext 8.	to Nancefield Ext. 8 before end of 2004.	CMIP/ NER and appoint contractor to construct high mast street lighting.		funding approved (p)		street lighting in Nancefield Ext. 8
13	Refuse disposal service / facilities developed at Madimbo, Malale & Domboni - site needs to be fenced and registered.	• To register and fence the existing refuse disposal facility at Madimbo, Malale & Domboni	• Lodge application to DWAF for registration of refuse disposal facility • Budget internally for fencing of refuse disposal facility	• Yes	• No	• N/a	• Register and fence existing refuse disposal facility
14	Excessive littering is taking place in Musina- creates a bad impression of the town, block stormwater channels and poses a health risk to the community.	• To be one of the cleanest towns in Limpopo.	• Allocate funds from internal municipal budget to appoint contract workers to collect litter on a regular basis. • Allocate funds from internal municipal budget to provide dustbins at strategic locations for public usage. • Direct the traffic & health departments to apply applicable by-laws to issue spot fines and prosecute transgressors	• Yes	• Contractors appointed	• Yes	• Appoint contract workers to collect litter on a regular basis. • Provide dustbins for public usage as required. • No - apply existing by-laws

Priority issue	Working objectives	Strategies	Any existing projects/ actions?	Projects/actions in progress (x) or in pipeline (p)?	Projects/ actions sufficient?	New projects	
		<ul style="list-style-type: none"> Arrange with school principals to organise competition for the cleanest school Arrange neighbourhood/settlement competitions Arrange with the Department of Finance, Economic Affairs, Tourism and Environment to provide educational programmes with respect to littering and recycling 	<ul style="list-style-type: none"> No No No 	<ul style="list-style-type: none"> None None None 	<ul style="list-style-type: none"> N/a N/a N/a 	<ul style="list-style-type: none"> Organise "cleanest school" competition Organise "neighbourhood/settlement" competitions Arrange for educational programmes with respect to littering and recycling 	
15	No formal cemeteries exist at Madimbo & Domboni.	<ul style="list-style-type: none"> To provide accessible legal cemetery facilities to all residents of Madimbo & Domboni before end of 2004 	<ul style="list-style-type: none"> Obtain grants or loans to appoint consultants (geological investigation & environmental Scoping Report) to identify one suitable cemetery site to serve 2 settlements. Obtain grants or loans to develop one cemetery site. 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Identify cemetery site that is suitable for. Geological and environmental aspects and develop cemetery site
16	Cemeteries in Musina and Nancefield are not integrated.	<ul style="list-style-type: none"> To integrate cemetery facilities in Musina and Nancefield before end of 2004. 	<ul style="list-style-type: none"> Obtain grants or loans to upgrade one cemetery facility for usage by all residents in the urban areas of Musina and Nancefield. 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Upgrade existing cemetery facility adjacent to the industrial area
17	No street	<ul style="list-style-type: none"> Provide name signs to all 	<ul style="list-style-type: none"> Allocate internal funding 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Provide name signs

Priority issue	Working objectives	Strategies	Any existing projects/ actions?	Projects/actions in progress (x) or in pipeline (p)?	Projects/ actions sufficient?	New projects	
	name signs exist in Nancefield, which pose problems for residents and emergency services.	<p>streets in Nancefield before end of 2007.</p> <ul style="list-style-type: none"> to provide 25% of streets, annually, with name signs for the next 4 years. Get private sector involved in sponsoring street names. 				for streets in Nancefield - involve private sector.	
18	There is a lack of public transport from Madimbo, Malale & Domboni to and from Musina	<ul style="list-style-type: none"> To facilitate a frequent public transport service between Madimbo, Malale & Domboni and Musina on a continuous basis. 	<ul style="list-style-type: none"> Transport Forum to arrange discussions with taxi associations and Department of Transport regarding lack of transport facilities and operating licenses 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Transport Forum to arrange discussions with Department of Transport & taxi associations to improve public transport between Musina and the 3 settlements.

8.1 SOCIAL CLUSTER

Priority issue		Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
19	High percentage of teenage pregnancies & lack of family planning	<ul style="list-style-type: none"> • Improve accessibility to general health and HIV/AIDS information • To educate the youth with respect to teenage pregnancies, STD's & HIV/ AIDS, child abuse, etc. 	<ul style="list-style-type: none"> • Co-ordinate the establishment of a municipal / inter-departmental committee before end of 2004, to look into issues such as teenage pregnancies, STD's & HIV/ AIDS, child abuse, etc. before end of 2004 (see priority issue no. 21) • Lodge awareness campaigns with respect to teenage pregnancies, STD's & HIV/ AIDS, child abuse, etc. 	• No	• None	• N/a	<ul style="list-style-type: none"> • Establish inter-departmental committee dealing with sexual diseases and health issues • Lodge awareness programs on teenage pregnancies, STD's & HIV/ AIDS, child abuse, etc.
20	Low level of education amongst people/illiteracy	<ul style="list-style-type: none"> • To facilitate the establishment of a ABET co-ordination committee before Feb. 2004 	<ul style="list-style-type: none"> • Establish an ABET Co-ordinating Committee 	• No	• None	• N/a	• Establish an ABET Co-ordinating Committee
21	HIV/AIDS	<ul style="list-style-type: none"> • Improve accessibility to general health and HIV/AIDS information • To facilitate the establishment of a HIV/AIDS Information Centre before end of 2002 (see priority issue no. 31) 	<ul style="list-style-type: none"> • Co-ordinate the establishment of a municipal / inter-departmental committee before end of 2003, to look into issues such as HIV/ AIDS, & STD's, teenage pregnancies, child abuse, etc. before end of 2004 (see priority issue no. 19) 	• Yes	<ul style="list-style-type: none"> • Department of Health and Welfare completed HIV/ AIDS centre in Musina • Municipal HIV/AIDS policy finalised. 	• No	<ul style="list-style-type: none"> • Establish a municipal / inter-departmental committee dealing with sexual diseases and health issues

Priority issue		Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
22	Lack of sufficient educational facilities	<ul style="list-style-type: none"> Establish an Education Coordinating Forum for the Northern Soutpansberg District, before February 2004, consisting of officials of the Municipality, SGB's, principals/ educators and parents to negotiate with the Department of Education to change the existing situation with respect to a lack of sufficient schools and school facilities in the Musina Municipal Area. 	<ul style="list-style-type: none"> Establish Education Coordinating Forum and request forum to investigate the lack of sufficient schools and school facilities in the Musina Municipal Area with the intention to influence the 2004/05 or future budgets of the Department of Education Education Coordinating Forum to try and access private and donor funding on a continuous basis to improve or construct facilities. Education Coordinating Forum to investigate capacity of community to assist in the provision of facilities. Municipality to provide serviced school erven for development of schools. Municipality to inform the Department of Education (via Education Coordinating Forum) of new residential development to take place and resultant need 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Establish Education Coordinating Forum

Priority issue		Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
			for new educational facilities.				
23	Lack of adequate staffed health facilities	<ul style="list-style-type: none"> Finalise the integration of health services and the establishment of a Functional Health District (FHD) before end of 2004 To facilitate the provision of a clinic facility at Malale to be used as a mobile point (satellite clinic) before 2004 To facilitate the establishment of three additional mobile clinics in the Musina Municipal Area before 2004 To facilitate the establishment of a HIV/AIDS Information Centre before end of 2002. 	<ul style="list-style-type: none"> Negotiate on a regular basis with the Department of Health and Welfare to establish Functional Health District. Negotiate with the Department of Health and Welfare to provide clinic facility at Malale. Assist the Department of Health and Welfare to obtain accommodation for nurses that should operate mobile clinics - allocate 100 housing units to be constructed as part of the envisaged (2004/05) low-income housing development for usage (rental stock) by officials of government departments. Finalised in 2002/03 	<ul style="list-style-type: none"> Negotiations in progress No No N/a 	<ul style="list-style-type: none"> Negotiations in progress (x). None None N/a 	<ul style="list-style-type: none"> N/a N/a N/a N/a 	<ul style="list-style-type: none"> N/a N/a N/a - provide housing to nurses (See Priority Issue No. 34) N/a
24	Lack of welfare	<ul style="list-style-type: none"> To facilitate the provision 	<ul style="list-style-type: none"> Identify all role-players 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Establish a

Priority issue		Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
	facilities	<p>of adequate welfare facilities in the Musina Municipal Area.</p> <ul style="list-style-type: none"> • To facilitate the establishment of a representative welfare coordination committee for the Musina Municipal Area before Feb. 2004 to ensure that all departments/organisation s/ NGO's align their efforts and assist each other with welfare services. 	<ul style="list-style-type: none"> • concerned with welfare in the Musina Municipal Area and establish a representative coordination committee • Municipality to make land available to registered welfare organisations. • Give rebates on service charges for registered welfare facilities. 				representative welfare coordination committee
25	Lack of facilities at pension payout points	<ul style="list-style-type: none"> • To facilitate the provision of adequate facilities for pensioners at pension payout points before end of 2004. 	<ul style="list-style-type: none"> • Establish welfare coordination committee. • The envisaged welfare coordination committee should investigate the various pension payout points and persuade owners of premises (mainly shop owners) to provide basic facilities for pensioners. • Committee to investigate alternative locations (e.g. churches, school halls) that provide better facilities than existing locations. 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • N/a 	<ul style="list-style-type: none"> • Investigate existing situation with respect to facilities at pension payout points

Priority issue		Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
			<ul style="list-style-type: none"> Committee to investigate the provision of mobile toilets, mobile sheds, etc. to be erected on premises on pension payout days - donations to buy such facilities should be obtained. 				
26	Improved service from SAPS	<ul style="list-style-type: none"> To assist SAPS to deliver a more effective policing service in the Musina Municipal Area To facilitate a good working relationship between the community and SAPS through the existing CPF structure 	<ul style="list-style-type: none"> Municipal officials should actively participate and encourage the public to actively participate in the CPF structure. Request SAPS and the Department of Safety & Security to lodge crime prevention projects through the CPF structure e.g. Youth leaders against crime, Captain crime stop, Business against crime, etc. Negotiate with the Directorate Management Services of SAPS to establish satellite police station in the rural settlements. Negotiate with SAPS to implement foot patrol by police in urban areas. 	<ul style="list-style-type: none"> No Yes No No 	<ul style="list-style-type: none"> None Youth against Crime project in festive seasons (x). None None 	<ul style="list-style-type: none"> N/a No N/a N/a 	<ul style="list-style-type: none"> No specific project Facilitate the implementation of additional crime prevention programmes through the CPF structures. Establishment of satellite police stations at Madimbo, Malale & Domboni. No specific project.

Priority issue		Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
			<ul style="list-style-type: none"> Facilitate the provision of a reliable 24-hour public telephone service to the rural communities to link them up with SAPS. 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> See Priority Issue No. 29
27	Need for a court at Madimbo, Malale & Domboni.	<ul style="list-style-type: none"> To facilitate the establishment of a court in the Madimbo, Malale & Domboni area before end of 2005 	<ul style="list-style-type: none"> Negotiate with the Department of Justice to implement a periodical court on the short term and a mobile court on the long term in the rural settlement area. Utilise tribal courts for minor cases. 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Establish a periodical / mobile court in the rural settlement area.
28	Lack of post office facilities at Madimbo, Malale & Domboni.	<ul style="list-style-type: none"> To facilitate the establishment of one community post office in the Madimbo, Malale & Domboni area before end of 2004. 	<ul style="list-style-type: none"> Request the SA Post Office to conduct a feasibility study to establish a community post office in the Madimbo, Malale & Domboni area. 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Establish a community post office in the rural settlement area.

Priority issue		Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
29	Lack of public telephones at Madimbo, Malale & Domboni.	<ul style="list-style-type: none"> To facilitate the provision of reliable public telephones at Madimbo & Malale before end of 2004. 	<ul style="list-style-type: none"> Contact TELKOM & cellular companies to find out what schemes are available with respect to public telephone systems for rural areas. Identify potential business people in settlements to operate cellular franchises. Municipality to operate cellular phone franchise from the envisaged satellite municipal offices if no local entrepreneurs are able to do it. 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Establish public telephone systems in Madimbo & Malale.
30	Need for libraries in Musina municipal area.	<ul style="list-style-type: none"> The establishment of one mobile library in the Madimbo, Malale & Domboni area before end of 2004 	<ul style="list-style-type: none"> Negotiate with Regional Library Service to investigate the possibility to establish a mobile library in the Madimbo, Malale & Domboni area 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Establish a mobile library in the Madimbo, Malale & Domboni area.
31	Lack of recreation and sports facilities in Madimbo, Malale & Domboni	<ul style="list-style-type: none"> To develop at least one quality recreational facility in Nancefield before end of 2004 To arrange for regular 	<ul style="list-style-type: none"> Allocate annual amount on operational budget to maintain and improve existing sport facilities rather than providing new expensive facilities. 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Renovation of sport stadium in Nancefield X5 (x). 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Maintain and improve existing sport facilities.

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
Nancefield	<p>maintenance of soccer/netball fields in the municipal area</p> <ul style="list-style-type: none"> • To develop at least one quality sport facility in the Madimbo, Malale & Domboni area before end of 2004 	<ul style="list-style-type: none"> • Liase with Department of Sport, Arts & Culture, national Department of Sport & Recreation to obtain funding for the development of facilities in Nancefield and the 3 settlements. • Negotiate with Centre for Positive Care (CPC) to make funds available for the development of an indoor sport facility in rural settlement area. • Liase with the Northern Province Roads Agency for possibility to grade soccer fields at Madimbo, Malale & Domboni while busy with maintenance of district roads 	<ul style="list-style-type: none"> • No • No • No 	<ul style="list-style-type: none"> • None • None • None 	<ul style="list-style-type: none"> • N/a • N/a • N/a 	<ul style="list-style-type: none"> • Develop one recreational facility in Nancefield. • Develop indoor sport facility in rural settlement area. • Northern Province Road Agency to provide graders to assist with maintenance of soccer fields.

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
		<ul style="list-style-type: none"> • The Musina Sports Council to investigate existing level of sport & recreation facilities in the Musina Municipal Area, to prioritise/schedule maintenance of facilities, to promote indigenous games, to lobby for funding from provincial and national departments and involve business sector in making contribution to provision and maintenance of sport & recreation facilities. • Municipality to make land available for development of sport & recreation facilities • Give rebates on service charges for sport & recreation facilities. 	<ul style="list-style-type: none"> • - 			

8.2 SPATIAL, LAND REFORM & ENVIRONMENTAL CLUSTER

Priority issue		Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
32	A need for land reform programmes exists in the Musina municipal area.	<ul style="list-style-type: none"> To liaise with the Land Claims Commissioner on progress made with land claims in the Musina Municipal Area and to inform the communities in this regard. To facilitate at least one agricultural settlement scheme for farm workers before end of 2004. 	<ul style="list-style-type: none"> Request the Department of Land Affairs to assist the municipality to establish a Land Reform Forum in the Musina Municipal Area. Request the Department of Land Affairs to arrange workshops to capacitate municipal officials with respect to land reform policy and practises. Land Reform Forum to identify locations in the Musina Municipal Area that have potential / need for land reform projects. Land Reform Forum to complete a survey in the Musina Municipal Area to determine the number of farm workers and their accessibility to proper housing and services. 	<ul style="list-style-type: none"> No No No No 	<ul style="list-style-type: none"> None None None None 	<ul style="list-style-type: none"> N/a N/a N/a N/a 	<ul style="list-style-type: none"> Establish a Land Reform Forum for the Musina Municipal Area Arrange workshops to capacitate municipal officials with respect to land reform policy and practises Land Reform Forum to make recommendation for a pilot project to be implemented before end of 2004 Land Reform Forum to complete a survey to determine the number of farm workers and their accessibility to proper housing and services

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
		<ul style="list-style-type: none"> Request Nkuzi Development Association and Musina Advise Office to assist Land Reform Forum with identification of areas in need of land reform and to assist in such projects. 	• -	• -	• -	• -
33	A need exists at Madimbo, Malale & Domboni to upgrade informal land rights (PTO's) to full ownership (title deeds).	<ul style="list-style-type: none"> To upgrade the land tenure rights of at least one settlement before the end of 2004 Obtain funding from DLA and DLGH for formalisation of settlements, i.e. township establishment and transfer of title deeds to beneficiaries Land Reform Forum to investigate the potential (need of members of tribal community versus willingness of tribal authority) of formalisation of Madimbo, Malale & Domboni with the assistance of Nkuzi Development Association and/or Musina Advise Office. 	• No	• None	• N/a	<ul style="list-style-type: none"> Formalisation of a settlement to upgrade PTO's to title deeds.

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects	
34	Need for low-income housing units in the Musina Municipal Area	<ul style="list-style-type: none"> To eradicate the existing backlog of low-income housing units (5741 units) before end of 2005. To provide ±500 low-income housing units per year (additional to aforementioned backlog) in the Musina Municipal Area for the financial years 2004/05, 2005/06 & 2006/07. 	<ul style="list-style-type: none"> Provide approved IDP to DLGH and request department to budget and allocate the required number of housing subsidies in accordance with the 5-year Action Programme and Integrated Spatial Development Framework. Negotiate with DLGH on a yearly basis to ensure that the required subsidies, as indicated in the IDP, will be available in consecutive financial years. 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Develop 106 new low-income housing units (subsidy scheme) in Malale in 2004/2005. Develop 299 new low-income housing units (subsidy scheme) in Madimbo in 2004/2005. Develop 100 rental stock units in Musina. Develop 200 agri-village units in the Musina Municipal Area. Develop 500 new low-income housing units (subsidy scheme) per year for the financial years 2004/05, 2005/06 & 2006/07.
35	Need to consolidate legislation applicable to land-use/	<ul style="list-style-type: none"> To draft a single uniform land-use scheme for the Musina Municipal Area in terms of the Land Use Management Act (still to 	<ul style="list-style-type: none"> Access funding from the Department of Land Affairs and appoint a consultant to draft a uniform land-use 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Draft a land-use management scheme in terms of the Land Use Management Act

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects	
	development planning	be promulgated) before end of 2004 to replace the various existing legislation/ordinance/ proclamations applicable in the area	management scheme in terms of the Land Use Management Act (still to be promulgated)			(still to be promulgated)	
36	Lack of environmental information and policy guidelines in the Musina Municipal Area	<ul style="list-style-type: none"> • Develop and implement an environmental policy and management plan for the Musina Municipal Area by 2005. 	<ul style="list-style-type: none"> • Conduct an environmental assessment of the Musina Spatial Development Framework Plan. • Draft a Strategic Environmental Assessment (SEA) for the Musina Municipal Area 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • N/a 	<ul style="list-style-type: none"> • Appoint an environmental specialist to draft a Strategic Environmental Assessment for the Musina Municipal Area.

8.3 ECONOMIC CLUSTER

Priority issue		Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
37	The economy of Musina is declining. There is a shortage of job opportunities and job creation in the Musina municipal area	<ul style="list-style-type: none"> To formulate a municipal Local Economic Development (LED) policy by June 2004 to ensure co-ordination and sustainability of all job creation projects. To facilitate the implementation of LED projects in the Musina Municipal Area. To make use of labour intensive techniques for infrastructure projects. 	<ul style="list-style-type: none"> To get professional assistance on the drafting of the LED policy. To get more funding from Social Plan Fund from DPLG. To encourage LED projects to become viable companies e.g. section 21 companies. To design all infrastructural projects in such a way that they can generate jobs. To establish more income-generating projects in the Municipality. To encourage local business to fund viable community projects. Encourage people to buy locally. 	• Yes	<ul style="list-style-type: none"> Malale community enterprise (welding and brick making) (x) Madimbo multi-purpose (brick making and cash crop production) (x) Spirulina project (x) 	• No	<ul style="list-style-type: none"> Develop a LED policy. Establish LED Co-ordinating Committee and capacitate members of Committee Feasibility study for LED projects
39	Farms have the potential to create employment for the people	<ul style="list-style-type: none"> Musina Municipality to initiate a partnership with the Department of Labour, Department of Agriculture, Musina 	<ul style="list-style-type: none"> Organise a consultative workshop involving all stakeholders. Change people's attitude on farm work. 	• No	• None	• N/a	<ul style="list-style-type: none"> Consultative workshop involving all stakeholders with a possibility of internal or external

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
	in the Musina Municipal Area. Foreign labour is currently occupying these jobs.	Recruitment Agency, Cosatu, NGO's, SAPS, SANDF and Farmer's Associations to do joint programmes to educate and encourage local people to engage in farm work activities - before end of 2004.	<ul style="list-style-type: none"> Municipality to facilitate with relevant departments the monitoring and improving the conditions of farm workers Municipality to get access to farm workers register 			funding department e.g. of labour.
40	The tourism sector is poorly developed at present.	<ul style="list-style-type: none"> To develop a municipal tourism strategy by the end of 2004. To facilitate the establishment of Arts & Craft centre along the N1 before end of 2004. To create/obtain a database of all existing and potential tourism opportunities within the municipality before end of 2004. 	<ul style="list-style-type: none"> Consultative workshop among all stakeholders Submit business plans to relevant donors such as OMSOBOVU or DEAT Stimulate people's interest in tourism 	<ul style="list-style-type: none"> • • Yes 	<ul style="list-style-type: none"> • None • Information Centre constructed 	<ul style="list-style-type: none"> • No • No <ul style="list-style-type: none"> • Develop a Tourism Strategy for the Musina Municipal Area • Establish a multi-purpose Art and Craft centre

8.4 INSTITUTIONAL CLUSTER

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects	
41	Need for a service delivery policy	<ul style="list-style-type: none"> To develop a service delivery policy before June 2004 that will facilitate the implementation of delivering services which will in no way compromise the council's commitment to its mission and vision 	<ul style="list-style-type: none"> Apply for funding to the MSP Appoint a service provider to assist with developing a service delivery policy The service provider should work in consultation with the council and HoDs The service provider should take into account the lessons learnt from current partnerships when developing the policy 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Develop a service delivery policy
42	The development of a performance management system and job descriptions for certain officials	<ul style="list-style-type: none"> To implement the next phase of the performance management system by the end of June 2003 To facilitate community participation within the performance management process 	<ul style="list-style-type: none"> This process is underway. Implement and access system in 2004 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> In progress 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Obtain funding for training of all staff members after the pilot process Correspond with DPLG to make them aware of the need to train all staff members
43	Need to improve community	<ul style="list-style-type: none"> To develop ward committee structures before the end of June 	<ul style="list-style-type: none"> Establish Ward Committee structures Develop incentives for 	<ul style="list-style-type: none"> Yes - establishment of Ward 	<ul style="list-style-type: none"> In progress 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Training of ward committee members

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects
participatory processes	<p>2004</p> <ul style="list-style-type: none"> • To develop the capacity of ward committee members and ward councillors to ensure sustainability - continuous • To improve the public relations capacity of council on a continuous basis • To establish a community information centre before end of 2005 	<p>ward committee members such as 5kl free water, the municipality covering the cost for transport of meetings, catering and stationery</p> <ul style="list-style-type: none"> • Identify appropriate service providers to train ward committee members • Improve public relations through mechanisms such as developing a newsletter on a quarterly basis which will be distributed to all residents, strengthen the relations with regional radio stations and train staff at satellite offices on customer care services • The municipality will also set-up an information desk at the community information centre 	Committee structures			<ul style="list-style-type: none"> • Improving public relations

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects	
44	Lack of productivity of officials at lower levels	<ul style="list-style-type: none"> To implement a performance management system by the end of June 2004 which includes incentives for employees To review the human resource policies of the organization To update job descriptions of all staff before the end of December 2003 and ensure that they understand them 	<ul style="list-style-type: none"> The PMS, job descriptions, procedure manuals and review of the human resource policies are being implemented Review of organisational design Employ sufficient supervisors to ensure that control and supervision is effective Prepare TASK job evaluation system by December 2003 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Ongoing 	<ul style="list-style-type: none"> Once all the actions have been implemented than only will the council be in a position to assess actions 	<ul style="list-style-type: none"> Review organisational design Employ sufficient supervisors Job evaluation
45	Lack of human resource capacity	<ul style="list-style-type: none"> To develop alternative training methodology such as on-the-job training and mentoring To identify alternative sources of funding so as to employ additional staff 	<ul style="list-style-type: none"> Determine the HR capacity needs of the organization in relation to it meeting its service delivery targets and based on this assess whether it is feasible to enter into partnerships, either with the private, public or CBO/ NGO sectors Identify accredited training courses to develop the skills and capacity of existing and new staff members 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Ongoing 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Determine HR capacity needs Training and capacity building of existing and new staff

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects	
46	Lack of communication between management and frontline staff	<ul style="list-style-type: none"> To develop an internal communication plan for the Musina Municipality To develop mechanisms to ensure that all staff are part of the decision-making processes of the council 	<ul style="list-style-type: none"> The municipal manager and HOD's must take the responsibility of ensuring that all staff understand the policies and strategic direction of the municipality using mechanisms such as staff meetings The municipal manager should ensure that an appropriate internal communication system is established such as IT systems 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Develop an internal communication plan
47	Need for vending points at Nancefield, Madimbo, Malale & Domboni	<ul style="list-style-type: none"> Establish a mobile vending point in Harper, Campbell & Nancefield before end of 2005 Establish vending points in Madimbo, Malale & Domboni before end of 2004 	<ul style="list-style-type: none"> Utilise existing equipment to establish vending points. Establish satellite municipal offices in Madimbo, Malale & Domboni to accommodate future vending points 	<ul style="list-style-type: none"> Yes No 	<ul style="list-style-type: none"> Equipment is available (p). None 	<ul style="list-style-type: none"> N/a N/a 	<ul style="list-style-type: none"> Establish a mobile vending point in Harper, Campbell & Nancefield Establish vending points in Madimbo & Malale
48	Need to establish satellite municipal	<ul style="list-style-type: none"> Establish satellite municipal offices in Malale before end of 2004 	<ul style="list-style-type: none"> Obtain funding from Transitional Grant to construct satellite offices in Malale 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Establish satellite municipal offices in Malale

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects	
	office at Madimbo, Malale & Domboni area & commercial farming areas	<ul style="list-style-type: none"> Establish at least two satellite municipal offices in the commercial farming areas (Schuitdrift, Hope farm, Mopane, Weipe or Pontdrift) before end of 2005 	<ul style="list-style-type: none"> Obtain funding from Transitional Grant to construct two satellite offices in commercial farming areas 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> N/a 	<ul style="list-style-type: none"> Establish at least two satellite municipal offices in the commercial farming areas
49	Finalised in 2002/03						
50	Need to revise and draft new by-laws and a service delivery and tariff policy.	<ul style="list-style-type: none"> To revise and draft new by-laws and a service delivery and tariff policy by June 2004 	<ul style="list-style-type: none"> Revise existing by-laws and draft new by-laws, service delivery and tariff policy. 	<ul style="list-style-type: none"> Ongoing 	<ul style="list-style-type: none"> Yes (p) 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Revise existing by-laws and draft new by-laws, service delivery and tariff policy.
51	Finalised in 2002/03						

Priority issue	Working objectives	Strategies	Any existing projects/actions?	Projects/actions in progress (x) or in pipeline (p) ?	Projects/actions sufficient?	New projects	
52	Need to solve the transfer of residential erven to individuals in Nancefield X5, X6, & X7	<ul style="list-style-type: none"> Solve the problems regarding the right of occupancy of residential erven in Nancefield X5, X6 & X7 and outstanding debt to it. Service charges to affect the transfer of erven to rightful occupants. 	<ul style="list-style-type: none"> Lodge thorough investigation regarding the right of occupancy of existing occupants and the amount of outstanding debt. Identify alternative solutions to either transfer erven to occupants or to rent housing structures to occupants who cannot afford to pay outstanding debt. 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> The municipality is investigating the matter and will make proposals to council soon. 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> N/a
53	Finalise status of personnel and responsibility of fire brigade	<ul style="list-style-type: none"> Facilitate discussions with Vhembe District Municipality to resolve the functioning & responsibilities of rendering a fire brigade service to the Musina Municipal Area before end of 2005 	<ul style="list-style-type: none"> Continue with current negotiations to solve the situation. 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Negotiations in progress (x). 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> N/a

9. IDP Projects Template

INFRASTRUCTURE CLUSTER

Project No	Project Name	Status	Location	Responsible Agency	Time												Total Budget	Source of fund
					04/05				05/06				06/07					
					i	ii	iii	iv	i	ii	iii	iv	i	ii	iii	iv		
1	High Mast Community Lighting in Nancefield & (villages – Madimbo, Domboni, Malale)	Planning	Nancefield/Villages	Vhembe/Musina							x	x	x				R 2,0 m	MIG
2	Link road between Nancefield Ext. 8 and Ext. 6	Planning	Nancefield	Vhembe/Musina							x	x	x				R 1,7 m	MIG
3	Services Infrastructure in Villages and Nancefield	Planning	Villages	Vhembe/Musina						x	x						R 2,3 m	MIG
4	Change electrical reticulation in Bergview from mid-block to street	Planning	Musina	Musina					x	x							R 350 000	Musina
5	Electricity Business stands in Nancefield	Planning	Nancefield	Musina				x									R 200 000	Musina
6	Upgrade High tension electrical feeder lines in Musina	Planning	Musina	Musina			x	x	x								R 900 000	Musina
7	Purify and replace electrical transformers	Planning	Musina	Musina				x									R 400 000	Musina
8	Change water supply diesel engines in	Application Lodged	Villages	Vhembe/Musina				x	x	x							R 320 000	MIG

	villages to electrical																
9	Construct additional water extraction points in Limpopo river	Application Lodged	Musina	Vhembe/Musina				x	x	x						R1,18 m	MIG
10	Install internal sewerage reticulation in Musina	Consultant appointed		Vhembe/Musina			x	x	x							R 4,0 m	MIG
11	Roads & Curbing in Musina	Application lodged	Musina	Vhembe/Musina			x	x	x							R 2,0 m	MIG
12	Develop 300 new low-income housing units in villages 2004/05/06	Implementing	Villages	LG & H		x	x									R 7,530 000	LG & H
13	Develop 300 new low-income housing in Nancefield	Planning	Nancefield					x	x	x						R 8 400 000	LG & H
14	Secure Madimbo Office	Planning	Madimbo	Musina			x									R 50 000	Musina
15	Provision of Toilets in built up areas	Planning	Musina	Musina			x	x								R 70 000	Musina
16	Provide residents of Malale, Madimbo, Domboni with water erf connections	Application lodged	Villages	Vhembe/Musina			x	x	x							R 500 000	
17	Drain waterlogged area in Nancefield (next to cemetery)	Contractor	Nancefield	Vhembe/Musina		x										R 1,4 m	MIG
18	Upgrade existing cemetery facility adjacent to the industrial area	Planning	Musina	Musina			x	x	x	x	x					R 340 000	Musina
19	Maintain and improve existing sport facilities	Implementing	Nancefield	Vhembe/Musina		x	x									R 1,5m	Arts & Culture
20	Develop one recreational facility in Nancefield (Park)					x	x									R 50 000	Musina

21	Construction of Nancefield roads	Application lodged	Nancefield	Vhembe/Musina					x	x	x					R 4,0 m	MIG
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INSTITUTIONAL CLUSTER

Project No	Project Name	Status	Location	Responsible Agency	Time												Total Budget	Source of fund
					04/05				05/06				06/07					
					ii	iii	iv	i	ii	i	iv	i	i	i	iv			
1i	Develop A Clear Employment Equity Plan	Review	Institutional	Corp Dept				x	x	x	x	x	x	x	x	.....	.....
2i	Review Recruitment Strategy	Review	Institutional	Corp Dept				x	x	x	x					.....	.....
3i	Develop a Training Policy	New	Institutional	Corp Dept	x	x	x	x								.....	.....
4i	Skills Development Plan	Review	Institutional	Corp Dept					x	x	x	x				.....	.....
5i	Employee Assistance Programme	New	Institutional	Corp Dept					x	x	x	x	x	x	x	R 30 000	Internal	
6i	Evaluation Roll (CAPITAL BUDGET)	New Roll	Institutional	Corp Dept					x	x						R 400 000	Internal	
7ii	Paperless Office (CAPITAL BUDGET)	New	Institutional	Corp Dept						x	x					R 100 000	Internal	
8i	Reception Upgrade (CAPITAL BUDGET)	New	Institutional	Tech ser				x	x							R 80 000	Internal	

9i	Twinning Projects	New	Institutional	Corp Dept					x	x	x	x					R 30 000	Interana l
i	Twinning Implementation	Continuation	Institutional	Corp Dept		x	x	x	x	x	x	x	x	x	x	x	R 20 000	Internal
1i	PIMS	Continuation	Institutional	Corp Dept	x	x	x	x	x	x	x	x	x	x	x	x	R 423 500	Internal
1i	Sound System for disciplinary hearing	New	Institutional	Corp Dept				x	x								±R 2 500	Internal
1i	Gender Complaints	New	Institutional	Corp Dept					x	x	x	x						
1i	Mechanism to Monitor that Council Resolutions are Executed	New	Institutional	Corp Dept					x	x	x	x	x	x	x	x	.........	.........
1ii	Lease Management Strategy	Review	Institutional	Corp Dept						x	x	x					..... ....	..... ....
1ii	Employee Satisfaction Survey	New							x	x	x	x						

ECONOMIC CLUSTER

Project No	Project Name	Status	Location	Responsible Agency	Time										Total Budget	Source of fund	
1					04/05				05/06				06/07				
					i	ii	iii	iv	i	ii	iii	iv	i	ii	iii	iv	
1	Establish Vending Point	05/07	Strategic Points	C.F.O										x		R 120 000	Internal
2	Revise Existing By-laws	05/06	Musina	C.F.O									x			R 250	Internal

															000	I
3	LED	04/05		HOD/IDP			X								R 250 000	Internal
4	Free Basic Electricity	Yearly	Musina	C.F.O	X			X			X				R 682 688. 90	Equitable Share
5	Indegant Subsidy	Yearly	Musina	C.F.O	X			X			X				R 286 2 000.00	Equitable Share
6	Furniture for new Office	05/06	Musina	C.F.O						X					R 250 000	Internal & Loan
7	Tally Printer T6090 & Computers	05/06	Musina	C.F.O				X							R 150 735. 00	Internal
8	New Office Building	05/06	Musina	C.F.O					X						R 600 000	Internal & Loan
9	Develop Internal Communication System	05/06	Musina	C.F.O				X							R 100 000	Internal
10	Establish Vending Points Madimbo & Malale	06/07	Madimbo, Malale	C.F.O							X				R 320 000	Internal & Loan
11	Establish two Satellite Offices, Farm Area	05/06	Farms	C.F.O							X				R 420 000	Internal & Loan
12	Upgrading of Promis Systems to comply with GAMAP	06/07	Musina	C.F.O							X				R 600 000	Internal & Loan

SOCIAL CLUSTER

No.	Priority Issue	Project Status	Location	Time												Total Budget	Source of Fund
				04/05				05/06				06/07					
1	In progress (Implement	05/06		I	II	III	IV	I	II	III	IV	I	II	III	IV	10 000. 00	

	recycling programmes at Madimbo, Malale & Domboni)														
2	Organise “cleanest school” and “cleanest neighbourhood/ settlement” competitions.	05/06												10 000. 00	
3	Arrange for educational programmes with respect to littering and recycling	05/06												10 000. 00	
4	Provide name signs for streets in Nancefield - involve private sector.	05/06												10 000. 00	
5	Transport Forum to arrange discussions with Department of Transport & taxi associations to improve public transport between Musina and the 3 settlements.	05/06												20 000. 00	
6	Awareness programs on STD's, HIV/AIDS and teenage pregnancies.	05/06												10 000. 00	
7	Establish inter-departmental committee dealing with sexual diseases and health issues.	05/06												10 000. 00	
8	Facilitate ABET Co-ordination Committee	05/06												10 000. 00	
9	Facilitate Education Coordinating Forum.	05/06												10 000. 00	
10	Facilitate clinic facility at Malale to be used as a mobile point (satellite	05/06												20 000. 00	

	clinic).															
11	Facilitate 3 additional mobile clinics in the Musina Municipal Area	05/06													10 000. 00	
12	Facilitate a representative welfare coordination committee	Done													10 000. 00	
13	Investigate existing situation with respect to facilities at pension payout points	Done														
14	Facilitate the implementation of additional crime prevention programmes through the CPF structures.	05/06													10 000. 00	
15	Facilitate satellite police stations at Madimbo, Malale & Domboni.	05/06													10 000. 00	
16	Facilitate a periodical / mobile court in the rural settlement area.	05/06													10 000. 00	
17	Facilitate a community post office in the rural settlement area.	05/06													10 000.00	
18	Facilitate public telephone systems in Madimbo & Malale.	05/06													10 000. 00	
19	Facilitate a mobile library in the Madimbo, Malale & Domboni area.	completed													Completed	
20	Northern Province Road Agency to provide graders to assist with														20 000. 00	

	maintenance of soccer fields.																			
21	Establish a Land Reform Forum for the Musina Municipal Area.	Completed																	10 000. 00	
22	Develop a Tourism Strategy for the Musina Municipal Area.	05/06																	Consultant	
23	Facilitate a multi-purpose Arts and Craft Centre.	05/06																	300 000. 00	

LED new projects

Project no	Project name	Status	Location	Responsible agency	Time												Total budget	Source of fund		
					04/05				05/06				06/07							
					I	II	III	IV	I	II	III	IV	I	II	III	IV				
1	Musina youth cash crop	Implemented	Nancefield ext.7	Agriculture/Musina municipality	X	X	X	X	X	X	X	X	X	X	X	X		Agriculture		
2	Campbell irrigation scheme	Implemented	Nancefield ext.7	Owners/Musina municipality	X	X	X	X	X	X	X	X	X	X	X	X		Musina municipality		
3	Riakona welding	Implemented	Nancefield ext.6	Health & social development		X	X	X	X	X	X	X	X	X	X	X		Health and social development		
4	Thabang coffins making	Implemented	Nancefield ext.6	Health and social development		X	X	X	X	X	X	X	X	X	X	X		Health and social development		
5	Zwanda zwashu ndi mulilo	Implemented	Nancefield ext.6	Owner		X	X	X	X	X	X	X	X	X	X	X		Self		
6	Community garden	Implemented	Domboni	Owners		X	X	X	X	X	X	X	X	X	X	X		Self		
7	Community garden	Implemented	Madimbo	Owners		X	X	X	X	X	X	X	X	X	X	X		Self		

8	Community garden	Implemented	Malale	Owners		X	X	X	X	X	X	X	X	X	X	X		Self
9	Tsogang beads making	Implemented	Nancefield ext.5	Owners			X	X	X	X	X	X	X	X	X	X	X	Self
10	Rainbow sewing	Implemented	Nancefield	Owners	X	X	X	X	X	X	X	X	X	X	X	X	X	Self
11	Kutlwano Laundry	Implemented	Nancefield hawkers stalls	Owners	X	X	X	X	X	X	X	X	X	X	X	X	X	Self
12	Harper mine irrigation scheme	Planning	Nancefield ext.7	Owners														Self
13	Brickyard	Planning	Domboni	Owners														Self
14	Irrigation scheme	Planning	Madimbo	Owners														Self
15	Brickyard	Planning	Malale	Owners														Self
16	Marula salad dressing, pumpkin chutney, pumpkin jam, tomatoe jam and Mopane worms biltong	Planning	Musina	Owners														Self
17	Traditional beverages production	Planning	Musina	Owners														Self
18	Medicinal plant propagation & processing	Planning	Musina	Owners														Self
19	Toilet paper production	Planning	Musina	Owners														Self
20	Spirulina Production	Implemented	Nancefield ext.6	Musina municipality/Letsema Pty Ltd	X	X	X	X	X	X	X	X	X	X	X	X	2,732,342	Internal

21	Lucerne farming	Implemented	Musina next to the graveyard	Musina municipality/Pty Ltd	X	X	X	X	X	X	X	X	X	X	X	19,724	Internal
22	Singelele game conservancy	Implemented	Musina	Musina municipality/Pty Ltd	X	X	X	X	X	X	X	X	X	X	X	144,488	Internal
23	Duits liquer	Implemented	Musina	Musina municipality/Pty Ltd	X	X	X	X	X	X	X	X	X	X	X	8,840	Internal

10. ENVIRONMENTAL MANAGEMENT PLAN

The section serves to develop guidelines, processes and procedures that ensure that the environment is not detrimentally affected by development.

EMP is described as a plan or programme that seeks to achieve a required end state and describes how activities that have or could have an adverse impact on the environment, will be mitigated, controlled, and monitored.

The EMP will address the environmental impacts during the design, construction and operational phases of a project. In order to achieve a number of environmental specifications/recommendations are made. These are aimed at ensuring that the contractor maintains adequate control over the project in order to:

- Minimise the extent of impact during construction.
- Ensure appropriate restoration of areas affected by construction.
- Prevent long term environmental degradation.

Strategic objectives have been formulated as a means to managing and minimizing the impact of development on the environment. The approach used included formulating management criteria that would retain the environmental opportunities as well as setting requirements to ensure that environmental constraints are identified early in the development cycle. Management requirements follow best practice approaches and minimum requirements from a legal compliance point of view.

Action plans are provided that will ensure that the strategic objective is implemented that was set as a tool to reach the Desired State of Environment.

Indicators serve to track performance in relation to the specific strategic objectives and are important for:

- Keeping people informed on progress;
- Monitoring the implementation of specific targets and measures that emerge from the strategies;
- Enable comparison and benchmarking3.

Various sustainability indicators⁴ are provided for the purpose of assessing environmental performance. These provide a first list of potentially suitable indicators that should be refined and applied according to the resources in the relevant authorities. It is not practical at this point to set neither the precise indicators nor the responsible authority without first evaluating the existing systems and resources that are in place.

A useful procedure for selecting relevant indicators⁵ is as follows:

- They are clearly linked to the strategic objective;
- They are useful for decision making;
- They are meaningful to staff;
- They can be used in stakeholder communication;
- They are cost effective to implement, making use of existing data wherever possible;
- They are suitable for intra industry comparison;
- They are consistent across sites and over time;
- They are quantifiable when possible;
- They are few in number.

It should be noted that the purpose of environmental indicators is to track management efforts and responses to changes or trends in the landscape. The selection and delegation of responsibility for implementation and checking relevant indicators rests with the appropriate authorities. This has not been specified as the roles and responsibilities between relevant departments span many levels and areas. Co-operative governance and a joint agreed upon proposal and strategy to monitor performance indicators will therefore be necessary.

GEOLOGY

Objectives

- Geotechnical investigation and related studies should be undertaken in the area where development will occur in order to determine the specific measures necessary to mitigate impacts such as blasting, cracking, collapse, etc.
- Only development that is suitable to the site should be supported.

SOILS

Objectives

- No soil loss from exposed or disturbed areas should occur. Erosion control techniques must be implemented in areas likely to erode including exposed surfaces, channel banks, sloping areas, un-vegetated areas, and areas that have been degraded or disturbed.

- Development on these soils must be suited to overcome the constraints of the site. This will require the use of suitable foundations, adequate drainage, appropriate service (i.e. sewage) provision, etc.
- The original soil profile should be replaced during construction activities or where other forms of excavation occur.
- Topsoil shall be removed from all areas where physical disturbance of the surface would occur and shall be stored and adequately protected.
- The contractor shall provide for the stripping and stockpiling of topsoil from the site for later re-use.
- The Contractor shall ensure that minimal amounts of topsoil lost due to erosion, either by wind or water be replaced by unused garbage.
- Areas to be topsoiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns.
- The Contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and re-vegetation (should re-vegetation be necessary). The Contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the Environmental control officer (ECO).
- The Contractor's responsibility shall also extend to the clearing of drainage or water systems that may have been affected by such negligence within and beyond the boundaries of the construction sites.
- Top soil should be stockpiled separately to sub-soils to allow for this process.
- Suitable infrastructure and appropriate agricultural practices should be encouraged (e.g. cultivation of maize, cotton and sunflower) that is to say proposed development should be compatible with the type of soil that is present at the particular area.
- Where development activities are proposed on the Arcadia soil type, then a detailed geotechnical assessment must be undertaken by the developer. This assessment must indicate the development area affected by the soil type, the mitigation measures to prevent collapse and cracking (i.e. foundation designs) and measures to safeguard the installation and integrity of the services.
- Development on the Mispah soil must be limited by the presence of rock and shallow soils. Blasting activities will therefore be required and these impacts will need to be managed and mitigated. Similarly, owing to the shallowness of the soil and the often steep slopes upon which this soil occurs, it will be necessary to ensure adequate and appropriate storm water control to limit erosion.

- Where blasting activities are required for development purposes then a detailed EMP must be compiled by the developer. This must specify how the blasting is to be controlled, when it is proposed to occur, equipment that will be used and the potential impact on the surrounding property owners and members of the public.
- A storm water management plan should be drawn up for all development sites.
- The local authority must be notified of the date and times when the blasting activities are to occur.

TOPOGRAPHY

Objectives

Significant cut and fill should be discouraged unless it can be adequately mitigated

- Cut and fill slopes shall be shaped and trimmed to approximate the natural condition and contours as closely as possible and, where possible, be undulating.
- Levels incongruous to the surrounding landscape shall be reshaped using a grader and other earthmoving equipment.
- All cut and fill slopes shall be left as rough as possible, and shall contain ledges to facilitate the accumulation of topsoil. The shall be dug at random to appear natural. ledges
- Linear impacts (i.e. pipelines, power lines, gas pipes, roads, and railway lines) should be discouraged in the sensitive areas and adequate mitigation to minimize their impact must be implemented.
- Protect the existing demarcation of the Protected Natural Environment. Low impact development activities should be supported within this demarcation. This would include for instance compliance to the regulations published under Administrator's Notice 127 (4 May 1994) of Section 16(2) of the Environment Conservation Act (73 of 1989).
- The development of ridges should be prevented. This should prevent activities from breaking the skyline, becoming visually obtrusive or occurring on steep slopes.
- Development activities should not be supported on slopes greater or equal to 8°.
- Development on ridges should be visually unobtrusive and include lighting that is focused downward (i.e. not dispersive lighting).

- Activities that generate significant noise should not be encouraged on ridges that would create nuisance noise in down slope areas.
- The gradient of the midslope should be used to determine the appropriate type of development.
- Development should be encouraged on the undulating plains around Musina, but this will need to take into consideration the existing constraints.
- River floodplain should be retained as a natural corridor within the 1:100 year flood line level. Development activities outside this zone should be compatible with the surrounding area. The floodplain should be rehabilitated in order to improve the quality of the area. The habitat integrity within the entire River course should be maintained.
- Remove all exotic species growing within the River Floodplain.
- Limit further development activities until adequate and suitable service provision is made available.
- Encourage the planting of indigenous trees and shrubs.
- Construction of bulk infrastructure across rivers should compile a complete EMP.
- The natural stream and stream tributary flood plains should be retained in their existing state. Efforts to remove exotic species should be encouraged. Erosion protection and storm water control should be implemented in areas where localised flooding and erosion occur.
- Floodplains of stream and tributaries that have already been altered by development activities should be rehabilitated. This should include the use of retention ponds, gabions, planting indigenous trees & shrubs, etc.
- Development that occurs on the fringes of such areas should be green.
- An adequate “buffer area” should separate the floodplain from developments.
- Remove all exotic woody species and invader plants.
- Insert storm water control points such as gabions, retention ponds, and riffle beds in appropriate positions to limit the impact of peak flows.
- Prevent planting of Kikuyu as lawns on properties adjacent to streams and rivers.

- Control erosion and siltation.
- Ensure that development activities do not obstruct or significantly undermine the ambience of the area.

HYDROLOGY

Objectives

- No alteration of stream or river courses should be made (including damming/water impoundments) without approval from the relevant authorities (DWAF).
- Pollution control should be identified for all development areas. Pollution control in these areas should be regularly enforced by the relevant authorities.
- Point and non-point pollution sources must be addressed in an effort to improve water quality.
- Measures that are necessary should be taken to control siltation on an on site basis so that impacts further downstream can be mitigated.
- Storm water management plan for the study area should be compiled.
- Storm water management plans for development areas should be compiled.
- Gabions, retention ponds must be constructed to limit the impact of peak flows in areas prone to erosion (steep slopes, vertic soils).
- Soil erosion and siltation on development sites and within the study area should be controlled.
- Exotic and invader species within the floodplains of the streams should be removed.
- Storm water management plan for the study area as well as storm water management for development areas must be compiled.
- Gabions or riffle beds, retention ponds must be constructed in order to limit the impact of peak flows.
- An integrated catchment management plan, involving the participation of communities and civil society in the planning and management of river systems via forums, should be developed. This should culminate in the development of relevant by laws for the control and management of storm water, water quality, runoff, flooding, etc.

