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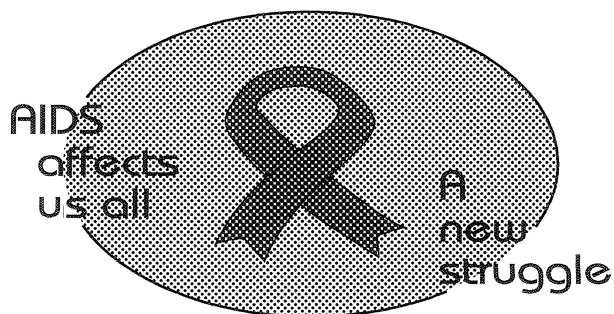
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7 OCTOBER 2011
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No. 646

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MUNICIPAL NOTICE

No. 125

7 October 2011

REPORT ON DROUGHT INTEVENTION FOR THE NTAMBANANA AND SECTIONS OF MFOLOZI MUNICIPALITIES

LITHUNGULI



AUGUST 2010

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BACKGROUND

Uthungulu District Municipality is a Water Services Authority (WSA) for the five local municipalities namely, Mfolozi, Ntambanana, Umlalazi, Mthonjaneni and Nkandla. This is in terms of the Power and Functions as was determined by the Minister of the then LGTA.

The Water Services Authority is expected to comply with all the provisions of the Water Services Act, Act 108 of 1997. Most important of these provisions is the responsibility of the WSA to ensure that communities have access to clean potable water.

As part of the compliance the WSA entered in to a service level agreement (SLA) with all the local municipalities under its authority to perform the Water Services Provider (WSP) function. This SLA compels the WSA and WSP to ensure that communities are provided at least with survival water as part of the municipality's effort to meet the provisions of the Water Services Act.

The Ntambanana and Mfolozi are part of the municipalities where UDM is the water service authority and a provider. These municipalities have over fifty water schemes receiving water from sources ranging from boreholes to bulk supply pipelines.

These projects are spread throughout municipalities but mainly within areas which are closer to viable natural sources. Most of these projects are localised schemes serving a very small footprint based on the budget that was allocated to them on as per previous budget approvals dating as far back as the Joint Services Board era to the Regional Council and now the wall to wall boundary municipalities.

The Executive Committee during its meeting held on 11/08.2010 resolved that the Uthungulu District Municipality Joint Operation Committee (UDM JOC) be convened to discuss this matter and further proposed that Ntambanana be declared a disaster area in term of the Disaster Management Act. This report is a result of the JOC deliberations and progress.

EXISTING BOREHOLES

There are over 300 boreholes drilled throughout the Ntambanana municipality alone. Most of these boreholes were drilled as part of the production boreholes for the localized schemes. However the success on these boreholes has varied from good to poor yielding boreholes.

Most notably has been the poor water quality received from these boreholes. About 50% of these boreholes failed before they could be used as they were producing yield ranging between 0.1l/s to 0.7l/s. Of the remaining ones, 40% could not be used as they had very poor water quality and classified as class 3 and beyond. This water was not suitable for human consumption.

Those that were used were either equipped with hand pumps if they have yields between 0.8 to 3l/s and equipped with mechanical pumps if found to have good yields. It is from these boreholes that most of the localized schemes were developed. These boreholes are now battling to cope with the demand due to diminishing ground water.

CURRENT PROJECT STATUS

Ntambanana Municipality is divided into two distinct sections;

The lower section (eastern section) of Ntambanana comprising ward 6, 7 and 8 are getting water from the Upper Nseleni Bulk water Scheme. About 60% of ward 7 is also fairly covered with water from the boreholes supplying localised schemes.

Although there are still water problems in ward 7 and 8 but the situation is not as severe as the other wards particularly ward 6 on this side of the municipality. These areas already receive water from the recently upgraded Upper Nseleni Pipeline

The most affected wards are those situated on the upper side (western side) of the municipality namely; ward 1, 2, 3, 4 and 5. Most of the communities within these wards are dependent on water delivered from water tankers since rivers, springs and boreholes have dried up.

Existing projects such as Nomponjwana, Ogelweni, Buchanana, Mkhandlini, Debe, Nduna, Ompetsheni and some of the small schemes are now operating beyond their design capacities due to additional demands caused by extensions that have been done.

These extensions were done to reduce the number of tanker loads per municipality.