WATER QUALITY

Objectives

- The quality of the water in the streams, rivers and dams must be improved such that it is potable.
- All water resources should comply to the minimum requirements as set by the Department of Water Affairs & Forestry Target Water Quality Guidelines for domestic use.
- Development activities should further include controls on the management of sewage and waste in the upper reaches of the catchment in order to circumvent cumulative impacts on the River.
- Control needs to be exercised on the inadequate provision of services (especially sewage treatment) that influences the River. The sewage works north of the study area is incapable of dealing with the demand and the impact of peak flow during heavy thundershower events. This sewage works station must be upgraded.
- It is necessary that control be exercised on the use of fertilizers in the study area, especially along the banks of the Rivers and Dams that are found at the study area.
- Ground water quantity and quality must be protected for the use as potable water supply in the agricultural sections of the study area.
- Control of land use must be exercised to mitigate the impact of sewage contamination in these areas, until adequate services are in place.
- The uncontrolled abstraction of ground water from the aquifer must be prevented.
- Borehole use must be registered and appropriate studies by professional parties must be undertaken to motivate the need and assess the impact of ground water abstraction.
- Residential development should not be facilitated without formal water services. Informal settlements should be avoided.
- All development proposed in non-serviced areas must submit water requirements and water availability figures.

ECOLOGICAL SYSTEMS

Objectives

- Core areas should be used for the purpose of environmental awareness.
- The ecological integrity of these areas must be maintained by means of preventing degradation, erosion, loss of biodiversity, accumulation of waste, inappropriate development, etc.
- Compile a detailed inventory of all the core areas.
- Establish a management framework for the protection and utilization of these areas.
- Public Private initiatives should be considered to retain these areas.
- Connector areas must be protected against developmental damage and disturbed areas must be rehabilitated. Riverine vegetation must be conserved and sufficient buffer areas must be maintained between the connector and the surrounding development.
- Retain connector areas free from development except passive recreation development.
- Rehabilitate all areas within the connector areas that have been degraded and disturbed.
- Compile a detailed inventory of all the connector areas.
- Establish a management framework for the protection and utilization of these areas.
- Intermediate areas should be conserved as open space in the natural landscape with limited recreation orientated development where the connectivity function of the areas is not compromised. The role of intermediate areas in the open space system must be re-assessed should development be proposed in these areas.
- The ecological integrity of these areas must be maintained by means of preventing degradation, erosion, loss of biodiversity, accumulation of waste, inappropriate development, etc.

FAUNA **Objectives**

- The habitats and potential occurrence of sensitive bird species should be assessed before development is approved. Suitable habitats should be conserved where possible or mitigation measures provided to decrease impacts.
- Conservation of sensitive bird species can be conveyed to the public by developing educational bird outings and volunteer 'watch dog' organisations.
- A list of Red Data avifauna policy for the study area must be compiled. This should list those species under threat, reasons for their demise and measures that must be taken to ensure for their continued existence, including access to adequate and appropriate areas of suitable habitat condition.
- Areas that serve as habitat for sensitive avifauna must be protected.
- The habitats and potential occurrence of sensitive herpetofaunal and lepidoptera species should be assessed before development is approved. Suitable habitats should be conserved where possible or mitigation measures provided to decrease impacts.

- Assessments to determine the significance of impacts on the Herpetofauna must be conducted at the suitable time of year.
- The introduction of exotic faunal species into the area should follow the correct legislated procedures.
- A list of Red Data herpetofauna policy for the study area must be compiled. This should list those species under threat, reasons for their demise and measures that must be taken to ensure for their continued existence, including access to adequate and appropriate areas of suitable habitat condition.
- Development applications that are proposed in areas containing sensitive herpetofauna habitat must include a specialist investigation detailing the potential impact and relevant mitigation measures.
- Areas that serve as habitat for sensitive herpetofauna should be protected.
- The habitats and potential occurrence of butterfly and sensitive butterfly species should be assessed before development is approved. Suitable habitats should be conserved where possible or mitigation measures provided to decrease impacts.
- Assessments to determine the significance of impacts on the Lepidoptera must be conducted at the suitable time of year.
- The habitats and potential occurrence of sensitive invertebrate species should be assessed before development is approved. Suitable habitats should be conserved where possible or mitigation measures provided to decrease impacts.
- Assessments to determine the significance of impacts on the other invertebrates must be conducted at the suitable time of year.
- The habitats and potential occurrence of mammals and sensitive mammal species should be assessed before development is approved. Suitable habitats should be conserved where possible or mitigation measures provided to decrease impacts.
- Assessments to determine the significance of impacts on the mammals must be conducted at the suitable time of year.

FLORA Objectives

- Areas that are disturbed and devoid of natural vegetation should be rehabilitated with indigenous species. A basal cover of 60% should be established on the rehabilitated site within a year.
- Alien/invasive species should be removed, either mechanically or chemically, from sites. National programmes such as the Department of Water Affairs & Forestry Working for Water programme should be used to assist in this.
- Individual landowners should be encouraged to remove exotic species from their properties.
- A fire management system is required in areas subject to frequent fires.
- A vegetation assessment including a Red Data scan should be completed if development is proposed in the bushveld vegetation type.
- Natural elements of this vegetation types should be included in the township layout.
- Mature indigenous trees should be included in the layout plans.
- Red Data species potentially or actually occurring on site should be listed.
- An assessment of the site for potential Red Data and other sensitive species should be undertaken.
- **Bushveld trees should be maintained as far as possible.**
- Habitat connectivity between properties should be maintained.
- A vegetation scan and Red Data scan can be considered if the site has severely been affected by agricultural or development related activities.

- Drainage lines, floodlines and water quality should be protected.
- **Natural savanna (trees and grassland) should be maintained as natural features.**
- A Vegetation Assessment including a Red Data scan should be completed if development is proposed in this vegetation type.
- A Vegetation Scan and Red Data Scan can be considered if the site has severely been affected by agricultural activities.
- Mature indigenous trees should be included in the layout plans.
- Red Data species potentially or actually occurring on site should be listed.
- An assessment of the site for potential Red Data and other sensitive species should be undertaken.
- Appropriate mitigation measures that protect suitable sensitive species habitat must be derived.
- Wetlands should be maintained and incorporated into development where possible.
- **Wetlands should not be drained for agricultural purposes.**
- **Mining of wetlands for peat should follow the correct legislated procedures.**
- **Diversion and damming of streams/rivers should follow the correct legislated procedures.**
- Exotic vegetation should be removed and controlled as per the guidelines provided in the Status Quo report.
- Mature indigenous trees should be included in the layout plans.
- Red Data species potentially or actually occurring on site should be listed.
- An assessment of the site for potential Red Data and other sensitive species should be undertaken.
- Appropriate mitigation measures that protect suitable sensitive species habitat must be derived.
- **Development should not be allowed to encroach upon pans. A buffer area should be determined to protect the pan from surrounding land uses and activities. Pans should not be drained or used for storm water runoff collection points.**
- Educate and inform the public of the legislated guidelines and status of the various exotic species in order to regulate the already existing ones and their spread.
 - Red Data species should be protected *in situ*. The habitat of Red Data species should be preserved without degradation.
 - Protected Plant (sensitive and/or Red Data and Medicinal plants) species should be protected *in situ*. Alternatively protected plants may be relocated to a similar habitat in the site (in the open space areas) or to a natural area in close proximity to the site. The guidance of a botanist and/or horticulturist should be obtained for this purpose.
 - **Medicinal Plant Species should be protected *in situ*. Alternatively protected plants may be relocated to a similar habitat in the site (in the open space areas) or to a natural area in close proximity to the site. The guidance of a botanist and/or horticulturist should be obtained for this purpose.**
 - A protective natural buffer area, to be determined by a professional botanist, should be maintained around plant populations in order to protect the plant from human related activities associated with development.
 - An assessment of the site for potential Red Data and other sensitive species should be undertaken.
 - **Appropriate mitigation measures that protect suitable sensitive species habitat must be derived.**

- Appropriate mitigation measures, in association with a botanical expert, should be obtained when the species are to be impacted upon.
- The study area should be assessed with regards to the most popular medicinal plants that may potentially become Red Data plants in the foreseeable future. A management strategy in association with the users as well as nurseries should be established to maintain sustainable utilization patterns.
- A medicinal plant policy should be compiled for species in the study area. This should include measures to manage the occurrence, collection, impact and relocation of such species to suitable habitat or areas for protection or use.

CULTURAL / HISTORIC FEATURES

Objectives

- The cultural / historic features of the area should be retained in their current form and / or rehabilitated to ensure for their preservation. Efforts to better integrate development with the occurrence of these features should be encouraged.
- Compile an inventory of all the cultural historic sites in the study area.
- Determine the significance of each site.
- Formulate strategies for managing the rehabilitation and utilisation of this national asset.
- Encourage private sector involvement in promoting access and management of the resource.
- Move the appropriate cultural historic features to sites where they can be viewed and accessed (i.e. museums).

SOCIAL FEATURES

Objectives

- Create opportunities for employment.
- Provide adequate infrastructure
- Encourage recycling of waste
- Prevent litter accumulation by educating the community on waste management issues.
- Provide housing of suitable standard.
- Provide the appropriate services.
- Prevent crime and illegal activities.
- Retain open spaces in the urban areas so as to promote a healthy living environment.
- Promote environmental education.
- Implement greening of urban and residential area initiatives.

AIR QUALITY

Objectives

- The air quality of Musina should be maintained according to the requirements of the relevant authorities.
- Industries in Musina must adhere to the National Air Quality Guidelines.
- The Local Authority in association with Limpopo DFED and Limpopo DME must ensure compliance.
- No biomass burning shall be permitted without a permit.
- Exposed surfaces must be wetted or kept wet during windy periods to reduce dust.
- Soil that is transported must be suitably covered to prevent dust escape.
- Veld fires and the burning of fossil fuels for domestic purposes should be controlled and minimized by means of providing electrical power.
- Encourage the transformation and reliance of fossil fuels to energy sources such as solar heating, wind power and the like. This should be made available in housing developments.

The key actions to managing the air quality environment should include⁶:

- Determining population exposure and assessing health impacts;
- Informing the public about air quality and raising awareness;
- Identifying threats to natural ecosystems;
- Determining compliance with national and international standards;
- Source apportionment and identification;
- Assessing point or area source impacts;
- Trend qualification, to identify future problems or progress against Management/ control targets.
- More accurate and up-to-date information on the baseline characteristics of the air quality in the study area is required.
- Pollutant levels within the study area should be compared to the World Health Organisation standards and standards of the Department.
- A strategy to control pollutants within the study area should be developed. Areas and activities for which pollution control is necessary include:
 - Emissions from stoves and camps associated with construction sites;
 - Emissions from the hospital;
 - Dust generated from vehicle activity on sand roads;
 - Emissions from point sources outside the study area (mining areas north east of the study area);
 - Vehicle movement within the industrial areas;
 - Emissions from the industrial areas;
 - Vehicle emissions.
- Appropriate mitigation measures include:
 - Preventing open fires such as frequent veld fires, ignition of waste”;
 - Providing electrical services to settlement areas;
 - Materials handling and processing;

- Dust entrainment;
- Dust abatement;
- Storage of materials by means of wetting (i.e. soil stockpiles);;
- Wetting exposed areas to reduce emissions from open areas;
- Road cleaning and maintenance.
- Regular reports concerning the state and flux of the air quality of Musina should be available.
- Dust control is necessary including the creation of applicable regulations, limitations to biomass burning and emission control.

EVALUATION AND REPORTING SYSTEMS

A list of some common approaches is provided below that can be used to assess environmental performance:

- Monthly reporting of the various environmental attributes in the area (water quality, air quality, loss of agricultural land, etc.);
- Monthly assessment of the nature and type of development applications (i.e. EIA's, Scoping Reports, Exemption Applications);
- Monthly records on the progress of applications and problems experienced;
- Monthly records on the nature of environmental problems in the study area;
- Monthly records of non-compliance;
- Regular (quarterly) meetings with representative organizations that are affected by development planning;
- Provision of information quarterly reports on all of the above.

It will be necessary that the relevant authorities and Musina Local Council agree on the roles and responsibilities for collecting, analyzing and reporting functions as described above.

GENERIC IMPACTS AND ASSOCIATED MITIGATION MEASURES

This section provides a brief description of the most common impacts resulting from most projects and developments and a description of the associated mitigation measures (Table 3.1).

These list of impacts and mitigation measures are not exhaustive but are provided as a guide to assist the Municipality and those involved in activities and projects that may likely impact on the environment, developing or reviewing an Environmental Management Plan to understand which issues should be addressed as minimum requirement.

TABLE 3.1: GENERIC IMPACTS AND ASSOCIATED MITIGATION MEASURES

Impact	Project phase	Mitigation measures	Performance specifications
Soil: Loss of top soil: (the essential substrate for plant growth and hence rehabilitation); Erosion; Compaction and crusting; Changes in soil properties (e.g. acidification and salinisation); Chemical contamination; Invasion of exotic biota.	Pre-construction; Construction; Operation	<ul style="list-style-type: none"> a) Prior to earthing operations all topsoil (top 300mm as a minimum) must be stripped and stockpiled separately from subsoil and rocky material. Soil must be stripped in a phased manner so as to retain vegetation cover for as long as possible. b) Stockpiled topsoil should not be compacted and should be replaced as the final soil layer. No vehicles may be allowed access onto the stockpiles after they have been placed. c) Stockpiled soil must be protected by erosion- control berms if exposed for a period of greater than 14 days during the wet season. d) To prevent topsoil from being spread out or mixed with the other spoil during the construction, soil stockpiles must not take the form of windrows. e) Topsoil stripped from different sites must be stockpiled separately and clearly identified as such. f) Topsoil stockpiles must not be contaminated with oil, diesel, petrol, waste or any other foreign matter, which may inhibit the later growth of vegetation and micro-organisms in the soil. g) Soil must not be stockpiled on drainage lines or near watercourses. h) Topsoil obtained from sites with different soil types <p>Mitigation measures</p>	Site establishment; Access roads; Combat erosion; Vegetation clearance; Topsoil; Erosion control; Slope protection; Storage facilities; Pollution prevention;
Impact	Project phase		Performance specifications

Impact	Project phase	<ul style="list-style-type: none"> i) Soil must be exposed for the minimum time possible once cleared of invasive vegetation. The timing of clearing and grubbing should be co-ordinated as much as possible to avoid prolonged exposure of soils to wind and water erosion. j) Stockpiled topsoil must be either vegetated with indigenous grasses or covered with a suitable fabric to prevent erosion and invasion by weeds. k) All cut and fill surfaces need to be stabilized with appropriate material or measures when major civil works are complete. l) Erosion and Donga crossings must be dealt with as river crossings. Appropriate soil erosion and control procedures must be applied to all embankments that are disturbed and destabilized. m) Only limited vehicular access is allowed across rocky outcrops and ridges. n) All equipments must be inspected daily for oil or fuel leaks before it is operated. Leaks must be repaired on mobile equipment or containment trays placed underneath immobile equipment until such leakage has been repaired. o) Soil contaminated with oil must: be dug up to 30cm below the saturated oil mark; or disposed at a permitted landfill site; or the soil can be <p style="text-align: center;">Mitigation measures</p>	Performance specifications
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Water: Altered hydrology; Contamination of water resources; Sedimentation; Salinisation; Eutrophication of rivers or impoundments Ground water contamination; Surface water pollution; Barriers to migration of fish, aquatic vertebrates and invertebrates;; Impact	Construction; Operation; Project phase	<ul style="list-style-type: none"> a) Adequate sedimentation control measures must be instituted at the any river crossings when excavations or disturbance of drainage lines of wetland may take place. b) Adequate sedimentation control measures must be instituted at the any river crossings when excavations or disturbance of riverbeds takes place. c) The batching plant must be positioned away from drainage lines, and measures to ensure that no polluted water enters a natural stream, i.e. more than 20m from the nearest stream/ river channel. d) All runoff from batching areas must be strictly controlled. e) Cement contaminated water must be collected, stored and disposed of at a site approved by Site Engineer. f) Waste concrete and cement sludge must be scraped off the site of batching plant daily and removed to an approved landfill site. g) Concrete shall not be mixed directly on the ground. Plastic liners or mixing trays are to be used. h) All fuel, chemical, oil, etc spills must be confined to areas where the drainage of water can be controlled. Use appropriate structures and <p>Mitigation measures</p>	Site establishment; Vegetation clearance; Erosion control; Water quality monitoring; Offices & other structures; Storage facilities; Pollution prevention;
Invasion of alien invasive plants – reduction in quality and quantity of water;		methods to confine spillages such as the construction of berms and pans, or through the application of surface treatments that neutralise the toxic effects prior to the entry into a water course. <ul style="list-style-type: none"> i) Vehicle traffic across wetland areas must be avoided. j) No dumping of foreign material in streams, rivers and/or wetland 	Performance specifications

Impact	Project phase	<p>areas is allowed.</p> <p>k) Oil absorbent fibres must be used to contain oil split in water.</p> <p>l) A wetland area and/or river must not be drained, filled or altered in any way including alteration of a bed and/or, banks, without prior consent from DWAF and the relevant DEAT office. The necessary licenses must be obtained fro DWAF in terms Section 21 and 22 of the National Water Act, (Act 36 of 1998).</p> <p>m) No fires or open flames are allowed in the vicinity of the wetland, especially during the dry season.</p> <p>n) No swimming, washing (including vehicles and equipment), fishing or related activity is permitted in a wetland or a river without written permission from Environmental officer.</p> <p>o) The contractor must install and maintain mobile toilets at work sites.</p> <p>p) Maintain soil erosion structures such as stone pitching, gabions, etc to enable effectiveness.</p> <p>Mitigation measures</p>	Performance specifications
		<p>q) The contractor must provide adequate and approved facilities for the storage and recycling of used oil and contaminated hydrocarbons. Such facilities must be designed and situated with the intention of preventing pollution of the surrounding area and environment.</p> <p>r) All vehicles must be serviced in the designated area within the contractor camp.</p> <p>s) All chemical spills must be contained and cleaned up by the supplier or professional pollution control personnel.</p>	

Impact	Project phase	<p>Mitigation measures</p> <ol style="list-style-type: none"> a) All rare flora and seeds must be rescued and removed from the site. b) Protected plants must not be cut or damaged in any way. c) The felling and/or cutting of trees and clearing of bush must be minimized. d) Any incident of unauthorized removal of plant material, as well as accidental damage to priority plants, must be documented. e) Transplanting of indigenous plants must be encouraged at all times. Trees and shrubs must be planted so that their stems or trunks are at the same depth as in the original location. f) Transplanted plants must be watered once a week for 5 weeks and therefore once every 2 weeks. 	<p>Site establishment; Access roads; Vegetation clearance; Planting; Fencing & gates; Destumping; Landscape rehabilitation;</p> <p>Performance specifications</p>
Impact		<ol style="list-style-type: none"> g) If any protected tree, identified in the site specific study, is felled, cut, pruned and/or, in the opinion of the environmental officer, is unduly damaged by the contractor, the contractor will pay a penalty (amount stipulated by DEAT) per tree. h) Trees selected for preservation in the site-specific study within or adjacent to the works areas must be fenced around their drip line. The fence must be clearly marked with danger tape. No open fires may be lit within this fenced area. 	
Impact	Project phase	<ol style="list-style-type: none"> a) No species of animal may be poached, snared, hunted, captured or willfully damaged or destroyed. b) Fishing is only allowed with the written consent of the landowner and only when anglers are in possession of a Provincial Fishing License. c) Snakes and other reptiles that may be encountered on the construction site must not be killed unless the animal endangers 	<p>Site establishment; Protection of fauna;</p>

Impact		<p>(e.g. disrupted breeding of fish in dammed areas, and disturbed bird nesting areas);</p> <p>Mitigation measures</p>	Performance specifications
		<p>d) the life of the employee.</p> <p>Anthills that occur must not be disturbed unless it is unavoidable for construction purposes.</p> <p>e) Any incidents of poaching willfully disturbance</p> <p>or damage to wild animals, as well as accidental damage to or death of wild animals must be recorded by the CR and made available to the EA on a weekly basis.</p> <p>f) Nesting sites of birds must not be disturbed.</p> <p>g) The contractor's representatives and environmental officer must ensure compliance with the relevant Nature Conservation Ordinances.</p> <p>h) The contractor's representative must ensure that domestic and native animals belonging to the Local Community are kept away from unprotected works.</p> <p>i) All animals injured on account of construction activities must be taken to the local SPCA. Dead animals must be disposed at a permitted landfill site.</p> <p>j) No pesticides must be used unless approved by the environmental officer, and may only be applied by an approved specialist.</p> <p>k) If water is dammed, an ichthyologist must be consulted, during the site-specific study, to establish the impact on breeding patterns of the affected fish species. The environmental officer must ensure compliance with the findings of the investigation.</p> <p>l) Particular care must be taken to avoid nesting, breeding and roaming sites of animals in or adjacent to wetlands areas.</p>	

Impact	Project phase	Mitigation measures	Performance specifications
Dust: Odours –exhaust fumes; waste material; smoke.	Construction; Operation	<ul style="list-style-type: none"> a) Speed limits must be enforced in all areas, including public roads and private property to limit the levels of dust pollution. b) Dust must be suppressed on access roads and construction sites during dry periods by the regular applications of water or a biodegradable soil stabilization agent. Water used for this purpose must be used in quantities that will not result in the generation of run-off. c) Suitable screening and containment measures must be in place prevent wind blown contamination. d) The site-specific investigation must quantify the impact of dust on nearby wetlands, rivers and dams in terms of sedimentation. All mitigation measures identified during the site specific study must be implemented. e) The environmental officer must notify all people living within 50m of the construction site of the proposed activities. f) In the event of serious levels of dust pollution, the implementation of constant dust monitoring <p style="text-align: center;">Mitigation measures</p>	

Impact	Project phase		Performance specifications
		<p>g) by qualified consultants must be undertaken.</p> <p>Waste must be allowed to stand on site to decay, resulting in malodours and attracting vermin. Waste must be disposed of at a municipal transfer station, skip or on a permitted landfill site.</p> <p>h) The contractors must stick to normal working hours between 07h00 and 17h00 Monday to Friday.</p> <p>i) The contractors must inform all adjacent landowners of any after-hour construction activities and any other activity that could cause nuisance e.g. the application of chemicals to the work surface</p> <p>j) The environmental officer or contractors representative must ensure that all vehicles comply with the SABS 0181 standards.</p> <p>Vehicles used on, or entering, the site must be serviced regularly to ensure that they do not emit smoke or fumes.</p>	
Noise:	Construction	<p>a) Noise control measures must be implemented. All noise level must be controlled at the source. If the noise level at the boundaries of the site exceeds 7Db above ambient levels, the local health authorities must be informed.</p> <p>b) All employees must be given the necessary ear protection gear.</p> <p>Mitigation measures</p>	<p>Noise control; Blasting</p> <p>Performance specifications</p>
Impact	Project phase		

Impact	Project phase	<p>c) Affected parties must be informed of the excessive noise factors.</p> <p>d) Pumps must be housed in a brick building to help reduce any noises when the pump is in operation.</p> <p>e) Affected livestock farmers must be informed of excessive noisy activities a month in advance. This will enable them to take appropriate steps to prevent disturbance and possible injury to livestock e.g. moving the livestock to distant camps.</p> <p>f) The relevant by-laws and regulations must be adhered to. These laws include: Environmental Conservation Act, 73 of 1989, Occupational Health and Safety Act, 85 of 1983 and Provincial and local by-laws. These laws regulate noise control.</p> <p>g) Soft explosives and/or noise mufflers must be used during blasting to minimize the impact on humans and animals.</p> <p>h) No loud music is allowed on site and in construction camps.</p> <p>Mitigation measures</p>	Performance specifications
Aesthetics: Reduced sense of place and tourism potential of the area; Reduced visual	Construction; Operation	<p>a) Damage to the natural environment must be minimized</p> <p>b) Trees and tall woody shrubs must be protected from damage to provide a natural visual shield. Excavated material must not be placed on such plants and movement across them must not be allowed.</p>	Access roads; Combat erosion; Vegetation clearance; Slope protection; Shaping and trimming;

integrity	Project phase	<p>c) The clearing of sites must be kept to a minimum and surrounding vegetation must be left intact as a natural shield.</p> <p>d) At construction sites in densely vegetated areas, the vegetation must be cut at angles of 45 degrees from the bottom to minimize any visual impact.</p> <p>e) Marking for surveying and other purposes must only be done with pegs and beacons. Painting and marking of natural features must not be allowed.</p> <p>f) All waste concrete/cement shall be removed together with contaminated soil after the completion of the project.</p> <p>g) Where existing access routes and borrow pits have been overgrown with vegetation such surfaces must not be graded.</p> <p>h) Borrow pits must be shaped to have undulating slopes and surfaces such that they blend into the natural landscape as much as possible.</p> <p>Mitigation measures</p>	<p>Aesthetics; Offices & other structures; Blasting; Landscape rehabilitation;</p> <p>Performance specifications</p>
		<p>i) Blasted areas and cut and fill slopes must be as rough as possible such that the natural surroundings are emulated as far as possible and that the jagged ledges facilitate the accumulation of soil and the subsequent establishment of vegetation.</p> <p>j) Where possible, concrete surfaces on embankments and storm water gullies must be undulated to minimize surface reflection.</p> <p>k) Excavated material must be flattened (not compacted) or removed from site. No heaps of soil material must be left on site once the Contractor has moved to a new construction site.</p> <p>l) Littering on site and the surrounding areas is prohibited. Clearly</p>	

Impact	Project phase	<p>marked litterbins must be provided on site. The contractor's representative must monitor the presence of litter on the work sites as well the construction campsite. All bins must be cleaned of litter on a daily basis.</p> <p>m) Excess concrete, building rubble or other material must be disposed of in areas designated specifically for this purpose and not indiscriminately over the construction site.</p> <p>n) All plastic material must be removed from area where livestock could swallow it.</p> <p>Mitigation measures</p>	Performance specifications
		<p>o) Contaminated soil must be treated and disposed at a permitted waste disposal site, or be removed and the area rehabilitated immediately.</p>	
Disturbance of archaeological areas	Construction	<p>a) Work in areas where artifacts are found must cease immediately. The environmental Officer must be notified immediately and Global Positions System reading must be taken.</p> <p>b) The excavation must be examined by an archaeologist as soon as possible. The EA will advise the Contractor of necessary actions to be taken after receiving advice from the archaeologist. All necessary actions to ensure that delays are minimized must be taken.</p> <p>c) Under no circumstances must the contractor, his employees, his</p>	

Impact	Project phase	<p>sub-contractor's employee remove, remove, destroy or interfere with archaeological artifacts. Any person who causes intentional damage to archaeological or historical sites or artifacts could be penalized or legally prosecuted in terms of the National Heritage Resources Act (Act 25 of 1999).</p> <p>d) All known and identified archaeological and historical sites must be left untouched. No stones or rocks must be removed from such sites.</p> <p>e) The contractor's representative must ensure</p> <p>Mitigation measures</p>	Performance specifications
		that employees do not gain access to any archaeological areas (whether fenced or unfenced), except when authorized to do so by the environmental officer.	
Relocation of homesteads or community due to project	Planning; Construction	<p>a) Owners of Land to be expropriated must receive compensation in terms of Expropriation Act, Act 63 of 1975;</p> <p>b) An extensive public participation must be undertaken allowing a decision making process that is based on rights and risks culminating in negotiation to benefit sharing, resettlement and compensation;</p> <p>c) Project must be planned in consultation with the local community leaders.</p> <p>d) Resettlement action plan and development programmes for the displaced must be planned in advance. This must be done in accordance with the S&ES standards Resettlement Action Plan;</p> <p>e) If required, provision of temporary accommodation must be planned in advance.</p> <p>f) Ongoing liaison with community leaders/ representatives must be</p>	Site establishment

Impact	Project phase	<p>g) maintained in order to tract any problems with the relocations. Affected people must be empowered to participate effectively in the process.</p> <p>Mitigation measures</p>	Performance specifications
Direct or indirect loss of essential resources	Construction; Operation	<p>a) The amount of essential resources lost must be minimized through alternative project design</p> <p>b) Damaged to crops or other food resources must be compensated for.</p>	Site establishment
Disturbance of graves	Planning; Construction	<p>a) Any graves situated in the construction site or area of inundation in case of dams must be dealt with according to the Exhumation Laws of the Provincial Government and with the bye-laws of the Local Municipality Authority.</p> <p>b) If a graveyard is discovered, the Environmental Officer (EO) must be contacted immediately. The relatives of the deceased must be contacted immediately. The local chief, SAHRA and local Authority must also be informed of the situation.</p> <p>c) The relatives must be informed should a grave need to be moved. The exhumation of bodies must be executed in the local traditional manner and affected families allowed sufficient time to perform any traditional rituals.</p> <p>d) All finds of human remains must be reported to the nearest police station to ascertain if there was any crime involved.</p>	Site establishment

Impact	Project phase	Mitigation measures	Performance specifications
Disruption of services	Construction;	<ul style="list-style-type: none"> a) Where service disruption is inevitable, the contractor must advise the Project Manager at least 7 days in advance, allowing enough time to inform affected parties. b) A complaints register must be maintained on site and must include contact details for complaints by the public in accordance with details provided by the Engineer. c) Updated information boards must be maintained on site and must include contact details for complaints by the public in accordance with details provided by Engineer. 	Site establishment
Employment prospects	Planning; Construction; Operation	<ul style="list-style-type: none"> a) The project must be planned in consultation with local authorities and aligned with local plans such as IDPs. b) Labour intensive method must be used where feasible, cost effective and not time constraining. c) Local labour must be employed as far as possible. d) Training of the unskilled labour must be undertaken. e) Local suppliers must be used, as far as possible. 	Site establishment

IMPLEMENTATION STRATEGIES

Below are given a list of items that require implementation in order to ensure that the EMP has effect in the study area

Steps necessary for implementing:

- EMP must be adopted by local Department of Finance and Economics (Environment section) for the purpose of reviewing development applications and managing the environment for sustainable development;
- The Musina Local Municipality must adopt the EMP for use in spatial planning and environmental management for sustainable development;
- The EMP must form part of the tender requirement for a new Development;
- The EMP must be included into future revisions of the IDP;
- An environmental management framework, that sets more precise management, monitoring and reporting systems, must be formulated for the study area. These EMF's must incorporate the principles of the EMP;
- Commence programmes to collect, measure, assess and validate key environmental performance indicators;
- Municipality to facilitate consultation with the relevant authorities and organizations for the purpose of implementing the recommendations in the EMP;
- Revision of the decision making process and management requirement of local development facilitation and economic development to be undertaken;
- Information documents to be made available to I&AP's for use and application. This can include access to the GIS Viewer application via a web site;
- To research and confirm a data base of all farms and properties on which Red Data Species occur or are likely to occur;
- Limpopo Spatial Development Initiative be used to provide information on the occurrence and diversity of biota;
- SAHRA to determine and confirm the status and occurrence of cultural historic sites in the study area;
- SAHRA to examine the opportunity and requirements for establishing a Musina Ramble of archaeological sites, historic sites, natural history sites and areas of ecological value;
- Develop a work plan detailing key activities, anticipated completion dates and responsibilities;
- Organize a project team to guide the process of EMP implementation;
- Assess the success of implementing the EMP;
- Public Private partnerships to be considered for the creation of core and intermediate areas, cultural historic sites as well ways to upgrade and provide services in the study area.

ROLES AND RESPONSIBILITIES

To ensure efficient and effective Environmental Plan implementation, roles and responsibilities should be clearly assigned to all EMP, including:

- Musina officials,
- environmental Health Practitioners,
- environmental Officers,
- environmental Consultants,
- relevant Environmental Authorities,
- consulting Engineers,
- contractors, and
- The public.

Implementing Agent

The implementing agent, which is a person or organization that will implement the project, is responsible for the implementation of the EMP, however, the liability of non-compliance rests with Musina Municipality.

The Municipal environmental officials should be given specific projects to handle as environmental advisors for the duration of the project. The contractor is answerable to the environmental advisor for non-compliance with the requirements of the EMP.

Project Manager

The project manager must ensure that the scope of work of the project includes environmental supervision. The implementing agent is answerable to the project manager for all environmental issues associated with the project and Environmental Advisor must give direct feedback to the project manager regarding all environmental issues.

Environmental Consultant

An independent Environmental consultant s may be appointed for certain projects and would be responsible for the following:

- Ensuring compliance with the EIA regulations for listed activities, conditions of the Record of Decision and requirements of the EMP,
- Reporting all environmental incidences to the environmental advisors
- Completing the Environmental Compliance Checklist for listed activities
- Giving site instructions to the contractor, when it is stated in the record of decision that the contractor should be monitored, and
- liaison with the environmental advisor.

Consulting Engineer

For many projects, consulting engineers may be appointed. Consulting engineers are involved with the planning and design phase of the project and must ensure that the requirements of the EMP are enforced during these phases. The engineer should also ensure constant consultation with the depended environmental consultant and environmental advisor.

Operations and maintenance manager

Operations and maintenance manager, his/her representative is responsible for the on-site implementation of the EMP during the operational phase of the project and is answerable to the environmental advisor for non-compliance.

Contractor or his/her representative

The contractor or his/her representative is responsible for the following:

- Ensure transparent and open communication for reporting significant environmental incidents to the relevant authorities and environmental advisor within 24 hours of occurrence and maintain a photographic record where necessary,
- ensure that all complaints and concerns from the public, interested and affected parties are resolved and addressed immediately,
- ensure continues auditing of the project for adherence to the document, identification of problem areas and provision of action plans to avoid costly stoppages and further environmental damages,
- Conduct regular site audits during the construction phase and subsequent phases,
- Submit compliance reports to the environmental advisor at the stipulated frequency and
- Ensure that the development site is cleared and rehabilitation is done according to the specifications as set out in this document.

Environmental officer/advisor

The environmental officer will liaise with the municipality, engineer, environmental consultant, contractor, commissioners, deco missioners operations and laitance managers on all environmental concerns.

The advisor is responsible for monitoring the performance of the contractors, issuing of site instructions and assisting in the resolution of conflicts.

The officer will compile a monitoring and auditing plan to ensure that the environmental management measures are implemented and are effective.

CONCLUSION

The Status Quo Assessment for Musina Municipal Area has indicated an environment in a rapid state of change. Development pressures are exerting a number of impacts on the biophysical as well as socio-economic environment in the form of decreased air reduced water quality, loss of natural land, loss of agricultural land, increased traffic and congestion, increase in the number of illegal activities, noise pollution, litter and illegal waste dumps, inadequate service supply and delivery, lack of enforcement and several other impacts.

The pressure of farming and development in the study area are likely to increase in the short term and it is therefore imperative that systems be put in place to manage and mitigate these impacts.

The EMP thus presents the requirements, processes and procedures necessary to ensure that the environment is not detrimentally affected by development and that such development can be environmentally sustainable over the long term.

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11. OPERATIONAL STRATEGIES

In the Integration Phase (Phase 4) the municipality harmonised the individual project proposals in terms of content, location and time to arrive at consolidated and integrated programmes for the municipality. The result of the Integration Phase is an operational strategy which include the following plans/programmes:

- 5 - Year Financial Plan;
- 5 - Year Capital Investment Programme;
- 5 - Year Municipal Action Plan;
- Integrated Spatial Development Framework;
- Integrated Institutional Programme;
- Disaster Management Plan; and
- Integrated Monitoring and Performance Management System.

11.1.1 5 - YEAR FINANCIAL PLAN

The 5 - Year Financial Plan serves as a mid-term financial framework for managing municipal revenue collection and for expenditure planning. It includes capital and recurrent expenditure and is crucial for ensuring a close planning - budget link.

11.1.2 FINANCIAL MANAGEMENT ARRANGEMENTS

11.1.2.1 POLICY AND PROCEDURES

Policy and Procedures manuals were implemented to maintain and adhere to internal control measures and financial sustainability. The following were implemented:

- Accounting and Financial Policies
- Bank reconciliation
- Books of Account
- Fixed Assets
- Creditors System
- Receipt, depositing and control over cash funds
- Sundry Creditors
- Trade debtors
- Credit control
- Budgeting Procedures and control
- Travel and Subsistence
- Inventory
- Statutory funds, trust funds and reserves etc.

11.1.2.2 FINANCIAL STRATEGY

11.1.2.2.1 Revenue Raising

A differentiated tariff structure is being charged with different categories in Musina and Nancefield. The current payment rate is as follow:

- Musina 91%
- Nancefield 43%
- Average 86%

The financial strategy is to increase average payment rates yearly with 1% over the next five years. The financial strategy is to recover 5% on arrears debtors yearly for the next five years.

11.1.2.2.2 Capital Expenditure

The financial strategy is to finance capital out of income to a maximum of R100 000.00 on all assets, except for roads.

11.1.2.2.3 Standardization: Computer Software

Computer software must be standardized. Personnel and specialised costs will accordingly be limited.

11.1.2.2.4 Asset Management Strategy

Assets financed through loans will be financed over the expected lifespan of the asset. With effect from 1 July 2003 all assets will be depreciated over the expected lifespan of the asset.

11.1.2.3 REVENUE AND EXPENDITURE FORECAST

The financial position of Council stabilised over the past seven years from an overdraft to a positive bank balance (current; day call) of R3 665 936.19.

The financial strategy over the past seven years was to increase cash on hand from zero equal to the balances of statutory funds reserves and provisions. With effect from 1 July 2004 all statutory funds, reserves and provisions will be written off to the maximum of cash on hand.

Provision was made for bad debts. The budget expenditure was however decreased to maximum income realise and surpluses were accordingly made for the past years. The financial strategy will mainly increase infrastructure development and service delivery. The financial position of the Council was stabilised to address future strategies. The effective implementation of credit control measures will ensure that goals that were set will be achieved.

The medium term expenditure framework addresses the estimated income over the next few years on the different services currently rendered.

11.1.2.4 MEDIUM TERM EXPENDITURE FRAMEWORK

The medium term expenditure framework for 5 years is indicated in Table 2. Provision was made for the following increases in the main expenditure headings.

	2004/2005	2005/2006	2006/2007	2007/2008
Salary, wages and allowances	4.5%	6%	7%	7%
General expenditure	4.5%	6%	7%	7%
Capital charges	4.5%	6%	7%	7%
Contribution	4.5%	6%	7%	7%
Capital expenditure	4.5%	6%	7%	7%

A break-even point between capital charges and capital expenditure will be maintained.

The increases on the medium term expenditure framework are in line with the guidelines as set by National Treasury.

Table 2: Medium Term Expenditure Framework

	BUDGET 2003/2004 R	BUDGET 2004/2005 R	BUDGET 2005/2006 R	BUDGET 2006/2007 R	BUDGET 2007/2008 R
OPERATING BUDGET					
Expenditure					
Salaries, wages and allowances	15,689,540	16,787,808	17,795,076	19,218,682	20,756,177
General Expenditure					
Electricity bulk purchases	9,200,015	9,844,016	10,434,657	11,269,657	12,170,981
Water bulk purchases	0.00	0.00	0.00	0.00	0.00
Sewer Payments	0.00	0.00	0.00	0.00	0.00
Other	5,135,255	5,494,723	5,824,406	6,290,357	6,793,584
Repairs and maintenance	1,441,680	1,542,598	1,635,154	1,765,964	1,907,239
Capital Charges	1,884,230	2,016,126	2,137,094	2,308,062	2,492,708
Contribution to fixed assets	4,791,275	5,126,664	5,434,264	5,869,008	6,338,531
Contribution to special funds	599,790	641,775	680,281	734,704	793,481
Provision for working capital	0.00	0.00	0.00	0.00	0.00
TOTAL: Gross budgeted expenditure	38,741,785	41,453,709	43,940,932	47,456,206	51,252,703
LESS: Amounts reallocated	0.00	0.00	0.00	0.00	0.00
TOTAL: Net budgeted expenditure	38,741,785	41,453,709	43,940,932	47,456,206	51,252,703
Income					
Property rates	5,185,945	5,548,961	5,881,898	6,352,455	6,860,655
Site rent	0	0	0	0	0
Electricity	14,445,105	15,456,262	16,383,638	17,694,330	19,109,878
Water	7,407,195	7,925,699	8,401,239	9,073,338	9,799,206
Sewerage / sanitation	1,821,900	1,949,433	2,066,397	2,231,708	2,410,966
Refuse removal	2,949,490	3,155,954	3,345,311	3,612,932	3,901,966
Subsidy	0	0	0	0	0
Intergovernmental transfer	0	0	0	0	0

Sundry	6,932,150	7,417,400	7,862,444	8,491,438	9,170,751
TOTAL	38,741,785	41,453,709	43,940,932	47,456,206	51,252,703
SURPLUS (DEFICIT)	0.00	0.00	0.00	0.00	0.00

11.1.3 OPERATING FINANCIAL STRATEGY

The Municipal Systems Act, 2000, makes provision for municipalities to review and decide on mechanisms to provide municipal services. Municipalities have the following options, which they can decide upon:

- Public-Private Partnerships
- Public-Public Partnerships with other public institutions including other municipalities
- Partnerships with CBOs and NGOs

However, when entering into a public-private partnership, municipalities should consider the following criteria:

- Strategic developmental weight
- Political control
- Cost-efficiency
- Jobs
- Community influence
- Income generation

The partnerships can be based according to the following options:

- BOT: Build-operate-transfer which means that the asset or business activity is transferred back to the municipality after an agreed to timeframe
- BOOT: Build-own-operate-transfer which means that the contractor owns the asset or business activity for a particular period of time and then transfers it back to the municipality
- BOTT: Build-operate-train-transfer means that the contractor is responsible for ensuring that the staff of the municipality is trained to operate the asset or the function, and then transfer the function or asset back to the municipality.

Inline with legislation, Musina Municipality has explored the following options:

- BOT: Build-Operate-Transfer
- Encourage investment (Spirulina etc.)

Musina municipality is also in the process of developing a Service Delivery Agreement, which will facilitate the process of ensuring that the municipality remains responsible for the services provided. The municipality will also be responsible for monitoring and assessing the performance of the service provider and control the setting and adjustment of tariffs for the municipal service in question.

Musina Municipality will be reviewing its organizational design in relation to its outputs and objectives. This is to establish whether there is a need to employ additional staff, give certain staff more responsibilities, move staff into other positions for which they are best suited and finally, whether there is a need for the municipality to enter into partnerships with other organizations.

The municipality is also in process of ensuring that each department develops procedure and policy manuals to facilitate effective and efficient delivery of services. Finally, the municipality is committed to ensuring that it continues to develop the skills and capacity of existing staff so that they are able to implement services more effectively and efficiently.

11.2 5 - YEAR CAPITAL INVESTMENT PROGRAMME

The 5 - Year Capital Investment Programme links the capital projects with potential sources of financing, thereby informing the municipal budgeting and implementation management processes. The Programme provides an overview of the capital investment projects including the total investment costs, potential sources of funding, responsible agency/department for implementation, phased annual capital expenditure and the annual municipal operational costs resulting from the investment/projects.

The 5 - Year Capital Investment Programme is indicated in Table 3.

Table 3: 5-Year Capital Investment Programme

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
1A	320,000	CMIP Internal budget	Department Technical Services Dept. Corporate Services Contractors & Consultants	CA OP	-	-	-	320,000 200,000	- 200,000
1B	30,000	CMIP Internal budget	Department Technical Services Dept. Corporate Services Contractors & Consultants	CA OP	-	-	-	30,000 See 1A	- See 1A
1C	650,000	CMIP Internal budget	Department Technical Services Dept. Corporate Services Contractors & Consultants	CA OP	-	-	-	650,000 See 1A	- See 1A
1D	130,000	External DME	Department Technical Services Contractors & Consultants	CA OP	130,000 -	-	-	-	-
1E	70,000	External DME	Department Technical Services Contractors & Consultants	CA OP	70,000 -	-	-	-	-
1F	550,000	External DME	Department Technical Services Contractors & Consultants	CA OP	550,000 -	-	-	-	-
2A	Completed								
2B	Completed								
3A	180,000	CMIP	Department Technical Services	CA	-	180,000	-	-	-

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
		or Loans	Department Finance Contractors & Consultants	OP	-	-	-	-	-
3B	13,000,000	CMIP, Loans or Internal budget	Department Technical Services Department Finance Consultants Contractors	CA OP	- -	4,000,000.00 150,000.00	3,000,000.00 150,000.00	3,000,000.00 150,000.00	3,000,000.00 150,000.00
4A	0	Internal budget	Department Technical Services Department Finance Consultants	CA OP	- -	- 20,000	- -	- -	- -
4B	180,000	Internal budget	Department Technical Services Department Finance Contractors & Consultants	CA OP	- -	180,000 -	- -	- -	- -
4C	11,000,000	CMIP, Loans or Internal budget	Department Technical Services Department Finance Consultants Contractors	CA OP	- -	11,000,000 960,000	- 960,000	- 960,000	- 960,000
4D	140,000	CMIP, Loans or Internal budget	Department Technical Services Department Finance Consultants	CA OP	- -	140,000 See 1A	- See 1A	- See 1A	- See 1A
4E	300,000	CMIP, Loans or Internal budget	Department Technical Services Department Finance Consultants	CA OP	- -	300,000 See 1A	- See 1A	- See 1A	- See 1A
4F	Completed								
4G	2,632,000	CMIP	Department Technical Services Department Finance Consultants	CA OP	2,632,000 -	- -	- -	- -	- -

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
4H	1,350,000	NER Internal budget	Department Technical Services Department Finance Consultants	CA OP	- 140,000	1,350,000 140,000	- 140,000	- 140,000	- 140,000
4I	8,000,000	CMIP or Loans Internal budget	Department Technical Services Department Finance Contractors & Consultants	CA OP	- 400,000	8,000,000 400,000	- 400,000	- 400,000	- 400,000
4J	800,000	Vhembe DM or Loans	Department Technical Services Department Finance Consultants	CA OP	- -	800,000 -	- -	- -	- -
4K	600,000	Internal budget	Department Technical Services Department Finance Consultants	CA OP	- -	600,000 -	- -	- -	- -
5A	3,200,000	CMIP / DWAF / Grants Internal budget	Department Technical Services Department Finance	CA OP	800,000 200,000	800,000 200,000	800,000 200,000	800,000 200,000	- 200,000
5B	1,200,000	CMIP / DWAF / Grants Internal budget	Department Technical Services Department Finance	CA OP	- -	- -	- -	300,000 See 5A	300,000 See 5A
6	1,400,000	Internal budget	Department Technical Services Department Finance	CA OP	- -	1,400,000 -	- -	- -	- -
7A	6,400,000	Internal budget	Department Technical Services Department Finance	CA OP	2,700,000 -	1,200,000 -	1,200,000 -	1,300,000 -	- -
7B	1,600,000	Internal budget	Department Technical Services Department Finance Contractors	CA OP	800,000 -	400,000 -	400,000 -	- -	- -
8	Completed								
9	375,000	Internal budget	Department Technical Services Department Finance	CA OP	125,000 -	125,000 -	125,000 -	- -	- -

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
10	Completed								
11A	0	ESKOM	ESKOM Department Technical Services Consultants	CA OP	-	-	-	-	-
11B	0	External	ESKOM Vhembe DM Department Technical Services	CA OP	-	-	-	-	-
12	750,000	CMIP / NER	Department Technical Services Department Finance Consultants & Contractors	CA OP	750,000 10,000	- 10,000	- 10,000	- 10,000	- 10,000
13A	140,000	Internal budget	Department Technical Services Department Finance Contractors & Consultants	CA OP	70,000 252,000	70,000 267,000	- 283,000	- 300,000	- 318,000
13B	Included in 13A								
13C	In process			OP	See 13A	See 13A	See 13A	See 13A	See 13A
14A	0	Internal budget	Department Technical Services Department Finance	CA OP	- 312,000	- 330,720	- 350,563	- 371,597	- 393,893
14B	194,000	Internal budget	Department Technical Services Department Finance	CA OP	38,000 -	38,000 -	38,000 -	40,000 -	40,000 -
14C	0	Internal budget	Department Finance Department Technical Services Portfolio Councillor Health Ward Councillor	CA OP	- 5,000	- 5,000	- 5,000	- 5,000	- 5,000
14D	0		Dept. Community Services Portfolio Councillor Health	CA OP	-	-	-	-	-

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
			Ward Councillor & Headmen DFED, School Principles						
15	500,000	CMIP, Grants or Loans	Department Technical Services Department Finance Contractors & Consultants	CA OP	- 100,000	500,000 100,000	- 100,000	- 100,000	- 100,000
16	600,000	CMIP, Grants or Loans	Department Technical Services Department Finance Contractors & Consultants	CA OP	- -	600,000 -	- -	- -	- -
17	200,000	Internal budget	Dept. Community Services Department Finance	CA OP	- -	50,000 -	50,000 -	50,000 -	50,000 -
18	0		Dept. Community Services Department of Transport	CA OP	- -	- -	- -	- -	- -
19A	0	Department of Health and Welfare	Dept. Community Services Department of Health and Welfare	CA OP	- -	- 20,000	- 20,000	- 20,000	- 25,000
19B & 21	0	Internal budget	Dept. Community Services Department of Health and Welfare	CA OP	- -	- 2,000	- -	- -	- -
20	0	Internal budget	Portfolio Councillor Department of Education Dept. Community Services	CA OP	- 2,000	- -	- -	- -	- -
22	0	Internal budget	Portfolio Councillor Department of Education	CA OP	- 5,000	- -	- -	- -	- -
23A	0	Internal budget	Dept. Corporate Services	CA	-	-	-	-	-

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
			Dept. Community Services Department Finance	OP	5,000	-	-	-	-
23B	0	Internal budget	Dept. Corporate Services Dept. Community Services Department Finance	CA OP	- See 23A	-	-	-	-
24	0	Internal budget	Dept. Corporate Services Dept. Community Services Department of Health and Welfare	CA OP	- 5,000	-	-	-	-
25	0	Internal budget	Dept. Corporate Services Portfolio Councillor Welfare Co-ordination Committee	CA OP	- 5,000	-	-	-	-
26A	0	Internal budget	Dept. Community Services	CA OP	- 5,000	-	-	-	-
26B	0	Internal budget	Dept. Community Services Ward Councillor	CA OP	- See 26A	-	-	-	-
27	0	Internal budget	Dept. Community Services Ward Councillor	CA OP	- 5,000	-	-	-	-
28	0	Internal budget	Dept. Community Services Ward Councillor	CA OP	- 5,000	-	-	-	-
29	0	Internal budget	Dept. Community Services Ward Councillor Department Finance	CA OP	- 5,000	-	-	-	-
30	0		Dept. Community	CA	-	-	-	-	-

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
			Services	OP	-	-	-	-	-
31A	310,000	Internal budget	Dept. Community Services Department Technical Services	CA OP	110,000 30,000	50,000 80,000	50,000 80,000	50,000 80,000	50,000 80,000
31B	100,000	Internal budget	Dept. Community Services Department Technical Services	CA OP	100,000 175,000	- 175,000	- 175,000	- 175,000	- 175,000
31C	0		Dept. Community Services Centre For Positive Care	CA OP	- -	- 130,000	- 130,000	- 130,000	- 130,000
31D	0		Dept. Community Services Portfolio Councillor Ward Councillor	CA OP	- -	- -	- -	- -	- -
32A	0	Internal budget	Municipal Manager, Dept. Corporate Services Land Reform Forum	CA OP	- 5,000	- -	- -	- -	- -
32B	0	Internal budget	Municipal Manager, Dept. Corporate Services Land Reform Forum Nkuzi Development Association Department of Land Affairs	CA OP	- 5,000	- -	- -	- -	- -
32C	0	Department of Land Affairs or DLGH	Municipal Manager, Dept. Corporate Services Land Reform Forum Department Technical Services	CA OP	- -	7,200,000 2,000	- -	- -	- -
32D	0	External budget	Municipal Manager, Dept. Corporate Services	CA	-	-	-	-	-

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
			Land Reform Forum Nkuzi Development Association Musina Advise Office	OP	30,000	-	-	-	-
33	0.00 (not known at this stage)	Department of Land Affairs or DLGH	Municipal Manager, Dept. Corporate Services Land Reform Forum Nkuzi Development Association Musina Advise Office	CA OP	- 10,000	- -	- -	- -	- -
34A	See 34G								
34B	2,438,000	External - DLGH Internal budget	Municipal Manager, Dept. Corporate Services Department Technical Services Developers Contractors	CA OP	- -	2,438,000 See 1A	- See 1A	- See 1A	- See 1A
34C	6,877,000	External - DLGH Internal budget	Municipal Manager, Dept. Corporate Services Department Technical Services Developers Contractors	CA OP	- -	6,877,000 See 1A	- See 1A	- See 1A	- See 1A
34D	Completed								
34E	2,300,000	External - DLGH Internal budget	Municipal Manager, Dept. Corporate Services Department Technical Services Developers Contractors	CA OP	- -	2,300,000 See 1A	- See 1A	- See 1A	- See 1A
34F	Completed								
34G	11,500,000 p/y	External - DLGH	Municipal Manager,	CA	-	11,500,000	11,500,000	11,500,000	11,500,000

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
		Internal budget	Dept. Corporate Services Department Technical Services Developers Contractors	OP	-	See 4C	See 4C	See 4C	See 4C
35	300,000	DLA or Grants	Department Technical Services Department Finance	CA OP	300,000 -	- -	- -	- -	- -
36	225,000	Governmental Grants	Department Technical Services Department Finance	CA OP	- -	75,000 -	150,000 -	- -	- -
37A & 38	0	Internal	Dept. Corporate Services Portfolio Councillor Consultants	CA OP	- -	- -	- -	- -	- -
37B & 38	30,000	External - Vhembe DM or DPLG	Dept. Corporate Services Portfolio Councillor DPLG, Vhembe DM Consultants	CA OP	30,000 -	- -	- -	- -	- -
37C & 38	60,000	External - Vhembe DM or DPLG	Dept. Corporate Services Portfolio Councillor Consultants	CA OP	60,000 -	- -	- -	- -	- -
39	2,000	Internal budget	Dept. Community Services Municipal LED Desk	CA OP	- 2,000	- -	- -	- -	- -
40A	40,000	DPLG and DFED	Department of Finance Dept. Community Services Portfolio Councillor Consultants	CA OP	- -	40,000 -	- -	- -	- -
40B	350,000	TIL, DFED or donor funding Internal budget	Dept. Community Services Department of Finance Portfolio Councillor	CA OP	- -	350,000 250,000	- 250,000	- 250,000	- 250,000

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
41	0	Internal	Department Finance Dept. Corporate Services Municipal Manager	CA OP	-	-	-	-	-
42	0	DPLG	Department Finance Dept. Corporate Services Consultants	CA OP	28,000 -	-	-	-	-
43A	0	Internal budget	Municipal Manager Dept. Community Services	CA OP	- 3,000.00	- 15,000	- 18,000	- 21,150	- 23,000
43B	60,000	MSP	Dept. Corporate Services Service Provider	CA OP	- 60,000	- 30,000	- 30,000	- 30,000	- 30,000
44	210,000	LGTP Unit MSP	Consultant Dept. Corporate Services HOD's Council	CA OP	110,000 -	60,000 -	40,000 -	-	-
45	0	Internal budget	Dept. Corporate Services All Departments Service Provider	CA OP	- 90,000	- 96,300	- 103,041	- 110,254	- 117,972
46	100,000	Internal budget	Dept. Corporate Services HOD's IT Specialist	CA OP	- -	100,000 200,000	- 200,000	- 200,000	- 200,000
47A	0	Internal budget	Department Finance Department Technical Services	CA OP	- -	- 15,000	- 15,000	- 15,000	- 15,000
47B	220,000	Transitional Grant Internal budget	Department Finance Department Technical Services	CA OP	220,000 280,000	- 280,000	- 280,000	- 280,000	- 280,000
48A	240,000.00	Transitional Grant Internal budget	Department Finance Department Technical Services	CA OP	- -	320,000 10,000	- 10,000	- 10,000	- 10,000

PROJECT NO	R TOTAL INVESTMENT COST	POTENTIAL SOURCES OF FUNDING APPLICATION MADE/ ALTERNATIVE	RESPONSIBLE AGENCY	CA OP	OPERATING / CAPITAL EXPENDITURE				
					R 2003/2004	R 2004/2005	R 2005/2006	R 2006/2007	R 2007/2008
48B	420,000	Transitional Grant Internal budget	Department Finance Department Technical Services	CA OP	- -	- -	420,000 290,000	- 290,000	- 290,000
49	Completed								
50	140,000	MSP Transitional Grant	Department Finance All HOD's Municipal Manager Consultants, Councillors HR Department	CA OP	- 20,000	140,000 10,000	- -	- -	- -
51	Completed								

12 **SPATIAL DEVELOPMENT FRAMEWORK PLAN**



SECTION A – INTRODUCTION

12.1 BACKGROUND

The first Integrated Development Plan for the Musina Municipality was prepared in 2002 for implementation in the 2002/2003 financial year. Subsequently the IDP has been reviewed twice in 2003 and 2004. Each of these IDP's, contain a Spatial Development Framework (SDF) section, which despite representing the whole of the municipal area, focus extensively on the town of Musina.

In November 2004 Hluli Environmental and Engineering Consultants were appointed by the Musina Municipality to prepare a series of sector plans on behalf of the municipality. This proposed Spatial Development Framework for the Musina Municipality is one of the sector plans and is part of the 2005/2006 IDP review. The preparation of the SDF has started some three months after the commencement of the other sector plans in order to incorporate the findings of the other reports and to integrate all proposed projects into a future spatial vision for the municipality.

Given the focus of the previous SDF's on the urban settlements within the Musina Municipality, this SDF will strive to cover the entire area of the Musina Municipality more thoroughly as well as the urban centres.

12.2 Purpose of the SDF and its relationship with a Land Use Management System

The main purpose of an SDF is to guide the spatial form and location of future developments within a municipality. In so doing an SDF must attempt to address the spatial imbalances created during the Apartheid period. Another purpose of an SDF is to give spatial effect to multi-sectoral projects identified in the IDP as well as assist the municipality to co-ordinate the various the implementation of the various sector plans.

SDF should be flexible and able to change to reflect changing priorities, whereas the Land Use Management System (LUMS) should be less flexible and only amended where required for a particular development. Rather than act as the direct source of rights and controls, the SDF should inform the content of the LUMS. In this regard, the SDF should:

- Only be a strategic, indicative and flexible forward planning tool to guide planning and decisions on land development;
- Develop an argument or approach to the development of the area of jurisdiction which is clear enough to allow decision-makers to deal with the unexpected;
- Develop a spatial logic which guides private sector investment;
- Ensure the social, economic and environmental sustainability of the area;
- Establish priorities for public sector development and investment; and
- Identify spatial priorities and places where public-private partnerships are a possibility.

In the rural context it is necessary to deal specifically with natural resource management issues, land rights and tenure arrangements, land capability, subdivision, consolidation of farms and the protection of prime agricultural land.

The purpose of the SDF is not to infringe upon existing land rights but to guide future land uses. No proposal in this plan creates any land use rights or exempts anyone from his or her obligation in terms of any other act controlling land uses. The SDF maps should be used as a schematic representation of the desired spatial form to be achieved by the municipality in the long term. The boundaries created through this process should therefore be left for interpretation and not be scaled. (Makado Municipality, 2004)

12.3 Contents of an SDF

The content of this SDF will be guided by the Municipal Systems Act No 32 of 2000 & Regulations which outlines the legislative requirements for an SDF. These requirements will serve as the aims of this study. Therefore the following is a summary of the aims of the SDF in terms of the regulations:

- Give effect to the DFA Principles;
- Set out Objectives re. Desired spatial form;
- Contain Strategies:
 - Desired pattern of land use;
 - Address spatial reconstruction;
 - Provide strategic guidance re. Location and nature of future development;
- Set out Guidelines for a land use management system;
- Set out a capital investment framework for the municipality's development programs;
- Strategic assessment of the environmental impact of the SDF;
- Identify programmes and projects for the development of land within the municipality; Align with SDF's of neighbouring municipalities;
- Provide visual representation of the desired spatial form:
 - Where private and public land development & infrastructure should take place;
 - Desired and undesired utilisation of space;
 - May delineate urban edge;
 - Identify areas for strategic intervention; and
 - Indicate areas of priority spending.

12.4 Guiding Legislation

National Legislation

The following legislation deals with various sectors of development, all of which have a spatial impact:

- The Constitution
- Municipal Structures Act 117 of 1998 (as amended)
- Municipal Systems Act No 32 of 2000
- Development Facilitation Act No 67 of 1995 (DFA);
- Land Use Management Bill, 2003
- National Water Act 36, 1998
- National Transport Transition Act, 2000
- Housing Act 107, 1997
- White Paper on Disaster Management, 1999
- Environmental Conservation Act 73, 1989
- National Environmental Management Act 107, 1998
- Biodiversity Act, 2004
- National Heritage Resources Act, 1999.⁷

Of the above legislation this spatial development framework will mainly be guided by the Municipal Systems Act of 2000, the DFA, and the Land Use Management Bill. The other legislation is listed to emphasise the need to examine other legislation relevant to spatial

⁷ It should be noted that this list of legislation is only some of the main guidelines, additional pieces of legislation needs to be consulted with respect to tenure etc.

planning when undertaking any more detailed spatial planning involving different sectors, in Musina.

National Policies

In terms of policies at the national level the policy document most directly affecting spatial planning is the National Spatial Development Perspective (NSDP), prepared in 2003. This document outlines a spatial vision for the whole of South Africa and outlines strategies to achieve the vision.

12.5 The NSDP Vision is as follows:

“South Africa will become a nation in which investment in infrastructure and development programmes support government’s growth and development objectives:

- By focusing economic growth and employment creation in areas where this is most effective and sustainable
- Supporting restructuring where feasible to ensure greater competitiveness
- Fostering development on the basis of local potential; and
- Ensuring that development institutions are able to provide basic needs throughout the country”.

The strategies to achieve this are as follows:

- Investing in people not places – “In order not to discriminate against people who are currently locationally disadvantaged, it is proposed that Government seek to address these inequities by maintaining the current distribution of fiscal resources to these areas, but that this investment is shifted into less fixed assets. This could mean that only a very basic level of infrastructural services is provided and that an additional amount of money goes into skills development, labour market information, and other resources that will enable those living in these areas to become more mobile”. (NSDP:27, 2003)
- Re-assessing government subsidies to address the disjuncture between settlement and economic policies – i.e. providing subsidies only to those areas with economic potential.(NSDP:29,2003)
- The politics of ‘big push’ vs ‘unbalanced development’ – Acknowledges that there will be continued pockets of unbalanced growth in the medium to longer term in the interests of overall equity.
- The mismatch between economic development and SA’s natural resources – the document proposes that public investment/subsidies must favour those areas that have comparative advantage in the use of scarce resources. (NSDP:32,2003)
- Globalisation and sustainability
- Focusing infrastructure investment on appropriate levels of service
- Maintenance versus new investment
- Measuring the potential of different localities

Provincial/ District Legislation & Policies

Town Planning and Townships Ordinance No. 15 of 1986 provides for the compilation of town planning schemes in Limpopo.

Provincial Policies

Vhembe District Spatial Rationale, 2002.

The Vhembe District Spatial Rationale is a component of the Northern Province Spatial Rationale prepared in 2002. These spatial rationale’s outline provide an updated status quo of development within the district as well as current and desired settlement patterns.

SECTION B – STATUS QUO

Phase 1 of the SDF involves the collation and assembly of spatial and related attribute data which is to be analysed in Phase 2.

13. LAND INFORMATION

a. Local and Regional Context (Refer to Map1a and 1b)

The Musina Local Municipality is located in the very north of the Limpopo Province, bordering Botswana and Zimbabwe. The Musina Municipality covers an area of approximately 757 829 ha that extends from the confluence of the Mogalakwena and Limpopo River in the west to the confluence of the Nwanedi and Limpopo River in the east and from Tshipise and Mopane in the south to Botswana/Zimbabwe borders (Limpopo River) in the north. The municipal area consists mainly of commercial farms and only 0.08% of the total area is urban in nature.

The municipality falls within the Vhembe District, which is made up of four local municipalities, namely Musina, Makado, Thulamela and Mutale, of which Musina is bounded by Makado to the south and Mutale to the east. Musina is also bounded in the south west by the local municipality of Blouberg which falls within the Capricorn District Municipality.

b. Municipal Boundaries (Refer to Map 1b)

i. Municipal Wards (refer to Map No2)

The Musina Municipality is made up of five municipal wards, of which three fall within the urban centre of Musina. Ward one stretches from the western boundary of Musina municipality to Tshipise in the east. Wards 1 and 2 are the largest wards and are of a rural nature. Wards 3, 4 and 5 make up the peri-urban and urban settlement of Musina.

ii. Service Delivery/Functional Boundaries (Refer to Map 7)

There are four service delivery/functional boundaries affecting the municipality of Musina. There are four magisterial areas falling either wholly or partially within the municipal boundary. The health and education jurisdictional boundary is the same but covers the area of the Vhembe District. The police jurisdictional boundary extends slightly beyond the health and education boundary.

The non-alignment of boundaries with either district or municipal boundaries could complicate the delivery of certain social facilities and services.

c. Demographics (Refer to Map 3)

i. Demographic Data

The demographic data for the SDF is based on the 2001 census sourced from the Demarcation Board. As such the demographic data presented here is an update on the IDP which is based on projections of the 1996 census.

Based on the above, the current population of the Musina Municipality is projected to be 41 357 people.

Attempts were made to produce a population distribution map for the Musina Municipality, however, in the 2001 census, Statistics SA no longer provided information by enumerator area rather they have aggregated the data to sub-places in accordance with the legislation protecting privacy. In an urban setting such as Johannesburg information at this level does demonstrate a settlement pattern/ population distribution. However, given that the population for the Musina Municipality is concentrated in the town of Musina the sub-places outside of the town tend to be large making it difficult to determine population distribution. While the information was examined at a voter district breakdown, the information is restricted for public use and could not be mapped in this report.

Table 1.0 Population Breakdown in Groups and Gender 1996-2001

	1996		2001		1996 - 2001
	(n)	%	(n)	%	Population Change

African	28419	86.0	36781	93.6	22.7
Coloured	113	0.3	109	0.3	-3.7
Indian	70	0.2	10	0.0	-600.0
White	4030	12.2	2411	6.1	-67.2
Other	420	1.3		0.0	
Male	17055	51.6	18785	47.8	9.2
Female	16004	48.4	20524	52.2	22.0
Population	33052		39309		15.9

Source: Stats SA, 2001

Given that the population base line has been confirmed with the 2001 Statistics SA data, the same population growth rate projections used in the IDP will be applied for the period 2001 to 2008. However, it should be noted that the implied rate of growth of the SA population has been declining steadily. The overall growth rate for 2004–2005 is estimated at about 0.9% with the rate for females slightly lower than that of males. (Stats SA, 2005)

Table 2.0 Projected Population

Year	Annual Growth Rates	Conversion Rate	Projected Population
2001	1.416	1.0142	39309
2002	1.355	1.0135	39840
2003	1.320	1.0132	40366
2004	1.250	1.0125	40871
2005	1.189	1.0119	41357
2006	1.110	1.0111	41816
2007	1.032	1.0103	42247
2008	0.953	1.0095	42648

Source: Musina IDP 2004/2005 Review

The salient points about Musina's population is that there has been an average increase in population of some 0.85% between 1996 and 2001 which is .05% below the natural growth rate of 0.9% which suggests that people are migrating out of the area. Another feature is that there was a 13% increase in the female population in the municipality. This suggests that more males are migrating out of the area than females. Also the trends identified between the 1996 census and 2001 census suggest a net decrease in the white, indian and coloured population groups in the area.

Evidence of illegal and unrecorded residence within the town of Musina is indicated in the disparity between the statistically recorded population growth between 1996 and 2001 and the significant increase in housing demand experienced during that period. This is a potentially serious issue as it has major cost implications for a border municipality in terms of service provision.

d. Land Ownership (Refer to map No. 8)

i. **State Land**

The bulk of state land (national and provincial) apart from a few individual farms is around the town of Musina and make up 8% of land holdings of the municipality. Land owned by the local municipality consists of 27 farms, distributed throughout the municipality and make up 2% of land holdings within the municipality.

ii. **Private land**

786 (59%) of farms are privately owned within the municipality.

iii. **Institutional**

These appear to fall into two large clusters owned by De Beers Consolidated Mines and the South African Development Trust, located around the Venetia Diamond Mine and the Domboni/Madimbo areas respectively.

iv. **Mixed**

These mixed land ownership sites constitute parent farms that have been subdivided and the subdivisions are owned by the state, privately or by an institution. However, they only constitute some 1% of land ownership within the municipality.

v.

Traditional Authority Areas

There are no traditional authority areas within the Musina Municipality area. However, the settlement cluster of Madimbo/Malale and Domboni lies just across the municipal boundary of traditional authority areas.

Land Reform Projects (Refer to Map No. 9)

351 land claims have been lodged on some 351 farm subdivisions, covering some 27% of the municipality area. These claims will have a significant impact on spatial developments within the municipality. Twenty one of these claims are on state land, located mainly along the N1 and rail routes and adjacent to Mapungupwe. There are another two clusters of claims, on the institutional land around the Venetia Mine owned by DeBeers consolidated Diamond mines and around the Domboni/Madimbo areas owned by the South African Development Trust. The remainder and majority of claims are on private farms distributed mainly in the south and east of the municipality.

Table 3.0 Land Claims and Ownership

Ownership and Claims	(n)	%
Not confirmed	20	6
State Owned (National/Provincial)	21	6
State Owned (Municipal)	1	0
Private Owned	206	59
Institutional Owned	80	23
Mixed Ownership;	7	2
Unknown	16	5
Total	351	100.0

Source: Siyamisana Planning Consultants, 2005

The above evidence suggests that there are areas of state and institutional land where there is existing land claims. This provides opportunities for easier intervention on behalf of the local municipality for purposes of furthering the SDF aims. Easier intervention is assumed because it is easier to negotiate with one large land holder, plus there should be greater agreement about desired outcomes between the different spheres of government and therefore agreement to release their land.

The IDP Review (2004/05) proposes that one agricultural settlement be established as part of the land reform program. This project needs to be confirmed and its locality mapped.

e.

Land Cover (Refer to Map 10)

TABLE 4.0: TOTAL AREA OF MUSINA MUNICIPAL AREA AND DENSITY OF SETTLEMENT

TOTAL AREA OF MUNICIPALITY (HA)	TOTAL AREA OF SETTLEMENTS (HA)	AREA OF SETTLEMENTS AS % OF MUNICIPAL AREA
757 829	636.39	0.08

SOURCE: NORTHERN PROVINCE SPATIAL RATIONALE, 2002 (DRAFT)

i.

Vacant Land (Refer to Map No 10)

Given the broad definition of agricultural land and farming it is difficult at a municipality scale to determine what is vacant land, particularly when a lot of farms within the municipality are effectively game farms for hunting.

The notion of vacant land is only of use within the urban context. The only urban area within the municipality is the town of Musina which has significant areas of vacant land specifically to the west of the CBD.

Agriculture

Game farming is becoming increasingly important and there seems to be a tendency for cattle farmers to switch to game farming. Game is far more adapted to the semi-arid environment found in the Musina Municipality and requires less water and care. The consolidation of game farms to facilitate large-scale eco-tourism operations and the multiple consumptive (hunting and meat production) and non-consumptive (tourism activities) utilisation of these areas provide a significant economic boost to the area (Statomet, 1997 in the Musina IDP, 2004/05).

The agricultural sector generates more employment opportunities in the municipality than any other sector in the economy. The areas indicated on Map 5 that have significant agricultural potential should therefore be protected from any development that may negatively effect existing and future agricultural activities.



Photo 1: View over citrus fields near Tshipise

Agricultural Potential

The inherent production capacities of an area can be considered a function of a number of variables, i.e. soil types, access to water (ground and surface), distances to markets, etc. On this basis five areas with agricultural potential have been identified, i.e. an area along the Limpopo River (Limpopo Valley - including Weipe farms), an area along the Sand River (to the west of Mopane), the Nwanedi farms (only small section in municipal area), an area along the Nzhelele River (Nzhelele irrigation area) and an area along the Nwanedi River (State land leased by small farmers). (Musina IDP, 2004/05)

The soils found in the Musina Area have the following potentialities in terms of various land uses, as follows:

- The Musina town is covered by soils which are of intermediate suitability for arable agriculture where climate permits.
- The area surrounding Musina town is covered by soil suitable for forestry or grazing where climate permits, but not suitable for arable agriculture. This type of soil is mostly covered or found along the Sand River and towards the Limpopo River and dominant further west.
- To the eastern side of Musina the soils are not suitable for agriculture or commercial forestry; but are suitable for conservation or recreation.
- The other type of soil found in Musina is one deemed poor suitable for arable agriculture where climate permits. These types of soil need further survey, so to enable the Municipality to decide where to grow what and where not to develop. (Geo-Environmental Report)

Commercial

The only significant commercial activity within the municipality occurs in the town of Musina and at the Beitbridge border post (see section 2.5.8).

The Musina CBD renders an important function, not only to the residents of the Musina Municipality, but also in a sub-regional context and beyond the international boundary with Zimbabwe. The Musina CBD has developed in a linear manner along the National Road, which extends through Musina and serves as the primary traffic route in/through the town. The locational advantage for businesses along the N1-National Road, i.e. maximum exposure to passing traffic, puts pressure on the CBD to develop along this axis in the form of "ribbon" development.

The CBD area is demarcated as follows (see Map 10):

- To the west: The portion of land owned by TRANSNET located adjacent and to the west of National Road, including Erf 1638 Messina Proper and Erven 1635, 1636 and 1637 Messina Extension 2;
- To the east: Hospital and Whyte Road, including the magistrate's and old municipal buildings;
- To the south: Erven 1616 and the Remainder and Portions 1 and 2 of Erf 298, located adjacent and to the south of Irvin Street, Mostert Street, a portion of Campbell Street, Davies Avenue and Portions 6 and 7 of Erf 761 Messina Extension 2; and
- To the north: Erven 1602 and 1603 Messina Extension 5 and Erf 1625 Messina Extension 9. (Musina IDP Review, 2004/05)

The Musina CBD is divided into distinctive zones, i.e. the retail core and the peripheral zone/s:

Retail Core Zone

This is the most intensively utilised area of the CBD with high quality and specialised retailers, financial institutions and offices on properties with high value. The retail core area is demarcated as follows:

- To the west: The portion of land owned by TRANSNET located adjacent and to the west of National Road, including Erf 1638 Messina Proper and Erven 1635, 1636 and 1637 Messina Extension 2;
- To the east: Whyte Road, including Erf 1625 of Messina Extension 9;
- To the south: Portions of Turner and Frost Avenues, Mostert Street and Erven 1616 and the Remainder and Portions 1 and 2 of Erf 298, located adjacent and to the south of Irwin Street; and
- To the north: Erven 1602 and 1603 Messina Extension 5.

A number of undeveloped business erven are found in the retail core area. If all undeveloped erven are regarded to be available for business development, then 24 627m² (excl. TRANSNET land) of land for business development are still available in the retail core area. The potential exists to densify business development in the retail core area by utilising existing land/erven more effectively. The establishment of businesses by means of "filling-in" and densification within the existing CBD will ensure that the CBD develops into a functional unit. (Musina IDP Review, 2004/05)

Peripheral Zones

Peripheral zones are areas of transition, which develop naturally on the outer edges of the CBD and consist of mixed land-use types. Peripheral zones develop mainly due to the pressure exerted on adjacent residential land-uses by a growing / expanding business area and the resultant competition for space between business and residential land-uses. These peripheral zones also develop due to the location of public uses, e.g. hospitals, magistrate's offices, etc., which associate with both business and residential components. The residential component is forced out of these zones and decay is often visible as old residential buildings are neglected, awaiting redevelopment. (Musina IDP Review, 2004/05)

Peripheral Zone - Office and High Density Residential Zone

Peripheral Zone will be earmarked as an office and high-density residential area and is demarcated as follows:

- To the west: Portions of Erven 613, 798, 590 & 589 Messina Extension 1 and Messina Proper;
- To the east: Whyte Road, including a portion of the Remainder of Erf 761 and Portion 7 of Erf 761;
- To the south: A portion of Campbell Street, Davies Road and a portion of the Remainder and Portions 6 and 7 of Erf 761; and to the north: Le Helloco Avenue. (Musina IDP Review, 2004/05)



Photo 2: View looking south, down the N1 through the Musina CBD

Industrial Uses

The only significant industrial areas are located in the town of Musina.

Secondly, manufacturing is a very important sector of the economy as it provides work opportunities to skilled and unskilled labour and creates spin-offs which bring about additional economic activities in the local economy. Industrial development should be attracted to Musina in order to generate additional economic / employment opportunities. Two industrial nodes are found in Musina i.e. Messina X3 and Messina X1 (Blikkiesdorp).

Industrial Node 1- is located to the south of Musina, adjacent and to the west of the N1-National Road. The industrial area has rail facilities and caters mainly for heavy and noxious industries. Sufficient erven for heavy industries are still available for the medium and long term. Sufficient land, which is owned by the Musina Municipality, is also available to extend the industrial node (I1) towards the south. Industrial Node - I1 should continue to accommodate heavy and noxious industries in future.

Industrial Node 2- is located to the north of Musina, adjacent and to the east of the N1-National Road. This industrial area caters only for light and service industries. Sufficient erven for light and service industries are still available for the medium and long term. Industrial Node - I2 should continue to accommodate light and service industries in future. (Musina IDP, Review 2004/05)

Mines and Quarries (cross reference to section 1.7)

Mining and quarrying is currently a declining sector within the municipality of Musina. As a result there is only one active mine, namely the Venetia Diamond Mine. However, there is a plethora of closed and derelict mines throughout the municipality which in some cases constitute an environmental problem.

Only active mines are as follows:

- Venetia Diamond Mine
- Tshikondeni Coal Mine
- Geocarpo Magnasite Mine.



Photo 3: View of the Venetia Diamond Mine

Residential

The existing backlog of low-income residential erven in 2003 is taken as the number of applicants that appears on the "housing waiting list" of the municipality, i.e. 4109 houses in 2003. The Musina Municipality is in the process to provide 250 additional low-income housing units (Housing Subsidy Scheme) in Musina-Nancefield Ext. 4 & 8. These additional 250 low-income units are however developed to accommodate people from the hostel in Nancefield who lost their accommodation due to the redevelopment of the hostel into family units. The future need for low-income housing is calculated in accordance with the natural increase of the population.

Sufficient land is available for the development of middle and high-income residential erven in Musina/Nancefield for the short and medium term. The Musina Municipality allocated 177 middle-income residential erven in Musina-Nancefield Extension 4 to developers in 1999/2000. Sixty-six Middle-income houses were constructed and 111 erven are not developed at present. A total of 111 middle-income erven are therefore available in Musina-Nancefield Proper and Extensions 1 and 4 for development. The Musina Municipality owns these erven. 122 undeveloped middle-income residential erven are available in Musina-Nancefield Extension 2. De Beers (PTY) LTD. owns the township and sells the erven on a limited basis to residents of Musina/Nancefield. Thirty-seven high-income residential erven are available in Musina for immediate occupation. The Musina Municipality also owns these erven.

The estimated future need for residential erven and land for the provision of middle and high-income residential development is indicated in Table 6. The table indicates a shortage of middle/high income erven will occur from 2008. If the available erven in Musina-Nancefield Extension 2 is taken into account, a shortage of such erven will not develop until after 2010. (Musina IDP Review 2004/2005)

TABLE 6.0: ESTIMATED FUTURE NEED FOR RESIDENTIAL ERVEN AND LAND FOR MIDDLE AND HIGH-INCOME HOUSING DEVELOPMENT IN MUSINA/NANCEFIELD

Year	Middle / high-income pop.	Increase in middle/high income population	Res. erven needed ²	Cumulative need for residential erven ³	Area needed (ha)	Cumulative area needed (ha)	Cumulative need for residential erven including Nancefield X24

2003	8931			-148	124.0	-12	-270
2004	9058	127	37	-111	4.1	-9	-233
2005	9180	122	36	-75	4.0	-6	-197
2006	9301	121	35	-40	3.9	-3	-162
2007	9418	116	34	-6	3.8	-1	-128
2008	9530	112	33	27	3.6	2	-95
2009	9635	106	31	57	3.4	5	-65
2010	9735	99	29	86	3.2	7	-36

Source: Pieterse, Du Toit & Associates CC, 2003

A need for 1223 low-income housing units exists on the State owned farm of Magazant 123 M.T. The majority of people in the area are farm workers working on commercial farms in the eastern areas of the Musina Municipality. The Musina Municipality is in the process to apply for funding to develop an agri-village/s in the area.



Photo 4: View of Nancefield from the N1

Small Holdings

The only small holdings exist around the town of Musina.

Border Posts

Pontdrift -

This border post is relatively remote and only has a police post which also serves as a pension pay-point and some ancillary residential uses. Given that there is no bridge over the Limpopo River at this point, it also has a large car park for when the river is flowing.

Beitbridge -

This is a large border crossing which could be viewed as a gateway not only in the South Africa from the north but also into the Musina Local Municipality. In and around the border posts the following land uses and activities are found:

- **Truck stops**
- **Clearance houses and agencies**
- **A roadside clinic**
- **Petrol filling station**
- **A breakdown service**
- **A small cash and carry retail shop**
- **Taxi termini and waiting area**
- **Informal restaurants and shops**
- **Car/vehicle sales**

These uses appear to be located around the border post in a relatively incoherent manner, some of which are causing traffic conflicts etc.

Nature Reserves, Conservancies and Places of Special Interest

The following registered nature reserves are located in the Musina municipal area:

- Vhembe/Dongola National Park - 2 504ha
- Messina Nature Reserve - 4 910ha
- Honnet Nature Reserve
- Venetia Limpopo Nature Reserve – 37 000ha

There are an additional 11 game farms and lodges recorded within the municipality.

Places of special interest and game farms that are located in the Musina municipal area are indicated in Tables 7 and 8 below.

TABLE 7.0 : PLACES OF SPECIAL INTEREST IN THE MUSINA LOCAL MUNICIPAL AREA

No	Name	Location	Description
1	Musina museum	Civic Centre	Antique equipment, instruments, etc, used by the old Messina Copper mine
2	Zeederberg's mail coach	Civic Centre	Original mail coach used between Pretoria and Zimbabwe
3	Erich Meyer Park	Just east of Musina	Famous Elephant's Trunk Boabab tree (also known as the "slurpie")
4	Matakwe	10km north-west of Musina on the farm Boston 152 MS	Three Sisters, a single rock of bulai granite measuring 38ha in size
5	Bulai/Dongola Execution Rocks	20km west of Musina, adjacent to the R572	The Musina chiefs executed their prisoners at these rocks

Source: Pieterse, Du Toit & Associates CC., 1998



Photo 5: Entrance into Mapungubwe Nature Reserve

TABLE 8.0: GAME FARMS AND NATURE RESERVES IN THE MUSINA MUNICIPAL AREA

No	Name	Location from Musina	Registered Farm Name	Area	Accommodation	Type	Game	Other Facilities / Serves
1	A Fourie Game Farm	50 km west	Hayoma	2 000 ha	17 beds: 3 chalets + 2 rooms	Private Game Farm	See note	Swimming pool, conference room, lapa
2	CA Young Game Farm	25 km west	Halton	3 500 ha	16 beds: 8 chalets	Private Game Farm - mainly for local hunters	See note	
3	De Villiers Game Farms	65 km west	Kilgour 176 MS, Dersby	2 135 ha	10 beds: 1 tent	Private Game Farm - biltong hunting	See note	
4	HFT De Swardt Game Farm	24 km west	Stoke	4 000 ha	10 beds: 4 rooms (in a house)	Private Game Farm - biltong hunting	See note	Swimming pool
5	Honnet Nature Reserve	37km south east	Honnet 137MT					
6	Ilala Lodge	8 km north-west	Tovey	240 ha	32 beds: 6 chalets + 4 guest rooms			Swimming pool, conference room, restaurant, bush walks, bird watching
7	JJ Klaff Game Farm	40 km west	Moulton	4 500 ha	10 beds: house	Private Game Farm	See note	
8	Messina Nature Reserve	Adjacent and to the south and east	Toynton 49 MT; Princenhage 47 MT; Stockford 46 MT; Berenrode 45 MT and Veenen 48 MT	4 910 ha	Guest house - 6 people Bush camp (tent) - 12 people	Nature reserve	See note + leopard giraffe	Game viewing, picnic facilities, hiking(sable hiking trail)
9	Montie Sheldrake Game Ranch	28 km south-west	Sheldrake; Fontainebleau, Ryswyk; Voorburg & Zwartrant	11 200 ha	100beds: 23 chalets	Private Game Farm & Holiday Farm	See note	Conference facilities, swimming pool, lapa, game drives, bird watching
10	Piet Lee Game Farm	7 km north	Munnichausen; Templehof	4 300 ha	14 beds: farmhouse	Private Game Farm	See note	Swimming pool, lapa
11	PJL van der Merwe Game Farm	60km west	Linton	4 000 ha	14 beds: 4 tents (bush camp)	Private Game Farm (local and international)	See note	Open air conference facilities; bird watching; Swimming pool; hiking trails (Boabab Trees)
12	Sonskyn Game Farm	47 km south	Frans (Delf, Kitchner' Erasmus)	1 100 ha	24 beds: 4 chalets	Private Game Farm (local and international)	See note	Swimming pool; bird watching
13	Thaba 'Nkwe Game Lodge	61 km west	Riebelton, Twyfelfontein	7 000 ha	15 beds: 7 rondavels	Private Game Farm - only corporate hunting	See note	Swimming pool, conference room, game drives, hiking trails

14	Venetia Limpopo Nature Reserve	90 km west	20 farms	37 000 ha	31 beds: 8 tents + 6 chalets	Private Game Farm (local and international)	See note	
	Total Area			85885 ha				

.1.1.1.1.1.1 Note: **Game** consists mainly of Impala, Kudu, Sable, Rooihartbeest, Eland, Waterbuck, Warthog.

Source: Pieterse, Du Toit & Associates CC., 1998



HERITAGE SITES

One of South Africa's most important heritage sites is located within the municipality, namely the Mapungubwe National Park, "whose principal feature is Mapungubwe, a great hilltop citadel that served as the capital of an advanced 13th century kingdom" (Harrison, 2004)

Another site within the municipality is the Sagola Spa hot-springs along a gravel road that runs parallel with the R525 between the Pafuri Gate and Tshipise. "There is famous traditional healer at Sagola, by the name of Tshikovha who can be consulted" (Harrison, 2004).

- f. Natural Characteristics
 - i. **Topography (Refer to Map 4)**
Overall the municipality area has no particularly steep topography apart from a few small hillocks. The terrain generally slopes gently from the south to the north in ten river valleys running into the Limpopo River. The area lies between approximately 500m and 1000m above sea level.
 - ii. **Hydrological Assessment (Refer to Map 5)**
There are three major rivers crossing the Musina Municipality. They are the main perennial Limpopo, Nwanedi and Sand Rivers. The Limpopo River is shared by many countries including Zimbabwe, Botswana and South Africa, which means it is a river we do not own. The Musina Municipality wholly or partially contains ten river catchment areas all flowing into the Limpopo River catchment area and broadly running in a south to north direction.

The Limpopo and Sand Rivers provide a good groundwater potential for the Musina area. The Sand river gneiss has high groundwater potential. A well sited borehole along the Sand river gneiss could yield up to 30L/s of ground water.

There are number of other smaller none perennial channels which are deemed locally important for water supply within the Musina Municipality. (Geo-environmental Report, 2005).
 - iii. **Natural Fauna and Flora**
According to preliminary findings of the Environmental Management Plan currently being prepared the Musina Municipality falls within the Savanna Biome which has three vegetation/veld types. These include the Mopani Bushveld as the dominant type, the Soutpansberg arid mountain Bushveld and sweet veld. These three vegetation types include a number of threatened red data plant species.

The municipality is also the natural habitat for the following animals, wild dogs, buffalo, elephant, crocodile and hippos. There are also many antelope species, particularly in the many game farms within the area.
 - iv. **Environmental Aspects (Refer to Map 6)**
There are four registered nature reserves within the Musina Municipality, namely the Breslau Nature Reserve, Vhember/Dongola National Park (37000ha); the Musina Nature Reserve (4 910ha) and the Honnet Nature Reserve. A further 11 Game Farms are located within the municipality totaling some 43 975ha. As such environmentally protected areas total some 11,5% of the Municipal area. [Areas of game farms still to be mapped].

The Musina Municipality also falls within the LIMDEV Corporation's "LAND OF LEGION TOURISM REGION" Initiative. According to the NPDC three tourism "hotspots" have been identified within the Musina Municipality, namely the Greater Nwanedi/Kuduland/Tshipise complex; the Messina nature Reserve to Limpopo Valley; Mapungubwe/Vhembe/Dongola and the Makuya/Mashakhatinin/Pafuri/Thulamela complex. The latter two areas are considered to be classified as world class. These complexes will need to be taken into account in terms of linkages between them etc.



Photo 6: View from the road to Tshipise from the N1

Potential environmental hazards facing the municipality include; pollution of the riverine systems through insecticides and human waste. Other potential hazards include air pollution from old mine dumps as well as ground water pollution from the dumps.

v.

Climatology

The climate is generally hot and dry and only really impacts spatially on where different types of agricultural activities should take place within the municipality.

vi.

Geology

12.3 BROAD GEO-TECHNICAL ASSESSMENT

The area does not reflect any risk for the formation of sinkholes or subsidence's caused by the presence of water-soluble rocks (dolomite or limestone), though some old mining and operational mining activity were noticed, no adverse subsidence's expected within the area, due to the geological condition of the area. (Geo-environmental Report)

Numerous, very minor mineral deposits and occurrences of mineable dimension stone occur within the central portion of the Limpopo Belt, i.e. the Beit Bridge Complex. Barring diamond mining at Venetia Mine and The Oaks Mine, there are only minor occurrences of alluvial diamonds from as yet undetermined sources, probably within Botswana. Copper mining, although once a thriving industry in the Messina area, is now largely defunct, small-scale or even artisanal in nature. The mineral occurrences in such a terrane should be assessed on an individual basis. Coal seams within the lower part of the Karoo Supergroup may form moderately significant deposits, provided the seams are thick enough, quality of the coal is high and there are relatively minor intercalations of siltstones. It should also be borne in mind that the Venetia Mine deposit was originally discovered in *circa* 1982, following which extensive exploration took place in the area. To date, no major diamond finds in primary kimberlite host rock, other than at Venetia and The Oaks, have been reported. (Dr I. J. Basson *Pr. Nat. Sci. MGSSA, MSEG*)

g.

Infrastructure (Refer to Map 11)

i.

Roads

The N1 national road to Zimbabwe bisects the municipality. Secondary roads include the R508 which loops off the N1 through Tshipise to Musina, the R525 which links Tshipise to the Pafuri Gate in the eastern edge of the municipality. To the west of the N1 the R572 links Musina to the R521 which runs from Alldays to the Pontdrif border post. The remaining roads are gravel roads.

ii. **Rail**

The main rail link between South Africa and Zimbabwe runs parallel with the N1 and bisects the municipality passing through the town of Musina.

iii. **Airports**

There are currently two airstrips, one in the town of Musina and one in Tshipise. There are approximately 12 other smaller informal landing strips on farms within the municipality.

iv. **Electricity**

Four electrical sub-stations are located within the municipality, extending along an electricity network running up the N1 to the town of Musina, then along the R572 for some 60km before running down to the Venetia Mine and continuing between Bridgewater and Brombeek to Makado Municipality.

v. **Water Schemes / DWAF Management Areas (Refer to Map 5)**

The Musina Municipality predominantly falls within the DWAF water management area called Limpopo. This management area consists of the following major river systems – the Limpopo; Matlaba/Mokolo, Lephalala; Magalakwena; the Sand and the Nzhelele. Two DWAF water schemes are located between Feskraal and Madimbo. They are rudimentary and are essentially for domestic use and are called the Lupepe/Nwanedi Regional Water Scheme Area NN6B. This scheme also extends over the municipal boundary into the Malale Municipality. There are no DWAF dams within the Musina Municipality, however, the Nzhelele River is dam just to the south of the Musina Municipality.

vi. **Sewage Works**

Only one water-borne sewage works exists in the town of Musina.

vii. **Solid Waste**

Three landfill sites have been identified in the whole of Musina except for sites that are privately owned like the Venicia mine waste disposal site. These sites are: The Nancefield site, the new Madimbo site and the one at the border.

The three sites have been classified as general disposal sites, class GCB-, because only general waste is allowed on the sites. In addition, less than 25 tons of waste is disposed of per day and there is insignificant leachate production. All sites are not operating according to the Department of Water Affairs and Forestry Minimum Requirement for Waste Disposal by Landfill and are not authorised.

Most of waste material in Madimbo site is burned and the rest is transferred to the Nancefield site once per month. The site is well fenced and access to the site is controlled. (Draft IWMP Musina, 2005).

viii. **Telecommunications**

Table 9 indicates the percentage of the population per ward owning a home telephone. There is a lack of public telephones in the settlements of Madimbo, Malale & Domboni. Maintenance of the existing public telephones is not satisfactory.

TABLE 9: PERCENTAGE OF POPULATION OWNING HOME TELEPHONE

Ward	Households	Telephone at Home (%)
1	2517	8.3
2	1302	9.1
3	1592	17.1
4	1362	17.7
5	1648	50.2

Source: Statistics South Africa, Census 1996

h. **Social Services (Refer to Map 12)**

i.

Health

The Musina municipality is served by 1 hospital and a clinic in Musina town as well as two mobile clinics. One mobile clinic team with 3 registered nurses operates from the Nancefield Health Centre and serves an enormous area which includes Alldays, Mopane and Tshipise. A mobile clinic that is stationed at the Filoam Hospital at Nzhelele is serving the area to the east that includes the settlements Madimbo, Malale & Domboni. According to the new departmental standards Musina should have 4 mobile clinic teams.

A new Health Information Centre was constructed by the Department of Health and Welfare in Musina. This facility caters for health education (well-equipped auditorium) and offices for social workers and HIV/AIDS counselling.

12.3.1 Accessibility of Health Facilities

12.3.2 The accessibility of health facilities is indicated in Table 10.0 and the communities nearest to hospitals, health centres and clinics are indicated in Table 11.0.

TABLE 10.0: ACCESSIBILITY OF HEALTH FACILITIES IN THE MUSINA MUNICIPAL AREA, 2001

LOCAL	TOTAL	APPLICATION OF PLANNING NORMS/CRITERIA PER FACILITY											
MUNICIPALITY	NUMBER OF	HOSPITALS				HEALTH CENTRES				CLINICS			
	COMMUNITIES	Communities		Communities		Communities		Communities		Communities		Communities	
		Within 20km	%	Outside 20km	%	Within 10km	%	Outside 10km	%	Within 5km	%	Outside 5km	
Musina [NP341]	7	3	42.8	4	57.14	3	42.86	4	57.14	4	57.14	3	

Source: Dept of Health and calculations by Pieterse, Du Toit & Associates CC.

TABLE 11.0: COMMUNITIES NEAREST TO HEALTH FACILITIES

FACILITY	COMMUNITY NAME	FACILITY'S NAME
HOSPITAL/S	Musina	Musina Hospital
HEALTH CENTRE/S	Nancefield	Nancefield Health Centre (Mulenzhe)
HEALTH INFORMATION CENTRE	Musina	Musina Town Centre
CLINICS	Madimbo (Matshakatini)	Madimbo Clinic
	Musina	Musina LA PHC Clinic
SATELLITE CLINICS	Harper	Harper
	Campbell	Campbell
	Nancefield Ext. 8	Nancefield Ext. 8
	Nancefield Ext. 7	Nancefield Ext. 7
	Nancefield Ext 6	Nancefield Ext. 6

Source, Department of Health & Musina Local Municipality, 2001

ii.

Education

The number of schools, learners, educators and classrooms and the respective ratio's are indicated in Table 3.5 on pg. 31 of the IDP Phase 1 – Review 2004/05. A need for a secondary school exists at Madimbo, Malale & Domboni. The nearest secondary school is located at Matshena and pupils have to walk approximately 15km to school. Domboni does not have a primary school and children have to walk approximately 15km to the Madimbo primary school.

The backlog of teachers and classrooms is indicated in Table 3.4 on pg. 30 of the IDP Phase 1 – Review 2004/05. The national norm for "pupil to teacher" ratios is 40 : 1 and 35 : 1 respectively for primary and secondary institutions. The "pupil to classroom ratio" should therefore be similar⁸, as it is accepted that there should be one classroom per teacher or per 35 / 40 children. The schools that do not conform to the national standards are highlighted in the table. The information for some of the schools is lacking and could therefore not be compared with the national norms and standards.

iii.

Postal Facilities

According to the S.A. Post Office there are two post offices within the Musina Municipality, both within the town of Musina, one in the CBD and the other in Nancefield.

iv.

Community Facilities

Libraries

There are two libraries in the municipality of Musina, both in the town of Musina.

Sports Facilities

The following sport facilities are found in Musina:

- Messina Golf Club: A municipal 9 hole facility exists - open to members of the club;
- 1 rugby field;
- 6 tennis courts;
- 2 bowls greens;
- 1 badminton court;
- 2 basket-ball fields;
- a pistol shooting range (SANDF);
- a micro-light club; and
- a horse riding school.

The De Beers Health and Racquet Club is located in Musina and has the following facilities:

- 2 squash courts,
- 1 action cricket field,
- a gym,
- aerobics facilities; and
- an archery range.

The following sport facilities are found in Nancefield:

- a sport stadium in Nancefield Extension 1, providing soccer and athletic facilities and 2 tennis courts;
- a badminton court (community hall);
- 2 tennis courts;

⁸ This calculation will not be accurate in all cases, especially in some secondary schools where a large variety of subjects are presented.

- a soccer field in Nancefield Extension 5; and
- 1 volley ball court; and
- 1 netball court.

Cemeteries

Given the highly rural nature of the municipality, the only area requiring cemeteries is the Town of Musina. No shortage of cemeteries has been recorded.

v. Safety and Security

Police Stations

The Musina police station falls within the area of jurisdiction of the Far North and reports to the Area Commissioner who is situated in Thohoyandou. The police station is responsible for policing the Messina Magisterial District, which covers an area of approximately 5 600km². The station handles approximately 250 - 300 cases per month and deports approximately 700 - 1 000 illegal immigrants from Zimbabwe per month. Musina has one police station and the following branches:

- Crime Intelligence Service: 7 policemen
- Crime Investigation Service: 18 policemen
- Dog Unit: 5 policemen
- Uniform Branch: 76 policemen (165 posts)
- Vehicle Custody Unit: 6 policemen

The Beit Bridge Border Control and Policing Service is located at the border post with Zimbabwe and operates separately from the Musina police station. A Vehicle Theft Unit is also stationed at the border post. The number and type of police stations are indicated in Table 12 below.

TABLE12.0: POLICE STATIONS AND MAGISTRATE'S COURT

VILLAGE NAME	POLICE STATION		MAGISTRATE'S COURT
	MOTHER	SATELLITE	
MUSINA	1	1	1
PONTDRIFT	1	0	0
TSHAMATUMBA	1	0	0
TOTAL	3	1	1

Source: Northern Province Spatial Rationale, 2001

Magistrates Courts

The magistrate's office in Musina performs judicial functions for the whole of the Musina Magisterial District. The magistrate's court is a District Court and consists of the chief magistrate, assistant magistrate, one state prosecutor and administrative staff. The magistrate building has two courtrooms and the circuit court (District and Supreme court) also use these facilities for specific cases. The Musina magistrate court handled a total of 5 061 cases in 1997.

The settlements of Madimbo, Malale & Domboni are being served by the court in Mutale. A periodical court is stationed at Masisi.

vi.

Emergency Services

The personnel of the Musina Fire Brigade consist of 4 firemen. The fire brigade which is owned by the municipality is responsible for a large area from Huntleigh, ±50km to the

south of Musina, to Pontdrift ±100km to the west, to Pafuri ±170km to the east and to Beitbridge ± 13km to the north of Musina. The fire brigade also renders an across border service to Zimbabwe, but only for the areas located adjacent to the border (±12km).

The Department of Health and Social Welfare provides the ambulance service in Musina. At present there are 1 senior division officer, 2 senior ambulance assistants and 14 ambulance assistants. The ambulance service has 5 ambulances and 1 rescue vehicle.

vii.

Welfare (Refer to Map 12)

Pension payout points are available at the following locations:

- Brombeek (shop);
- Doreen (shop);
- Folovhodwe (serve part of Domboni)
- Linton (shop);
- Madimbo (shop - Happy farm) (serve Malale and Domboni);
- Nancefield (Nancefield Community Hall);
- Mopane (shop);
- Pontdrift (police station);
- Tshipise (Gordonia Store).

i. Spatial Structure of the Municipality

i.

Hierarchy of Settlement Patterns

The following extract has been taken from the IDP Review for 2004/2005:

"The Northern Province Spatial Rationale, 2002 (draft) identifies a settlement hierarchy for the whole of the Northern Province and the hierarchy for the Musina municipal area is described in terms of this hierarchy.

A settlement hierarchy is usually based on the classification of individual settlements⁹ (e.g. towns and villages). Approximately 2445 towns and villages in Limpopo have been individually classified in terms of a proposed hierarchy. Polokwane is the highest order settlement with second order settlements such as Mokopane, Thohoyandou, Tzaneen, Makhadu, Musina, etc. Third order settlements include places such as Giyani, Lebowakgomo, etc. The settlement hierarchy as contained in the Spatial Rationale is as follows:

- First order settlements (growth points) are individual settlements (e.g. towns/villages) or a group of settlements located relatively close to each other where meaningful economic, social and institutional activities, and in most instances a substantial number of people are grouped together in the relevant growth point. These growth points seem to have a natural growth potential but some do not develop to their optimum potential due to the fact that capital investments are made on an ad hoc basis without any long-term strategy for the growth point and/or the area as a whole.

The three categories included as growth points should be stimulated according to their status in the hierarchy by amongst others providing higher levels of service infrastructure, also to ensure that appropriate services are available for potential business and service/light industrial concerns. Higher levels of services, which reflects these growth point's status in terms of the settlement hierarchy, and therefore relative to other settlements in the area will also attract residential development to these growth points with the implication that certain threshold values in population be reached to provide for higher levels of social, physical, institutional and economic services.

9 For the purposes of this classification and the spatial rationale, settlement is defined to include all types of settlements (e.g. proclaimed towns and rural villages).

The three categories of growth points are briefly described in terms of their relative importance/priority in the proposed hierarchy:

- Provincial growth point (PGP): a provincial growth point is the highest order in the hierarchy and therefore also the most important type of growth point. PGP's all have a sizable/reasonably large economic sector providing jobs to many local residents, fulfils a regional and some even a provincial service delivery function, have a large number of social (e.g. hospitals, tertiary educational institutions) facilities, as well as institutional activities such as government offices and local and/or district municipal offices. The majority of these provincial growth points also have a large number of people. Growth points include settlements such as Polokwane, Mokopane, Bela-Bela, Makhado, Musina, Thohoyandou, etc.;
- District growth points (DGP): these growth points already have meaningful economic activity with some job creation, various higher order social facilities such as hospitals, health centres, tertiary educational institutions. Most of these district growth points also accommodates some government offices and in many instances also the district and/or local municipal offices. In most instances these district growth points also have a large number of people grouped together in the growth point.
- Municipal growth point (MGP): in terms of the various categories of growth points the municipal growth point has a meaningful but relatively small economic sector compared to the district, but more specifically the provincial growth point. Municipal growth points serving mainly large farming areas often have a sizable business sector providing a meaningful number of job opportunities. These growth points also have some higher order social and institutional activities. In most instances these growth points also have a substantial number of people, but in some instances such as Northam, the emphasis is on the economic sector (e.g. business and mining activities in the area) with a relatively small number of people, although the growth point serves a large rural/farming community. In traditional rural areas the economic sector is relatively small with only a few businesses, but a substantial number of people with a natural growth potential if positively stimulated.
- Second order settlements (population concentrations): are individual settlements (e.g. towns/villages) or a group of settlements located close to each other which have a small or virtually no economic base, meaningful social and often some institutional activities, but a substantial number of people located at these settlements. In many/most instances the population concentrations form part of a settlement cluster that also have one or more growth points within the settlement cluster. These population concentrations are mainly located adjacent to tarred roads or intersections of main district roads which provide accessibility to job opportunities. These nodes should also be given priority in terms of infrastructure provision with a high level of services, although not at the same level as for growth points. This approach should be followed to attract people from smaller villages in the area with a lower level or no service infrastructure.
- Third order settlements (local service points): these third order settlements exhibit some development potential based on population growth and/or servicing function potential although most of them only have a very limited economic base. Most of these settlements (specifically in the traditional rural areas) have 5000 people or more, and do not form part of any settlement cluster. Most of these settlements are relatively isolated in terms of surrounding settlements. Only in a few instances two or more settlements, which are in very

close proximity to each other, have been grouped together and classified as a local service point. The potential for self-sustained development growth is limited by the lack of development opportunities in these settlements. Most of these settlements can also be distinguished from lower order (fourth and fifth order settlements) mainly because of their servicing functions. Some of these third order settlements have established government and social services.

- Fourth order settlements (village service areas): this category of settlement in the settlement hierarchy has been identified to allow for circumstances in mainly traditional rural areas where a couple or more settlements are located/grouped in such a way that they are interdependent and/or linked together by means of specific social infrastructure (e.g. clinics, secondary schools, etc.) which provides a service to the specific inter-related group of settlements which are mutually dependent on these facilities. All these settlements are relatively small and have usually less than 2000 people per village.
- Fifth order settlements (all small settlements): this category includes all those settlements mainly rural villages that are not included in the previous 4 categories of the settlement hierarchy. For the purposes of the Spatial Rationale, the fourth order settlements have also been included into this category. These settlements are grouped together by the fact that by far the majority are very small (less than 1000 people) and are rural settlements that are only functioning as residential areas with no economic base. The potential for future self-sustainable development of these settlements is also extremely limited and mostly non-existent. (IDP Review", 2004/2005)

The settlement hierarchy of the Musina Municipal Area, in terms of the Spatial Rationale is as follows:

- Musina (Musina & Nancefield) can be described as a provincial growth point (1st order settlement) due to their relative high level of economic activity and rendering of services to local and surrounding communities.
- Madimbo, Malale & Domboni can be described as 5th order settlements due to their small populations and the fact that they are only functioning as residential areas with no economic base. The potential of these settlements for future self-sustainable development is extremely limited.
- Tshipise can be described as a 3rd order settlement (local service points) due to its function in terms of limited service delivery to the surrounding commercial farming areas, tourism attraction and nature conservation. Tshipise does not have a residential or business component and can therefore not be regarded as a growth point. (IDP Review", 2004/2005)

ii. **Activity Spines**

There is only one existing activity corridor being the N1. This corridor is essentially a movement corridor but does offer opportunities for commercial activities at appropriate points.

The N1 passes directly through the town of Musina where traffic is slowed and significant economic and tourism opportunities can be accrued through passing traffic.

iii. **Nodal Points**

The only nodal point within the municipality is the town of Musina. This node is a growth point within the Municipality, which is continuing to growth despite indications of out-migration.

Musina and Nancefield are located directly adjacent to each other and forms an urban unit that is different from the most "apartheids" towns where the former "black" residential

areas were located a few kilometres away from the “white” residential areas and business centra (e.g. Pietersburg/Seshego). The existing spatial structure of Musina is however distorted to a certain extent as the general direction of new low-income residential development (Nancefield) is away from the workplace, i.e. the Central Business District (CBD) and industrial areas. The main reasons for this problem are the following:

- the location of a “koppie” in the centre of Musina that forces development to the west;
- the location of the northern and southern sewerage works limits any residential development towards the east of Musina;
- land available for residential development that is owned by the Musina Municipality is located to the west and south of Musina;
- the vacant land (to the north of Musina) between the road to Beit Bridge and the road to Pontdrift and Nancefield is characterised by rocky outcrops; and
- the location of the Messina nature reserve and the SANDF to the south of Musina. (Musina IDP, 2004/05 Review)

Harper (Nancefield X6) and Campbell (Nancefield X7) were former mine compounds of the Messina Copper mine are not integrated in the urban area of Musina due to their location approximately 1km and 4km to the west of Musina. (Musina IDP, 2004/05 Review)

iv.

Directions of Growth

As mentioned above the only apparent area of growth within the municipality is the town of Musina. Within the town of Musina the current growth trend in terms of land take-up appears to be towards the west.

Proposed Developments

A number of housing projects are proposed around the town of Musina, an agricultural settlement of 200 agricultural village units, a recreational facility in Nancefield, an indoor sports facility in a rural settlement area and a multi-purpose Art and Crafts centre adjacent to the N1 by 2004. [The locality and status of these projects needs to be confirmed and mapped].

Various land use and infrastructure proposals for the town of Musina, were made by Pieterse Du Toit Town and Regional Planning Consultants on behalf of the Municipality in the previous SDF (see maps IDP Map 3, 4, and 4.1). The status of these proposals will also be confirmed and reviewed if necessary.

Economic Activity Areas

The obvious economic activity area within the municipality is the town of Musina, having the highest population concentration in the municipality.

Further projects identified in the Musina Municipal Area by DEAT and the NPII that are being investigated for viability at present include (Musina IDP 2004/2005):

- Gumbu Limestone (mining),
- Madimbo Diamonds (mining),
- Soutpansberg silliminate (mining),
- Nwanedi Nature Reserve (tourism),
- Mapungubwe (Dongola) National Park (tourism),
- Cattle and game farming at Musina/Tshipise (agriculture/tourism) and the;
- Upgrading of the N1 - National Road from Makhadu to Musina (infrastructure), upgrading of the Beitbridge Border Post (infrastructure), etc.

EXISTING LAND MANAGEMENT

j. Existing Land Use Management System

Town Planning and Townships Ordinance No. 15 of 1986

The town planning ordinance is currently the only alternative legal mechanism to the DFA to administer development applications. The ordinance is the only mechanism available to guide the implementation of town planning schemes within the province and therefore the local municipality. Currently the only area subject to a Town planning Scheme is the town of Musina.

k. Environmental Impact Issues

i. **Applicable Environmental Management Plans**

A Strategic Environmental Assessment and Environmental Management Plan for the Musina Local municipality is currently being prepared.

ii. **Sensitivity Areas**

It is anticipated that the highest environmentally sensitive areas within the Municipality is its riverine areas, natural heritage sites and nature reserves.

l. Planning Equipment & Imagery Data

i. **Digital Area Maps and Satellite Imagery**

Digital area maps of the area are available through the MDB but are very basic and require additional data to make them more useful. Satellite imagery for the municipality is not currently available but could be sourced at considerable expense from private service providers.

ii. **Available Mapping**

There appears to be very limited mapping available at the municipality, particularly of areas outside of the urban or settlement areas.

iii. **Computer Systems**

The local municipality does not appear to have a computer GIS system and therefore has no means of manipulating or printing mapping electronically.

iv. **Aerial Photographic Base**

No aerial photographs of the entire municipality have been located, however, there is photographic coverage of the town of Musina, owned by telkom.

SPATIAL DEVELOPMENT ISSUES AND TRENDS (REFER TO MAP 14)

Environmental Issues:

- The rivers and landscapes within the district are subject to pollution from human activities.
- Air pollution from derelict mine dumps could potentially cause health problems;
- Litter and unsightly waste dumps create an image of a degenerated environment and have a negative impact on the aesthetics of the area.
- There are a number of red data plant species that need to be protected.

- Limited information on environmental issues and sensitive environmental areas. This also makes an assessment of the environmental impact of spatial development difficult.

Spatial Issues:

- Temporal population movements from neighbouring countries are possibly imposing additional stresses on the community facilities within the municipality and needs to be addressed.
- Numbers of suspected illegal immigrants settling in Musina are increasing pressures on housing and social facilities.
- Despite the above the adjoining countries also provide opportunities with respect to movement of trade and tourists between SA, Botswana and Zimbabwe.
- The border post areas need to be improved and made more efficient while enhancing economic opportunities for the municipality.
- It appears that the focus of population growth is within the urban areas of Musina namely Nancefield and Musina Town, at the expense of the smaller rural settlements.
- The correlation of state and large institutional land holding with land claims suggests opportunities for the municipality to intervene in the acquisition of land for resolving some of the land claims and meeting the need for additional service settlements.
- The agricultural areas within Musina are limited and need to be preserved and therefore, should be taken into consideration in the spatial planning of the area.
- The national road [N1] running through the area presents some commercial opportunities for development in the areas adjacent to it.
- Mining within the municipality appears to be on the decline, with many mines shut down, however there is potential for coal mining should the road infrastructure be improved.
- There is a cluster of rural settlements around the Domboni which have poor access to basic services. These settlements are dormitory residential areas, with limited supporting land uses.
- Related to the above, the vast area of low population densities within the more rural areas of the municipalities, i.e. the western area, combine to make the potential provision and maintenance of infrastructure and other municipal services very costly. Future settlement development should thus be concentrated in a few locations where bulk infrastructure is already available and where services can be maintained in as cost-effective a way as possible.
- The municipality contains a number of nature reserves, conservancies and game farms, which is a comparative advantage over other municipalities.

- The Golden Horseshoe Initiative – a conceptual spatial framework that aims to provide a receptacle for a diverse portfolio of Tourism and related activities is a major opportunity in the area. Area extends from the western, northern and eastern borders of the Limpopo Province.
- Future spatial planning in the municipality should protect the natural resources in the area and promote tourism/recreational development in those areas, which has potential for it [e.g. the areas adjacent to the numerous river catchment areas, watercourses, and nature reserves in the area.
- Overall there appears to be a greater provision of infrastructure and facilities in the eastern area creating a spatial imbalance between the west and eastern areas in terms of settlement and infrastructure development, which may need to be addressed should tourism development around Mapumgupwe/Dongola Complex develops.
- There is poor accessibility to social and economic activities for rural populations.
- Under-utilisation of the railway network and inefficient public transport.
- The majority of social facilities are located around Musina Town and to the east of Musina. Nineteen education facilities exist in Musina municipality, of which only four are located to the west of Musina. There are three medical facilities within the municipality, two of which are in the town of Musina. One magistrate's court is located in Musina.
- There appears to be a shortage of education and health facilities in terms of the minimum access distance to these facilities, in the western portion of the municipality (western half of Ward 1).
- Other shortages of social facilities include libraries in wards 1 and 2; postal facilities (or at least post box facilities) in the same areas.
- Additional pension pay-points should be sought along the northern edges of the municipality and in the far western areas in order to achieve an equal distribution across the municipality.
- The rural settlements tend to be of a clustered nature and sparsely distributed outside of the eastern portion, within the municipality.

Land Use, Land Reform & Housing Summary & Issues:

- Bulk of land in municipality is being used for agricultural purposes ranging from cattle farming, arable farming and game farming.
- Urban settlements only make up 0.08% of land cover.
- There is no uniform Land Use Management System in place for the entire municipality to guide planning decisions in a coherent manner.
- There is no administration and record system to assist officials in making planning and development application decisions.

- **There is a lack of Local Framework Plans, Policies and Town Plans for settlements within the municipality particularly those emerging settlements and small rural settlements.**
- **No verified vacant land audit exists within the urban nodes to assist in decision making around urban expansion areas or housing projects.**
- **No Open Space Framework exists at the local settlement level or municipality level.**
- **Twenty-seven percent of the Municipality area is subject to land claims. This is a significant amount of land which could significantly impact on spatial planning within the municipality.**
- **The state and institutional land provides opportunities for easier intervention on behalf of the local municipality with regards to access to that land.**

SECTION C – STRATEGIC SPATIAL ASSESSMENT

STRATEGIC SPATIAL ASSESSMENT (Refer to Map 14)

Key Spatial Determinants of the Municipality

Given the above the key spatial determinants that need to be considered in the preparation of the proposed SDF include:

- The Golden Horseshoe spatial Initiative; which affects the entire municipality along its western and northern boundaries. This initiative effectively could encourage a east west movement of tourists along the R525 and R572.
- Role of border posts with relation to settlement location and economic growth of the municipality;
- The large number of game farms and conservation clusters or identified tourism "Hot-Spots" within the municipality, particularly the area around Mapungubwe and the Madimbo/Pafuri Gate Corridor;
- The growth of Musina as a growth point;
- The clustered distribution of rural settlements in the east and sparse distribution of settlements in the west of the municipality;
- The N1 as a major economic opportunity;
- The importance of the border posts into Zimbabwe and Botswana;
- The distribution of land claims in relation to state or institutionally owned land for opportunities for local government interventions.

Translation of IDP Vision into Spatial Vision

The vision for the Musina Municipality as spelt out in the IDP is as follows:

"VEHICLE OF AFFORDABLE QUALITY SERVICES AND STABILITY THROUGH ECONOMIC GROWTH, DEVELOPMENT AND COLLECTIVE LEADERSHIP"

The vision as expressed above has two main thrusts which have spatial implications. Namely, affordable quality services imply service provision must be as efficient as possible often achieved through densification of settlements. The second thrust is economic growth and development which suggests the promotion of growth areas as outlined in the National Spatial Perspective.

From the above thrusts we can derive a Spatial Vision for the municipality as follows:

"TO DEVELOP A SPATIAL FRAMEWORK FOR THE MUNICIPALITY THAT PROMOTES SETTLEMENT CONSOLIDATION, AND PROVISION OF BASIC NEEDS, ENHANCES THE AGRICULTURAL AND TOURISM SECTORS WITHIN THE MUNICIPALITY WHILE ENSURING THAT LOCAL RESIDENTS ARE ABLE TO BENEFIT FROM THESE SECTORS THROUGH EQUAL ACCESS TO THESE OPPORTUNITIES BOTH PHYSICALLY AND ECONOMICALLY".

Spatial Aims and Objectives

In light of the above and based on the status quo analysis, national and provincial spatial policies as well as the strategic spatial assessment, of the Musina municipal area in the sections above, a set of clear spatial aims and objectives are adopted for the SDF, namely:

Aim:

- *To promote the creation of sustainable human settlements and quality urban environments in line with the NSDP;*

Objectives:

- To enhance linkages between the rural areas and urban settlements;
- To encourage urban integration at the local settlement level to redress the imbalances of the past;
- To ensure the protection of environmentally sensitive areas;
- Promote the establishment of settlement clusters through the land reform process.

Aim:

- *To achieve economic growth and development through maximizing the potential comparative advantages of the municipality;*

Objectives:

- To enhance potential movement corridors, namely the N1;
- To enhance the comparative economic advantages of Musina as a border municipality while reducing the negative impacts;
- To enhance the potential tourism linkages trans-nationally and internationally;
- To enhance arable agriculture and mining activities in appropriate areas
- To upgrade the basic infrastructure in strategic areas.

PROPOSED SPATIAL STRATEGIES

To achieve the above aims and objectives the following strategies need to be adopted.

- Linkages between the rural settlements and the Town of Musina as well as the N1 will be enhanced through the upgrading of secondary roads between these settlements and the N1;
- Linkages could also be improved through improved public transport networks and facilities;
- Establishment of market produce collection points as well as labour assistance points in the rural settlements to service the town;
- Urban integration at the local level is to be achieved through the allocation of land for residential purposes in the developable open spaces between the Nancefield and Musina town;
- Urban integration is also to be encouraged through better pedestrian, cycle routes and public transport mechanisms between Nancefield and the CBD.
- Urban integration can also be enhanced by the encouragement of economic activities closer to the previously disadvantaged areas, especially along the N1;
- The protection of the environment must be ensured through firstly the identification of sensitive areas, riverine areas etc. and the preparation of EIA's before any significant developments are approved.
- In accordance with the NSDP policies, i.e. rural settlements without the potential for economic sustainability only be provided with basic services and people oriented investments such as training facilities. As such these settlements should be grouped into clusters where feasible for social facilities and infrastructure provision.
- Furthermore the provision of infrastructure services or human centred investments can be better facilitated through the land reform process in areas where land is more accessible due to it being owned by the state or large institutions. Therefore those areas where there are land claims that coincide with state or large institutionally owned land should be targeted/prioritised.
- The N1 movement corridor can be enhanced through a variety of means including: common signage on the road; provision of appropriate development rights on the road at strategic points along the road, (i.e. co-

ordinating development with the Makado Municipality to form a series of service nodes), improving attractions for passing commercial and tourism traffic within the growth point of Musina.

- Liaise with the Department of Foreign Affairs with regard to the improvement of the border post areas to enhance economic developments and at the same time controlling activities to avoid competition with the growth point of Musina. In addition, the negative impacts of illegal or legal cross border migration should be addressed with the Department of Foreign Affairs.
- Liaise with SAN Parks, and the Provincial Department of the Environment to advance the process of establishing a transfrontier park with Botswana and Zimbabwe;
- Investigate the possibility of enlarging the Mapungubwe Nature Reserve by either merging it with the Breslau Nature Reserve or over the R572 into the existing Conservancy as part of the continued development of the Mapungubwe/Vhembe/Dongola complex;
- Establishment of a rural service node/tourism node in the north western corner, close to the R572 and R521 intersection.
- In alignment with the NSDP the bulk of infrastructure investment is to be focused/prioritised in Musina as the growth point, while in the rural settlement clusters and service centres infrastructure should be focused on the provision of basic needs.
- Enhance tourism through the area by promoting the Golden Horseshoe initiative, to encourage the movement of tourists from the Kruger Park through to Zimbabwe or Botswana. This can be achieved through the encouragement of tourist attractions along particular routes.
- Feasibility studies need to be undertaken to determine the most economically viable areas for arable farming and for coal mining within the municipality. Infrastructure provision then needs to be prioritised into these areas.

SECTION D – PROPOSED SPATIAL FRAMEWORK PLAN

MACRO SPATIAL FRAMEWORK

The macro spatial development framework will cover the entire municipal area of Musina. The proposed spatial framework consists of the following three main components:

- a proposed hierarchy of access routes,
- a proposed clustering of settlements and
- a broad land use and activities guide for the municipality.

The combination of these three components will hopefully:

- contribute to a desired pattern of land use;
- Address spatial reconstruction;
- Provide strategic guidance re. Location and nature of future development.

Movement System

A hierarchy of movement routes is proposed which will provide guidance on the nature of the movement volumes and types of activities that should take place along these corridors.

The main access route defined through the area is the existing N1 which needs particular treatment outlined in the land use framework. The main purpose of this road is for through traffic and as an access road into the municipality from the adjoining municipality to the south and Zimbabwe to the north. There should be views from the road for tourists. New emerging settlements along this route should be planned a short distance from the road itself. Key commercial nodes could be identified for craft markets and other tourist attractions on this route, possibly at major intersections with roads accessing the municipality.

The proposed secondary road network will effectively link the municipality internally (i.e. linkages between the local municipalities). These roads will include the R521, R525 and the R572. These roads should pass through settlements and will serve as major local trading and tourism routes.

The proposed third level of road network will be the remaining local distributor roads intended to provide access for both local residents, agricultural sector and tourists within the municipality. These roads will tend to be the responsibility of the local municipality and may change depending on the changing needs of the municipality over the period of the IDP.

Proposed Settlement Pattern

Within the Musina Municipality, although a number of different types of settlements have been defined, only a two tier hierarchy of settlements has been defined, comprising of the main Provincial Growth Point (as defined in section 2.9.1) and other settlements. These other settlements comprise of some 13 settlements of which some are in close proximity to each other. These settlements would be defined as fourth and fifth order settlements in the Provincial/District Spatial Rationale, 2001 (see section 2.9.1).

Growth Points

The only provincial growth point or 1st order settlement in the municipality is the town of Musina/Nancefield. Analysis indicates that it is continuing to grow despite the decline in the Zimbabwe economy. Given its locality on the N1 just 14km from the Beitbridge Border Post and that it is bisected by the R572 running from east to west across the entire municipality it is ideally sited to continue as the growth

point of the municipality. Detailed spatial recommendations are made for this urban area in section 9 below.

Rural Service Centre

In the Provincial and District Spatial rationale this type of settlement is also defined as a local service point. The only settlement of this nature in the municipality is Tshipise, as it has a very limited economic base and no residential component. However, it does exhibit some economic potential with regard to its tourism and service functions. Therefore this settlement exhibits characteristics of a third order settlement in accordance with the District Spatial Rationale, but lacks a residential component.

It is recommended that residential development be encouraged within this center. All the land around and including Tshipise is privately owned but subject to land claims. In the resolution of these claims a potential residential settlement could be planned with associated infrastructure and services. The comparative advantage of Tshipise is that it could service a large agricultural area and has a significant tourist attraction in terms of the Tshipise Hot Springs and the Honnets Nature Reserve. It also lies on the R575 which will form part of the tourism route in accordance with this SDF.

Rural Settlement Cluster/ Population Concentrations

The only existing rural settlement cluster within the municipality is the Madimbo, Malale and Domboni Cluster of small rural settlements in the south eastern border of the municipality. This cluster also includes settlements such as Folorodwe and Feskraal. The total population of these settlements is estimated at approximately 2800 people. As these settlements have no economic base and limited potential to development such a base it is recommended that these settlements be treated a one cluster for the purpose of social facilities provision. Infrastructure investment should be prioritized in the area but only to meet basic needs.

In the NSDP this cluster would be seen as an areas of disadvantaged locality and be provided with very basic infrastructure and resources to build people's skills to enable them to be mobile and seek employment elsewhere. It is therefore recommended that a broad settlement plan be prepared for this cluster to determine where the social facilities should be located and how people could access them from the various settlements within the cluster.

Future Rural Settlement Cluster/Tourism Node

In order to stimulate development around the proposed Mapungubwe/ Vhembe/ Dongola complex (now that the Mapungubwe nature reserve has recently been established) a rural service centre / tourism node concept could be investigated in the area. This concept could involve the acquisition of land through the land reform process to establish a relatively concentrated settlement around some social facilities. Adjacent to this planned settlement the surrounding land could be given increased development rights and possible rates incentives to develop tourist facilities. The members of the new rural service center could either obtain employment within the tourist facilities or establish their own tourist attraction, i.e. community based tourism opportunities.

The area around the intersection of the R572 and R521 is in relatively close proximity to the Mapungubwe Nature reserve as well as the Pontdrift Border. The land in the south eastern quadrant of the intersection is owned by De beers and is subject to land claims. Again in resolving the land claim issues a possible settlement could be established in the vicinity which could house labour for

potential tourism facilities as well as service as a local service centre for the local population.

Border Service Centres

It is acknowledged that it is essential that certain ancillary land uses/activities need to be located at a border post, such as clearing agents, inter-modal transport facilities etc. However, there is also a concern that around the Beitbridge border that certain land uses are establishing there that are not essential and that compete with those activities in the town of Musina. The concern is that the focus of economic activities within the town of Musina will be diluted or made less viable if competing commercial activities develop around the border post. Secondly, for security purposes a residential settlement around the border post is discouraged.

Therefore it is recommended that a detailed precinct plan be prepared for the area around the border post to establish exactly what land uses and activities are essential for the border post activities and where they should be located in relation to the border to ensure a service centre which could expand over time, in an orderly manner.

Such a service centre could also be envisaged for the Pontdrift border post if and when the border post acquires a greater status through the construction of a bridge over the Limpopo River into Botswana. This future service centre could play an important role as a tourism gateway into the Mapungubwe/Vhembe/Dongola complex.

Broad Land Use and Activities Guide

Ranching/Game Farming

The bulk of land in the municipality is used for either cattle ranching or game farming. A cost benefit analysis needs to be undertaken to establish the benefits of the apparent growth in game farming with respect to its economic and employment benefits to the citizens of Musina Municipality. Should the benefits be insignificant incentives to encourage people to undertake alternative land use activities in these areas could be researched by the municipality.

Arable Agricultural Areas

It is proposed to reserve areas of arable land, mainly along the Limpopo River Valley and in the east along the river valley's of the Sand and .. Rivers. However, an overall agricultural potential study needs to be undertaken prior to or together with the formulation of the Land Use management scheme for the municipality to verify the exact areas that need to be reserved for arable agriculture.

Arable agriculture is an important economic and employment generator and needs to be expanded through irrigation schemes where possible.

Existing Conservation Areas

A major comparative advantage of this municipality is the high number of nature reserves and game farms in the area. The nature reserves need to be well maintained and linked into a broader marketing initiative in support of the "Golden Horseshoe" spatial initiative proposed by the Limpopo Province. Furthermore, nature reserves should be encouraged to merge where possible to facilitate the accommodation of larger species of game. In this respect the Transfrontier Park proposed as part of the Mapungubwe/Dongola complex should be supported and assisted where possible by the municipality.

Riverine Systems

It is also important to maintain the riverine catchments running into the Limpopo River. In this respect it is proposed that a river reserve of 50 metres on either side be kept free of all land use activities to ensure the riverine areas do not get polluted.

MICRO SPATIAL FRAMEWORK (Refer to Map 16)
Musina

Movement System

The main movement corridor through the town of Musina is the N1. As pointed out, in the status quo section of this report, this road offers enormous economic opportunities from passing traffic of both a commercial and tourist nature. As such, additional opportunities to encourage people to stop in Musina should be sought. A range of accommodation, from up-market to budget facilities should be encouraged. Related to this a proposed truck-stop site next to the old copper mine is suggested, but requires more detailed feasibility research. A network of service roads adjacent to the N1 in the CBD should be investigated to ensure a free movement of traffic in the future, while enabling people to easily stop.

An additional secondary distributor road is proposed to better link the western end of Nancefield into the existing CBD.

Given that Musina is small enough to walk between areas, it is proposed that much more emphasis be placed on pedestrian and cycle modes of transport. In this respect, demarcated pathways should be established that have adequate lighting, have steps where necessary and are overlooked or patrolled for safety purposes.

CBD

The Musina CBD remains the main centre of commerce in the town. Generally more mixed use development should be encouraged within the CBD, especially with respect to a mix of residential and retail/office developments. This would ensure a 24 hour presence within the CBD, which would make the area safer and more attractive to late travellers passing through the area. The CBD would also be the ideal locality for higher density rental accommodation, providing people with flexibility and high levels of convenience to retail, recreation and employment opportunities.

However, as part of the preparation of the LUMS a detailed assessment of the CBD needs to be undertaken in order to establish the exact location and extent of appropriate land use rights, to achieve the above proposals.

Residential

As outlined in the section.. there is a housing waiting list of 4109 units in Musina. However, as mentioned in the section under demographics, it is speculated that many people on this waiting-list have come over the border and illegally obtained SA documentation and have applied for housing. It is also possible, as suggested by the demographic figures, that people from across the border are utilising Musina as a staging point to get established in South Africa after which, they move to Gauteng to seek further opportunities. It is therefore proposed that a study needs to be undertaken to try and obtain a quantitative estimate of these people so that the housing demand can be re-evaluated before any housing Board Subsidies are sought.

However, with respect to available land for residential expansion it is proposed to expand Nancefield to the south west, with the intention of ultimately linking the residential areas around to the existing residential areas in the south.

Industrial

Both industrial areas have enough land to accommodate additional industries in the short to medium term. Should additional land be required for industry in the longer term future it should be sought on the western or northern periphery closer to Nancefield and adjacent to the railway line. This is to ensure reduced distances for workers to travel to work. It is important that the heavy industrial area to the south of Musina does not expand to the south as it will then create a buffer between the eventual expanded residential areas and those established residential areas to the east of the N1, and this would be counter-productive to the object of integration.

Open Space System

A open space system is proposed for eh town of Musina as indicated on Map 16. The open space system is to form a dual role, that of preserving the riverine systems running through the town, and secondly to provide pleasant pedestrian and cycling routes along these systems. It is envisaged that this system would link all significant open public open spaces together providing a continuous safe environment to move within for both people and small wildlife.

GUIDELINES FOR A LAND USE MANAGEMENT SYSTEM

The Land-Use Management Bill provides for a uniform, effective and efficient framework for spatial planning and land use management (Land Use Management System) in both urban and rural contexts. The Bill aims to rationalise the existing plethora of planning laws into one national system that will be applicable in each province, in order to achieve the national objective of wise land use. The Land-Use Management Bill will take effect on a date to be determined by the President by proclamation, estimated to be November 2005.

The Spatial Development Framework of Musina should operate as an instrument (plan) indicating desired patterns of land use, directions of growth, urban edges, priority development areas and areas where stricter land use control should be enforced. This plan has a legal effect of guiding and informing land development and management. The detailed administration of land development and land use changes should, however, be dealt with by a Land Use Management System (LUMS). A LUMS is a scheme recording the land-use, development rights and restrictions applicable to each property or erf. The LUMS should be amended when required for a particular development and to meet certain requirements. The Spatial Development Framework influences the contents of the Scheme and the Scheme has a binding effect on land development and management.

A direct link must exist between the Spatial Development Framework Plan, the LUMS, the municipality' budget and the capital expenditure framework because:

- The rights recorded in the scheme determine the value of land which influence the rates and income of the municipality; and
- Any new development or change in land use has to be adequately serviced by infrastructure and the capital expenditure framework will indicate where the municipality is able to allocate funds for the upgrading of infrastructure.

It is therefore clear that a uniform Land Use Management System is necessary for the Musina Municipality. The basis of the new LUMS should be set on the principles and norms indicated in the Draft White Paper on Spatial Planning and Land Use Management, i.e. achieving sustainability, equality, efficiency, fairness and good

governance in spatial planning and land use management. The White Paper states that LUM has two underlying rationales, i.e.:

- The resistance to uncontrolled development; and
- The wish to promote desirable development.

The following basic principles derived from the various sets of indicative legislation regarding spatial planning and land use management should form the basic principles for a LUMS:

- Emphasis on facilitating and promoting development;
- Emphasis on flexibility of the LUMS to be able to respond to land development of all types, in a more dynamic manner.
- Emphasis on a minimalism approach (controlling those issues necessary to comply with development objectives, management needs and ensuring that land use management can be carried out effectively and efficiently);
- Promote administrative just actions and social justice, transparency and accountability;
- Create a coherent LUMS, which attempts to consolidate fragmented components of land use management;
- Emphasis on a sectoral integrated development planning approach;
- Promotion of co-ordination and/or integration between spheres of government;
- Promotion of sustainable and viable development;
- Promotion of development in under developed and rural areas;
- Promotion of public participation, especially in rural areas;
- It should promote the restructuring of any distorted spatial patterns created by the apartheid system; and finally
- The LUMS should be innovative and applicable to the circumstances of the Musina Municipality and the province.

The Land Use Management Bill, 2001 has as yet not been promulgated. This Bill states that the municipality must adopt such a land use scheme within 5 years after the enactment of the act. In the case of Musina where the different sets of legislation is applicable in the different areas within the municipal area, it will be very difficult to adopt such a scheme at once, especially since most of the areas have never formed part of any land use/town planning scheme. The White Paper provides for an incremental approach. It is proposed that the Musina Municipality still uses the existing legislative statutes in place for the respective areas within the municipality until a uniform LUMS is adopted for the entire municipal area. In Phase 2 objectives and strategies were already formulated for the compilation of a uniform land use management system in 2003/04. The municipality is therefore committed to draft a LUMS for its area of jurisdiction.

This document merely provides an overview and basic guidelines for the LUMS for Musina Municipality. The detail of the LUMS will be addressed when the actual LUMS is drafted. The basic contents of the LUMS of the Musina Municipality should at least contain Scheme Clauses and a set of Maps indicating use zones applicable to each property. The scheme clauses should include the following:

- Introductory section which will place it in its legal context.

- Definitions of terms used in the scheme, that are consistent with terms used in the scheme for the entire Musina;
- General directive principles and criteria of all types of applications and land use changes;
- Visions, Statements of Intent and definition of zones – each zone should have a Statement of Intent which is a statement on the desired future development and why.
- General conditions applicable to all properties, such as the protection of land and environment, handling of stormwater, etc.
- Specific conditions applicable to use zones: densities, etc.
- The purpose for which each piece of land may be used, i.e. use zones/permited land uses.
- Conditions applicable to each use zone used in the scheme, including:
 - Densities;
 - Type, extent and scale of buildings and structures that may be erected;
 - Coverage, Height, Floor Area Ratio (FAR), etc.
 - Conditions applicable to building lines, building restriction areas, boundaries.
 - Parking ratio's and loading zones;
 - Site Development Plans;
 - Conditions applicable to consent uses, permissions granted under use zones, etc.
- Application procedures for various types of development applications and any permission to be granted in terms of the scheme.
- Powers of the municipality and further provision to add or amend any by-law in this regard.

A LUMS currently being piloted in KwaZulu Natal has proposed three levels of land use schemes, namely an Elementary Scheme, a Primary Scheme and a Comprehensive Scheme to accommodate the needs of different areas.

Elementary Planning Scheme

An Elementary Planning Scheme would normally be applicable to small rural settlements, emerging settlements, un-proclaimed towns, and areas where there is settlement, but a lack of, or imprecise cadastral boundaries.

An Elementary Planning Scheme should contain at least the following:

- **A policy statement regarding the proposed future development of the area;**
- **A description of the area of effect of the scheme;**
- **Districts, or land use areas, to define key land uses such as agriculture, settlement, and land reserved for civic and social purposes;**
- **The location of key roads;**
- **Environmentally sensitive areas;**
- **The location of utilities and services, and**
- **The location of community land uses.**

An Elementary Planning Scheme is likely to make use of a limited number of

Districts or defined land use areas only.

Primary Planning Scheme

A plan prepared at the level of a Primary Planning Scheme would normally be applicable to small towns and settlements where a greater level of land use management is required. A Primary Planning Scheme should be prepared by using a limited number of Zones and Districts.

Comprehensive Planning Scheme

A Comprehensive Planning Scheme will be used for larger and more complex urban and metropolitan areas, and would contain a large number of Districts based primarily on the need for a finer grain of land use differentiation, and on differences of intensity. Districts could also be prescribed on the basis of differences of permitted Consent uses.

The Rural Component of Planning Schemes

The rural component of a Planning Scheme should primarily be applied to manage land: outside defined urban areas so as to promote the general principles of sustainability, efficiency and integration to ensure that prime agricultural land is protected, and to ensure that important areas of environmental significance and biodiversity are protected.

A Planning Scheme for a rural area is likely to make use of a range of Zones, Districts, Management Areas and Special Zones. Owing to the large scale of most of the District and Local Municipalities, the settlements and urban areas which are managed by a Planning Scheme should be shown on the Planning Scheme Map for a rural area as a blank area, indicating that they already have more detailed Planning Schemes of their own.

The key Zones which will accommodate most primary uses which occur within rural areas should be selected from the list contained in Table 1. There is a need at the Integrated Development Plan level to maximise the use and development of resources in rural areas. Municipalities may undertake a more detailed analysis of rural areas and make use of Districts and Management Areas to manage and promote development.

The need to conserve prime agricultural land, and to make optimal use of resources within rural areas, is widely recognised planning principles. In determining how agricultural land should be used and managed, the Department of Agriculture uses Bioresource Units (BRUs) to determine the broad potential of agricultural land, and Ecotopes to determine detailed agricultural potential and land use.

Within the broad framework provided by the proposed Musina Spatial Framework Plan a much more detailed land use breakdown needs to be defined at the local municipality level. This detailed level of land use management must be guided by the LUMS system to provide a guide to officials and potential developers alike on what would be appropriate land uses in particular areas. The main land uses proposed are conservation areas, pastoral/game farming areas, arable farming areas, riverine areas, and settlements areas.

In terms of the proposed LUMS the overall municipality would have Primary Town Planning Schemes. A primary Planning Scheme should be prepared by using a limited number of Zones and Districts. Normally there is only a single District for most land use types, however, it could be possible to identify more than one Residential District as a consequence of density variations within the larger rural settlements. The example of Planning Scheme Zones that could be utilised in Musina include:

- **Environmental Management Zones;**
- **Open Space;**
- **Residential Zones;**
- **General Mixed Use Zone;**
- **Civic and Social;**
- **Industrial;**
- **Recreation;**
- **Development Interface;**
- **Agricultural Zone; and**
- **Special Zone**

Within the residential Zone there could be both a low density residential district and a medium density residential district.

The remaining small emerging rural settlements, rural cluster settlements and rural hinterland would be subjected to an Elementary Planning Scheme. An Elementary Planning Scheme should contain at least the following:

- A policy statement regarding the proposed future development of the area;
- A description of the area of effect of the scheme;
- Districts, or land use areas, to define key land uses such as agriculture, Traditional and Non-Traditional settlements, land reserved for civic and social purposes, quarrying and mining, Transportation and Access, Special Areas and management Areas (including Protected Areas and Proclaimed Parks).
- The location of key roads;
- Environmentally Sensitive Areas;
- Location of Utilities and Services; and
- The location of community land uses.

Within the municipality and particularly in the rural component of the Planning Schemes one should make use of a range of zones, districts, management areas and Special Zones. An example is the Greater St Lucia Wetlands Park's Land Use Management Controls which could be incorporated as is as a Management Area within Musina. The Proclaimed Parks, such as Mapungubwe, Musina and Honnerts nature Reserve and other environmentally sensitive areas could utilise Environmental Overlays to incorporate zones such as:

- Natural Monuments and areas of Cultural Significance;
- Habitat and Wildlife Management Areas;
- Protected land
- Sustainable Use areas;
- Important Environmental Management Areas; and
- Other more recent additions to the LUMS system as well as biosphere or bio-resource units to protect environmentally sensitive areas and agricultural resources.

PROPOSED SPATIAL PROJECTS AND CAPITAL INVESTMENT FRAMEWORK FOR THE MUNICIPALITY'S DEVELOPMENT PROGRAMS

Based on the strategies and spatial framework 46 projects with spatial implications, including housing projects have been identified. Most of these projects have already been formulated and budgeted in the IDP but they align closely with the strategies and proposals outlined in the Spatial Development Framework.

Table 12: Proposed Programmes and Projects for the Development of Land in the Musina Municipality
 (* indicates that the stipulated project and budget is already in the 2005/06 budget)

Programme and Description of Projects	Location	Responsible Authority & Timing	Budget & Sources of Funding
Detailed Planning Programme			
Project 1: Preparation of a detailed Land Use Management Scheme for the entire municipal area	Entire Municipality Area	Corporate Services in 4 th quarter of 2005	R150 000.00 * Internal & External
Project 2: Detailed precinct plan for the Beitbridge Border Area	Beitbridge Border Post	Corporate Services in 1 st Quarter of 2006	R 60 000.00 – Proposed new budget addition – Internal & Dept. of Foreign Affairs
Project 3: Preparation of a feasibility study to establish a rural settlement or tourism node in the west	Ward 1 between Pontdrift and Mapungubwe	Corporate Services in 1 st Quarter of 2006	R80 000.00 - Proposed new budget addition – LG & H
Project 4: Cost Benefit Analysis of Game Farming within the Municipality	Entire Municipal area	Corporate Services in 3rd Quarter of 2006	R60 000.00 - Proposed new budget addition - Internal
Project 5: Preparation of a detailed rural settlement plan for Madimbo, Malale and Domboni	Madimbo, Malale and Domboni	Corporate Services in 1 st Quarter of 2006	R80 000.00 - Proposed new budget addition
Project 6: Formalisation of one rural settlement to upgrade existing informal land ownership rights from existing PTO's to title deeds.	Farming Areas	Corporate Services to undertake by early 2005.	R10 000.00 as an initial budget – already budgeted in 2005/06 budget
Project 7: Draft a Strategic Environmental Assessment for the Musina municipal area	Entire Municipal Area	Corporate Services to undertake by early 2005.	R50 000.00 * Internal
Project 8: Formalisation of a rural settlement to upgrade existing informal land ownership rights from the existing PTO's to title deeds	Madimbo	Corporate Services in 1 st Quarter of 2006	R10 000.00 * Internal
Project 9: Develop a Tourism Strategy for the Musina municipal area	Entire Municipal Area	Community Services, 1 st to 2 nd quarter 2005	? * (blank in budget)
Project 10: Establish a land reform forum to complete a survey to determine the number of farm workers and their accessibility to proper housing and services	Private farms	LG & H, 2 nd quarter 2005/06	R5,5m LG&H
Infrastructure Programme			
Project 11: Implement Recycling programs at Madimbo, Malale and Domboni	Madimbo, Malale and Domboni	Community Services, 2 nd to 3 rd Quarter 2005	R10 000.00 * Internal

Programme and Description of Projects	Location	Responsible Authority & Timing	Budget & Sources of Funding
Project 12: Install internal sewage reticulation in Musina	Musina	Vhembe/Tech Services, 1st to 3rd quarters 05/06	R4,0m * MIG
Project 13: Provision of Bus-stop Shelters	Musina	Tech Services, 1st to 3rd quarters 05/06	R180 000.00 * Internal
Project 14: Pave 1,5km of streets per year in Nancefield using labour intensive methods	Nancefield	Vhembe/Tech Services,	R5,0million from MIG
Project 15: Facilitate the establishment of public telephone system in Madimbo, Malale and Domboni	Madimbo, Malale and Domboni	Community Services 3rd quarter 2006	R10 000.00 * Internal
Project 16: Upgrade and tar the loop road off the R525 between Tshipise and Parfuri Gate, running through Fodorodwe, Domboni and Madimbo.	Fodorodwe, Domboni and Madimbo	Vhembe/Tech Services during 1st to 4th quarter 2006	R? – Proposed new budget addition
Project 17: Upgrade and tar the road between the R521 and Mopane running through Bridgewater, Brombeek and Bandur.	Ward 1 - Bridgewater, Brombeek and Bandur.	Vhembe/Tech Services, 1st quarter to 4th quarter 2007	R? – Proposed new budget addition
Project 18: Upgrade and tar the road between Bandur and the R572 in the north.	Ward 1	Vhembe/Tech Services, 1st quarter to 4th quarter 2007	R? – Proposed new budget addition
Project 19: Roads and Curbing in Musina	Musina	Tech Services, Vhembe/Tech Services, 1st to 3rd quarter 05/06	R3,1m * MIG
Project 20: Provision of toilets in built up areas	Musina	Tech Services, 1st to 2nd quarters 05/06	R70 000.00 * Internal
Project 21: Upgrade high tension electrical feeder lines in Musina	Musina	Tech Services, 4th quarter 05 to middle of 2006	R900 000.00 * Internal
Project 22: Electrification of Malale	Malale	Eskom 3rd & 4th Quarter of 2005	R520 000.00 * DME
Project 23: Drain waterlogged area in Nancefield (next to the cemetery)	Nancefield	Vhembe tech/Services, 4th quarter of 2005	R1,4m * MIG
Project 24: Develop a Service delivery policy	Musina	Tech Services, 3rd quarter 04/05 to 3rd quarter 05/06	R40 000.00 * Internal
Social Services Programme			
Project 25: Facilitate 3 more mobile clinics in municipal area.	Entire Municipality	Musina, during 1st quarter of 2006	R10 000.00 * - Internal
Project 26: Facilitate a clinic at Malale to be used as a mobile point	Malale	Community Services during 1st quarter of 2006	R10 000.00 * -Internal

Programme and Description of Projects	Location	Responsible Authority & Timing	Budget & Sources of Funding
Project 27: Construction of a day-care centre	Farm-lands?	Technical Services, 1st to 3rd quarter of 05/06	R200 000.00 * Internal
Project 28: Facilitate Satellite police stations at Madimbo, Malale and Domboni	Madimbo, Malale and Domboni	Community Services, during 1st quarter 05/06	R10 000.00 * Internal
Project 29: Investigate situation at Pension Pay-points.	Entire municipality	Community Services, 4th quarter 04/05 to 3rd quarter 05/06	R10 000.00 * Internal
Project 30: Facilitate the establishment of a periodical mobile court in rural settlement areas	Madimbo, Malale and Domboni	Community Services, 2nd quarter 05/06	R10 000.00 * Internal
Project 31: Facilitate two satellite offices in farm areas	Farm Areas	CFO, 1st quarter 06/07	R420 000.00 * Internal and Loan
Project 32: Develop one recreational facility in Nancefield (park)	Nancefield	Tech Services, 4th quarter 04/05 to 1st quarter 05/06	R50 000.00 * Internal
Project 33: Maintain and improve existing sports facilities	Musina	Vhembe /Tech Services, 3rd and 4th quarter 04/05	R1,5m * Internal
Project 34: Upgrade existing cemetery facility adjacent to the industrial area	Musina	Tech Services, 1st quarter 05/06 to middle 06/07	R300 000.00 * Internal
Project 35: Develop indoor sport facility in rural settlement area.	Madimbo	Tech Services, 4th quarter 04/05 to 1st quarter 05/06	R50 000.00 * Internal
Project 36: Develop one recreational facility in Nancefield (park).	Nancefield	Tech Services, 4th quarter 04/05 to 1st quarter 05/06	R50 000.00 * Internal
Detailed Housing Programme			
Project 37: Develop 106 new low-income housing units (subsidy scheme) in Malale.	Malale	LG&H, 1st to 4th Quarter 06/07	R 2 968 000 – Proposed New budget addition – LG&H
Project 38: Develop 300 low income housing units in villages 2004/06	Rural villages	LG&H 1st to 3rd quarter 05/06	R7 530 000. * LG&H
Project 39: Develop 300 low income housing units units in Nancefield	Nancefield	LG&H, 1st to 3rd Quarter 05/06	R 8 400 000 * LG&H
Project 40: Develop 299 new low-income housing units (subsidy scheme) in Madimbo.	Madimbo	LG&H, 1st to 4th Quarter 06/07	R8 372 000 – Proposed new budget addition, LG&H
Project 41: Develop 100 rental stock units in Musina.	Musina	LG&H, 1st to 4th Quarter 06/07	R 2 800 000 - Proposed new budget

Programme and Description of Projects	Location	Responsible Authority & Timing	Budget & Sources of Funding
			addition, LG&H
Project 42: Develop 500 new low-income housing units (subsidy scheme) per year for the financial years 2004/05, 2005/06 & 2006/07	Musina	LG&H, 1st to 4th Quarter 06/07	R 14 000 000 - Proposed new budget addition, LG&H
Institutional and Economic Programme			
Project 43: Compilation of an Valuation Role	Entire Municipality	Corporate Services to be undertaken during 05/06 financial yrs	R30 000.00 - Already in the 2005/2006 budget.
Project 44: Feasibility study for LED Projects	Musina	IDP & LED, 4th quarter 04/05	Led Fund *
Project 45: Develop a LED Policy	Musina	IDP & LED, 4th quarter 04/05	Led Fund *
Public Transport Programme			
Project 46 :Transport Forum to arrange discussions with Department of Transport & taxi associations to improve public transport between Musina and the 3 settlements.	Madimbo, Malale and Domboni	Community Services	R20 000.00 * - Internal

CONCLUSION

This report constitutes the draft final report of the Musina Local Municipality Spatial Development Framework for perusal by the municipality officials.

It is anticipated that this report still has small gaps and linkages that need to be made. As such it is anticipated that final additions and amendments are still to be done for the production of the final SDF Report.

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Table 4: Workforce Profile for July 2003 - June 2004 and Employment Equity EMPLOYEE PROFILE AS PER WORKPLACE SKILLSPLAN

SECTION 3: EMPLOYMENT PROFILE																		
Employment category	African		Coloured		Indian		White		Total		PWD		Age categories					
	M	F	M	F	M	F	M	F	M	F	M	F	-20	20-30	30-40	40-50	+50	
Leadership & governance																		
Executive Mayor																		
Mayor	1									1						1		
Councillors	3	3						2		5	3					1	7	
Chairperson																		
Board Member																		
Other (Specify)																		
Senior officials and managers																		
CEO/MD																		
Executive Directors																		
Directors																		
Financial Directors																		
City/Municipal/District Manager	1									1						1		
Department/Division Heads	3	3						6	5	9	8				1	5	3	8
Plant Managers																		
Information technology																		
Other (Specify)																		
Professionals																		
Health care																		
Public safety/Emergency services																		
LED																		
Water conservation/treatment																		
Waste																		
Core Finance	1	1							1	1	2				1	1	1	
Parks/community facilities																		
Community development																		

SECTION 3.1: TOTAL NUMBER OF EMPLOYEES IN THE ENTERPRISE as at 30 June 2004

Employment category	African		Coloured		Indian		White		Total		PWD		Age categories				
	M	F	M	F	M	F	M	F	M	F	M	F	-20	20-30	30-40	40-50	+50
Public transport																	
Land management																	
Housing administration																	
Environmental management																	
Roads																	
Electricity																	
Information technology																	
Technicians/associated professionals																	
Health care																	
Public safety/Emergency services																	
LED																	
Water conservation/treatment																	
Waste																	
Client services																	
Parks/community facilities																	
Community development	1									1					1		
Public transport																	
Land management																	
Housing administration																	
Environmental management																	
Roads																	
Electricity																	
Information technology																	
Skilled agricultural & fishery workers																	
Health care																	
Public safety/Emergency services																	
LED																	
Water conservation/treatment																	
Waste																	

SECTION 3.1: TOTAL NUMBER OF EMPLOYEES IN THE ENTERPRISE as at 30 June 2004

Employment category	African		Coloured		Indian		White		Total		PWD		Age categories					
	M	F	M	F	M	F	M	F	M	F	M	F	-20	20-30	30-40	40-50	+50	
Client services																		
Parks/community facilities																		
Community development																		
Public transport																		
Land management																		
Housing administration																		
Environmental management																		
Roads																		
Electricity																		
Information technology																		
Clerks																		
Health care																		
Public safety/ Traffic	1	1							1	1	2			2	1			
LED																		
Water conservation/treatment																		
Waste																		
Client services																		
Parks/community facilities																		
Community development																		
Public transport																		
Land management																		
Technical Administration									1		1							1
Environmental management																		
Roads																		
Electricity																		
Information technology																		
Corp Services / Core Admin / MM	2					1		2	2	3				1	3	1		
Core Finance	6	6						1	6	7				6	5	2		
Temporary	2	2						2	2					1	2	1		
Service workers																		
Health care																		
Public safety/ Traffic	2							2						1		1		

SECTION 3.1: TOTAL NUMBER OF EMPLOYEES IN THE ENTERPRISE as at 30 June 2004

Employment category	African		Coloured		Indian		White		Total		PWD		Age categories				
	M	F	M	F	M	F	M	F	M	F	M	F	-20	20-30	30-40	40-50	+50
LED																	
Water conservation/treatment																	
Waste																	
Client services																	
Parks/community facilities																	
Community development																	
Public transport																	
Land management																	
Housing administration																	
Environmental management																	
Roads																	
Electricity																	
Information technology																	
Craft & related workers																	
Health care																	
Public safety/Emergency services																	
LED																	
Water conservation/treatment	1									1						1	
Waste																	
Client services																	
Parks/community facilities	1								1		2					1	1
Community development																	
Public transport																	
Land management																	
Housing administration																	
Environmental management																	
Roads																	
Electricity	1								1		2					2	
Information technology																	
Plant, machine operators																	
Health care																	

SECTION 3.1: TOTAL NUMBER OF EMPLOYEES IN THE ENTERPRISE as at 30 June 2004

Employment category	African		Coloured		Indian		White		Total		PWD		Age categories				
	M	F	M	F	M	F	M	F	M	F	M	F	-20	20-30	30-40	40-50	+50
Public safety/Emergency services																	
LED																	
Water conservation/treatment																	
Waste																	
Client services																	
Parks/community facilities																	
Community development																	
Public transport																	
Land management																	
Housing administration																	
Environmental management																	
Roads																	
Electricity																	
Information technology																	
Elementary occupations																	
Health care		1								1					1		
Public safety/Traffic	1	1							1	1					1	1	
LED																	
Water conservation/treatment	14								14					5	4	3	2
Waste	34	13							34	13				2	11	18	16
Client services																	
Parks/community facilities / Cemetery	15	19							15	19				1	5	17	11
Community development																	
Public transport																	
Land management																	
Housing administration																	
Environmental management																	
Roads / Public Works	46	11							46	11				5	8	28	16
Electricity	12								12					3	7	2	
Corporate Services core admin/MM	2	2							2	2				1	2	1	

SECTION 3.1: TOTAL NUMBER OF EMPLOYEES IN THE ENTERPRISE as at 30 June 2004																	
Employment category	African		Coloured		Indian		White		Total		PWD		Age categories				
	M	F	M	F	M	F	M	F	M	F	M	F	-20	20-30	30-40	40-50	+50
Temporary	1								1				1				
Apprentices/																	
TOTALS	152	63					10	11	160	76				25	53	98	60

.1.1.1.1.1.1 SECTION 3.2: Number of NEW RECRUITS during the year ending 30 June 2004

Employment category	African		Coloured		Indian		White		Total		PWD		Age categories				
	M	F	M	F	M	F	M	F	M	F	M	F	-20	20-30	30-40	40-50	+50
Leadership and governance																	
Senior officials and managers	1	2					2	1	3	3				1	3	1	1
Professionals																	
Technicians/associated professionals																	
Skilled agricultural & fishery workers																	
Clerks		1					1		2		4			1	2	1	
Service workers																	
Craft & related workers																	
Plant, machine operators																	
Elementary occupations																	
Apprentices																	
TOTALS	1	3					1	2	3	3	7			2	5	2	1

13 INTERGRATED WASTE MANAGEMENT PLAN

Version 02

A Framework for Sustainable Waste Management

a) EXECUTIVE

Up to the present, waste management was not regarded to be a priority issue in South Africa. The waste management that did take place focussed mainly on waste disposal and was reactive, in that it generally addressed pressing urgent needs on an *ad hoc* basis. Holistic, integrated waste management planning was rarely, if ever, undertaken. The low priority accorded waste management has resulted in waste impacting detrimentally on the South African environment and human health.

Thus, waste legislation has previously been fragmented and the response to management thereof focussed on end of pipe solutions (disposal). The Constitution imposes greater responsibility on local government requiring that they lead, manage and plan for development. Together with the other levels of government, they are responsible for giving effect to the objectives of government, which includes poverty eradication, local economic development and environmental protection.

The Status Quo Analysis resulted in a report, which highlighted gaps in the current waste management practices in Musina. The gaps include, among others, issues related to the following: institutional and organizational issues, information systems, socio-economic issues, technical and operational issues, waste minimisation and recycling, medical waste, enforcement, education and awareness issues. On the basis of the findings of the [Status Quo Analysis](#), discussions were held with the municipal officials and key stakeholders. The results of these findings and meetings have resulted into this Waste Management Plan (IWMP), draft report.

In order for the municipality to implement its IWMP, it needs to understand where 'it is today' and 'where it wants to be in future'. No single 'one-fit solution' can be applied universally or across different waste streams. The implementation plan is a living document and a great deal of work remains to be done to fill in the details about how some specific actions will be implemented and who will take key roles to deliver the plan.

This IWMP outlines the key strategies for the integrated waste management systems for the Musina Municipality, identifies the strategic priorities, goals and objectives and targets for the implementation of the identified strategies, and it outlines the action plan for the implementation of strategic priorities and objectives. The Report is divided into 4 sections:

- *Section 1* is an introduction. This section, among other things gives an information background to integrate waste management plan, outlines the objectives of the plan, key issues addressed in the plan and the waste management challenges for the Municipality.
- *Section 2* describes the key strategies and strategic priorities for the implementation of an integrated waste management approach.

- ❑ *Section 3* outlines the action plans for the strategic priorities.
- ❑ *Section 4* discusses the implementation, monitoring and reviewing mechanisms.

Regular reviews of both the IWMP and associated Implementation Plan will need to occur with ongoing fine-tuning as the impact of user behaviour is observed.

DEFINITIONS

AP	Action Plan
APIG	Action Plan Implementation Group
CEC	Committee for Environmental Co-ordination
CONNEPP	Consultative National Environmental Policy Process
DEAT	Department of Environmental Affairs and Tourism
Defined Industries	Those industries, including mines and power generators, that generate significant quantities of industrial waste, and dispose of that waste on their own and/or at dedicated waste disposal sites
DFA	Development Facilitation Act 67 of 1995
DME	Department of Minerals and Energy
DTL	Departmental task leader
DWAF	Department of Water Affairs and Forestry
ECA	Environment Conservation Act, Act No. 73 of 1989
IP&WM	Integrated Pollution and Waste Management
IWM	Integrated Waste Management
LDO	Land Development Objectives
LUPO	Land Use Planning Ordinance
LGTA	Local Government Transition Act 209 of 1993
LFA	Logical Framework Analysis
NEAF	National Environmental Advisory Forum
NEMA	National Environmental Management Act, Act No. 107 of 1998
NWMS	National Waste Management Strategy
OLGA	Organized Local Government Act 52 of 1997
PMG	Project Management Group
PPA	Physical Planning Act 125 of 1991
PSC	Project Steering Committee
DWAF	Department of Water Affairs and Forestry
MLM	Musina Local Municipality
WIS	Waste Information Systems

1. INTRODUCTION

1.1 Background of the Musina Municipality

The municipality of Musina is home to an estimated population of 42 964 people, living in some 8421 households. Musina and surrounding areas under the Musina municipality is the gateway to South Africa from Zimbabwe. It has the potential to grow in socio-economic aspects. Tourism is a big income drawer to the region. It is envisaged that further development in this area will occur. The municipality however, has enormous challenges in meeting the economic, infrastructural and social needs of its citizens. 57 percent of the population is housed in urban areas, with about 46.3 percent of households living in either commercial farms, tribal authorities and unspecified dwellings. Service provision in terms of waste management is not up to standard. Only 57 percent of the population lives in urban areas and as such assumed to have access to waste removal provide by the municipality. Local authorities are legally obliged to provide waste management services to all communities residing within the municipal boundaries.

1.2 Principles of the Plan

The Municipality recognises the principle that for real long term sustainability, development must be socially, economically and environmentally viable, and that population growth (the population is expected to grow to 44 308 in 2008 (Pieterse, Du Toit & Associates CC. & BMR, 1996), economic growth and improved levels of production and consumption should also be accompanied by the responsible use of environmental resources and the promotion of environmental best practices. In addition, it seeks compliance which is based on international best practices. The Waste Management Plan also serves as a primer for linking the status quo report with the first generation Integrated Waste Management Plan (IWMP). The report identifies waste trends, existing infrastructure, deficiencies, service delivery, and waste challenges confronting the Municipality. The compilation of a first generation IWMP aims to respond to the physical challenges presented in the Musina Municipality by way of focussed action plans.

The Municipal Systems Act, 2000 requires both district and local municipalities to undertake integrated development planning. An integrated waste management plan will therefore fit into the Musina municipal IDP. Section 26 of the IDP states that: An integrated development plan must reflect;

- (a) The municipal council's vision for the long term development of the municipality with special emphasis on the municipality's most critical development and internal transformation needs;
- (b) An assessment of the existing level of development in the municipality, which must include an identification of communities which do not have access to basic municipal services.

Such municipal services include waste management; generation, collection/removal and disposal. The Musina Integrated Waste Management Plan (IWMP) therefore takes into account the relevant national and provincial government policies, legislation and strategies. The Musina Municipality in response to the Waste Management Policy and Waste Management By-laws, National Waste Management Strategy and Action Plans and the National Integrated Pollution and Waste Management Policy formed the basis for the formulation of this Integrated Waste Management Plan (IWMP).

The principles of Integrated Waste Management and the Waste Hierarchy have been considered in this WMP as indicated in Table1. The IWMP also suggests that the motivation of waste generators and regulators in the Musina Municipality be changed from their old practices to the proposed new integrated waste management practices in the IWMP.

Table 1: Waste Hierarchy extracted from the Integrated Waste Management (NWMS 2000)

WASTE HIERARCHY	
Cleaner Production	Prevention
Collection and transport	Minimisation
Recycling	Recovery
Treatment	Re-use
Disposal	Re-use
	Recovery
	Composting
	Physical
	Chemical
	Biological
	Destruction
	Landfill
	Incineration

1.3. Objectives of the Integrated Waste Management Plan

The Constitution of the Republic of South Africa (Act 108 of 1996) states that the people of South Africa have the right to an environment that is not detrimental to human health. The overarching objective of the Integrated Waste Management Plan is to reduce the generation of waste and the environmental impact of all forms of waste and thereby ensure that the socio-economic development of the Musina Municipality, the health of the people and the quality of its environmental resources are no longer adversely affected by uncontrolled and uncoordinated waste management. The plan thus, crystallises the first attempt at setting out a strategy for future waste management in the Musina Municipality.

The primary objective of the plan is to integrate, improve and optimise waste management in order to maximise efficiency by providing an adequate service to residents and businesses and,

minimise the associated environmental impacts and financial costs to improve the quality of life of all people in the Musina Municipality. A workable Integrated Waste Management Plan should be very practical and sustainable.

The waste disposal in the Musina Municipality should cover all the people in the area and should not rely only on disposal to land as the only option. The present system of waste disposal should change to one that fits into the regional Waste Management Plan and should focus on preventing long term pollution and loss of valuable resources (renewable and non-renewable). The breakdown of objectives of the Musina Municipality Waste Management Plan, derived from the Musina Municipality IDP, the Integrated Pollution and Waste Management Strategy [White Paper](#) and the National Waste Management Strategy include:

- i. To promote strategic waste interventions which promotes waste avoidance, minimisation, recycling and re-use (waste hierarchy)
- ii. To provide an integrated waste management strategy combining all methods of waste management with regard to the waste hierarchy.
- iii. To progressively reduce the amount of waste disposed of at landfill sites.
- iv. To treat and dispose of all the waste within the Musina Municipality.
- v. Minimize adverse social and environmental impacts related to waste management and thereby improve the quality of life for all the people under the jurisdiction of the Musina Municipality.
- vi. To phase in specific integrated waste management strategies and approaches that will improve basic services relating to the collection, treatment, transportation and disposal of household waste and environmentally responsible diversion of hazardous wastes.

2. APPROACH AND METHODOLOGY

2.1 Gathering of Background Information

Existing information from the IDP, previous reports and studies were reviewed. Identification of all stakeholders, role players, interested and affected parties was undertaken. One to one interviews and telephonic discussions were held with various officials from different departments within the municipality including regulating authorities such as the Department of Water Affairs and forestry, Environmental Affairs, Health and Welfare officials and various role players including refuse collectors, recyclers, private contractors and councillors working within the municipality.

Site visits of the Musina area and existing landfill sites were carried out. Workshops were conducted with stakeholders, interested and affected parties. Once the information was collected and collated, it was possible to undertake a situational analysis.

2.2. Situational analysis

Situational analysis was done to determine where Musina, as an area, was in terms of waste management. The analysis had to reflect the actual state of waste management as it is, including waste types, characteristics, quantities, strategies and practices. In many cases, policies and directives have been put in place, but for a variety of reasons they just do not work properly or meet with expectations of the community. The situational analysis was therefore aimed at showing, as objectively as possible, what is really occurring in the Musina area with regards to waste management.

2.2.1 Defining Waste Quantities and Characteristics

Information on waste types, characteristics and quantities of waste generated in the Musina area was obtained from the municipality records and surveys conducted in the area. It is

important to have information on who are the waste generators, quantity of waste generated and the types of waste generated.

The quantities of waste generated in Musina were determined by the amount of waste disposed at the Municipal waste disposal site located in Nancefield. These quantities include waste collected from the South African Military Base, transfer station in Madimbo, as well as other private sites in Musina. The waste types recorded include domestic, business, industrial (non hazardous), garden and builder's rubble.

The following waste types were considered during the study:

- **General waste** - DWAF minimum requirements has defined general waste as waste that, because of its composition and characteristics, does not pose a significant threat to the public health or the environment if properly managed. Examples include domestic, commercial, certain industrial waste, builder's rubble and garden waste. General waste may have insignificant quantities of hazardous substances dispersed within it, for example, batteries, insecticides, weed-killers and medical waste discarded on domestic and commercial premises.
- **Hazardous waste** – Hazardous waste has been defined as waste which can, even in low concentrations, have a significant adverse effect on public health and/or environment. This would be because of its inherent chemical and physical characteristics, such as toxic, ignitable, corrosive, carcinogenic or other properties.
- **Domestic waste** – means waste generated on premises used solely for residential purposes and purposes of public worship including halls or other buildings used for religious purposes but shall not include building and garden.
- **Garden waste** - means waste generated as a result of normal domestic gardening activities, including grass cuttings, leaves, plants, flowers and other similar small and light organic matter, but shall not include very thick branches or builders rubble.
- **Building waste** - includes all waste types produced during the construction, alteration, repair or demolition of any structure of premises, and includes building rubble, earth, and rock displaced during such construction, alteration, repair or demolition.
- **Business waste** – means general waste which is generated on premises used for commercial, retail and wholesale purposes.
- **Industrial waste** – means waste generated as a result of manufacturing, maintenance, fabricating, processing and dismantling activities. Industrial waste is a representative of the type of industry that produces it.

2.2.2 Defining and describing existing Waste Management Systems and Practices.

In order for any waste management system to be successful, it is important that an integrated approach be followed and an evaluation of the waste management systems be approached in a holistic manner. Having identified the potential sources of both hazardous and non-hazardous waste generation, the investigation started off by focusing on the source of generation. The type and number of storage containers used at each waste generation point have a direct impact on the efficiency of waste collection and also on the type of waste collection vehicles to be used.

The system required for the cost effective, yet environmentally sound operation of the waste disposal facilities, was determined by the amount of waste to be disposed on site per day. In-house service provision versus outsourcing of services was only but one of the variables that was considered in deciding on the most appropriate waste management system for the Musina area. Throughout all of this, existing infrastructures were evaluated with the intention of making use of existing equipment and facilities wherever possible, whilst the possibility of multi functionality of equipment was investigated for further improvement of the overall effectiveness of the system.

Based on the investigations done on various individual components of the existing waste management system, a broader perspective was obtained that was important information used in the development of a proposed waste management system.

Traditionally, waste management was undertaken on an *ad hoc* basis to meet immediate needs. Prior to the development of DWAF's "Minimum Requirements for Waste Disposal by Landfill", the siting of landfills was generally haphazard, without adequate planning and design; the

management and operation was, and still is in some cases, poor; and the control of waste types disposed at the landfills was inadequate. A number of waste disposal sites were located on previously undeveloped land, without any consideration for the possible expansion of nearby communities. This resulted from a lack of integrated planning and inadequate enforcement of proper buffer zones.

Local authorities had neither sufficient funding, nor adequately trained staff, to effectively plan and execute their waste management functions. Communities were not involved in the siting of waste disposal sites, and consequently resisted their development. The level of services varied between different areas and many people, particularly the previously disadvantaged, were left without proper waste management services.

Waste Management Planning within local authorities was primarily focused on waste disposal. Some regional authorities initiated waste management planning projects for the location of transfer stations and landfill sites, as well as the establishment of regional landfill sites, which could be shared by different local authorities, which reduce the costs of developing new landfill sites. However, this type of waste management planning was, and still is, not commonly practiced.

The lack of capacity within all tiers of government, due to insufficient funding, as well as the low priority previously accorded to waste management were the main factors contributing to inadequate waste management planning. However, the development of the DWAF Minimum Requirements documents promoted a change within the waste management sector. Planning of landfill sites, proper site location, buffer zones, public participation and proper operating procedures led to an improvement in the disposal component of waste management.

Further change was initiated by the development of policy documents such as the Environmental Management Policy and the draft White Paper on IP&WM. These documents introduced concepts such as 'cradle-to-grave' management and the waste management hierarchy, and placed an emphasis on waste minimization. The development of the National Waste Management Strategy was developed from the IP&WM policy and further emphasized planning as a critical element of environmentally sound integrated waste management.

2.2.3 Legal compliance framework

One of the key aims of integrated waste management is to bring conformity, consistency and compliance to legal instruments that are used to govern waste and its management. This was used as a starting point to create a framework for where the Musina municipality actually is required to be by law. A survey of all by-laws was undertaken to determine where there were inconsistencies with the provincial and national government regulations and also to determine on where there were gaps that could be exploited.

2.2.4 Gap analysis

Gap analysis was conducted in order to compare the information that had been collected in the situational analysis to that data that had been collected in the review of existing available information from the IDP, previous reports, legal compliance framework and the inputs from public participation information sessions. Gap analysis was also used to get the level of understanding of the people of Musina and what is their level of involvement as far as waste management is concerned.

3. RESULTS OF THE STUDY

3.1 a Available information

The main role players in waste management in Musina were identified and questioned on the waste situation in the area. The following table is a list of the various people that were involved during the compilation of information relating to waste and its management.

(Table 2) Organisations and people met during the course of waste study

Organisation/Title	Representative
MLM, Chief Health Officer	Mr Phillip Rossouw

MLM, Technical Manager	Mr Jakkie Du Toit
MLM, Community Services Manager	Mr Pedron Nndwa
Musina Poverty Alleviation	Mr Simon Ndhlovu
Customs	Mr S Coetzee
Environmental Health Officer	Mr Shane Baloyi
Owner, Recycling Company	Mr Jopie Venter
Contractor, Refuse Collection	Mr Piet Mulule
Supervisor, Recyclers on site	Ms Martha

3.1b Public Survey

A RANDOM PUBLIC SURVEY WAS TAKEN TO DETERMINE THE EFFICIENCY OF SERVICES DELIVERED BY THE MUNICIPALITY AND THE PUBLIC'S ATTITUDES TOWARDS WASTE MANAGEMENT.

16.1 APPROACH

16.1.1 A selection of households both formal and informal dwellings were approached for the study. In the survey the income levels were considered and the following were the areas of focus:

16.1.2 Waste collection

- Most of the residents were happy hit the collection intervals and it seems the municipality is consistent in the collection.
- Almost all the residents interviewed do have municipal waste bins except for a few who use plastic bags.
- Municipality collects all types of waste including garden waste in the same rounds.

Recycling

- When asked about recycling and waste separation at source none of the participants was willing to take that effort.

Tariffs

- When asked about the knowledge of the tariffs charged by the municipality they all seemed to know what they are paying.
- The participants also gave the amount they are willing to pay for the services which ranged from R3.00 to R11.00.

Queries about the services

- Municipality informs them well in advance if there will be any changes in the collection dates due to holidays.
- Only one of the participants has ever complaint to municipality about waste dumped illegally in front of their house.

3.1.1 List of Documents Reviewed

Musina Local Municipality: *Integrated Development Planning: 2004/2005*

Department of Environmental Affairs and Tourism and the Department of Water Affairs and Forestry: *National Waste Management Strategy: 1999*

Department of Water Affairs and Forestry: *Waste Generation in South Africa: Baseline studies*.

Khayalami Metropolitan Council: *Development of an Integrated Pollution Control and Waste Management Master Plan: 1999: SRK Consulting*

Department of Water Affairs and Forestry: *Minimum Requirements for Waste Disposal by Landfill: 1998*

Department of Water Affairs and Forestry: *Minimum Requirements for the Handling, Classification, and Disposal of Hazardous Waste.1998*

Department of Finance and Economic Development: *Limpopo Environmental Management Act: 2004*

Department of Water Affairs and Forestry: *Disposal sites for Hazardous and General Waste in South Africa: Baseline studies: 1998*

Department of Water Affairs and Forestry: *National Water Act, Act 36 of 1998*

Department of Environmental Affairs and Tourism: *Environmental Conservation Act, 73 of 1989*

3.2 Situation Analysis

3.2.1 Estimated Population Data

Table 3: Estimated population data from Musina IDP

MLM: Settlements	1998	2000	2001
Harper (Nancefield X6)	980	1003	
Malale	945	97	
Madimbo	1389	1263	
Musina	5728	6076	
Mopane	128	132	
Nancefield	26384	27990	
Weipe	630	652	
Farming areas (rest)	--	--	
TOTAL	36184	37213	40836

3.2.2 Socio – economics

In theory, high population density within an area implies that there will be a high waste generation. The quantity of waste generated is directly linked to the population of an area. However, the relationship is not simple because the

Socio-economic status of an individual within the community determines the waste composition and quantities that are generated for that person.

Observations made during site visits in Musina indicated a vast difference in the amount of waste generated in low income communities than the amount generated in more affluent communities. A difference was also observed in community involvement in waste management and disposal. It was found that waste generated from Madimbo, Malale and Domboni areas was 50% less than Musina and Nancefield town waste generation.

3.2.3 Waste Generators

The main solid waste generators in Musina are as follows:

- Nancefield, Musina, Madimbo, Malale and Domboni residents
- South African Military Base
- The Beit bridge and customs
- Government complexes
- Informal settlements and squatter camps
- Business and industries operating in the area
- The MLM infrastructure services such as sewerage
- Building contractors
- Private clinics, doctors and the hospital
- Farmers
- Mines

With reference to the above list, no one has been excluded from being a waste generator in Musina.

3.2.4 Solid Waste Generation and Classification.

According to the figures obtained from the municipality, $\pm 40\ 000\text{m}^3$ of waste per annum is generated in the whole of Musina area. This figure includes all waste generated by waste generators listed in the above list but excludes hazardous and Health Care Waste.

Department of Water Affairs and Forestry Minimum Requirements for Waste Disposal by Landfill and Minimum Requirements for the Handling, Classification, and Disposal of Hazardous Waste documents were used as guidelines for the classification of waste in MLM. General waste

including builder's rubble and garden waste was the only waste classified during site visits made in Musina. However, all types of waste including hazardous and Health Care Waste are generated in Musina.

3.2.5 Waste Management Systems and Information Data

The following are currently the five main systems that are generally used for handling of waste in the MLM area:

- Majority of waste collection, transfer, transport from all residents and disposal is done by the Municipality.
- A small quantity of waste from the Beit Bridge is handled by a private contractor who collects, transport and disposes on site.
- Other waste generators from the military base, industrial, etc. are responsible for collecting and transportation of waste to the disposal site.
- Hazardous waste generators are responsible for their waste storage, transfer and disposal.
- Health Care Waste generated by both private and public sectors are incinerated at the local hospital, However, when the incinerator is overloaded, waste is then transferred Siloam hospital in Nzhelele.

The existing waste information data is insufficient.

3.2.6 Solid Waste Collection and Methods

The Municipality provide waste collection services to the residential and business areas listed below:

Musina

Nancefield

Madimbo

Domboni

Malale

Harper and Weipe

Waste collection is done on daily basis at Nancefield and Musina and once per week from the other villages. The private contractor, Mr Mulule collects waste from the border three times a week.

Bins and refuse bags are used for collecting waste from residential areas and blue containers have been placed in all streets of the business centre in town. Nothing has been provided for public areas such as bus and taxi ranks which results in people littering due to lack of these refuse collection facilities.

A contracted bakkie, tractors and trailers are used for transportation of waste to the site.

3.2.7 Transfer stations, Waste Minimisation and Recycling

The waste transfer stations contribute to a reduction in illegal, weekend and after – hours dumping. Currently, there are no transfer stations in Musina, however, there are existing waste minimisations and recycling activities taking place at the Nancefield waste disposal site.

A private contractor is currently collecting bottles, plastics, cans, papers and cardboards on site for recycling. Waste separation is done on site but some cardboards and papers are collected directly from the business areas. The contractor has appointed 9 labourers to separate waste on site.



A truck carrying bottles collected at Nancefield landfill site for recycling

3.2.8 Landfill Operation and Management

Three landfill sites have been identified in the whole of Musina except for sites that are privately owned like the Venetia mine waste disposal site. These sites are:

The Nancefield site, the new Madimbo site and the one at the border

The three sites have been classified as General disposal sites, class **GCB-**, because only general waste is allowed on the sites, amount of waste disposed per day is less than 25 tons and there is insignificant leachate production. All sites are not operating according to the Department of Water Affairs and Forestry Minimum Requirement for Waste Disposal by Landfill and are not authorised.

Most of waste material in Madimbo site is burned and the rest is transferred to the Nancefield site once per month. The site is well fenced and access to the site is controlled.

The Nancefield site is not fenced, however access to the site is uncontrollable due to the lack of fencing and all waste taken to the site is checked before disposal except for those who do not use the formal entrance. Waste compaction and covering is done when necessary and the lifespan is 15 years.

The one at the border is mainly used by the customs. The site is not fenced, no access control, no recycling activities and waste is covered on disposal.

3.2.9 Legal compliance framework

Currently, Musina Local Municipality has a great challenge of ensuring compliance legal waste management requirements.

3.2.10 Gaps and Need Analysis

The following gaps and needs were identified during the initial studies (Refer to table 4 and table 5 below)

Table 4: Summary of Gaps in the Musina Waste Management System

AREAS OF CONCERN	GAPS IDENTIFIED
<u>Waste Collection Services/ dumping sites</u>	<ul style="list-style-type: none"> • Different waste dumping sites for different groups in the area, e.g. The main one operated by the council, military base and another at the border • No appropriate waste collection systems for 46.3% of households for low income and farming areas • Inflexibility of current waste collection systems to allow waste separation at source for recycling • Poor cost recovery system • Illegal dumping (unauthorised dumping sites) • Poor maintenance of service infrastructure • Fragmented regulatory approach • Easy access by scavengers • Street cleansing not in place or inadequate.
Disposal	<ul style="list-style-type: none"> • Inefficiency of current facilities • Insufficient disposal facilities • Disposal of general hazardous waste, green and garden waste with domestic waste (no separation/categorisation) • Disposal of Construction and Demolition waste (rubble) • Existing landfill sites have not been operated and managed in accordance with DWAF requirements • Unofficial dumpsites • Inefficient handling and disposal of medical waste • No proper records kept on the type of waste entering the disposal sites. (This leads to hazardous material being illegally dumped on site.)
Garden Waste and Composting	<ul style="list-style-type: none"> • Disposal of garden waste on landfill sites • Lack of capacity and insufficient infrastructure in this area • Lack of collection services for green and garden waste
Medical Waste	<ul style="list-style-type: none"> • Insufficient medical waste disposal facilities • Minor incidences of medical waste combined with other wastes
Waste Information System (WIS)	<ul style="list-style-type: none"> • Insufficient information on waste generators • Lack of information on waste generation rates in other areas apart from those presently serviced by the municipality • No education on billing systems; types of services provided and logging of complaints • Lack of a Waste Management Information Decision Support System • No information links with the National WIS (if available) • Lack of Waste information collection, capturing and recording systems, reporting requirements, information management and dissemination systems • Lack of Information from the private sector
Education, capacity building and awareness needs	<ul style="list-style-type: none"> • Lack of sufficient educational facilities and resources in the Municipality for Waste Management Education • Shortage of skills and expertise in council • Inadequate education and awareness on waste management issues • Little public education on waste minimisation and recycling • Public has sees no incentive to recycle

Table 5: Summary of Waste Management Needs in the Musina

Gap	Needs
<u>Waste Collection Services/ dumping sites</u>	<ul style="list-style-type: none"> • Separation at source - organised waste separation at source should be encouraged thus improving the rate of recycling and similarly; • Reducing the volumes of waste to landfill. • A need to have a waste minimisation program which will reduce the cost of transportation to the landfills • Quality, affordable and sustainable waste management systems • Collection services for 43% of the population in informal settlements or commercial farms • Strategies to deal with illegal dumping & scavenging
Disposal	<ul style="list-style-type: none"> • Disposal capacity • Proper compaction of waste to prolong the lifespan of the disposal site (Appropriate equipment to be utilised) • Garden waste needs attention since it takes a lot of airspace on the landfill. • Waste diversion programs • Waste treatment and processing technologies and facilities • Maintenance & Rehabilitation plans for existing sites • Appropriate and efficient management of landfill sites • Identify and close unofficial dumpsites • General hazardous waste facilities
Garden Waste and Composting	<ul style="list-style-type: none"> • Education on garden waste • Collection services for garden waste • Composting facilities & capacity • Treatment and disposal facilities for garden waste
Medical Waste	<ul style="list-style-type: none"> • Provision of medical waste disposal facilities • Separation of Medical waste from general waste
Waste Information System (WIS)	<ul style="list-style-type: none"> • Sufficient information on waste generators • Information on waste generation rates • Education on billing systems; types of services provided and logging of complaints • Establishment & implementation of a Waste Management Information Decision Support System • Information links with the regional /national WIS • Waste information collection, capturing and recording systems • Legislated reporting requirements
Education, capacity building and awareness needs	<ul style="list-style-type: none"> • Educational facilities, programs and resources in the Municipality for Waste Management • Skills and expertise in council • Education and awareness creation
Waste minimisation and recycling	<ul style="list-style-type: none"> • Incentives for use of green & re-useable materials • Education and awareness programs • Waste Minimisation and Recycling Program • Recycling infrastructure • Markets for recycled goods
Institutional/Organizational	<ul style="list-style-type: none"> • Environmental Management System at Municipal management level • Institutional and organisation Capacity • Waste management sub directorate • Education and awareness within the Municipality
Policies	<ul style="list-style-type: none"> • Cradle to grave • Prevention of littering • Polluter Pays • Reduction of trans-boundary waste
Implementation &	

Enforcement	<ul style="list-style-type: none"> • Proximity of hazardous waste to disposal site
Communication	<ul style="list-style-type: none"> • Both internal and external is necessary to avoid duplication and to provide services in cost effective manner • Effective communication between the Municipality and its private contractors is necessary for effective service delivery
Performance Indicators and performance monitoring	<ul style="list-style-type: none"> • The municipality needs reliable key performance indicators to measure effectiveness of its services for purposes of improvement where necessary • Procedures to monitor performance at all levels

3.3. The Waste Management Challenges for the Musina Municipality

The following analysis was based on the gaps identified in the Waste Status Quo Report for the Musina Municipality. The following needs were identified: Cost recovery system, waste minimisation and waste diversion, provision of waste collection and disposal services to the PDI's in the waste management sense, resource recovery infrastructure, capacity building, education and awareness and waste information management systems.

The principal issues, which will influence future waste management in the Musina, include the following:

- An Integrated Waste Management Plan
- Implementation of integrated waste management principles promoting prevention, minimisation and recycling.
- Provision of basic waste management services to all residents of the Musina Municipality.
- Prevention of health risks and environmental pollution from waste management activities and facilities.
- Implementation of a waste information system.
- Institutional strengthening and capacity building.
- Public awareness raising regarding environmental and waste management issues.
- Formalisation and legalisation of existing waste sites
- Separation at source - organised waste separation and enforcement

3.4. Strategic Priorities of the Musina Municipality

The formulation of the strategies to be included in the Draft IWMP is being undertaken as follows:

The findings of the Assessment report, which was informed by the Status Quo and Gap Analysis report and work-shopped with the municipality officials and key stakeholders. The evaluation was done in terms of environmental, social and economic impacts of the different interventions on the waste streams. Summary of the strategies or interventions are outlined in Table 5.

Table 6: Strategy, Objectives and priorities of the IWMP

STRATEGY	OBJECTIVES	STRATEGIC PRIORITIES
Decision Support system and capacity building	To prevent the generation of waste	Capacity building, education and awareness Information management
Waste avoidance, Reduction and minimization	To reduce the amount of waste generated and disposed off at landfills	Recycling Composting Waste minimisation
Resource recovery and recycling	To management residual waste in an environmentally sound manner	Collection services Treatment and disposal

3.5 Commitment to Integrated Waste Management Approach

- The Musina Municipality will take all reasonable and practical actions within its control to facilitate the achievement of the National Government adopted targets of 50% reduction of generation of waste and 25% reduction in the amount of waste disposed of in South Africa by the end of the year 2012 or as practical a time frame as can reasonably be achieved.
- The Municipality subscribes to the principles of the waste hierarchy, waste avoidance and minimisation, ecologically sustainable development, efficiency and economy of scale.
- The Municipality will pursue the reduction of waste for its area within its parameters of control in the most appropriate sustainable and expeditious way and time frame.
- There will be a reliance on integration, supporting facilities and infrastructure together with partnership and co-operation with the provincial and national government.
- The process will be open and transparent to all parties including government, business and the community at large with a focus on consultation and consensus.
- National, Regional and local legislations and policies will be enforced.

3.6 Strategic Outcomes

The Musina Municipality seeks to achieve the following outcomes (Refer to table 7 below) through its Waste Management Plan:

Table 7: Summary of strategic outcomes

Regulatory and Co-regulatory Policy Instruments	Socio-economic & Environmental Incentives	WIS (information) Education and Awareness	Infrastructure Provision	Co-operation and Partnership initiatives
Setting targets: a key element of most successful policy efforts to reduce and promote recycling is the setting of demanding yet achievable targets	Pay as you throw household charges in which householders pay per waste disposed. Polluter pays principle will apply	Waste information systems: at local and provincial/regional level, filled with data necessary to inform effective policy making and practical decision making on waste minimisation and recycling opportunities	Increase availability and access to transfer stations, sorting and waste recovery sites, garden composting sites, collection points and industrial recycling is greatly facilitated by ready access to clean waste recovery/sorting/disposal facilities	Poverty alleviation community projects: various innovative initiatives for waste management and economic development, e.g. waste for food/transport exchange programme
Zero waste policy: This centres on the commitment to generate no waste	Landfill tax: in which a tax is levied e.g. per tonne of waste to be disposed to landfill. This will act as incentives to reduce the generation of waste	Awareness-raising campaigns for households, consumers, retailers and producers on benefits and opportunities of waste minimisation or recycling	Provide separate waste collection facilities, e.g. increase door to door collection of individual waste streams from households.	Business partnerships: potential for stimulating greater engagement in private sector programmes relating to waste minimization
Mandatory waste separation: businesses can be obliged to separate	Product tax: charge levied on products causing problem waste with the aim of	Public reporting from municipality on performance ratings against stated waste management	Collection and composting schemes for biodegradable waste to reduce landfill waste	Volunteer initiatives and development of volunteer database, e.g. school and

waste into various recyclable streams	changing consumption patterns	targets:		community groups
Environmental procurement to stimulate market demand for recyclable products	Penalties and other disincentives required to control bad attitude of individuals towards waste management issues	Public participation processes soliciting feedback on performance and input into policy development	Waste exchange: establish forum to facilitate the exchange of waste to those that can use this waste as raw material input	Leadership and internships: identify academic internship and learnerships

3.7. Evaluation

As the WMP provides the planning context for waste management development over a 5 year planning period, the WMP should be reviewed in full at least every two years. Review will be necessary to take account of changed circumstances, and to maintain a clear effective framework for waste management and decision making in the future.

4. STRATEGIES AND PRIORITIES FOR AN INTEGRATED WASTE MANAGEMENT

This section sets out the strategies, strategic priorities and, objectives for achieving the waste management policy vision for integrated waste management. These strategies and priorities chart the direction the Municipality will follow in implementing the waste management policy. The key performance areas and objectives detailed in the municipal strategies in the IDP need to be considered when strategic priorities for waste management are stipulated.

The Musina Municipality waste management policy sets out objectives and targets that will have to be achieved in the short, medium and long term. These policy objectives and targets direct the waste strategy that the Musina Municipality will adopt in response to the waste challenges within the area. The policy objectives are:

- Prevention of waste generation and reduction of waste requiring landfilling
- Divert up to 40% of all general paper, plastic, cans and glass for purposes of recycling.
- Divert up to 30% of all organic wastes from landfill sites to composting facilities
- Develop resource recovery infrastructure
- Promote waste minimisation and recycling
- Collect accurate waste information and develop waste information management systems
- Develop and enforce waste management by-laws
- Develop waste management education and awareness programmes

4.1 Achieving the Policy Objectives

The main goal of the IDP is to ensure that waste is managed in an environmentally sound manner and in an integrated way so as to prevent harm to the health the people and the environment. The intention is to also provide waste services for the population in the commercial farms and the other townships outside Musina who did not have access to the waste services provided by the Musina Municipality. The idea is to embrace the waste management hierarchy (i.e. avoidance, minimisation, re-use, recover, recycle and dispose).

4.2 Strategies and Priorities for an Integrated Waste Management Approach

The IDP identified some specific villages that need to be serviced in terms of waste management as a priority. The strategies and the priorities represent broad deliverables of the IDP and other Municipal policies, vis-à-vis issues pertaining to sustainable and integrated waste management.

4.2.1 Main Drivers/Strategies

The main drivers or strategies are therefore:

Strategy 1: Provision for all in the Municipal Waste Grid and Capacity Building
Strategy 2: Waste Avoidance and Minimization/Reduction
Strategy 3: Resource Recovery and Recycling

4.2.1.1 Provision for all in the Municipal Waste Grid and Capacity Building

Different waste dumping sites and collection services as well as sorting of waste at source will not be achieved if the villages and informal settlements are allowed to depend on their own ineffective and environmental unfriendly ways of disposing of their waste. The municipality will need to build capacity in both infrastructure and manpower to be able to contain and manage the waste streams outside Musina Town. Infrastructural capacity includes the ability to sort out the different waste streams and dispose of the different categories efficiently and in environmentally acceptable manner. Human health should also be considered when the different streams of waste are disposed of. One area of concern is Medical Waste which should be catered for in all the areas under the jurisdiction of the Musina Municipality. The capacity building also includes the collection of an appropriate waste and a waste information management systems (WIS), which are needed to co-ordinate the different aspects of waste management in the Municipality and the region as a whole. The WIS will contribute to sustainable and efficient collection services, education and awareness programmes. This strategy therefore seeks to minimize or eliminate the risk of any significant adverse effects associated with the management of waste streams and the operation of waste treatment and disposal facilities.

4.2.1.2 Waste Avoidance and Minimisation/Reduction Strategy

The best system/strategy of waste management is prevention of waste or Waste avoidance. This strategy is the most cost effective. This strategy is a source directed measure. Waste avoidance conserves natural resources, reduces the amount of waste requiring disposal to landfill thereby increasing the airspace capacity. Avoiding generation of waste also reduce energy consumption and different forms of pollution and is fundamental to sustainable development.

4.2.1.3 Resource Recovery and Recycling

The whole idea of resource recovery is aimed at using the waste that will be generated in one process in another way. Thus, the waste recovered may serve as a starting or raw material for another production process. By so doing, the amount of waste produced will be reduced to the barest minimum. If this is achieved, the over-reliance on landfill will be reduced; energy consumption will be reduced; cost of waste disposal will be reduced. This system will also create different forms of employment in the waste and the general production industry. Conservation of resources will be achieved as waste will be reused in place of new resources. Waste separation at source becomes a necessity. In terms of the resource recovery strategy wherever waste cannot be avoided, resources should be recovered through the most efficient downstream reprocessing or beneficial reuse option. The goal is to maximise the resources economic value and to reduce the need for expensive treatment and disposal management options.

4.2.2 Strategic Priorities, Goals, Objectives and Targets

Within the framework of the core strategies, strategic priorities, goals, objectives and targets have been developed.

4.2.2.1 Provision for all in the Municipal Waste Grid Goal

To provide structures for all forms of waste for all the inhabitants of the Musina Municipality

Objectives

- To build infrastructural capacity for the different areas under the control of the Musina Municipality
- To ensure that skilled personnel are employed or existing staff are capacitated to handle the different waste streams
- To provide waste management services for all the inhabitants of the Musina Municipality
- To ensure that the health of the environment and human beings are not affected adversely by way of awareness and education of staff and community

- To ensure that landfill sites are authorised and operated efficiently as per regulation
- To extend access to quality and sustainable waste management services.
- Initiate and implement appropriate waste collection services to these areas, particularly commercial farms and Traditional lands
- To create awareness about waste management issues within the community and thereby empower communities to take responsibility for the cleanliness of their surrounding environment.

Target

80% of all households in the Musina Municipal area will be serviced in terms of all forms of waste management by the year 2008. A more rudimentary service will have to be provided to the outlying villages.

4.2.2.2 Waste Avoidance and Minimisation/reduction Strategy

Goal

To implement reduction of total amount of waste produced in the Musina Municipal Area.

Objectives

- To motivate waste minimisation.
- To promote cleaner production.
- Reduce waste quantities disposed of at landfill sites by reuse of waste.
- Create sustainable employment through local entrepreneur development in waste recycling partnerships.
- To comply with government policies, strategies and legislation related to waste management and recycling.

Target

To reduce 40% domestic and commercial waste streams disposed to landfill by 2007.

4.2.2.3 Resource recovery and recycling

Goal

To reduce the physical amount of waste and promote recycling

Objectives

- To ensure that waste minimisation and recycling procedures and practices are adopted by all sectors of society.
- To provide job opportunities and promote entrepreneurship
- To reduce to total amount of waste going to landfill sites
- To reduce the cost of transporting waste to the landfill.
- To reduce the impact on the environment
- To promote and support waste minimisation and recycling initiatives through user-friendly recycling facilities

Target

To provide recycling facilities in Musina and surrounding villages to serve the purpose of waste collection and recycling by the end of 2009

4.2.2.4 Medical Waste

Goal

To ensure that medical waste are disposed in an acceptable manner

Objectives

- To provide infrastructure for medical waste disposal
- To educate the community on medical waste issues

Target

To provide an appropriate medical waste storage facilities and incinerator in Musina by 2008

4.2.2.5 Waste Disposal

Goal

The goal of the disposal strategic priority is to ensure sufficient long-term waste disposal capacity that is environmentally and publicly acceptable, and also to ensure that the landfills are progressively rehabilitated in such a manner so as to minimize the impact on the environment.

Objectives

- To develop a plan for the progressive rehabilitation of current (and future) landfill sites to obtain authorisation
- Upgrade the operating landfill sites to meet DWAF Minimum Requirements.
- To address the potential impact and possible rehabilitation of all of the closed historical dump sites within the Musina municipal area.
- Identify options to meet future waste disposal needs and develop and optimum strategy for implementation accordingly.

Targets

- Obtain authorisation of landfill sites from relevant authorities by 2006 and
- Closure and rehabilitation of the illegal dumping sites by 2007.

4.2.2.6 Garden Waste and Composting

Goal

To separate garden waste from the general waste stream to divert to composting facilities/sites

Objectives

- To develop an incentive based integrated garden waste and composting plan
- To develop an incentive based integrated garden waste and composting plan.
- To develop incentive based integrated garden waste composting plan, quality and marketability of the garden waste sites and the final compost product.
- To investigate ways of collecting garden waste at domestic waste stream.
- To encourage the participation of the public in achieving the goal and the key objectives, through education and awareness and also by creating an incentive-based composting strategy.

Targets

- To separate garden waste from general waste, and generate compost from such waste, for use or sale within, and/or outside the municipal area by 2008.
- To encourage people (40%) of population to use their garden waste effectively by composting by 2008.
- To encourage the municipal parks and recreation division to utilise organic compost and cut the cost of fertilizers.

4.2.2.7 Waste Information Management

Goal

To establish and implement a Waste Information Decision Support System that will contribute towards effective waste management.

Objectives

- To build capacity in the WIS applications
- To develop information systems to capture relevant data for current operation and future planning for optimum waste management and budgeting.
- Establish appropriate mechanisms to collect the information required for the development of an integrated waste management plan.
- To establish a monitoring and information system to track waste generation, collection, re-use, recycling, reprocessing and disposal in terms of waste flow and facilitate waste exchange
- To assist in the delivery of information on waste services.
- To have a WIS that is compatible to the regional/national system

Target

To have a fully operational Waste Information Decision Support System in place by the end of 2008.

4.2.2.8 Waste Management Education and Awareness

Goal

That the public/community of the Musina Municipality are informed and made aware of waste management issues in general and of the integrated waste management system and that all Council staff involved with waste management and related issues are capacitated to implement the plan successfully.

Objectives

- To identify a workable system to convey information to the public/community
- Develop and implement such a programme to educate and empower the community on waste management issues – raise awareness

- To build capacity and raise the skill profiles of Council staff.
- To have a relatively high level of commitment and understanding from the public and from industry to strive for a clean environment.
- To have a number of successful awareness raising and information campaigns established within the Municipality.

Targets

- That all municipal staff in the waste department will be educated on waste management issues by the end of 2005.
- That 30% of community in the Musina Municipality will be exposed to information and be made aware of waste management and waste management planning issues by the end of 2008.

4.2.2.9 Organizational, Institutional and Regulatory

Goal

Effective and efficient implementation of the IWMP; evaluated the municipal staff and review the IWMP with regards to targeted goals.

Objectives

- To ensure and effective system of monitoring progress and evaluation of council staff in the waste department
- Enforcement efforts that is efficient, well coordinated, and effective.
- To ensure that activities of all relevant council staff and departments are in line with set objectives
- That there is sufficient capacity and capability in the Council for planning, management, and monitoring/enforcement.
- To have an organisational structure in line with all waste management planning requirements.

Targets

- To establish effective monitoring and enforcement system by the end of 2006.
- To implement service level agreements between departments and staff members in the waste department.

5. STRATEGIC GOALS AND ACTION PLANS

The Musina Municipality has set as its primary priority to develop and implement measures and programmes that will promote integrated pollution and waste management in the area under its control.

This section describes the strategies and action plans relating to all the strategic priorities identified above. The action plans outlines the strategic goals, activities, outcomes, time frames and implementation requirements. The activities proposed in this section are short (2006-2008), medium (2008-2010) and long term (2010-2015) term.

5.1 Provision for all in the Municipal Waste Grid and Capacity Building

5.1.1 Strategy

The municipal strategy to provide waste services for all and build capacity in this regard, include;

- a. Empowerment
- b. The areas without services need to be mapped out and a strategy to properly design a system that will encompass:
 - Incorporating all areas into the municipal waste grid
 - Staff members training needs
 - Provide infrastructure for sorting different types of waste and disposing the various waste
- c. Provide for all forms of waste
- d. Waste Information System
- e. Corporate accountability

Although the planning of waste management infrastructure is difficult when the classification, characterization and quantities of waste are unknown, scenario planning linked to the expected type of industries should be put in place.

Action Plan

To achieve effective empowerment and capacity building in the municipality's ambition, the following action plan has been designed

STRATEGIC INITIATIVES	ACTIVITIES	TARGET	RESPONSIBLE AUTHORITY
16.1.2.1 <u>Legislative and Regulatory</u>	Set targets for implementation of adopted legislation and by-laws	July 2006	MM, DEAT,
	The preparation and provision of waste education programmes directed at communities to transform the current notion of waste disposal and adopt integrated waste management	January 2007	MM, PS
	Investigate the feasibility of medical waste structures at selected sites (include EIA)	Completion of EIA process by September 2006	MM, PS
Economic Instruments	Investigate the feasibility of introducing economic instruments	Study to Commence by June 2006	MM, PS
	Identify ways of incentivising change of behaviours in waste generation	Completion of investigation by June 2006	MM, PS
Information / Communication	Give contract for the development of WIS	Information Dissemination program developed by September 2006	MM, PS
	Develop and display public information sheets	Information sheets developed by June 2006	MM, PS, Schools
	Provide information on proposed studies and adopted legislation and by-laws	Information available by October 2006	MM, PS
	Develop and implement a promotional campaign	Campaign to start in February 2006	MM, PS

5.1.2 Waste Avoidance and Minimisation/Reduction

The Municipality strategy for waste minimisation is based on the waste hierarchy approach, which include:

- Cleaner production (Waste Prevention, Waste Minimisation)
- Treatment (Physical, thermal and chemical destruction)
- Disposal (Landfilling)

The use of National, Provincial and local legislation will be upheld, e.g. The National Environmental Management Act in 1998 introduced the “polluter pays” principle, which recognizes that the costs for rectifying environmental damage should be born by the polluter. The service sector and consumers will reduce waste through the selection of products, the appropriate use of products and the conservation of energy. Industries need to introduce compliance monitoring, where waste contractors are regularly audited.

The solution to effective waste management in the industrial sector is multifaceted and needs to be addressed in a variety of ways. Waste Minimisation Clubs can be encouraged. A waste minimization club is a voluntary partnership formed to promote the exchange of experience and information in the development of waste minimization measures between geographically close manufacturers. The clubs can either be based on the same type of industry or consist of a composition of neighbouring firms. The focus of these clubs is the reduction of waste at source. Education is the key to long-term improvement in waste management in South Africa.

5.1.3 Action Plan

In order to ensure the effective implementation of the Waste Minimisation and Recycling strategic priorities and action plan has been developed. The action plan identifies strategic objectives and key activities that need to be undertaken to achieve these goals. The action plan is discussed in detail below.

Table 8: Action Plan

STRATEGIC INITIATIVES	ACTIVITIES	TARGET	RESPONSIBLE AUTHORITY
16.1.2.2 <u>Legislative and Regulatory</u>	Set targets for implementation of adopted legislation and by-laws	July 2005	MM, PS
	Amend by-laws to include provision for requirement of industry waste minimisation plans	By laws amended by November 2005	MM, PS
	Introduce a policy to require separation at source	By Dec 2006	MM
	Develop appropriate legal framework for waste minimisation and recycling	Waste minimisation and recycling provisions incorporated into by laws by November 2005	MM, PS
	Provide skips/drums at strategic location for public usage.	All municipal areas catered for by June 2006	MM

	Make waste minimisation an integral part of licensing procedures for industrial activities	System introduced in September 2005	MM, DEAT, DWAF
Economic Instruments	Investigate the feasibility of introducing economic instruments	Study to Commence by August 2005	MM, DBSA, PS
Information / Communication	Develop information and communication programs for civil society and private sector	Information Dissemination program developed by October 2005	
	Develop and display public information sheets	Information sheets developed by September 2005	
	Development or adoption of a suitable waste information system	Information available by February 2006	
	Develop Council waste minimisation and recycling system	Commence in December 2005	MM, PS, DBSA
	Provide educational programmes for residents with respect to littering	The first campaign to begin in November 2005	MM, DBSA, PS, Schools
	Implement a procurement policy that sets requirements for purchase and acquisition of green products	Policies implementation by December 2006	MM, PS
	Develop Green procurement guide for the Municipality	Guidelines developed by November 2005	MM, DBSA, PS
	Produce a regular waste newsletter	First issue by June 2004	MM

5.1.4 Resource recovery and recycling

The strategies that will be implemented by the Municipality include:

- Encouraging the use of certain waste products in the production process (recycled to recover raw material) for further use in industrial processes.
- Post-consumption products are reused or recycled for resource recovery
- Ensuring that the transporters and disposers of waste have adequate insurance and the appropriate certification to carry out their duties.
- In addition, recycling has the potential for job creation, by promoting entrepreneurs to establish community collection systems and recycling centres.
- Motivating or promoting recycling which is a viable alternative to informal salvaging at landfills.

Action Plan

STRATEGIC INITIATIVES	ACTIVITIES	TARGET	RESPONSIBLE AUTHORITY	FINANCIAL REQUIREMENTS
Recycling Infrastructure Development	Promote separation at source	Separation at source to commence September 2005	MM, PS	
	Develop and implement a pilot project for collection of recyclables	Pilot projects established at identified sites by July 2005	MM, DBSA, PS	
	Licence all landfill sites and disposal facilities	Legalisation by November 2005	MM, DWAF, DEAT, PS	
	Establish new recycling programs	Recycling programs established at each region by end of 2005	MM, PS	
	Establish waste minimisation clubs	Clubs active by September 2005	MM, PS, Schools	
	Establish composting facilities	Composting facilities established at identified sites by 2006	MM, DBSA, PS	
	Research alternative / appropriate technologies for recycling	Research completed by 2005	MM, DBSA, PS, Schools	
	Establish a private public partnership for the collection of recyclables and management of recycling facilities	Partnership established by may October 2005	MM, DBSA, PS	
Waste minimisation and recycling education and Awareness programmes	Develop and deliver a five year education program	First draft by August 2005	MM, DBSA, PS, Schools	
	Privatise refuse collection in the rural areas (Public Private Partnerships)	Completion date of contract – September 2005	MM	
	Design specific school programmes directed at the youth to instil environmental stewardship and encouraging a positive attitude towards responsible waste management	First programme developed by September 2005	MM, DBSA, PS, Schools	
	Develop economic instruments that favour recycling industries and protection of natural resources	Instruments ready for implementation by November 2005	MM, DBSA, PS, Schools	

6. IMPLEMENTATION, MONITORING AND REVIEW

6.1 Implementation Instruments and Policies

6.1.1 Introduction

The implementation of IWMP will be secured by the actions of Musina Municipality, both operationally and through the planning system. The development of the Municipality's Strategy for waste disposal contract and the eventual letting of that contract will be a major element. Similarly, the municipality's collection and recycling contracts and their recycling plans will further these objectives. In the private sector the Musina Municipality can influence the way in which companies operate by the guidance in these documents and also through the development control process. The overall objective will be to have an integrated waste management strategy which delivers a cost effective and environmentally acceptable outcome for the Musina Municipal Area. Stakeholders have for the most part accepted a number of initiatives that require urgent attention. Of these initiatives, implementation of integrated waste management planning, provision of general waste collection services to previously unserviced areas and the development and implementation of the Waste Information System were identified as high priority. The Municipality recognizes the importance of strategic planning in laying the foundation for its future progress. It also realizes that a practical implementation plan is vital to the success of the municipality in meeting its strategic goals. This *Strategic Plan* provides a foundation for tactical planning efforts throughout the IWMP - programs and key processes. Therefore, the immediate next step in this process is to develop a detailed plan for implementing the municipality's *Strategic Plan*. The implementation plan will identify the tasks, programs and activities to implement the plan's strategies through the development of individual action plans, which will identify specific responsibilities and timeframes for delivery. Action Plans have therefore been developed for Integrated Waste Management Planning, General Waste Collection, and the Waste Information System, as well as a project plan for the implementing instruments for each initiative. During the development of this draft Action Plan, due cognisance was taken of all stakeholder comments compiled in the Analysis Report.

The implementation of the IWMP has been grouped into action plans:

Action Plans I: Those that need a short-term high priority strategic initiatives namely, Integrated Waste Management Planning, the Waste Information System, General Waste Collection, and their respective Implementing Instruments.

Action Plans II: Those Action Plans for the remaining elements of integrated waste management, namely Waste Minimization, Recycling, Hazardous Waste Collection, Treatment, Waste Disposal and Capacity Building, which will be developed over medium to long-term periods.

The implementation instruments and desired state (IWM) is summarized in Figure 1.

Council will manage its waste activities within an overall integrated waste reduction service framework.

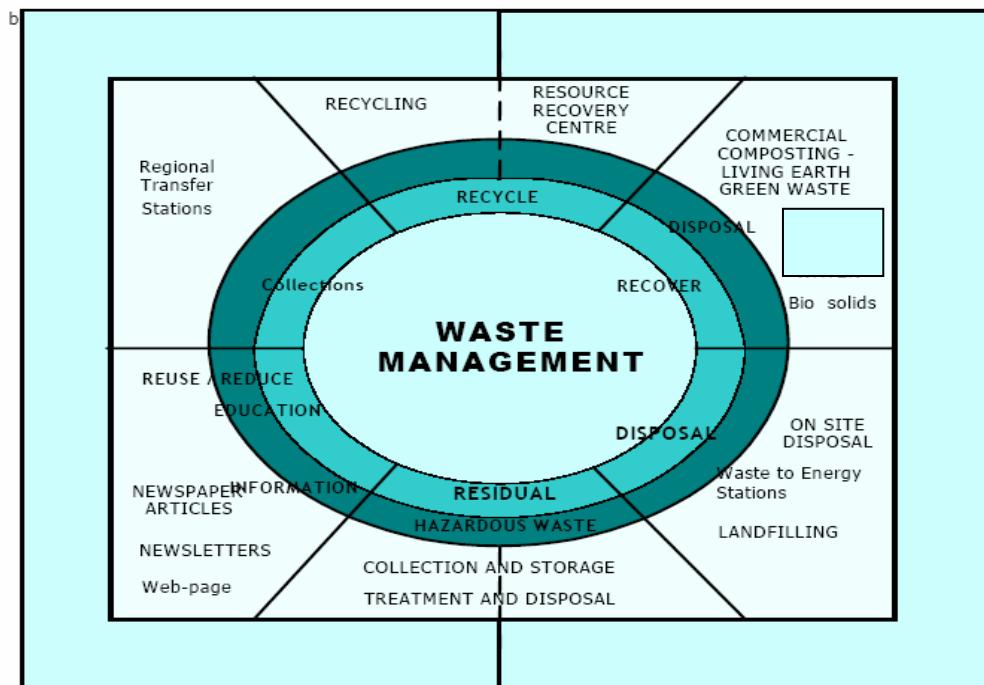


Figure 1:

Waste Hierarchy

The waste hierarchy established under the SWMP is to ensure that resource management options are considered against the following priorities:

Avoidance - including action to reduce the amount of waste generated by households, industry and all levels of government.

Resource Recovery - including reuse, reprocessing, recycling and energy recovery, consistent with the most efficient use of the recovered resources.

Disposal - including management of or co-ordinating all disposal options in the most environmentally responsible manner.

As the highest priority, *Avoidance* encourages the community to reduce the amount of waste it generates and to be more efficient in its use of resources.

Resource Recovery maximises the options for reuse, reprocessing, recycling and energy recovery at the highest net value of the recovered material. This encourages the efficient use

Each specific strategic priority needs a diverse set of resources and capabilities for effective implementation. The implementation instruments that are required to ensure successful implementation include:

Organizational/Institutional instruments: instruments implemented at organizational and institutional levels to ensure that Council has sufficient appropriate staffing and institutional capacity to effect the requirements of the waste management plan.

Legislative instruments: instruments that influence the range of alternatives by means of prohibition, restrictions or obligations.

Economic instruments: instruments which affect the market conditions under which people and firms make their decisions, without directly reducing the decision space available to them.

Communicative instruments: instruments aimed at public information and education campaigns and the voluntary adaptations of individual and group behaviour in a more environmentally friendly (recycling enhancing) direction. This also includes capacity building of Council staff and politicians.

6.1.2 Organisational/Institutional Instruments

6.1.2.1 Institutional Capacity

For the successful implementation of the plan appropriate institutional capacity for training and human resources development for waste management within the Council should be established at the central and regional level. All staff should have appropriate training in waste management, and as this is currently not the case, skills and training will have to be provided. The first step in ensuring the implementation of the plan is setting up an implementation committee by the municipality. The committee will be responsible for guiding the overall implementation plan.

Private sector involvement in waste management implies a shift in the role of the Municipal institutions from service provision to contract management and regulation.

6.1.2.2 Legislative Instruments

The *over-arching goal* of the WMP is to move from a previously fragmented situation of uncoordinated waste management to that of integrated waste management. By-laws will be developed to define the obligations of the waste generator, the private waste collectors and the waste disposers. Bylaws will also be introduced requiring separation at source. The Waste management by-laws will provide a legal foundation for regulating the behaviour of individuals and legal entities, thus ensuring the legislative basis for implementing the waste management plan, maintaining waste collection and disposal systems, and providing the basis for enforcement and sanctions.

6.1.2.3 Recycling

The Musina Municipality is responsible for coordinating recovery initiatives proposed in this IWMP with a view to consistency and complementarily. More specifically, it will:

- help set up industrial residuals recovery and reclamation agencies accredited by the municipality and monitor agreements entered into with the municipality
- develop and manage a knowledge system for tracking the achievement of sectoral and overall residual materials recovery goals
- administer any financial assistance program upon request
- foster the development of markets for secondary materials in partnership with the industries concerned;
- advise regional private sector/businesses, management boards or any other body mandated by the municipality on the establishment of residual materials management plans.

If by-laws are implemented for recycling, it is necessary to provide a “level playing field” for all recyclable commodities to ensure the effectiveness of the objectives. The Municipality can regulate recovery of recyclable material through legal contracts that would define the quantities and type of waste delivered and the charging system to be applied.

The licensing of businesses could be linked to the requirement to separate and recycle specified waste materials. Industrial estates should be encouraged to form waste minimisation and recycling groups within the estate. This would require the preparation of instructions for waste minimisation, separation at source, recycling and proper disposal.

The municipality will need to come up with incentive programs for the industrialists to start separation at source. One way will be giving tariff reductions to those participating in separation at source.

6.1.2.4 Enforcement

Enforcement is critical to the success of the plan. The need for WIS will help in the overall enforcement of waste policies, regulations and, or bylaws.

6.1.3 Economic Instruments

Economic instruments can be used to ensure that the costs of providing waste management services are recovered, as well as to influence the behaviour of waste generators and to ensure the preferred direction of the waste stream, i.e. disposal or recycling. Economic instruments may therefore promote optimal utilisation of services and provide incentives to reduce waste production. It is generally thought that economic instruments for environmental protection can generate the same level of waste reduction at a lower cost than via the more conventional regulatory approach. The economic instruments discussed below relate specifically to the type of instruments that can be implemented by the municipality.

Businesses must be made responsible for the products they market and which become residual materials once used. That is why the municipality will adopt a regulation requiring of industrial or commercial businesses which manufacture or market or otherwise distribute in the Musina Municipality, packaging or print material that they assume the major portion of the costs of selective waste collection. The regulation will set recovery targets, require businesses to report on their progress in meeting targets and provide for fines and sanctions in the event of non-compliance.

To meet this requirement, businesses targeted will have the choice of setting up their own recovery system or delegating an organization, accredited by the relevant office of the Musina Municipality, to represent them and support financially selective municipal collection. Those businesses that attain the reduction and recovery targets established with the Musina Municipality will receive official recognition from the government, which they may use to promote their product(s) on domestic and export markets.

According to the National Waste Management Strategy, in the case of local government, funding will come from the introduction of appropriate cost recovery mechanisms for services delivered. The potential for utilising the Municipal Infrastructure Investment Fund to assist with the establishment of facilities will be investigated.

Putrescible material is most likely to cause major contamination in landfills. When composted, it can be used to improve the quality of soils. It is therefore important to progressively recover this material in as great a quantity as possible. Municipalities will be subject to the regulatory obligation to recover surplus grass clippings and leaves.

Currently, the majority of recycling is dependent upon market forces, which dictate the level of recycling that is economically viable. It is unlikely however, that those initiatives that rely on market forces only, will be sustainable in the long-term in the absence of economic instruments to support and promote recycling.

6.1.4 Communicative instruments

Effective communication is vital to the ultimate success and sustainability of the plan.

6.1.4.1 Information

The presence of knowledge and understanding of the waste system is of vital importance in order to enable the parties involved in waste-management to co-operate and act as intended. The transfer of information has therefore become essential in modern waste management. Information provision can be done in different forms, e.g. the form of a campaign project like *“Race against waste”* as being practised in the USA. Some of the items proposed in such campaigns include the following:

- A stand alone guide on the management of (hazardous) waste by business
 - It could be legislative and the duty of care or cradle-to-grave
 - Dealing with contractors
 - Transport and export and
 - What to do if things go wrong
- Information on collection services available to households, including
 - Advice on waste segregation
- Basic information on what is and what is not hazardous waste
- Guidance on Tran frontier shipment classifications
- Information on record keeping obligations for generators of waste.

Such education campaigns will highlight issues relating to legislative requirements, benefits to the private and commercial sector, waste management requirements and the different waste information systems.

Environmental awareness officers are central to the success of the awareness and education campaign. Trips to areas or countries performing better in this regard will be encouraged.

6.1.4.2 Capacity building

Implementing, controlling and enforcing national legislation and governmental policies require a certain administrative capability at all administrative levels. This means that each administrative level should have a sufficient number of staff with the appropriate professional knowledge to administrate the regulation and to inform and supervise the public.

The current waste management planning process represents in various aspects a new concept for many officials of the public administration and thus new challenges. New elements include especially the political procedures, the integrated approach, utility/private sector participation, and the public participation.

The future involvement and increased possibilities for more collaboration between the public and private sectors in implementing the waste management plan need to be examined. These initiatives call for a need

to provide more open, effective and participative local government in mobilizing community, commercial and organizational resources to create a better environment for the population of Musina.

6.1.5 Tasks to be undertaken by the Council

Implementation of new legislation and requirements regarding waste management takes into account a review of the management and organization of waste management in the Municipality. The Musina Municipality must meet the needs of waste management while also meeting the social and economic aspirations of the municipality

6.1.5.1 Regulation

The Musina Municipality commits to making waste audits and reduction plans part of its regular management activities. It will also strengthen the environmental content of its procurement policy by giving priority to products that are better for the environment, such as recycled paint and oil, and construction, renovation and demolition debris, so as to support the markets for these secondary materials.

Dry materials disposal sites will be subject to more stringent safety standards. The new regulation respecting residual materials disposal will require site owners to monitor groundwater and surface water quality, among other things. The enforcement of waste management regulations presents a major challenge to the Council in terms of resources and management systems. Implementation of local regulations (by-laws) requires ongoing review and compliance monitoring. Such review would cover:

- Waste collection schemes, market conditions and controls;
- Recycling centres, buy-back centres, composting plants, disposal sites, etc. would be subject to annual reviews, regular spot checks and compliance with operational plans;
- Collection of information about waste quantities and types reported and analysis of this data;
- Illegal dumping

The Musina Municipality is responsible for coordinating recovery initiatives proposed in this policy with a view to consistency and complementarily. More specifically, it will:

- help set up industrial residuals recovery and reclamation agencies accredited by the Minister and monitor agreements entered into with the Minister;
- develop and manage a knowledge system for tracking the achievement of sectoral and overall residual materials recovery goals;
- administer any financial assistance program upon request of the Minister or the government;
- foster the development of markets for secondary materials in partnership with the industries concerned;
- advise regional municipalities, management boards or any other body mandated by the municipalities on the establishment of residual materials management plans.

The Council should assess compliance with regulations and by-laws on the basis of these inspections and assessments. Actions resulting from the supervisory role could include:

- Follow up inspections of waste generators, collectors, transporters and disposers where irregularities in waste type or quantity are indicated in spot tests and fines can be imposed accordingly. Repeat offences, which result in environmentally irresponsible handling of waste, can be dealt with by revoking their licences or through legal remedy.
- Fines and/or imprisonment of offenders who illegally dump their waste.

6.1.5.2 Monitoring and control

The whole idea of monitoring is “taking stock and moving forward”. The municipality will undertake the following:

- Monitor the implementation, by the relevant sectors, of the Waste Management Plan
- Promote overall co-ordination of waste management initiatives
- Consider and make recommendations to the relevant departments/sectors regarding public awareness requirements
- Monitor and evaluate new research data, trends in waste production and waste management
- Prepare and conduct competitive tendering processes for involving the private sector in waste collection, waste recycling, and treatment, etc.
- Undertake contract negotiations, administration, control and monitoring of contracts, performance management.
- Compliance monitoring of license holders.
- Monitoring of the implementation of the IWM Plan.
- determine their efficiency of operation.

- Disseminate information on best practises
- Maintain ongoing liaison with the implementation committee of the waste management programme

The Musina Municipal Council will exercise its duties with regard to the control of waste management facilities with the following objectives:-

- to encourage sensitive waste management site working practices in order to preserve or enhance the overall quality of the environment and minimize risks to human health;
- to minimize any adverse environmental impact arising from the handling, processing, transport and disposal of waste from the waste management facility;

Water Monitoring Plan

The water-monitoring plan should be drawn and must provide a complete description of a system capable of monitoring the performance of the design of the site, including monitoring of groundwater to detect the release of pollutants or contaminants from the landfill unit to the waters of the state.

1. The plan must show compliance with NWA 36 of 1998, and must:
 - a. Identify the location and construction of monitoring points.
 - b. Specify monitoring parameters and the frequency of monitoring those parameters.
 - c. Specify procedures for quality assurance for all field and laboratory work.
 - d. Provide for the semi-annual submittal of monitoring data to the Solid Waste Management Authority.
 - e. Establish procedures which must be used if monitoring provides evidence of leachate migration.
2. The Solid Waste Management Authority may suspend groundwater-monitoring requirements if the owner or operator demonstrates that there is no potential for migration of pollutants or contaminants from the landfill unit to waters of the state during the active life of the unit and during the post-closure period. This demonstration must:
 - a. Be certified by a qualified groundwater scientist.
 - b. Be approved by the Solid Waste Management Authority.
 - c. Be based on:
 - (1) Site-specific field collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport.
 - (2) Contaminant fate and transport predictions that consider the maximum rate of contaminant migration and impacts on human health and the environment.

Operating Plan

1. Include a description of the equipment and positions necessary to operate the site.
2. Provide for adequate fire control methods.
3. Provide for the prevention of scattering of papers and other lightweight debris by portable litter fences or other suitable devices.
4. Provide for the disposal of any special wastes specifically permitted by the Solid Waste Management Authority in the sites permit.
5. Demonstrate how the site will comply with the requirements in NEMA and related legislations.
6. Include the steps to be taken in the event of unforeseen circumstances that may occur at the facility. The steps shall provide for an organized, planned and coordinated, technically and financially feasible course of action to be taken, and must address:
 - a. A fire at the facility.
 - b. Personnel and user safety (incl. first aid training and emergency medical services).
 - c. Facility shutdown due to natural events.
 - d. Equipment breakdown.
 - e. Release of hazardous or toxic materials.
 - f. Presence of leachate in collection structures and storage tanks or surface impoundment leaks or spills.

SSClosure Plan: The following is advised

1. A description of the steps necessary to close all municipal solid waste landfill units at any point of Municipal Solid Waste Disposal Site Permit Application during their active life.
2. A description of the final cover consistent with the requirements of NEMA and related information
3. An estimate of the largest area of the municipal solid waste landfill unit that would require final cover at any time during the active life of the landfill should the site be closed.

4. An estimate of the maximum inventory of wastes ever onsite over the active life of the landfill facility.
5. Identification of equipment and structure removal, decommissioning, and decontamination.
6. Placement and installation of water, vadose zone, and landfill gas monitoring devices, and landfill gas control devices, as needed.
7. A schedule for completing all closure construction activities necessary to satisfy closure requirements.

Post-closure Maintenance Plan

1. A post-closure maintenance plan specifies how the municipal solid waste landfill unit will be maintained and monitored
2. An inspection and maintenance program for the final cover, drainage and flood protection structures, and landfill gas monitoring and control system.
3. Name, address, and telephone number of the person or office to contact about the facility during the post-closure period.
4. A description of the planned uses of the property during the post-closure period.

The post closure monitoring will be undertaken by order of the municipality, and under the authorizations it issues in compliance with the environmental impact assessment and review procedure, operators are required to establish financial guarantees in the form of a trust fund for the post-closure monitoring of disposal sites (if businesses want to have their own landfill sites). This requirement will be extended to existing disposal sites designated by regulation.

Implementation Requirements

Human Resources

An estimated number of personnel (man power) and responsible positions needed to be filled in the IWMP have been suggested. A substantial increase in human resources and other corporate resources within the Musina Municipality will be required to effectively implement the waste management plan. In terms of additional staff resources, the new Waste Management Section shall be organised to fulfil its new functions to ensure compliance with relevant legislation. Implementation of the WM Plan will require considerable efforts to plan and initiate projects, provide overall guidance and supervision of various projects and activities, and to co-ordinate the efforts of the municipality and other stakeholders. The WM Plan cannot be effectively implemented if the planning process is not properly institutionalised, and if additional personnel resources are not mobilised. The following staff allocations are suggested:

FUNCTION	POSITION	PROPOSED COUNCIL STRUCTURE	MIN. NO. OF STAFF SUGGESTED	MAX. NO OF STAFF SUGGESTED
Regulation	Manager, Inspectors (illegal dumping, monitoring of service, etc., field assistants, admin officers)	1	2	4
Planning	Specialist team (technical, environmental, developmental work, community contract specialist, data capturers, admin officers)	2	3	5
Public Service	Complaints officers, education officers / public information officers, waste minimisation and recycling officers	1	2	2
Monitoring and Control	Environmental officers, inspectors, manager	1	3	5
TOTAL		5	10	16

Financial Implications

The IWMP requires investment in new infrastructure as well as the provision of services for the following primary categories:

- Data/information gathering and the Decision Support System
- Waste collection facilities (villages)
- Recycling facilities (drop-off facilities, buy-back centres) and separated waste collection.
- Composting facilities

- Landfill development (e.g. Musina and villages)
- Medical waste disposal facilities

Because of the unknown regarding capital investment to be considered by the Council, the Table below lists projects where capital investment will be required for the implementation of the WMP. This list is not restricted to Council, but gives an outline for all sectors of society.

To ensure the success and sustainability of the projects which will come out of the WMP, each project will require detailed financial planning and budgeting. This will include the mechanisms used to demonstrate financial assurance; must ensure that the funds necessary to meet the costs of closure, post-closure care, and corrective action for known releases will be available whenever they are needed.

Types of Financing Sources

Financing sources for projects arising from the IWMP are discussed below. The focus is on financing sources which could potentially be accessed by the private sector. A number of sources have been identified as potential financiers of the projects emanating from Musina IWMP.

They include, Provincial and National government, and international funding from Denmark (DANIDA), Norway (NORAD), Japan (JICA), Sweden (SIDA), among others.

Local Sources

The Municipal Infrastructure Investment Unit (MIIU), a source for support for municipalities which are committed to investigating Municipal Service Partnerships.

- The Development Bank of Southern Africa (DBSA), was cited as a potential financial source for most of the projects identified in the Municipal IDP.
- Consolidated Municipal Infrastructure Programme (CMIP).
- The Industrial Development Corporation (IDC) publicly committed to funding infrastructure projects.
- Capital Expenditure Programme (CAPEX), which finances capital, projects such as the development of buy-back centres.
- The South Africa Infrastructure Funds, which is composed of numerous insurance and pension fund members, with an interest in funding infrastructure projects in South Africa.
- Black Empowerment Groups (investment groups).
- Companies with international affiliations, which may have access to greater and/or lower cost capital through their international partners.
- Department of Trade and Industry / Department of Transport, through the Spatial Development Initiative, may provide support to initiatives which can encourage direct foreign investment.

Monitoring and Review

Introduction

This IWMP identifies operational practices that could potentially result in environmental impacts and describes operational procedures for eliminating or minimizing environmental impacts. It addresses environmental issues in accordance with the criteria set out in relevant legislations and include;

- Site overview;
- Landfill structure and operations;
- Discharges of pollutants to waters;
- Emissions of pollutants to atmosphere;
- Land management and conservation;
- Prevention of hazard and loss of amenity;
- Handling and disposal of waste at the facility;
- Limitations in the classes of wastes accepted;
- Requirements for incentives for the segregation of wastes;
- Monitoring and reporting of incidents; and
- Environment protection activities and site remediation.

Monitoring the plan's implementation is necessary to make sure it provides a relevant, cost effective, sustainable and flexible framework to guide waste development and that if required adjustments can be made to the plan. As the development of the plan in some cases has been based on certain assumptions, it would be best to verify these by monitoring so that the IWMP and its various projects can be reviewed and refined with time.

Monitoring

Monitoring and tracking system will support the Implementation Committee in its ongoing strategic management process which focuses and aligns resources and diverse programs and initiatives to achieve optimal results. The *Strategic Plan* identifies various performance measures which must be supported by an accurate, ongoing data collection and reporting system.

The Municipality (Implementation Committee) relies on various data sources essential for measuring performance and evaluating its programs. These systems include but are not limited to the following:

- Workplans Information System
- Waste Information Systems
- Training Information System
- Waste Generation Database
- Planning Annual Report Information System
- Buy Recycled Campaign System

These key data collection systems, among others, will enable the Implementation Committee to capture data essential for the ongoing monitoring and tracking of performance.

Performance reports will be prepared within the appropriate programs and submitted to the responsible authority for review quarterly. Also quarterly, the Minister will be responsible for analyzing the actual program performance achieved and assessing it against the performance goals set out in the Strategic Plan. The outcomes of this performance measurement will be presented to the Municipal Board every four months. Finally, so that the Strategic Plan continues to be responsive to a changing environment, an annual review and update will also be conducted and the results presented to the Municipal Board.

An effective monitoring programme is essential to provide information against which the plan's performance is measured. For example monitoring waste information over time can indicate the extent of change in the community's behaviour and this in turn will provide an indication of waste generation in the future.

Monitoring Activities

Monitoring of activities will be managed through:

- The Municipal Board (MB), the Implementation Action Committee (IAC) and stakeholder consultation forums; fully established and functioning.
- Established functioning communication channels between tiers of management structures.
- Established review committees in provincial/local environmental departments.
- Situation Analysis and Needs Assessment Report for hazardous, general and industrial waste published.
- Participation of stakeholders throughout the process.
- Public awareness campaign material developed and distributed.
- Public awareness campaigns implemented.

In order to ensure effective implementation of this Action Plan, ongoing liaison and information transfer between national, provincial and local government is essential. Monitoring should focus on the short-term objectives of the WM planning process to assess current problems and hurdles and to re-evaluate the implementation programme for the short, medium and long terms. Monitoring of activities will therefore determine to what extent targets are being met. Overall monitoring activities would include:

Solid Waste

- A regulatory programme for solid waste management compliance and permitting activities.
- Processes permit applications for solid waste facilities such as resources recovery facilities, transfer stations, recycling and composting facilities, landfills, ash monofills sites, biomedical waste treatment facilities, incinerators, other volume reduction facilities, and special waste facilities.

- Reviews and approves plans for the operation of solid waste facilities, landfill closure plans, and remediation of improper solid waste management practices.
- Reviews and tracks permit compliance monitoring data.
- Conducts compliance inspections of solid waste facilities and investigates complaints.
- Initiates enforcement actions in response to violations of solid waste laws, regulations, and permits.
- Works with regulated community to ensure permit compliance.
- Monitors biomedical reporting and tracking programs.
- Processes registrations for general permits.
- Volumes of waste generated, recycled and disposed
- Recycling and composting initiatives
- Illegal dumping and littering.
- Effectiveness of legislation, regulations, ordinances and/or by-laws.
- Complaints received regarding poor waste management.
- Finances, such as expenditure and income, payment for services, and recovery of costs

Hazardous Waste

- Process permit applications for the treatment, storage and disposal of hazardous wastes
- Conducts inspections to determine compliance at hazardous waste generators, treatment, storage, and disposal facilities.
- Initiates enforcement actions in response to violation of hazardous waste laws, regulations, and permits.
- Oversee facility closure construction and post closure care at facilities where all the contamination has not been removed.
- Review and approves corrective action plans which address contamination caused by historic waste disposal practices treatment, storage, and disposal facilities.
- Issue temporary identification numbers for hazardous waste facilities and generators.
- Processes hazardous waste generator reports and status changes.
- Administrators hazardous waste reporting.
- Authorizes disposal of special waste other than asbestos waste.

Fiscal and Administrative Management

- Prepares the municipal capital and operating budgets; grant applications; and fiscal plans.
- Oversees the municipal waste operating budget.
- Coordinates human resources development.
- Directs Solid Waste Program grant funds for solid waste facilities.
- Directs Cost Recovery Program to ensure costs incurred to mitigate spills/pollution are recovered.
- Administers contracts and grants for special municipal projects.
- Provides administrative support for municipal divisions.

Facility Training and Certification

- Develops and conducts training courses for landfill, transfer station, resources recovery, and recycling facility operators.
- Assesses operator qualifications.
- Certifies solid waste facility operators.

Performance indicators or monitoring indicators and feedback mechanisms are required so that the effectiveness of waste management projects can be assessed and corrective action may be taken if performance does not meet expectations.

The Musina Municipality will produce an Annual Monitoring Report on implementation of the IWMP for the municipality. This will be forwarded to both the Municipal Board as well as Limpopo DACEL for evaluation as part of their information requirements on the success of implementation and sustainability of the IWMP. All aspects of the plan, which have been implemented, should be monitored and evaluated according to its success rate.

Evaluation

The WMP has mainly focused on the short-term period and is intended to cover the period from 2005 to the end of 2007. The medium (2007-2011) and the long terms (2011-2015) have been looked at in broader terms as the activities and strategies, which need to be developed in these periods, are dependent on the outcome of the short-term period. After completion of the implementation of this Action Plan for integrated waste management planning in the year 2007, the plan will be evaluated by Musina Municipality, in consultation with the IAC, the provincial environmental departments, local government and other stakeholders through consultative forums. An evaluation report on the achievement of the immediate objectives and delivery of all outputs within the specified timeframes will be prepared by relevant body appointed by the municipality. The evaluation report will include conclusions and recommendations for the next four-year Action Plan (medium-term), which will be discussed with stakeholders.

Based on the results achieved by the short-term Action Plans, the medium and long-term plans of the NWMS will be reviewed and revised, if necessary. On this basis, municipality will prepare a new generation of Action Plans in order to achieve the medium and long-term objectives of the Musina Waste Management Plan.

A performance review should be undertaken to determine the level of success of the implementation of the plan. The reason for reviewing the plan and its implementation on a regular basis is to ensure its practicality, suitability and usability. The level of performance can only be determined and reviewed by monitoring. It is proposed that the plan be reviewed on a two-year cycle.

14 Disaster Management Plan

OVERALL OBJECTIVE

To consolidate the existing single management system into an effective disaster management system that is compliant with national legislation and able to encourage preparation, prevention, response and recovery activities.

STRATEGIC FOCUS

Building a system that will be reckoned with amongst councils' competing interests through a holistic and comprehensive disaster and risk management culture.

Authority for Planning and Authorisation of the Plan

The Musina Local Municipality Disaster Management Plan has been prepared in accordance with the provisions of the Disaster Management Act, 2002, Sections 52 & 53; the Vhembe District Municipality Integrated Development Plan; within the framework for disaster management in the municipality; and is aimed at ensuring an integrated and uniform approach to comprehensive disaster management in the Municipality

This Plan has been documented by the Musina Disaster Management Committee, which it has been proposed, should become the Advisory Forum as required by legislation, and is approved by the Disaster Management Committee:

Councillor G Ramushwana:

Chairperson: Disaster Management Committee

Musina Local Municipality

Dated:

This Plan is endorsed by the Executive Committee and is recommended to Council for approval.

A. Luruli

Municipal Manager

Dated: _____

This Plan is approved.

Mayor of Musina Local Municipality

Councillor D. Mokobi

Dated: _____

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- Utilities

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Foreword

South Africa is susceptible to a range of natural and technological hazards, which have the capacity to impact significantly on national and municipal development strategies and initiatives. The sustainability of such initiatives will therefore depend very much on how successfully risks associated with these hazards can be managed.

This Disaster Management Plan has been developed by the Musina Local Municipality in liaison with the Disaster Management Committee. The plan provides a framework through which a holistic and comprehensive risk management can be undertaken within the Musina Local Municipality

The focus, as required by the Disaster Management Act, 2002, and within the legislated disaster management framework, is on minimising the effects of hazards on local communities by ensuring a co-ordinated effort in risk management within the Musina Local Municipality utilising partnerships of Provincial Government, District and Local Municipalities, and non-government bodies with a responsibility or capability in disaster risk management and emergency response.

This plan has been designed around the international Risk Management Standard AS/NZS4360: 1999, utilising the risk management philosophy of the Comprehensive Hazard and Risk Management (CHARM) process. CHARM is a holistic disaster management concept which uses a multi-agency, multi-sectoral approach to risk minimisation, providing linkages to development priorities as outlined by the Musina Local Municipality's Integrated Development Plan (IDP).

THE PLAN OUTLINES THE NATIONAL DISASTER MANAGEMENT FRAMEWORK. THE PLAN FURTHER IDENTIFIES THE RISK ENVIRONMENT FOR MUSINA LOCAL MUNICIPALITY AND OUTLINES THE KEY INSTITUTIONAL AND PROGRAMMING COMPONENTS RELATIVE TO EFFECTIVE RISK MANAGEMENT AND EMERGENCY RESPONSE.

The Plan is not designed to usurp the incident management responsibilities of the various emergency services or other organisations within the community that respond to events which fall within their normal daily activities. Instead the plan is designed to enhance the capacity of emergency services to more effectively plan for and respond to emergency situations. This is achieved through the combined processes of hazard and risk analysis, which provides a more realistic base of information upon which to frame operational plans and procedures.

THE PLAN IS A DYNAMIC DOCUMENT THAT MAY BE EXTENDED IN THE FUTURE TO INCORPORATE ANY ADDITIONAL RISK TREATMENT OPTIONS AS THEY ARE IDENTIFIED FOLLOWING FORMAL HAZARD AND RISK ANALYSIS. THE PLAN WILL ALSO BE AMENDED IN LINE WITH CHANGES IN LEGISLATION AND CURRENT BEST PRACTICE, AND TO REFLECT LESSONS LEARNT FROM THE IMPACT OF HAZARDS AND OTHER DISASTER SITUATIONS THAT MAY ARISE.

Amendments Sheet

Amendment No:	Section(s) Amended	Date of Amendment	Entered By	Date

Distribution List

Agency/Organization	Copies
Musina Local Municipality	
Vhembe District Municipality	
Musina Local Municipality Disaster Management Committee/Advisory Forum	
Department of Agriculture	
Department of Economic Development And Tourism	
Department of Education	
Department of Health and Social Welfare	
Department of Labour	
Department of Traditional And Local Government Affairs	
Department of Transport and Works	
Department of Water Affairs And Forestry	
Emergency Medical Rescue Services	
Eskom	
Musina Chamber Of Commerce	
Mopane District Municipality and others	
Limpopo Road Traffic Inspectorate	
Metro Rail	
National Disaster Management Centre	
Provincial Disaster Management Centre	

South Africa Red Cross	
South African National Defence Force	
South African Police Services	
Telkom	

Definitions

“CHARM” - a comprehensive hazard and risk management tool and/or process within the context of an integrated national development planning network;

“community safety” - as used in this document, refers to community safety in the broadest sense and is not confined to crime prevention and law enforcement issues;

“consequence” - the likely negative effects on persons, society, the environment or the economy, that may eventuate as a result of a hazard impact;

“disaster” - a progressive or sudden, widespread or localized, natural or human-caused occurrence which-

(a) causes or threatens to cause-

- (i) death, or disease;
- (ii) damage to property, infrastructure or the environment; or
- (iii) disruption of the life of a community; and

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

“disaster management” - a continuous and integrated multi-sectoral, multi-disciplinary process of planning and implementation of measures aimed at-

- (a) preventing or reducing the risk of disasters;
- (b) mitigating the severity or consequences of disasters;
- (c) emergency preparedness;
- (d) a rapid and effective response to disasters;
- (e) post-disaster recovery and rehabilitation;

“emergency preparedness” - a state of readiness which enables organs of state and other institutions involved in disaster management, the private sector, communities and individuals to mobilise, organise, and provide relief measures to deal with an impending or current disaster or the effects of a disaster;

“hazard” - something that has the potential to cause significant negative impacts on community elements (such as social, environmental and economic).

“integrated development plan”, in relation to a municipality, - a plan envisaged in section 25 of the Local Government: Municipal Systems Act. 2000 (Act No. 32 of 2000);

“level of risk” - expression of the severity of a risk derived from consideration of likelihood the event will occur and the potential consequence that may arise

“likelihood” - an expression of how likely it is that a specific hazard will occur within a given time frame. It is used as a qualitative description of probability or frequency

“municipal manager” - a person appointed as such in terms of section 82 of the Local Government: Municipal Structures Act, 1998 (Act No. 117 of 1998);

“risk” - used to describe the likelihood of harmful consequences, arising from the interaction of hazards, vulnerable elements (i.e. the community) and the environment

“risk treatment options (strategies)” -measures contained within mitigation, preparedness, response and recovery programs that aim to eliminate or drastically reduce the level of risk

“vulnerability” - the degree to which an individual, a household, a community or an area may be adversely affected by a disaster. Vulnerability refers to the susceptibility and resilience of the community and environment to hazards.

Description of the Municipality

1. BACKGROUND AND SCOPE

In 1994/1995 the Local Authority Committee for Nancefield and the Town Council of Messina amalgamated and became the Greater Messina Transitional Local Council, and after the election in December 2000 the municipality was established as the Messina Local Municipality. In 2002 the name of the town was changed to Musina and the Municipality is known as the Musina Local Municipality.

Musina is situated in the Northern area of the Limpopo Province and within the Magisterial District of Musina. The municipality is situated approximately 15 km to the south of the Limpopo River close to the international border post of Beit Bridge and situated 540 m above sea level in the midst of the well known Limpopo Valley, on the N1 close to Beit Bridge.

Since the new demarcation of municipal areas in 2000, the municipal area of Musina stretches from Beitbridge to about 30 km south (Huntley's Farm) and from Malale (close to the Pafuri gate in the south east to just before All days in the north west). An area of 7578,29 vk kilometers.

The name is derived from the Musina tribe the Chieftainship of Dopokobotha who discovered and mined the copper deposits. This area forms part of the Golden Horseshoe of tourism in the Limpopo Province.

Musina in Limpopo province is regarded as one of the richest areas in tourism in terms of its scenery and cultural composition. To detail and effectively utilize these riches, a multi-disciplinary research effort has started its initial stage.

DESCRIPTION OF THE STUDY AREA

i) Musina Municipality is located on the far northern region of the Limpopo Province. It borders South Africa with Zimbabwe. Musina is the only town north of the Soutpansberg and is the most northerly town in South Africa. Musina is located approximately 500km north of Pretoria, 224km north of Polokwane and approximately 108km north of Makhado, which is the nearest neighbouring town. Musina is situated 13km south of the Beit Bridge border post to Zimbabwe on the N1-national road and railway line, linking South Africa to the rest of Africa.

1.2 POPULATION

POPULATION FIGURES (DWAF + Census + BMR)

The population figures according to the data of the Department of Water Affairs, Statistics South Africa (SSD) and the Bureau for Market Research (BMR) is reflected in TABLE 1.1.

TABLE 1.2 indicates the population figures (race & gender) per ward as calculated by the SSD. TABLE 1.3 indicates the population figures per type of enumerator area (EA). The population figures of the 1996 Census indicate a population figure of 33 061 people in 1996 for the Musina municipal area. This figure was accepted to be an undercount and the BMR adjusted the 1996 population figure to 37 624. The adjusted population figure of the BMR will be accepted as the correct population for the Musina municipal area. Although the population figures that are used in the tables/figures of the SSD are inaccurate (undercount), it will still be used throughout this document to indicate tendencies for specific issues.

TABLE 1.1: POPULATION FIGURES FOR THE MUSINA MUNICIPAL AREA (DWAF/BMR)

MUNICIPALITY	SETTLEMENT/ COMMUNITY NAME	NO. OF SETTLE- MENTS	POPULATION FIGURES							ESTIMATED POPULA- TION 2001 (*2)	
			DEPARTMENT OF WATER AFFAIRS (*3)			CENSUS POPULA- TION 1996	BMR (AMENDED) CENSUS POPULATION (*1)				
			HOUSEHOLDS (NO. OF STANDS) FORM C 1998	POPULATION 1998	2000		HOUSE- HOLDS 1996	HH SIZE 1996	POPU- LATION 1996		
Musina	Harper	1	140	980	1003						
	Malale	1	135	945	97						
	Madimbo (Matshakatini)	1	197	1389	1263						
	Musina	1	1389	5728	6076						
	Mopane	1	20	128	132						
	Nancefield	1	3769	26384	27990						
	Weipe	1	100	630	652						
	Farming areas (rest)	n/a	--	--	--						
TOTAL		7	5750	36184	37213	33061	8421	4.47	37642	40836	

SOURCES:

1. Department of Water Affairs (CWSS-Study)
2. SSA - 1996 Census
3. Bureau for Market Research (BMR)

NOTES:

- (*1.) Amended Census population based on population figures of both the Department of Water Affairs (CWSS - study) and the 1996 Census Survey.
- (*2.) Estimated population based on annual growth rates calculated by the BMR.
- (*3.) Department of Water Affairs (CWSS Study) population figures excludes "farming areas". Population figures are only provided for settlements/communities.

TABLE 1.2: POPULATION PER WARD

		RACE (%)						GENDER (%)	
WARD	POPULATION	AFRICAN	COLOURED	INDIAN	WHITE	OTHER	MALE	FEMALE	
1	10016	91	0.3	0.1	7.7	1	53	47.1	
2	3972	91	0.2	0	7.9	0.9	52.2	47.9	
3	5941	99.2	0.2	0	0	0.7	44.1	56	
4	5284	98.8	0.2	0	0.6	0.4	47.6	52.5	
5	7839	58.4	0.7	0.8	37.2	2.9	58	42	

Source: Statistics South Africa, Census 1996

TABLE 1.3: POPULATION FIGURES BY TYPE OF ENUMERATION AREA

TYPE OF AREA	AFRICAN	COLOURED	INDIAN/ ASIAN	WHITE	UNSPECIFIED	TOTAL	
						NO.	%
Urban	15,194	71	58	2,120	280	17,723	53.61
Commercial farms	12,486	39	7	1,886	143	14,561	44.04
Tribal authorities	739	-	-	32	4	775	2.34
Unspecified	-	-	-	-	2	2	0.01
Total	28,419	110	65	4,038	429	33,061	100.00

Source: Statistics South Africa, Census 1996

POPULATION GROWTH RATES & PROJECTIONS

The population growth rates and projections for the Musina municipal area are indicated in TABLE 1.4. The population growth rates were done in conjunction with the Bureau for Market Research (BMR). The BMR estimated that 40 836 people live in the Musina municipal area in the year 2001. This figure will increase to 41 935 in 2003 and 44 308 in 2008.

TABLE 1.4: POPULATION GROWTH RATES AND PROJECTED POPULATION

YEAR	ANNUAL GROWTH RATES	CONVERSION RATE	PROJECTED POPULATION
1996	1.862		37 642
1997	1.766	1.0177	38 307
1998	1.678	1.0168	38 950
1999	1.591	1.0159	39 569
2000	1.760	1.0176	40 265
2001	1.416	1.0142	40 836
2002	1.355	1.0135	41 389
2003	1.320	1.0132	41 935
2004	1.250	1.0125	42 460
2005	1.189	1.0119	42 964
2006	1.110	1.0111	43 441
2007	1.032	1.0103	43 890
2008	0.953	1.0095	44 308

Source: Pieterse, Du Toit & Associates CC. & BMR, 1996

NOTES:

Households in 1996: 8421

Household size in 1996: 4.47 persons per household

Planning population in 1996: 37 642 people

HOUSEHOLD SIZE, NUMBER OF CHILDREN BORNE AND AGE OF MOTHERS AT BIRTH OF FIRST CHILD

The average size of households in the Musina municipal area were determined by the BMR and calculated at 4.47 people per household. The occupancy rate of erven is higher in Nancefield (± 5.8 people per erf)¹⁰ and the three settlements of Madimbo, Malale & Domboni (± 5.6 people per erf)¹¹ than in Musina (± 3.43 people per erf). The reason for the higher occupancy rate in Nancefield and the three rural settlements is overcrowding of erven (backyard structures) and traditionally larger families, especially in rural areas. The average size of households in low-income areas will decrease in future due to factors such as acceptance of birth control measures, weakening of traditional views regarding large families and HIV/AIDS.

The number of children ever borne per population group is indicated in **Error! Reference source not found.** The largest percentage of “number children ever borne per population” group falls within the 0 - 3

¹⁰ LDO, 2000

¹¹ African Renaissance, 2001

children group. A significant percentage is also found in the 4 - 6 children group. These figures give an indication of family size within population groups.

NUMBER OF CHILDREN EVER BORN BY POPULATION GROUP

NO. OF CHILDREN	AFRICAN/BLACK		COLOURED		INDIAN/ASIAN		WHITE		UNSPECIFIED	TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%		NO.	%
0	1,876	24.45	5	18.52	12	66.67	207	17.89	15	2,115	23.66
1	1,520	19.81	5	18.52	2	11.11	110	9.51	5	1,642	18.37
2	1,243	16.20	7	25.93	0	0.00	359	31.03	22	1,631	18.25
3	910	11.86	2	7.41	0	0.00	251	21.69	3	1,166	13.04
4	666	8.68	4	14.81	0	0.00	126	10.89	10	806	9.02
5	478	6.23	0	0.00	1	5.56	58	5.01	6	543	6.07
6	382	4.98	0	0.00	1	5.56	33	2.85	2	418	4.68
7	244	3.18	1	3.70	2	11.11	9	0.78	0	256	2.86
8	142	1.85	1	3.70	0	0.00	3	0.26	0	146	1.63
9	91	1.19	2	7.41	0	0.00	0	0.00	0	93	1.04
10	66	0.86	0	0.00	0	0.00	1	0.09	0	67	0.75
11	28	0.36	0	0.00	0	0.00	0	0.00	0	28	0.31
12	12	0.16	0	0.00	0	0.00	0	0.00	0	12	0.13
13	5	0.07	0	0.00	0	0.00	0	0.00	0	5	0.06
14	4	0.05	0	0.00	0	0.00	0	0.00	0	4	0.04
15	4	0.05	0	0.00	0	0.00	0	0.00	0	4	0.04
16 +	3	0.04	0	0.00	0	0.00	0	0.00	0	3	0.03
TOTAL	7,674	100.00	27	100.00	18	100.00	1157	100.00	63	8,939	100.00

Source: Statistics South Africa, Census 1996

The age of mothers at the birth of their first child is indicated in **Error! Reference source not found..** Approximately 3 percent of total births were related to mothers aged 15 years and younger. A need therefore exists for educational programmes for teenagers with respect to birth control and sexual behaviour.

AGE OF MOTHER AT BIRTH OF FIRST CHILD BY POPULATION GROUP

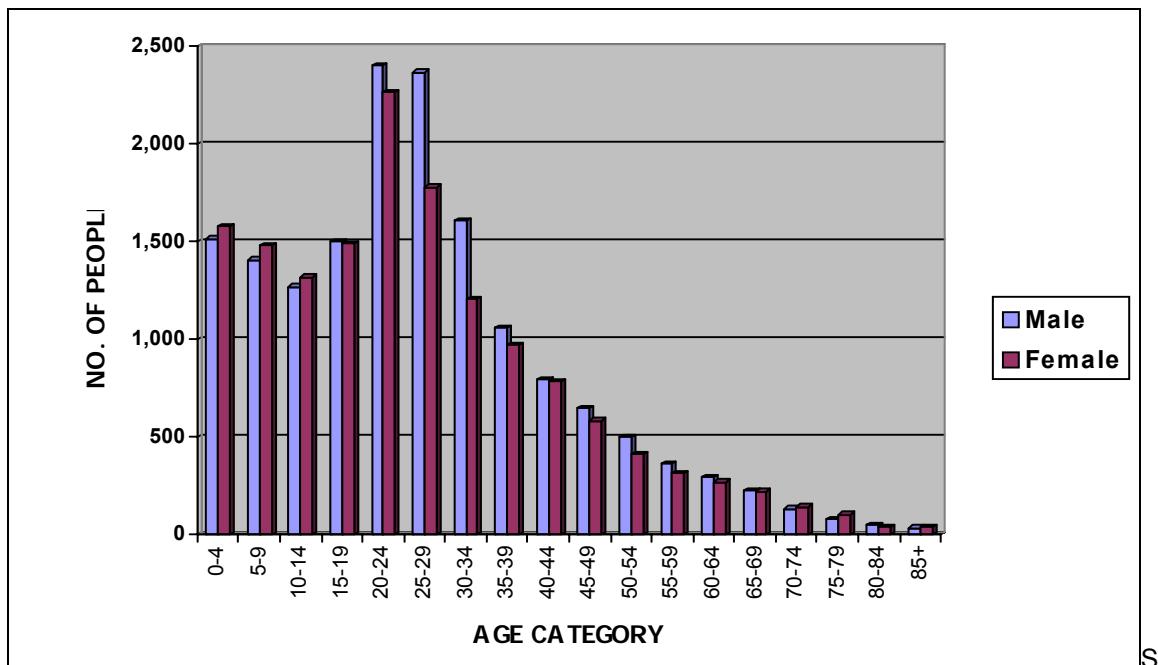
CATEGORY	AFRICAN		COLOURED		INDIAN/ASIAN		WHITE		UNSPECIFIED	TOTAL	
12-15	486	3.53	0	0.00	0	0.00	6	0.31	1	493	3.08
16-49	3,937	28.57	18	41.86	4	12.50	880	44.97	15	4,854	30.33
UNSPECIFIED	1,375	9.98	4	9.30	2	6.25	64	3.27	32	1,477	9.23
N/a	7,982	57.92	21	48.84	26	81.25	1,007	51.46	143	9,179	57.36
TOTAL	13780	100.00	43	100.00	32	100.00	1957	100.00	191	16003	100.00

Source: Statistics South Africa, Census 1996

AGE & GENDER DISTRIBUTION

The age distribution of the population of the Musina Local Municipality is presented in [Error! Reference source not found.](#), [Error! Reference source not found.](#), [Error! Reference source not found.](#) (page 10) and [Error! Reference source not found.](#) (page 10). 27.86% of the population in the Musina municipal area is aged 0-15 years (children), which is relatively low compared to the figure for the Northern Province of ±40%. This figure implies an average future population growth. The very low percentage of children in Ward 1 may be explained by the fact that this ward consists mainly of commercial farms (including game farms) with an ageing community and where the owners are not necessarily staying on such farms with their families.

AGE AND GENDER DISTRIBUTION OF POPULATION



Source: Statistics South Africa, Census 1996

AGE DISTRIBUTION PER WARD

WARD	POPULATION	CHILDREN 0-15y (%)	YOUTH 16-35y (%)	MIDDLE AGE 35-64y (%)	ELDERLY 65+ (%)
1	10,016	15.2	49.1	20.6	2.2
2	3,972	31.9	41.2	22.3	3.1
3	5,941	34.6	41.6	19.8	2.8
4	5,284	31.9	40.1	20.6	4.7
5	7,839	25.7	44.1	23	3.9
TOTAL/AVERAGE	33,052	27.86	43.22	21.26	3.34

Source: Statistics South Africa, Census 1996

AGE AND GENDER DISTRIBUTION OF POPULATION (Category 1)

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	UNSPECIFIED	TOTAL
MALE	1,513	1,408	1,272	1,498	2,398	2,366	1,607	1,060	796	649	502	363	296	229	137	81	51	35	796	17,057
FEMALE	1,576	1,481	1,320	1,492	2,265	1,781	1,207	969	784	585	413	317	274	222	142	104	41	43	988	16,004
TOTAL	3,089	2,889	2,592	2,990	4,663	4,147	2,814	2,029	1,580	1,234	915	680	570	451	279	185	92	78	1,784	33,061

AGE AND GENDER DISTRIBUTION OF POPULATION (Category 2)

	0-5	%	6-15	%	16-65	%	65+	%	UNSPECIFIED	%	TOTAL	%
MALE	1,808	10.60	2,640	15.48	11,337	66.47	476	2.79	796	4.67	17,057	51.59
FEMALE	1,895	11.84	2,745	17.15	9,868	61.66	508	3.17	988	6.17	16,004	48.41
TOTAL	3,703	11.20	5,385	16.29	21,205	64.14	984	2.98	1,784	5.40	33,061	100.00

POPULATION GROUP BY FIRST HOME LANGUAGE

	IsiNdebele	IsiXhosa	IsiZulu	Sepedi	Sesotho	Setswana	Siswati	Tshivenda	Xitsonga	Afrikaans	English	Other	Unspecified	Total
African/Black	372	77	112	6,577	1,559	131	23	15,253	1,697	122	179	2,112	205	28,419
Coloured	3	-	-	13	3	-	-	4	-	45	28	7	7	110
Indian/Asian	-	-	2	-	-	-	-	7	15	1	13	3	24	65
White	4	-	-	5	-	-	1	11	11	3,055	775	46	130	4,038
Unspecified	-	-	-	67	2	-	-	76	2	10	10	22	240	429
Total	379	77	114	6,662	1,564	131	24	15,351	1,725	3,233	1,005	2,190	606	33,061
%	1.15	0.23	0.34	20.15	4.73	0.40	0.07	46.43	5.22	9.78	3.04	6.62	1.83	100.00

POPULATION GROUP BY FIRST HOME LANGUAGE PER WARD

FIRST HOME LANGUAGE (%)													
Ward	IsiNdebele	IsiXhosa	IsiZulu	Sepedi	Sesotho	Setswana	Siswati	Tshivenda	Xitsonga	Afrikaans	English	Other	
1	2.2	0.2	0.5	9.9	11.4	0.6	0.1	46.6	2.3	6	2	17.1	
2	1.4	0	0.2	6.1	5.9	0.1	0	71	1.9	5.8	2.7	3.8	
3	0.3	0.1	0.3	36.5	0.9	0.2	0	50.8	9.1	0	0.2	0.6	
4	0.9	0.2	0.3	32.9	0.2	0.1	0.1	52.2	9.5	0.8	0.3	1.9	
5	0.7	0.6	0.2	18.4	1.4	0.7	0.1	27	4.9	30.3	8.5	2.5	

Source of the above Tables: Statistics South Africa, Census 1996

LANGUAGE COMPOSITION

The 1ST home language per population group is presented in **Error! Reference source not found.** (page 10). The 1ST home language per ward is indicated in **Error! Reference source not found.** (Page 10). It is clear from the tables that Venda is the most used home language (46.43%) in the Musina municipal area. Venda is also the most used home language in Wards 1 - 4. Afrikaans is the most used home language in Ward 5 (30.3%), which represents the residential areas of Musina.

MIGRATION

Very little information is available about migration patterns in the Musina municipal area. The following comments are made pertaining to the province as a whole.

The lack of sufficient job opportunities in Limpopo to accommodate the economically active population, together with the apartheid policy of influx control, has entrenched a migratory labour pattern in the country. Although the exact extent of migration is very difficult to determine, it can be estimated by considering the discrepancy in the gender structure. On this basis the DBSA estimated a male absenteeism ratio of 32, 6% for Northern Province in 1980 and 37, 1% in 1990.

Male absenteeism in the former Northern District was 48, 1% of the economically active males. The growth in migration between 1980 and 1990 was 4, 8% per year, which is more than twice the population growth rate. It is probably evidence of more people seeking specific kinds of jobs that are not available in Northern Province. This trend is likely to continue until the Province manages to increase the number and nature of local job creation by way of economic and project development strategies. It should be considered that these estimates are derived from an assumption that only males migrate, which is not true. The actual extent of migration should therefore exceed the estimated figures.

The movement of people from neighbouring Southern African countries represents another form of migration. Accurate figures are once again difficult to obtain because a large number of these people enter the country illegally. Figures obtained from the Department of the Interior indicate a marked acceleration in the repatriation of illegal immigrants from 44 000 in 1988 to 82 000 in 1992. Persons repatriated in 1992 were mostly from Mozambique (61 000) and from Zimbabwe (12 000). Places of entry are the Lowveld and Northern Districts of the Northern Province. Many people stay in the province while others immediately or gradually move to Gauteng. On the basis of research conducted by Minnaar and Hough of the HSRC, it is estimated that there were between 400 000 and 600 000 illegal immigrants in the Northern Province in 1996.

1.3 EMPLOYMENT

EMPLOYMENT STATUS

The employment status of the population of the Musina municipal area is indicated in **Error! Reference source not found.** and **Error! Reference source not found.** The unemployment figures for Ward 3 and 4 (Nancefield) are much higher than for the other wards. The figures still compare favourably with the unemployment rate of ±41% (1995 figure) of the Northern Province.

EMPLOYMENT STATUS

CATEGORY	Male	Female	Total
Employed	8937	7265	16201

Unemployed	1734	3649	5383
Scholar or student	1273	1259	2532
Home-maker or housewife	20	477	497
Pensioner or retired person/to old to work	172	367	539
Unable to work due to illness or disability	103	160	262
Seasonal worker not working presently	43	83	126
Does not choose to work	127	371	499
Could not find work	190	417	607
Not applicable (younger than 15 and older than 65)	6201	6465	12665
Total	18800	20513	39313

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EMPLOYMENT STATUS PER WARD

WARD	POPULATION	EMPLOYED %	UNEMPLOYED %
1	10,016	98.8	1.2
2	3,972	92.3	7.7
3	5,941	74.7	25.3
4	5,284	71.3	28.7
5	7,839	87.8	12.2

Source: Statistics South Africa, Census 1996

OCCUPATION BY CATEGORY

The occupation of the population of the Musina municipal area in terms of category is indicated in The highest percentage of jobs is in the unskilled/elementary category, i.e. 57.29%. Approximately 20% more females than males are employed in the unskilled category.

OCCUPATION BY CATEGORY

CATEGORY	MALE		FEMALE		TOTAL	
	NO.	%	NO.	%	NO.	%
Legislators, senior officials and managers	132	1.88	43	0.94	175	1.51
Professionals	206	2.94	213	4.65	419	3.62

Technicians and associate professionals	160	2.28	122	2.66	282	2.43
Clerks	123	1.76	293	6.40	416	3.59
Service workers, shop and market sales workers	630	8.99	287	6.27	917	7.91
Skilled agricultural and fishery workers	767	10.95	245	5.35	1,012	8.73
Craft and related trades workers	1,020	14.56	154	3.36	1,174	10.13
Plant and machine operators and assemblers	516	7.36	38	0.83	554	4.78
Elementary occupations (unskilled)	3,453	49.28	3,185	69.54	6,638	57.29
TOTAL	7,007	100.00	4,580	100.00	11,587	100.00

Source: Statistics South Africa, Census 1996

OCCUPATIONAL CLASSIFICATION BY ECONOMIC SECTOR

The occupational classification of the population of the Musina municipal area in terms of economic sector is indicated in **Error! Reference source not found.**. The largest percentage of people is employed in the agricultural and hunting sector, i.e. 17.13%.

OCCUPATIONAL CLASSIFICATION BY ECONOMIC SECTOR

CATEGORY	MALE		FEMALE		TOTAL	
	NO.	%	NO.	%	NO.	%
Agriculture, hunting, forestry and fishing	3,631	21.29	2,034	12.71	5,665	17.13
Mining and quarrying	411	2.41	69	0.43	480	1.45
Manufacturing	157	0.92	71	0.44	228	0.69
Electricity, gas and water supply	44	0.26	5	0.03	49	0.15
Construction	451	2.64	61	0.38	512	1.55
Wholesale and retail trade	339	1.99	326	2.04	665	2.01
Transport, storage and communication	444	2.60	38	0.24	482	1.46
Financial, insurance, real estate, business services	176	1.03	146	0.91	322	0.97
Community, social and personal services	707	4.14	557	3.48	1,264	3.82
Private households	477	2.80	1,141	7.13	1,618	4.89
Exterritorial organisations	4	0.02	0	0.00	4	0.01
Representatives of foreign governments	0	0.00	0	0.00	0	0.00
Industry NEC or unspecified	912	5.35	563	3.52	1,475	4.46
Not applicable	7,560	44.32	10,129	63.29	17,689	53.50

CATEGORY	MALE		FEMALE		TOTAL	
	NO.	%	NO.	%	NO.	%
NA: Institution	1,745	10.23	865	5.40	2,610	7.89
Total	17,058	100.00	16,005	100.00	33,063	100.00

Source: Statistics South Africa, Census 1996

1.4 HOUSEHOLD INCOME & EXPENDITURE

INDIVIDUAL INCOME DISTRIBUTION

The individual income distribution of the population is indicated in **Error! Reference source not found.**. It is clear from **Error! Reference source not found.** that a high percentage of individuals, i.e. ±60%, earn less than R501 per month.

MONTHLY INDIVIDUAL INCOME

CATEGORY	MALE		FEMALE		TOTAL	
	NO.	%	NO.	%	NO.	%
None	4,297	25.19	5,842	36.50	10,139	30.67
R1 - R200	2,601	15.25	2,528	15.80	5,129	15.51
R201 - R500	2,557	14.99	1,940	12.12	4,497	13.60
R501 - R1000	931	5.46	402	2.51	1,333	4.03
R1001 - R1500	703	4.12	251	1.57	954	2.89
R1501 - R2500	510	2.99	224	1.40	734	2.22
R2501 - R3500	329	1.93	169	1.06	498	1.51
R3501 - R4500	200	1.17	97	0.61	297	0.90
R4501 - R6000	232	1.36	75	0.47	307	0.93
R6001 - R8000	124	0.73	25	0.16	149	0.45
R8001 - R11000	102	0.60	10	0.06	112	0.34
R11001 - R16000	45	0.26	3	0.02	48	0.15
R16001 - R30000	22	0.13	3	0.02	25	0.08
R30001 or more	17	0.10	4	0.02	21	0.06
Unspecified	2,094	12.28	2,822	17.63	4,916	14.87
NA: Institution	2,294	13.45	1,610	10.06	3,904	11.81
Total	17,058	100.00	16,005	100.00	33,063	100.00

Source: Statistics South Africa, Census 1996

ANNUAL HOUSEHOLD INCOME AND EXPENDITURE

The household income and expenditure of the population is indicated in **Error! Reference source not found.** indicates that 54.65% of households earn less than R12000 per year or R1000 per month. The accepted minimum level of income per annum for households to sustain a living is R950 per month (BMR, 2001) for the Northern Province. It is clear that a substantial number of households in the Musina municipal area own less than the required minimum to maintain an acceptable living standard.

ANNUAL HOUSEHOLD EXPENDITURE

EXPENDITURE CATEGORY	No.	%
None	-	0
R1-2400	-	0
R2401-6000	1,554	18.48
R6001-12000	2,491	29.63
R12001-18000	1,191	14.17
R18001-30000	1,054	12.54
R30001-42000	488	5.80
R42001-54000	336	4.00
R54001-72000	268	3.19
R72001-96000	271	3.22
R96001-132000	238	2.83
R132001-192000	176	2.09
R192001-360000	127	1.51
R360001 or more	21	0.25
Unspecified/dummy	192	2.28
NA: Institution/hostel	-	0
TOTAL	8,407	100.00

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ANNUAL HOUSEHOLD INCOME

INCOME CATEGORY	No.	%

None	387	4.60
R1-2400	999	11.88
R2401-6000	2,245	26.70
R6001-12000	964	11.47
R12001-18000	604	7.18
R18001-30000	508	6.04
R30001-42000	262	3.12
R42001-54000	179	2.13
R54001-72000	222	2.64
R72001-96000	165	1.96
R96001-132000	174	2.07
R132001-192000	81	0.96
R192001-360000	53	0.63
R360001 or more	18	0.21
Unspecified/dummy	1,418	16.86
NA: Institution/hostel	129	1.53
Total	8,408	100.00

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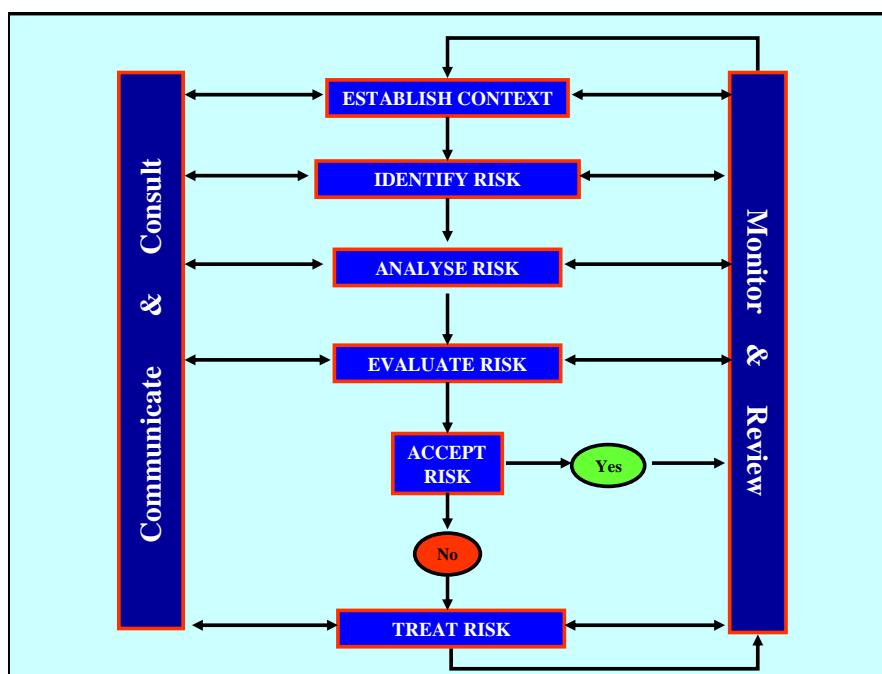
RISK MANAGEMENT OVERVIEW

Risk Management Process

RISK MANAGEMENT POLICIES AND PROCEDURES HAVE BEEN ADOPTED IN A WIDE RANGE OF PROFESSIONS AND INDUSTRIES, BUT ONLY IN RECENT YEARS HAVE NATIONAL AND INTERNATIONAL RISK MANAGEMENT STANDARDS BEEN DEVELOPED. THESE HAVE ESTABLISHED POLICIES, PROCEDURES AND PRACTICES FOR THE MANAGEMENT OF THE TASKS OF IDENTIFYING, ANALYSING, EVALUATING, TREATING AND MONITORING RISK.

The international risk management standard AS/NZS 4360:1999 is widely used to guide risk management efforts in both the developed and least developed country environments. A key feature of this standard is that it focuses on both the sources of risk (the hazards) and the elements of the community that may be at risk from the hazards (the vulnerable sectors).

AS/NZS 4360:1999, Risk Management



CHARM

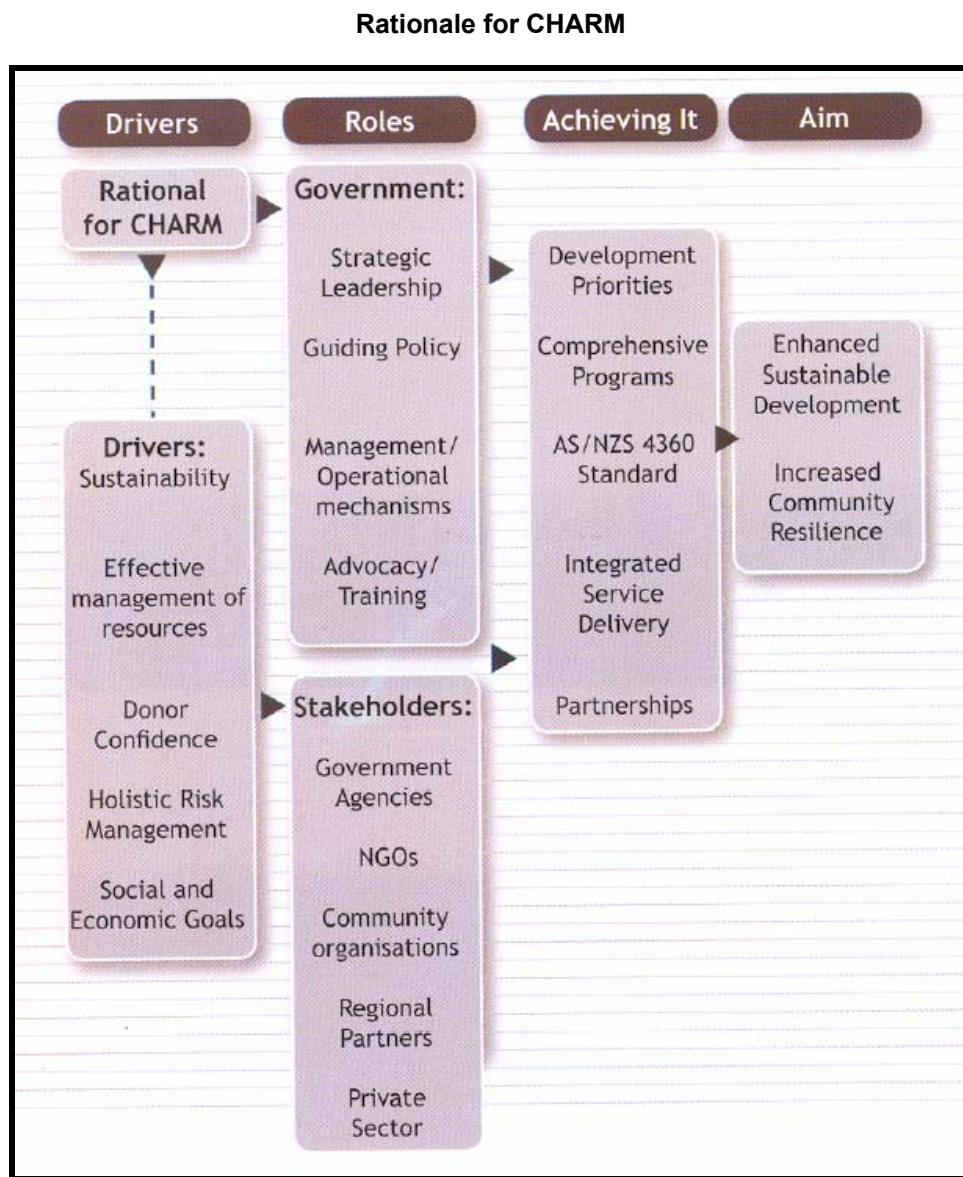
The Importance of CHARM

Whilst there is already a significant level of disaster reduction, risk management and/or mitigation being practiced within South Africa, efforts tend to be siloed within single government departments or Non Government Organisations and private sector agencies. In many instances, agencies try to address risk reduction for a range of hazards simultaneously from within the limited resources of single departments. In such cases duplication of effort is common and there are usually a number of obvious programming gaps, which tend to impact upon the effectiveness and sustainability of outputs.

CHARM is not a new business per se, however it is a new way of doing business. It moves the disaster management approach away from just being response and relief toward a more holistic risk management containment strategy that is linked intrinsically to national development planning. Although effective response and recovery mechanisms are important, there needs to be a balance whereby risk is minimised through deliberate and planned sustainable mitigation efforts.

Rationale for CHARM

The rationale for CHARM is to integrate recognised risk management practices within the development planning processes of countries. This is conceptualised in Figure 3.2 below, which show the reasons for CHARM, how existing arrangements can be used to achieve the aims of CHARM.



South Africa has committed to changing the disaster management paradigm toward a front end, all hazards, whole of country, Comprehensive Hazard and Risk Management (CHARM) programming process that enhances national development efforts. The critical ingredients of CHARM are that it has an holistic programming focus, it seeks to involve all national and regional partners in collaborative efforts, and it is modelled on the AS/NZS 4360:1999¹² standard to ensure it meets accredited standards and thus recognised regionally and internationally as a viable concept.

The success of CHARM is dependent upon it being recognised by government as a viable tool to coordinate the effective pooling and integrative utilisation of resources for sustainable development planning. It should be mainstreamed as “core business” within government, non-government and national partner program activities.

Other attributes of CHARM are:

- It is linked to national development planning (social, economic and infrastructure)

- It assists in establishing and prioritising development activities
- It targets the management of both existing and future risk
- It is linked to existing national and regional institutional mechanisms and programs
- It facilitates collaborative partnerships and enhances information sharing
- It creates a programming environment that maximises the use of available resources and minimises duplication.
- The CHARM process is in itself a useful professional development mechanism
- It provides a mechanism for establishing formal linkages between all stakeholders
- It creates an environment for enhanced collaboration at national and regional levels

The Key Element of the CHARM Process

The key elements of the CHARM Process are outlined in Figure 3.3 and Figure 3.4

The alignment between normal management, risk management, disaster risk management practices and CHARM

Normal Management	Risk Management (AS/NZS 4360:1999)	Disaster Risk Management (Qld)	CHARM
Problem Definition	Establish the Context: <ul style="list-style-type: none"> Establish strategic, organisational and risk management contexts Develop risk evaluation criteria Define the structure 	Establish the Context: <ul style="list-style-type: none"> Identify issues and establish risk management framework Develop risk evaluation criteria 	Establish the Context: <ul style="list-style-type: none"> Sensitise senior political and policy officials Identify strategic issues Identify existing frameworks for management of CHARM Identify national development priorities Review project appraisal criteria Develop Training support program Develop risk evaluation criteria
Research	Identify Risks <ul style="list-style-type: none"> Identify what can happen Identify how and why it can happen 	Identify Risks: <ul style="list-style-type: none"> Identify and describe hazards, community and environment Scope and analyse vulnerability Establish risks 	Identifying Risks <ul style="list-style-type: none"> Identify and assess hazards Identify and assess vulnerability in key sectors Identify risks
Analysis	Analyse Risks: <ul style="list-style-type: none"> Determine existing controls Determine likelihood and consequence Estimate level of risk 	Analyse Risks: <ul style="list-style-type: none"> Determine Likelihood Determine Consequence Estimate level of risk 	Analyse Risks <ul style="list-style-type: none"> Determine Likelihood Determine Consequence Assign level of risk
Decision Making	Evaluate Risks: <ul style="list-style-type: none"> Compare against criteria Set risk priorities Accept risk or not 	Evaluate Risks: <ul style="list-style-type: none"> Compare against criteria Set risk priorities 	Evaluate Risks <ul style="list-style-type: none"> Decide on risk acceptability Set risk priorities
	Treat Risks: <ul style="list-style-type: none"> Identify treatment options Evaluate treatment options Select treatment options 	Treat Risks: <ul style="list-style-type: none"> Identify mitigation, preparedness, response and recovery options Evaluate options Select options 	Treat Risks: <p>Managing Existing Risk:</p> <ul style="list-style-type: none"> Evaluate treatment options Select and prioritise treatment options Allocate responsibilities against core business functions of agencies Develop an implementation plan based on gaps Link with regional partners Close the programming gap through new project proposals Implement the plan <p>Managing Future Risk</p> <ul style="list-style-type: none"> Identify options for project design changes Liaise with national authorities and development partners Incorporate changes.
Implementation	<ul style="list-style-type: none"> Prepare treatment plans Implement plans 	<ul style="list-style-type: none"> Plan and Implement Treatments 	<ul style="list-style-type: none"> Coordinate and monitor implementation
Monitor and Review	<ul style="list-style-type: none"> Monitor and review 	<ul style="list-style-type: none"> Monitor and review 	<ul style="list-style-type: none"> Undertake formal program reviews

Comprehensive Hazard and Risk Management – the Steps

Hazard (source of risk)	Vulnerable Sector (element at risk)	2. POTENTIAL RISK (risk statements)	3. RISK TREATMENT OPTIONS (INCL UDE CURR ENT CONT ROL MEASURES)	Risk Treatment Evaluation (determine effectiveness, cost and potential benefit of risk treatments)	5. R E S P O N S I B L E A G E N C Y (link treatment option to core business of relevant organisation)	Link Municipal & Provincial Partners & Donor Organisations (identify residual risk and develop program to address)	New Projects (close the gaps by National or Provincial Government program or donor-funded program)
				Likelihood Consequence	Action Priority		

In the preparation of this document, only the pure risk management component of the CHARM process has been addressed, taking the process as far as the column “Level of Risk”. It will be the responsibility of the Disaster Management Advisory Forum to continue with the process, under the guidance of personnel from the Disaster Management Centre.

Further assistance will be required to introduce and implement the full scope of CHARM, linking it to the sustainable development of the municipality

The Context of the Plan

Purpose of this Section

- To develop a shared understanding of strategic and organisational benefits that will emerge from the introduction of the CHARM process.
- To identify development priorities, development projects, development policies and strategies.
- To develop a management mechanism that will guide the implementation of the CHARM process within the context of whole of district business.
- To develop draft evaluation criteria that will be used to decide which risks are addressed first and to set priorities for treatment of these risks.

Critical Success Factors

- The Municipality gives risk management, utilizing the CHARM process a high priority in its Integrated Development Plan.
- The Municipality highlights this process as a key development planning issue, and allocates resources including an annual budget and appropriate infrastructure to undertake the process in this coming financial year – unlike before this plan was prepared.
- The Municipality identifies the need to have universal involvement in the risk management process; hence it followed a participatory planning process with workshops.
- The Municipality has identified the special vulnerability of women, children, the aged and the infirm to hazard impacts, and have ensured a broad representation of women in the Disaster Management Committee, and will seek to improve on this going forward in the (revamped) future form, the Disaster Management Advisory Forum.

(1) Strategic local and organisational issues and their implications.

- While many are identified in the IDP. Disaster Management is clearly a new competing interest within the municipality and lacks infrastructure and resource allocation. The councillor responsible for disaster management is currently responsible for everything concerning disaster, even those that should ideally be handled by officials.
- This situation would lead to poor or lack of effective implementation of the plan.
- The consultation process has recommended strongly that there municipality must appoint a disaster management coordinator. Such as person could also be given other risk management tasks.
- It is anticipated that this person shall be key to the operations and functioning of the Disaster infrastructure.

(2) the Local institutional system to drive the risk management process

- The current single incident emergency services should be consolidated as one Disaster management Centre, modelled on its provincial and national counterparts, to which the coordinator will be central.
- The Disaster Management Committee should be reformed as the Disaster Management Advisory Forum DMAF and formalised as the governance structure overseeing the Disaster Management Centre and ensuring the effective implementation of the Plan.
- The DMAF will from time to time coopt or contract service providers or experts that it may deem necessary to.

(3) Strategic development priorities, sector development projects, policies and strategies.

- Priorities have been identified in the IDP; however they have not been prioritised in respect to risk management. It is expect that the Spatial Development Framework will take into account Disaster Management Imperatives and needs, thus facilitating an essential inter-plan linkage.

(4) Guidelines for minimising the level of future risk

- The DMAF shall develop this at an appropriate time.

As part of the broader IDP review and Development Planning Support process there should be consideration for the establishment of an environmental impact assessment as a standard procedure preceding all developments within the Municipality, which could be used to minimise future risk. The DMAF should also work on the nest ways of ensuring that economic and social impact can be measured in terms of the CHARM principles in future.

(5) Implement capacity building and transformation

The DMAF shall develop a capacity building and change management programme to orient everyone to the new system, as well as transform single incident management culture and processes, as a way of building new rules and ways of doing things.

(6) Overarching risk evaluation criteria

- The following risks are unacceptable:
 - Risks to plant, animal and human life
 - Risks to public health
 - Risks to public and private property
 - Risks to natural resources and the environment
 - Risks to the economy
 - Risks to the sustainable development of the municipality

South Africa's National Disaster Management Structure

The South African National Disaster Management structure as outlined in the Disaster Management Act 2002, is based on the three spheres of Government, namely National, Provincial and Municipal.

National

At the national level, the key institutional mechanism is the Inter-Ministerial Committee for Disaster Management, chaired by the Minister for Provincial and Local Government. The primary functions of this committee are to advise and make recommendations to Cabinet:

1. on issues relating to disaster management
2. on the establishment of a national framework for disaster management, aimed at ensuring an integrated and uniform approach to disaster management in the Republic by all national, provincial and municipal organs of state, statutory functionaries, non-governmental institutions involved in disaster management, the private sector, communities and individuals

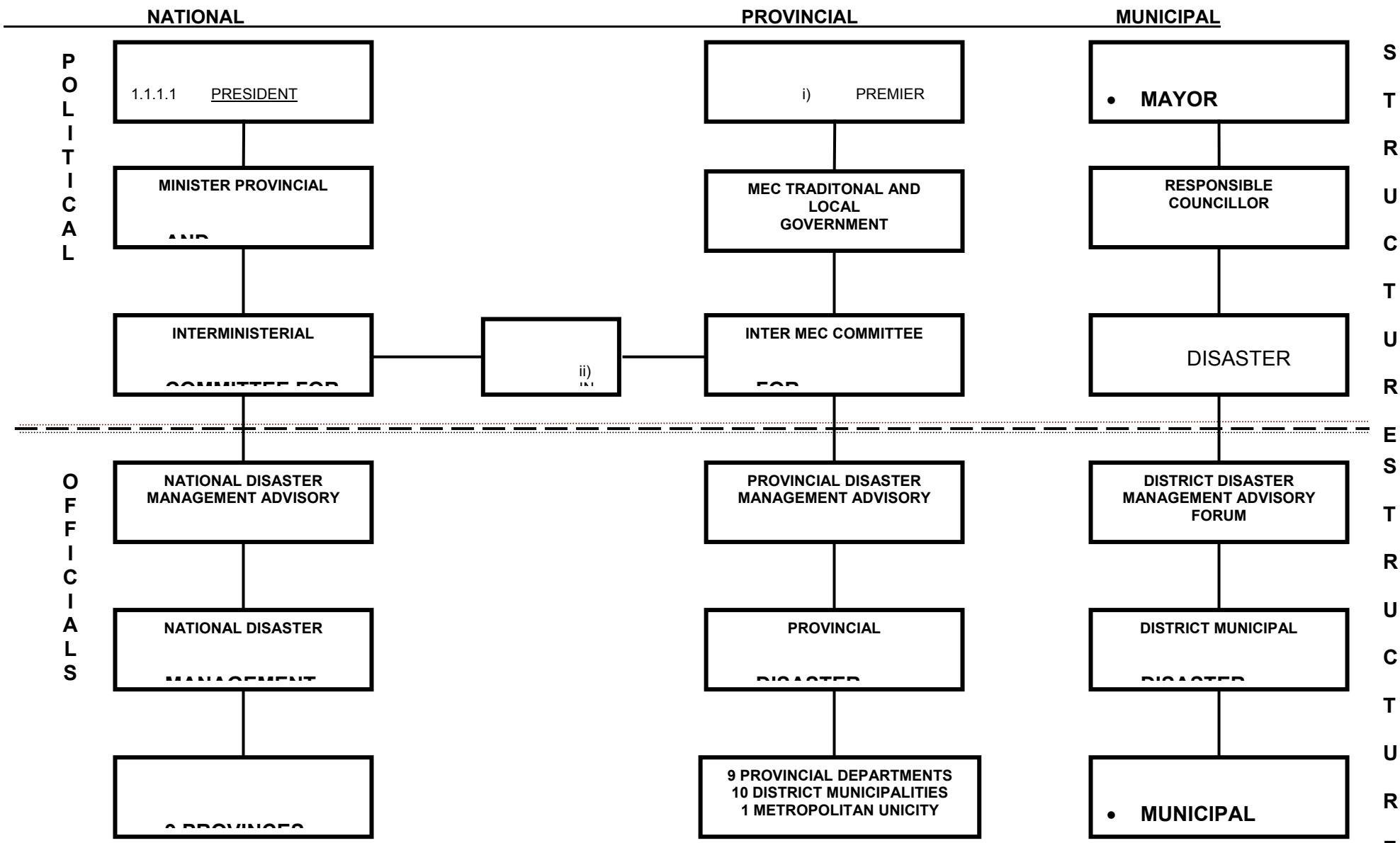
Provincial

At the provincial level, the key institutional mechanism is the Inter MEC Committee for Disaster management. The key responsibilities are to promote an integrated and co-ordinated approach to disaster management, with special emphasis on prevention and mitigation.

Municipal

At the municipal level, the key institutional mechanism is the Disaster Management Portfolio Committee. The key responsibilities of this committee are similar to those at provincial level, but with a municipal focus.

DISASTER MANAGEMENT STRUCTURE



Municipal Disaster Management Framework

In accordance with the provisions of the Disaster Management Act of 2002, the Municipality is required to operate within a disaster management framework, which must provide a coherent, transparent and inclusive policy on disaster management appropriate for the district as a whole.

The disaster management framework must reflect a proportionate emphasis on disasters of different kinds, severity and magnitude that occur or may occur in the district, place emphasis on measures that reduce the vulnerability of disaster-prone areas, communities and households, and must-

- Guide the development and implementation of disaster management envisaged by the Disaster Management Act of 2002;
- Establish prevention and mitigation as the core principles of disaster management;
- Give effect to the application of co-operative governance on issues concerning disasters and disaster management between government, private sector and community organisations, and
 - (i) determine the relationship between the local government exercising primary responsibility for the co-ordination and management of a disaster in terms of sections 26(1), 40(1) and 54(1) or (2) of The Act and the spheres of government, non-government organisations or the private sector performing supportive roles;
 - (ii) allocate specific responsibilities in this regard to the different spheres:
- Facilitate-
 - (i) the involvement of the private sector, non-governmental organisations, traditional leaders, technical experts and volunteers in disaster management;
 - (ii) community participation in disaster management; and
- (iii) **partnerships for purposes of subparagraphs (i) and (ii) between organs of state and the private sector, non-governmental organisations and communities;**
 - Facilitate disaster management capacity building. training and education, including in schools, and provide incentives for such capacity building, training and education;
 - Promote disaster management research;
 - Guide the development of a comprehensive information management system;
 - Take into account indigenous knowledge relating to disaster management;
 - Provide a framework within which the Musina Municipality can liaise with organs of state which may fund disaster 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 disasters and their dependants;
 - Address the requirements for co-operation and co-ordination between the different spheres of government, the private sector, non-governmental organisations and communities; and
 - Provide key performance indicators in respect of the various aspects of disaster management.

Institutional Systems

Musina Local Municipality

Disaster management is a vital part of the core business of the Municipality as part of its constitutional responsibility to provide a safe and healthy environment. It is important that Council is overtly supportive of the process, both philosophically and materially, in order to promote disaster management to participating organisations and the public generally. Accordingly, elected members and senior executive personnel have a leading role in the disaster management strategies for the Municipality.

Municipal Directors and their Managers must become familiar with this document and its contents, and must ensure that this document available to all personnel under their control.

Musina Disaster Management Executive Committee

Committee Membership:

Mayor, Musina Local Municipality

Chairman: Disaster Management Portfolio Committee

Municipal Manager (Head: Disaster Management Centre)

Manager: Community Services

Manager: Technical Services

Coordinator: Vacant

Manager Emergency Services

The functions of the Disaster Management Executive Committee are:

- 1) to ensure that the Municipality develops and maintains -
 - i) a disaster management framework ; and
 - ii) a disaster management plan;

As required by the Act;
- 2) to appoint and maintain a Local Disaster Management Advisory Forum, involving senior representatives of Municipality, Provincial Government Departments, Musina Municipality Departments, Non-Government Organisations and Community Organisations or to alternatively build on the Disaster Management a Committee as proposed;
- 3) to actively promote the Comprehensive Hazard and Risk Management Program throughout all areas of the management of the Municipality, strengthening the linkages to sustainable development through the Integrated Development Plan;
- 4) to foster comprehensive disaster management in the municipality, in the spirit of the legislation, through the employment of the Comprehensive Hazard and Risk Management Program as developed with the Disaster Management Advisory Forum;
- 5) to take operational support decisions during a disaster-related activation of the District Disaster Management Centre.

Musina Disaster Management Advisory Forum (DMAF)

Committee Membership:

Chair: Councillor G Ramushwana

Members: Senior representatives of:

In its full form, the DMAF should be comprised of the

- Provincial Disaster Management Centre
- Relevant District and surrounding local municipalities
- South Africa Red Cross
- Musina Chamber Of Commerce
- Limpopo Road Traffic Inspectorate
- South African Police Services
- Department Of Labour
- Department Of Traditional And Local Government Affairs
- Department Of Welfare
- Department Of Water Affairs And Forestry
- Department Of Transport
- Department Of Health
- Department Of Agriculture
- Department Of Education
- Department Of Works
- Department Of Economic Development And Tourism
- Department of Home Affairs and Customs
- Eskom
- Emergency Medical Rescue Services
- South African National Defence Force
- Metro Rail
- Telkom

**** Representatives of other agencies may be co-opted to the Forum as required.*

The functions of the Disaster Management Advisory Forum are:

- 1) to ensure the continuing development of the disaster management strategies through the CHARM Program
- 2) to assist in the maintenance and future development of this Plan

.1.1.1.1.2 Frequency of Meetings

The committee should meet monthly, on a regular day (to be decided).

Meetings will be held at the Disaster Management Centre (DMC) building (when the proposed building is completed). Until the DMC building is completed, alternative arrangements for meeting venues will be the responsibility of the Manager: Health and Safety.

Administrative requirements for the Disaster Management Advisory Forum (DMAF) and meetings of the Forum will be the responsibility of the DMC.

Review of the Plan

Main Plan

The Musina Local Municipality Disaster Management Plan should be reviewed by a working group from the DMAF as follows:-

April	Working group reviews and amends (as required) the main plan
May	Draft plan submitted to full Disaster Management Advisory Forum for acceptance/amendment
June	Reviewed plan submitted to Municipality Executive Committee for endorsement, and endorsed plan submitted to full Council for approval

The master contact list for all organisations/persons involved in the Municipality's disaster management arrangements should be updated at each Committee meeting and will be held by the DMC.

Capacity Building and Transformation Program

The Manager, Community Services will ensure that a suitable disaster management training program is designed and implemented, in collaboration with any training provided by the National or Provincial Disaster Management Centres. The training program will include specific training, through workshops, discussion forums and formal instruction, in order to maintain the disaster management knowledge and understanding levels of all participants at the highest possible level.

The DMC will liaise with the Provincial Disaster Management Centre in relation to accessing Provincial training programs and will arrange for members of the Disaster Management Advisory Forum to be made aware of training courses being offered by Province or any other appropriate agency.

Introductory training sessions will be conducted for members of the DMAF and Municipality staff as follows:-

DMAF	Presentations by the Manager: Health and Safety on the current situation with Disaster Management at Local Government level. Training should be tailored to ensure that members of the DMAF can fulfil their key functions
Municipality	Training sessions for staff who may be employed in the Human Resources Department during its operational activation.

Reporting Requirements

The DMAF will report annually (and at other times as may be directed) regarding its activities to the Executive Committee of the Musina Local Municipality. The annual report shall include such content as is required by the Act, and copies thereof shall be furnished to the National Disaster Management Centre, the Provincial Disaster Management Centre, and all Local Municipalities within the municipality.

Public Education

The community should be informed of the Disaster Management arrangements the Municipality has in place by the conduct of public meetings, information distribution, newspaper articles, advertisements and brochures as follows.

Council Offices

- The DMC is to ensure each Municipality public office has on display any public awareness material available
- The current copy of the Municipal Disaster Management Plan is to be available for public viewing in the head office of the Municipality.

Business

- The DMC should ensure all Parks, Game Reserves, Tourist Information Centres, Resorts and other centres have ample supplies of brochures and information on the Municipality's disaster management arrangements.

Industry

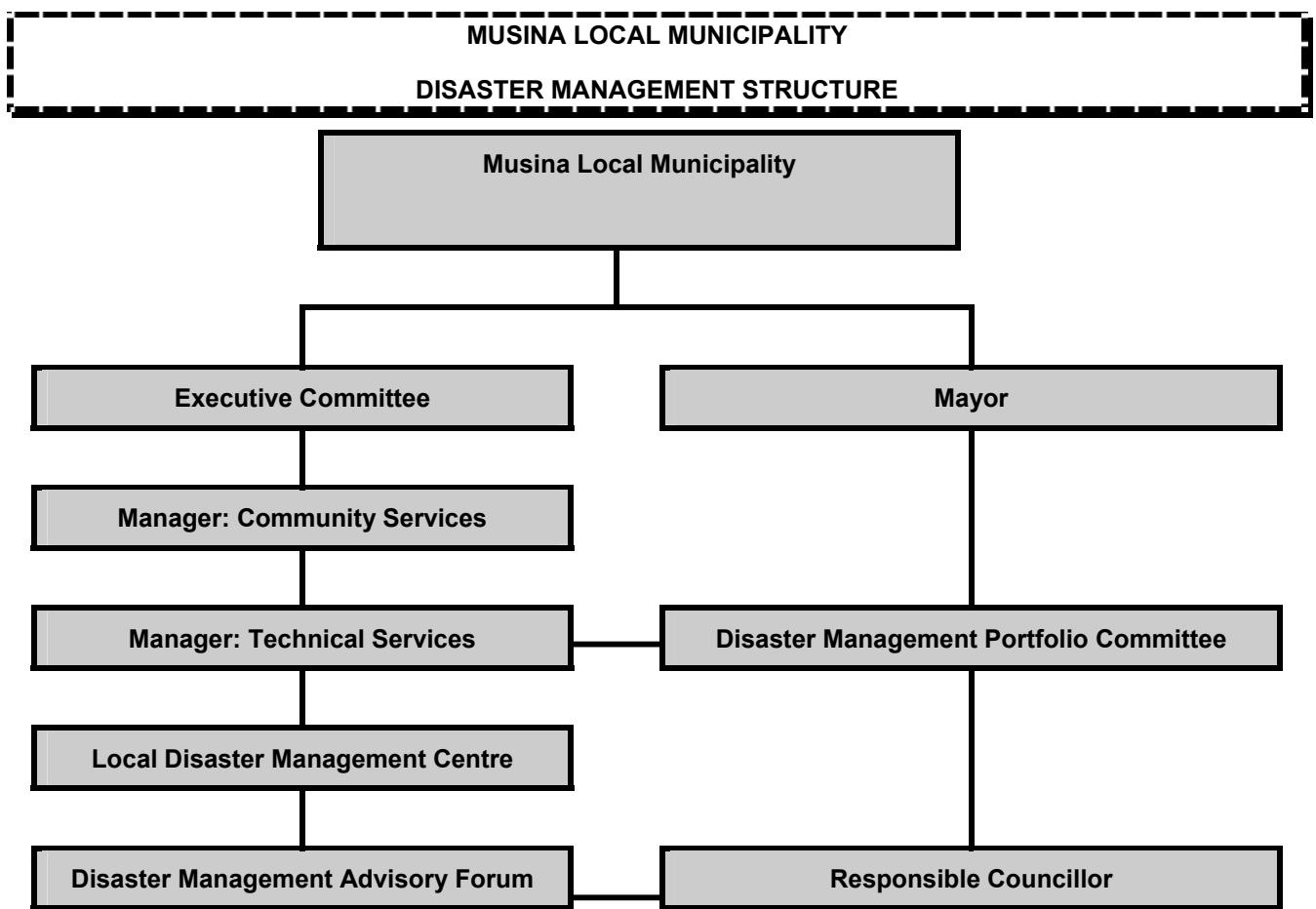
- The DMC should conduct meetings with industry groups to ensure their members are aware of the Municipality's Disaster Management arrangements.

Community

- The DMC should conduct public information sessions to present the current arrangements in place to assist the community to prepare for potential hazard impacts or threats. Such meetings should be held in all areas of the Municipality, and should be tailored to be language appropriate.

Media

- The Council should provide a media release on the adoption of the new Disaster Management Plan, and following any subsequent annual updates of the Plan.
- Council should arrange for a disaster preparedness information page for inclusion in local newspapers.



Hazard and Risk Analysis

Purpose of this Section

- To identify what risks present the greatest threat to district development planning.
- To develop an understanding of what development initiatives may be vulnerable to the influences of hazards.
- To develop an understanding of how best to manage existing, residual and future risks.
- To assign levels of risk

The Key Steps

1. Identification and assessment of significant hazards

- The Disaster Management Advisory Forum has identified the major hazards for the District, along with some potential consequences. These are displayed below

List of Major Hazards

Hazard	Potential Consequences
ANIMAL DISEASE	Most animal disease emergencies present little direct threat to human health; however the cost in purely economic terms may be particularly significant. Many rural residents rely on their animals for subsistence, and there are a number of larger animal-based industries in the Municipality.
FIRE (VELD/STRUCTURAL)	Loss of life, (loss of breadwinner), severe injury, loss of homes, loss of crops, loss of stock loss, of grazing land, loss of income. Stretching of the emergency response capability.
FLOOD/SEVERE STORM OR RAINFALL EVENT/LANDSLIP	Loss of life, (loss of breadwinner), severe injury, loss of homes, loss of stock loss of income, increased risk of disease.
HAZARDOUS MATERIAL EVENT	<u>Loss of life, (loss of breadwinner), severe injury, evacuation of large areas, fires, explosions, ground and air pollution.</u> <u>Road and rail transport traveling through the District carrying dangerous chemicals and corrosive substances poses the threat of a significantly dangerous accident.</u>
HUMAN EPIDEMIC	Loss of life, (loss of breadwinner), extended illness, loss of employment because of absenteeism, over-taxing of the medical response capability.
MAJOR INFRASTRUCTURE FAILURE	Loss of electrical power, causing: lack of heating; lack of refrigeration; limited fuel supplies; loss of employment through closures of industry. Loss of communications, leading to severe impact on the Municipality's disaster co-ordination ability. Loss of telephone, fax, computer (internet), automated teller machines, electronic sales.
MAJOR TRANSPORTATION	Loss of life, (loss of breadwinner), severe injury, loss of income, stretching of response and medical capability.

EVENT	Transport could a chemical spill, even explosion, as it has happened before, and the locality is situated at a border/gateway into Southern Africa, South Africa's major trading partners), trains, tour coaches, school buses, taxis or heavy transport vehicles.
TERRORIST ACTIVITY	Loss of life, (loss of breadwinner), severe injury, loss of income. Combination of the consequences from all other hazards, dependent upon the type of terrorist activity employed.
WATER CONTAMINATION	Increased disease, loss of life, loss of stock, pressure on health facilities.

Certain other hazards/conditions were nominated for inclusion in the Plan, but will not be dealt with under the locality's disaster planning arrangements.

HIV/AIDS

It is the view of the Municipality that HIV/AIDS, while a serious problem, falls within the core function of the Department of Health, and the Municipality has identified programs in its Integrated Development Plan to address the issue in conjunction with health authorities. It is therefore not viewed as appropriate to include HIV/AIDS as a disaster management concern.

Earthquake

Historical evidence would suggest that the risk of the impact of earthquake in the locality is minimal, and the subject has not been addressed in the Plan. In the unlikely event of the occurrence of an earthquake, the event will be handled utilising the agreed functional arrangements outlined in the document.

Oil Spill at Sea

This is a matter adequately addressed by other arrangements. The consequences of an oil spill at sea may require support from the disaster management system, and will be addressed using the concept of the "All Hazards Approach" to disaster management.

Terrorist Activity

While this has been included as a hazard for the purposes of this Plan, it is not addressed with a view to its mitigation, but purely as to its consequences. The consequences of a terrorist event will be similar to the consequences of many other events outlined in this document, and will be addressed using the concept of the "All Hazards Approach" to disaster management.

Further Actions Required

Future Hazard Analysis Requirements

- A more rigorous hazard analysis of the locality is required. Climate change events and their potential to influence the impact of hazards have not been considered

Ideally, this process will have a number of outputs:

Hazard Mapping

GIS-based mapping of possible flood levels	Identification of areas susceptible to landslip
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Satellite and aerial photography	Identification of areas susceptible to coastal erosion
Identification of areas most susceptible to fire	Updated population information (current information is from the 1996 census)
Identification of riverine areas susceptible to flooding as a result of a dam failure (outside the District)	

Identification of Vulnerable Critical Infrastructure

It is vital that following the completion of the hazard mapping, studies are conducted to identify any siting of critical infrastructure which is in a potentially hazardous area. It will then be necessary to address the risk to the critical infrastructure, using the risk management process.

Identification of Critical Infrastructure

Identification of the location of the following:

▪ Government buildings	▪ Emergency Services buildings
▪ Hospitals	▪ Clinics
▪ Power facilities	▪ Communications facilities
▪ Water reticulation facilities	▪ Water storage facilities
▪ Airports/airstrips	▪ Fuel storage areas
▪ Railways	▪ Major roads/bridges
▪ Banks, financial institutions	▪ Major industrial concerns

Identification of Vulnerable Communities

Similarly, once the hazard mapping is completed, the results will identify those areas of the community that are most vulnerable to a variety of hazards.

On completion of the identification of these areas of the community, it must be a priority of the disaster management system, through its linkages with the Integrated Development Plan to address the risks to those areas.

Development Implications

The combination of all of the above areas will ultimately provide municipal planners with definitive information upon which to base future development of the District, and a sound basis for the refusal of development applications as necessary.

Identify and assess risks associated with the hazards

The Disaster Management Advisory Forum has identified the risk descriptors and have undertaken a risk assessment of the key hazards. These are displayed as follows:

Risk Descriptors

Descriptor	Potential Scenarios
Insignificant Risk	No fatalities. Medical treatment required. Small number displaced for a short period. Some damage. Little disruption to community. Some impact on environment with no lasting effects. Some financial loss.
Minor	Small number of fatalities. Hospitalisation required. Minor temporary displacement. Significant damage. Some community disruption. Serious impact on environment with no long-term effects. Significant financial loss.
Moderate	Multiple fatalities. Numerous injuries requiring hospitalisation. Significant numbers displaced for short periods. Serious damage requiring some external assistance. Community functioning with difficulty. Severe impact on environment with long term effects. Serious financial loss.
Major	Numerous fatalities. Extensive injuries, with significant hospitalisation. Large number displaced for significant duration. Severe damage that requires external resources. Community only partially functioning. Severe permanent damage to the environment. Severe financial loss
Catastrophic	Mass fatalities. Large numbers requiring extended hospitalisation. General and widespread displacement for extended duration. Widespread extensive damage. Community unable to function. Widespread severe permanent damage to the environment. Widespread severe financial loss.

Qualitative Analysis Matrix – Level of Risk

Consequence	Insignificant	Minor	Moderate	Major	Catastrophic
Likelihood	1	2	3	4	5
A (almost certain) 1:1	H	H	E	E	E
B (likely) 1:10	M	H	H	E	E
C (possible) 1:50	L	M	H	E	E
D (unlikely) 1:100	L	L	M	H	E
E (rare) 1:500	L	L	M	H	H

E: extreme risk; immediate action required

H: high risk; senior management attention needed

M: moderate risk; management responsibility must be specified

L: Low risk; manage by routine procedures

Detailed Risk Analysis

Hazard	Vulnerable Sector	6. <u>POTENTIAL RISK</u>	Likelihood		
			6.1	Consequence	CONSEQUENCE
All Hazards	All Sectors	<ul style="list-style-type: none"> ▪ Inadequate (or unidentified) disaster management experience or expertise within the Municipality. ▪ Inadequate response capability within the Emergency Services agencies in the Municipality. ▪ Inadequate response times to rural areas of the Municipality. ▪ Lack of communication facilities in rural areas. ▪ Lack of effective roads infrastructure in the more remote rural areas. ▪ Misunderstanding by most agencies relative to the meaning of the term 'disaster management'. ▪ Traditional practices. (Traditional leaders allocating land for homes in areas devoid of infrastructure; non-use of sanitation facilities, leading to water pollution and disease; acceptance of the requirement to walk long distances to source water.) 	These risks are generic, and have not been analysed.		
Animal Disease	People	<ul style="list-style-type: none"> ▪ Loss of production (income) will have a severe impact on the food supply of the rural population. 	C	2	M
	People	<ul style="list-style-type: none"> ▪ Loss of production (income) will have a severe impact on the economic viability of the rural population. 	C	3	H
	Economy	<ul style="list-style-type: none"> ▪ Loss of export capability. 	C	4	E

	Economy	<ul style="list-style-type: none"> ▪ Impact on the reputation of the area. 	C	3	H
	Natural Fauna	<ul style="list-style-type: none"> ▪ Cross contamination with indigenous wildlife will spread disease. 	C	3	H
Fire	People	<ul style="list-style-type: none"> ▪ Air pollution causing extra people to seek medical care 	B	3	H
	People	<ul style="list-style-type: none"> ▪ Death / severe injury 	B	3	H
	Built environment	<ul style="list-style-type: none"> ▪ Destruction of homes 	B	3	H
	Education	<ul style="list-style-type: none"> ▪ Destruction of schools affecting continuing education 	C	2	M
	Natural Environment	<ul style="list-style-type: none"> ▪ Ground erosion due to loss of grass/vegetation cover 	C	3	H
	People	<ul style="list-style-type: none"> ▪ Informal settlements have an increased vulnerability to fire because of the close quarters and lack of access. 	B	4	E
	Management	<ul style="list-style-type: none"> ▪ Loss of communication lines/poles, affecting disaster information and co-ordination 	B	3	H
	Economy	<ul style="list-style-type: none"> ▪ Loss of crops 	B	3	H
	Economy	<ul style="list-style-type: none"> ▪ Loss of grazing land 	B	2	H
	Crime	<ul style="list-style-type: none"> ▪ Loss of power will see an increase in criminal activity 	C	2	M
	People	<ul style="list-style-type: none"> ▪ Loss of roofing thatch, rendering housing uninhabitable 	B	3	H
	Economy	<ul style="list-style-type: none"> ▪ Loss of stock 	B	4	E
	Infrastructure	<ul style="list-style-type: none"> ▪ Power sub-stations may be damaged or destroyed 	C	3	H
	Infrastructure	<ul style="list-style-type: none"> ▪ Power transmission lines/poles may be damaged or destroyed. 	C	3	H

	People	▪ Pregnant women, young children the elderly and the disabled unable to evacuate in time	B	3	H
	People	▪ Psychological well being of the community will be affected as a result of the losses suffered.	B	3	H
	Infrastructure	▪ Smoke will block transport routes	C	1	L
Flood, Storm Severe Rainfall, Landslip	Management	▪ Areas will be cut off by washed out roads, preventing access by response agencies.	A	3	E
	Built Environment	▪ Buildings and facilities destroyed or damaged.	B	3	H
	People	▪ Informal settlement will be destroyed, leaving large numbers of people homeless.	B	4	E
	People	▪ Death of breadwinner, causing long-term financial problems for the family.	C	4	E
	People	▪ Death or serious injury will occur from drowning, lightning strike, flying debris or structural collapse.	C	2	M
	Natural Environment	▪ Environmental damage, including due to inappropriate agricultural practices.	C	3	H
	Infrastructure	▪ Loss of communications.	C	3	H
	People	▪ Loss of crops, affecting sustainability of subsistence food supply production	C	4	E
	Infrastructure	▪ Loss of power	B	2	H
	People	▪ Loss of income and assets.	C	3	H
	People	▪ Overcrowding of medical facilities will increase disease	B	2	H
	People	▪ Overcrowding of people in evacuation centres may lead to further disease outbreaks	B	2	H
	People	▪ People will not be able to evacuate the area	B	4	E
	People	▪ Pregnant women, young children the elderly and the disabled unable to evacuate in time	A	4	E
	People	▪ Psychological well being of the community will be affected as a result of the losses suffered.	A	3	E

	People	<ul style="list-style-type: none"> ▪ Sanitation and health problems. 	A	3	E
	Economy	<ul style="list-style-type: none"> ▪ Significant stock losses. 	C	4	E
	Economy	<ul style="list-style-type: none"> ▪ Significant crop losses. 	C	4	E
	Infrastructure	<ul style="list-style-type: none"> ▪ Transport facility damage including road and rail bridges, roads, airfields and railways. 	C	2	M
	People	<ul style="list-style-type: none"> ▪ Women left to care for extended families with no means of transport out of the area. 	A	4	E
Hazardous Material Event	People	<ul style="list-style-type: none"> ▪ Human exposure to toxic chemicals resulting in serious harm or death. 	B	2	H
	Natural Environment	<ul style="list-style-type: none"> ▪ Pollution of the atmosphere will occur from the release of hazardous material. 	A	2	H
	Natural Environment	<ul style="list-style-type: none"> ▪ Pollution of the soil. 	B	4	E
	Natural Environment	<ul style="list-style-type: none"> ▪ Pollution of the water table. 	B	4	E
Human Epidemic	Economy	<ul style="list-style-type: none"> ▪ Loss of income within the Municipality. 	B	4	E
	People	<ul style="list-style-type: none"> ▪ Low immunization rates in the Municipality will increase the likelihood of an epidemic occurring. 	A	4	E
	People	<ul style="list-style-type: none"> ▪ Psychological effects on the community. 	A	4	E
	Economy	<ul style="list-style-type: none"> ▪ Stigma being attached to the Municipality accompanied by a tourist and visitor downturn. 	C	2	M
	People	<ul style="list-style-type: none"> ▪ Substantial loss of life. 	A	4	E
	People	<ul style="list-style-type: none"> ▪ Vector/vermin contact will spread the epidemic throughout the Municipality and beyond. 	B	3	H

Major Infrastructure Failure	Infrastructure	<ul style="list-style-type: none"> ▪ Business and industry refrigeration and cooling facilities will be rendered inoperable. 	A	2	H
	Economy	<ul style="list-style-type: none"> ▪ Computer network facilities will be rendered inoperable. 	A	2	H

	Economy	▪ Electronic banking facilities will be rendered inoperable.	A	2	H
	People	▪ Fuel supply facilities will be rendered inoperable.	A	2	H
	People	▪ Household refrigeration and cooling facilities will be rendered inoperable.	A	2	H
	Water supply	▪ Water supply pumping facilities will be rendered inoperable.	A	2	H
	Sewerage	▪ Sewerage pumping facilities will be rendered inoperable.	A	2	H
	Management	▪ Telephone land-line and cell communications will be rendered inoperable.	A	2	H
	Management	▪ Base radio transmitter stations relying on power will be rendered inoperable.	A	2	H
	Management	▪ Disaster communications facilities will be rendered inoperable.	A	2	H
	People	▪ Loss of power and communications facility will see an increase in crime.	C	2	M
Major transportation Event	People	▪ Deteriorating road conditions will cause road accidents.	B	2	H
	People	▪ Inappropriate driver behaviour will cause road accidents	A	2	H
	People	▪ Accidents involving aircraft, trains, coaches or taxi vehicles will result in death or serious injury to a large number of people.	A	3	E
	People	▪ The bad mechanical condition of vehicles traversing Municipality roads will cause road accidents.	B	2	H
Water Contamination	People	▪ Contaminated water supplies will cause disease such as cholera and dysentery	A	4	E
	Management	▪ Resultant epidemics will place a great strain on the municipality's health facilities	A	3	E
	People	▪ Shortages of potable water supplies will aggravate the situation	A	3	E

Further Actions Required

- Prioritisation of risks to facilitate the risk evaluation and treatment strategies

Risk Evaluation

Purpose of this Section

To rank the risks from highest to lowest so that a priority for treatment can be assigned.

Key Steps

- 1. Decide on risk acceptability utilising the risk rating and risk evaluation criteria**
 - This process has not been undertaken
- 2. Rank the risks in order of priority for treatment**
 - This process has not been undertaken
- 3. Document all unacceptable risk**
 - This process has not been undertaken

Further Action Required

All action related to the evaluation of risks should be undertaken in order to identify appropriate treatment options

RISK TREATMENT OPTIONS

Treating the Risks

Purpose of this Section

To select appropriate strategies for the treatment of existing, residual and future risk.

Key Steps

Existing Risks:

(1) Evaluate treatment options against unacceptable risks.

- Assess the treatment options on the basis of
 - Cost benefit analysis
 - The risk severity and potential for reducing the risk
 - The viability of the treatment option in respect to its enhancement of development
 - The sustainability of economic and social goals

(2) Select and prioritise appropriate treatments.

- Discuss the results of the evaluation of treatments until a single treatment or mix of treatments emerges as the most sensible, efficient and cost effective way of dealing with the identified risk
- A suggested way of selecting risk treatment options is to choose a mix of the following strategies:
 - must do
 - should do
 - could do.
- List possible treatments in order of priority

(3) Allocate responsibilities by matching treatment options with core business functions of local organisations

- List the treatment options and link them to an agency according to their core business function. This ensures that risk reduction is undertaken as part of day to day business.

(4) Identify and assess existing and proposed projects against treatment options (Gap Analysis)

- Once core functions have been identified, the respective agencies can then assess existing or proposed work programs to determine if risk treatments are already planned.
- Document gaps.

(5) Develop an implementation plan based on programming gaps

- This can be undertaken on a hazard-by-hazard or sector-by-sector basis.
- Ensure the timelines, linkages with other agencies and pre-requisites are identified so as to have a coordinated approach in the implementation of activities.
- Determine whether external assistance is required (i.e. technical and donors)

(6) Link with municipal and provincial partners and donor organisations

- Align external assistance requirements with other partner programs
- Liaise with and brief donors on programming gaps and strategies for meeting needs.

(7) Close the programming gap through new project proposals

- Identify treatments that cannot be met through national support programs

- Develop a project document that encompasses all treatments
- Liaise with donors for funding assistance.

(8) Coordinate and implement risk treatment plan.

- Coordinate and monitor the implementation of treatment strategies

6.2 **DESIRED OUTCOMES**

- An implementation plan based on priority treatment options
- Linkages with national and municipal partners established
- Strategies for closing the programming gaps developed.

Table 5.1: Future Actions

CHARM Component	6.3 ACTION REQUIRED	Responsible Agency
Establish the Context	<p>Establish guidelines such as Environmental Impact Assessment for minimising the level of future risk</p> <p>Professional development for key disaster management officials</p> <p>Strengthening of partnerships across agencies.</p>	<p>Municipality</p> <p>DMC/Province</p> <p>DMAF</p>
Hazard and Risk Analysis	<p>A MORE RIGOROUS HAZARD ANALYSIS OF THE LOCALITY IS REQUIRED. THIS SHOULD INCLUDE:</p> <ul style="list-style-type: none"> ▪ Identification of critical infrastructure ▪ Identification of vulnerable critical infrastructure ▪ Identification of vulnerable communities ▪ GIS-based mapping of possible flood levels ▪ Identification of areas susceptible to landslip ▪ Satellite and aerial photography ▪ Identification of areas susceptible to coastal erosion ▪ Identification of areas most susceptible to fire ▪ Updated population information (current information is from the 1996 census) ▪ Identification of riverine areas susceptible to flooding as a result of a dam failure (outside the locality) ▪ Consider climate change events and their potential to influence the impact of hazards 	<p>DMC/DMAF</p> <p>DMC/DMAF</p> <p>Municipality</p> <p>Municipality</p> <p>Municipality</p> <p>Municipality</p> <p>Municipality</p> <p>DMC/DMAF</p> <p>Municipality</p> <p>Municipality</p> <p>DMC/DMAF</p>
Risk Evaluation	Prioritisation of risks to facilitate the risk evaluation and treatment strategies	DMC/DMAF
Risk Treatment Options	Risk treatment options cannot be undertaken until all the preceding steps have been completed.	DMC

THE DISASTER MANAGEMENT SYSTEM IN OPERATION

Assistance to Responding Agencies

Should the operational event be one which can be readily dealt with by the responding agencies, using the resources normally available to them, then there will be no necessity to activate the disaster management system operationally.

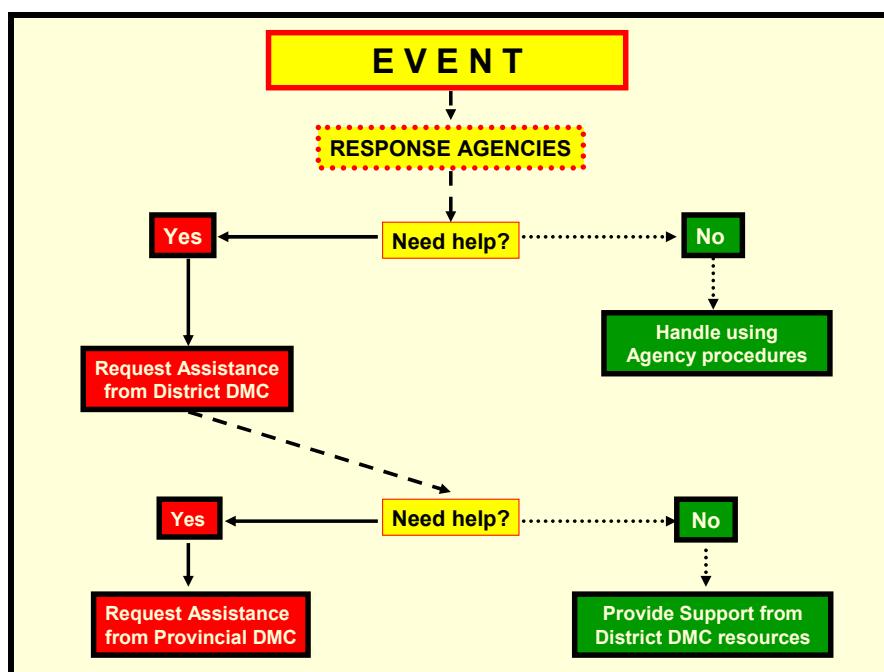
Activation of the disaster management system can occur when there is a need for:

- monitoring of potential threats or response operations;
- coordination of support to response operations being conducted by a response agency;
- coordination of resources in support of disaster response and recovery operations.

The disaster management system is designed in order that support can be provided from the lowest possible level. If the responding agencies need resource assistance, the disaster management system will provide it. A request from the lead responding agency will be made to the Disaster Management Centre (via a nominated telephone number) and it is the role of the Disaster Management Centre to access the resources required from within the resources available in the municipality.

Should the resources not be available in the municipality, the Disaster Management Centre will contact the Provincial Disaster Management Centre and request that they source the resources from within the Province, and likewise from the Provincial Disaster Management Centre to the National Disaster Management Centre.

At no stage will the line responsibility for the responding agencies be taken over by any level of the disaster management system – the system is there to provide support only.



Information and Support

This graphic depicts the support function of the disaster management system, and also the linkages from the responding agencies in the field to the National Disaster Management Centre.

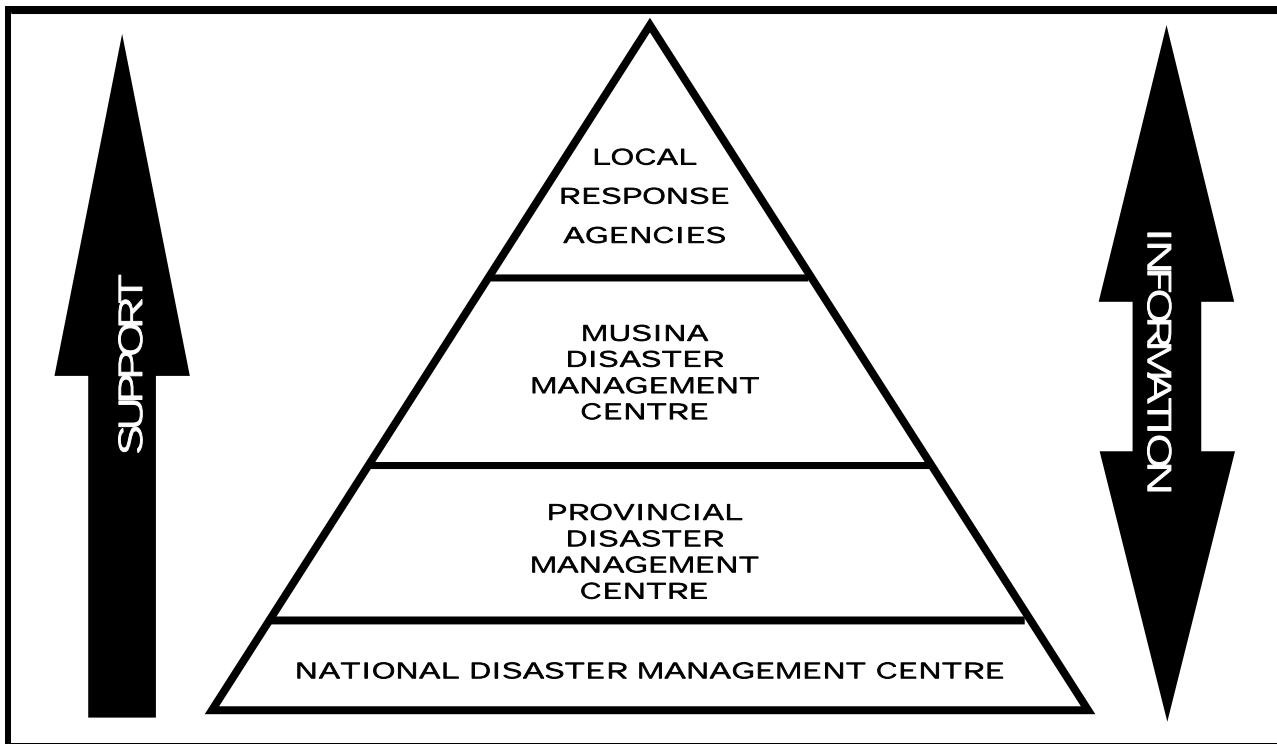
The graphic depicts “**support**” as being one-way – to the responding agencies.

It also depicts “**information**” as being a two-way process.

This is for two reasons:

1. If the responding agencies alert the Disaster Management Centre to the situation as it arises, the DMC can make preparatory plans to support the responding agencies. Similarly, the Disaster Management Centre will commence the information flow upwards through the system.
2. Disasters are political events. It is a political imperative that the elected representatives of the people are aware of situations happening in their area of responsibility. It is vital that **official**

information be available at the earliest opportunity to both elected representatives and officials of all levels of government.



ROLES AND RESPONSIBILITIES OF PARTICIPATING AGENCIES

IT IS TO BE REMEMBERED THAT NO ORGANISATION WILL BE REQUIRED TO UNDERTAKE ANY ACTIVITY THAT IS NOT PART OF THAT AGENCY'S CORE BUSINESS. THE ROLES AND RESPONSIBILITIES ENUMERATED IN THIS SECTION ARE SEEN AS AN EXTENSION OF THE NORMAL DAY- TO-DAY BUSINESS OF THE AGENCIES INVOLVED, AND HAVE BEEN AGREED TO BY THE AGENCIES CONCERNED.

CO-ORDINATION OF DISASTER OPERATIONS

THE UNDERMENTIONED ORGANISATIONS HAVE AGREED TO ASSUME THE LEAD AGENCY ON SCENE CO-ORDINATING ROLE FOR THE OPERATIONAL RESPONSE TO THE FOLLOWING THREAT SITUATIONS.

IT IS STRESSED THAT THE ROLE IS ONE OF CO-ORDINATION AND NOT CONTROL.

EVENT	CO-ORDINATING AGENCY
ANIMAL DISEASE	DEPARTMENT OF AGRICULTURE
FIRE	FIRE DEPARTMENT,
FLOOD/SEVERE STORM OR RAINFALL EVENT/LANDSLIP	MUSINA LOCAL MUNICIPALITY
HAZARDOUS MATERIAL EVENT	FIRE DEPARTMENT
HUMAN EPIDEMIC	DEPARTMENT OF HEALTH

MAJOR INDUSTRIAL ACCIDENT	FIRE DEPARTMENT
MAJOR INFRASTRUCTURE FAILURE	MUSINA LOCAL MUNICIPALITY
MAJOR TRANSPORTATION EVENT	SOUTH AFRICA POLICE SERVICE
TERRORIST ACTIVITY	SOUTH AFRICA POLICE SERVICE
WATER CONTAMINATION	MUSINA LOCAL MUNICIPALITY

FUNCTIONAL PLANNING LEAD AGENCIES

DISASTER SUPPORT FUNCTION	AGENCY
COMMUNICATIONS	MUSINA LOCAL MUNICIPALITY
EVACUATION	SOUTH AFRICA POLICE SERVICE
EVACUATION CENTRE MANAGEMENT	DEPARTMENT OF WELFARE
EMERGENCY ACCOMMODATION	DEPARTMENT OF WELFARE
IMPACT ASSESSMENT	MUSINA LOCAL MUNICIPALITY
MEDICAL (PRIMARY HEALTH CARE AND PUBLIC HEALTH)	DEPARTMENT OF HEALTH
PUBLIC INFORMATION	7. <u>MUSINA LOCAL MUNICIPALITY</u>
PUBLIC WORKS	Musina Local Municipality
RESCUE	FIRE DEPARTMENT, MUSINA MUNICIPALITY
TRANSPORTATION	8. <u>MUSINA LOCAL MUNICIPALITY</u>
UTILITIES	Musina Local Municipality
WARNING	Musina Local Municipality
WELFARE	DEPARTMENT OF WELFARE

CAPABILITIES, ROLES AND RESPONSIBILITIES - GENERAL

AGENCY	CAPABILITIES, ROLES & RESPONSIBILITIES
MUSINA LOCAL MUNICIPALITY	<ul style="list-style-type: none"> ▪ MAINTENANCE OF THE OPERATIONAL FUNCTIONING OF THE MUNICIPALITY (VIA MUNICIPALITY BUSINESS CONTINUITY CONTINGENCY PLANNING) ▪ MAINTENANCE OF NORMAL MUNICIPALITY SERVICES TO THE COMMUNITY ▪ DETERMINATION OF A DISASTER MANAGEMENT FRAMEWORK AND ASSOCIATED DISASTER MANAGEMENT POLICY FOR THE MUNICIPALITY ▪ ALLOCATING INFRASTRUCTURE AND RESOURCES INCLUDING A DEDICATED STAFF MEMBER RESPONSIBLE FOR DISASTER MANAGEMENT
MUSINA LOCAL MUNICIPALITY DISASTER MANAGEMENT CENTRE	<ul style="list-style-type: none"> ▪ Provision of disaster management policy and operational advice to stakeholders at all levels of the local disaster management system ▪ Development and maintenance of the comprehensive Municipality Disaster Management Strategies and the Disaster Management Plan ▪ Facilitation of a comprehensive approach to disaster management ▪ Co-ordination of disaster management training within the municipality ▪ DESIGN, MAINTENANCE AND OPERATION OF MUNICIPALITY DISASTER MANAGEMENT CENTRE, INCLUDING THE TRAINING OF SUFFICIENT PERSONNEL TO OPERATE THE CENTRE ▪ CO-ORDINATION OF SUPPORT TO RESPONSE AGENCIES ▪ CO-ORDINATION OF RECONNAISSANCE AND POST-IMPACT ASSESSMENT ▪ ISSUING OF PUBLIC INFORMATION PRIOR TO, DURING AND FOLLOWING DISASTER EVENT IMPACTS ▪ DESIGN AND MAINTENANCE OF A PUBLIC EDUCATION/AWARENESS PROGRAM, INCLUDING MULTILINGUAL INFORMATION
LOCAL MUNICIPALITIES	<ul style="list-style-type: none"> ▪ Public Awareness Programs ▪ Empowerment of Municipality personnel ▪ Provision of community halls for temporary shelter and mass care ▪ Provision of water tankers ▪ Provision of transportation ▪ Provision of accurate operational information to the Disaster Management Centre

	<ul style="list-style-type: none"> ▪ Provision of a representative to the Disaster Management Advisory Forum ▪ Provision of senior representative at any operational Forward Command Post within the Local Municipality
ELECTED REPRESENTATIVES OF DISTRICT AND LOCAL MUNICIPALITIES	<ul style="list-style-type: none"> ▪ Provision of the political link between the disaster management system and the community ▪ Promotion of disaster management by maintaining public awareness of the existence and role of the disaster management system ▪ Ensure smooth co-operation between the Municipality and others ▪ Attend the scene of any disaster event to foster community confidence in the Municipality
SOUTH AFRICA POLICE SERVICE	<ul style="list-style-type: none"> ▪ Preservation of peace and good order ▪ Prevention of crime ▪ Provision of a Forward Command Post facility and the associated co-ordination function for certain disaster events as agreed to in the Disaster Management Plan ▪ Provision of senior representative at any operational Forward Command Post, other than as above ▪ Maintenance of any site as a possible crime scene ▪ Coronial investigation procedures ▪ Traffic control, including assistance with road closures and maintenance of road blocks ▪ Crowd control ▪ Co-ordination of rescue ▪ Co-ordination of evacuation ▪ Patrols of evacuated areas ▪ Tracing, or co-ordination of search for, missing members of the community ▪ 24-HOUR COMMUNICATIONS NETWORK ▪ Provision of a representative to the Disaster Management Advisory Forum
TRAFFIC POLICE (PROVINCIAL)	<ul style="list-style-type: none"> ▪ Traffic control, including assistance with road closures and maintenance of road blocks ▪ PROVISION OF RESCUE TRAILER

	<ul style="list-style-type: none"> ▪ PROVISION OF ALTERNATIVE EMERGENCY POWER ▪ Provision of a representative to the Disaster Management Advisory Forum ▪ Provision of senior representative at any operational Forward Command Post
TRAFFIC POLICE (MUNICIPAL)	<ul style="list-style-type: none"> ▪ Traffic control, including assistance with road closures and maintenance of road blocks ▪ CROWD CONTROL ▪ Provision of a representative to the Disaster Management Advisory Forum ▪ Provision of senior representative at any operational Forward Command Post
FIRE DEPARTMENT,	<ul style="list-style-type: none"> ▪ GENERAL RESCUE ▪ IN-SHORE MARINE RESCUE ▪ FIRE CONTROL ▪ FIRE PREVENTION ▪ ASSIST IN PUMPING OUT OF FLOODED BUILDINGS ▪ ASSIST IN CLEAN-UP OF FLOOD AFFECTED BUILDINGS ▪ MANAGEMENT OF HAZARDOUS MATERIAL SITUATIONS ▪ PROVISION OF MATERIAL SAFETY DATA SHEET INFORMATION RELATIVE TO HAZARDOUS MATERIALS ▪ ADVICE RELATIVE TO EVACUATION REQUIREMENTS AS A RESULT OF A HAZARDOUS MATERIAL INCIDENT ▪ PROVISION OF 24-HOUR COMMUNICATIONS CENTRE ▪ PROVISION OF MOBILE FORWARD COMMAND POST CAPABILITY ▪ PROVISION OF DISASTER VOLUNTEER TRAINING ▪ Provision of a representative to the Disaster Management Advisory Forum ▪ Provision of senior representative at any operational Forward Command Post
DEPARTMENT OF HEALTH	<ul style="list-style-type: none"> ▪ Co-ordination of medical resources. ▪ Provision and maintenance of hospital, clinic and health centre facilities

	<ul style="list-style-type: none"> ▪ Appropriate pre-hospital on-site medical and health response management for casualties ▪ Public health advice and warnings to participating agencies and the community ▪ Health education programs ▪ Immunisation programs ▪ Epidemiology/disease surveillance ▪ Collection/dissemination of health information ▪ Provision of statistical data ▪ Provision of GIS data ▪ Food and water testing capability ▪ Psychological and counseling services for disaster affected persons ▪ On going medical and health services required during the recovery period to preserve the general health of the community ▪ Provision of a representative to the Disaster Management Advisory Forum ▪ Provision of senior representative at any operational Forward Command Post
DEPARTMENT OF HEALTH (EMERGENCY MEDICAL RESCUE SERVICES)	<ul style="list-style-type: none"> ▪ ASSESSMENT, TREATMENT AND TRANSPORTATION OF INJURED PERSONS ▪ PROVISION OF AERO-MEDICAL TRANSPORTATION SERVICE ▪ ADVANCED LIFE SUPPORT ▪ RESCUE (ADVANCED MEDICAL RESCUE) ▪ ASSISTANCE WITH EVACUATION ▪ PROVISION OF ADVICE REGARDING MEDICAL SPECIAL NEEDS SECTORS OF THE COMMUNITY ▪ 24-HOUR COMMUNICATIONS NETWORK ▪ Provision of a representative to the Disaster Management Advisory Forum ▪ Provision of senior representative at any operational Forward Command Post
DEPARTMENT OF HEALTH (VETERINARY SERVICES)	<ul style="list-style-type: none"> ▪ LEAD AGENCY ROLE RELATIVE TO ANY OUTBREAK OF EMERGENCY ANIMAL DISEASE ▪ CONTROL/CONTAINMENT OF COMMUNICABLE DISEASES

	<ul style="list-style-type: none"> ▪ PROVISION OF TEMPORARY POUNDS ▪ ADVICE RELATIVE TO STOCK MATTERS ▪ DESTRUCTION OF STOCK AS REQUIRED ▪ Provision of a representative to Disaster Management Advisory Forum
DEPARTMENT OF WELFARE	<ul style="list-style-type: none"> ▪ Co-ordination of NGO's and locally based community recovery services ▪ CO-ORDINATION OF THE PROVISION OF EMERGENCY ACCOMMODATION ▪ MANAGEMENT OF EVACUATION/MASS CARE CENTRES ▪ Co-ordination of food vouchers and social relief payments to affected people ▪ Provision of social workers ▪ Co-ordination of Outreach Teams ▪ Public awareness ▪ Initiating poverty alleviation programs during the rehabilitation process. ▪ Provision of a senior representative to the Disaster Management Advisory Forum • Provision of representative at any operational Forward Command Post
DEPARTMENT OF EDUCATION	<ul style="list-style-type: none"> ▪ Provision of schools for temporary shelter ▪ Disaster Awareness through subject inclusion in curriculum
DEPARTMENT OF AGRICULTURE	<ul style="list-style-type: none"> ▪ Public Awareness in rural communities ▪ Control/containment of plant diseases ▪ Import/export control ▪ Co-ordination of the provision of farm equipment to assist in operations as required ▪ Provision of water tankers ▪ Provision of water testing service ▪ Provision of soil testing service ▪ Hygiene training • Advise primary producers relative to disaster recovery processes

SOUTH AFRICA NATIONAL DEFENCE FORCE	<ul style="list-style-type: none"> ▪ Provision of manpower to assist in various roles ▪ Provision of specialised transportation ▪ Provision of water tankers ▪ Provision of a representative to the Disaster Management Advisory Forum ▪ Provision of senior representative at any operational Forward Command Post
DEPARTMENT OF TRADITIONAL AND LOCAL GOVERNMENT AFFAIRS	<ul style="list-style-type: none"> ▪ Community engagement ▪ Public awareness through linkages with traditional leaders ▪ Provision of buildings and secure compounds for use as temporary accommodation areas

REVIEW OF FUNCTIONAL AND RESPONSE PLANS

The Disaster Management Functional Support Plans should be reviewed by a working group appointed by the Co-ordinating Lead Agencies, as follows:-

April-July Working groups review and amend (as required) the supporting plans

September Draft amended plans submitted to full Disaster Management Advisory Forum for acceptance or further amendment

October Reviewed plans submitted to ExCo as part of the Main Plan

N.B. *If at any time during the year, it becomes apparent that an urgent amendment to or review of the planning documentation is required for operational effectiveness, then such review or amendment shall be implemented expeditiously.*

EXERCISES

Exercises are a key component of disaster management strategies:

- i) to practice coordination and liaison procedures between participating organisations in responding to a disaster event, and
- to identify and take steps to eradicate any serious procedural and functional weaknesses.

Disaster management exercises are to be conducted as follows: -

Disaster Coordination Centre Exercises

DMC in-house exercise to test the activation of the Disaster Coordination Centre, including staffing requirements, setting up of the facility, emergency power operation, communication links, etc. – **at least annually.**

Conduct exercise to practise the use of the Information Management System with all Council Staff who will work in the DCC when it is operational – **at least annually.**

Supporting Plans Exercise

To be conducted prior to the review of the Supporting Plans.

Functional Lead Agencies should prepare and conduct discussion exercises with members of the working groups to assist in the development of the functional planning process.