CURRENT STATUS OF WATER SOURCES

The purpose of this exercise is to compile a report based on a drought survey that was undertaken throughout the Ntambanana Municipality. The investigation also included the two severely affected wards 12 and 13 falling under Mfolozi Municipality. The scope of work entailed site visits and interviewing locals with background and historical information on dry rivers, non-functioning or operating boreholes and hand pumps, the dry springs or wells and all wetlands within the two municipalities.

The process included the taking of photos and co ordinates of affected sites. The Local Municipalities that were consulted to do a survey upon was Ntambanana and part of uMfolozi (Ward 12 & 13).

The Ntambanana Municipality consists of 8 wards, and each ward was visited and the staff was introduced to the members of the ward committees who the Councilors tasked to accompany the officials during the investigation within respective wards. The accuracy of the historical information is dependant of the knowledge of the ward Councilors and their respective ward committees that were interviewed or contributed during the process.

1. Ntambanana Local Municipality

Ward 1

Mfolozane River

This river dried up some time ago but it stopped flowing in June 2008. It is located, S: 28°35'51" and E: 31°43'48" with an elevation being 186m above the sea level.

Munywane River at Ntombokazi

The Munywane River at Ntombokazi has been drying since early 2009. This river has now been without water for quite some time. The river is located, S: 28°26'35" and E: 31°39'04" and the elevation being 269m.

A hand pump was installed near the Munywane River which was used to supply water to the community. There was a belief that water has subsided and is running though the fault situated along the river bank hence the siting of this borehole on the edge of the Munywane River. The said hand pump dried in 2002 due to diminishing ground water.

Ncasaza River at Lumbi/ Ngqekwane

Ncasaza River has been drying since early 1990's. The river is located, S: 28'25'43" and E: 31'34'06" and the elevation being 337m measured from the mean sea level.

The hand pumps were the main supply of water for the Lumbi community in the early year 2000 but that changed in 2002 because both boreholes ran dry due to shortage of underground water.

Chibini dam at Lumbi

The Chibini dam dried up in December 2009 and it was mainly used by the community for watering their gardens and for their livestock. Some sections of the wetlands were even used for human consumption. It is located, S: 28'24'38" and E: 31'35'05" and the elevation being 325m.

Emzini River at Lumbi

This river ran completely dry in early in 2007. During the past summer seasons as far back as 2001 it used to have water flowing but ran completely dry in 2007 till to date. The river is located, S: 28'26'36" and E: 31'35'54" and the elevation being 408m.

Mayayeni River at Debe

This river has been showing signs of distress for more than 10-15 years. It used to be the main supply of water for people who are living close to the river and people are still digging wells along the sections of this river to get clean water. The river is located, S: 28'28'15" and E: 31'42'19".

Ward 2

This ward consists of four main rivers running throughout the ward, namely; Maduma, Nselenyana, Nonsengwa and Nseleni River. All the above mentioned rivers are dry. There are about 9 hand pumps that have dried up since 2007. There are also some boreholes that were drilled with no fortune of getting any underground water. The ward has two windmills that were supplying water about 10-15 years back and both these windmills are not functioning at the moment due to drought.

Ncemane

The windmill at Ncemane used to supply water to the community in the early 1990's but it started drying up in 1999. The windmill used to pump water to the reservoir then to the nearby standpipe.

Gobihlahla Spring

This spring was helping the community of Gobihlahla with clean drinkable water in the early 1998 but in 2001, the spring dried up due to the drought that is facing the Ntambanana area.

Nonsengwa and Maduma

Existing hand pumps in these areas have stopped functioning due to diminishing ground water.

Nonsengwa River

In the early 1990's this river was rated as one of main rivers in Ntambanana area but during the year of 2000, the river started drying up slowly until the year of 2002 when the river dried up completely. There is no water running at present moment and there are no signs of wells drilled along the river course clearly indicating that the entire area is affected by diminishing ground water.

Nselenyana River

The Nselenyana River dried up about 20 years ago; this river used to across Ntambanana area to Mbonambi area. It used to be the main supply of water to people with domestic animals like cows, goats etc. At some point this river was so powerful that it used to be the most dangerous river during summer seasons.

Nseleni River

Nseleni River used to be known as the flood river in the early 1990's, in the year 1995 the river stopped flowing. Some sections of this river especially along Ogelweni areas had sections of ponds during summer seasons and after the good rains which helped a lot with provision of water to the livestock rains but this has since stopped resulting to a complete drought.

Ward 4

In ward 4, there are about five rivers, namely Ncwane, Nkumanya, Imfule, Mkhukhwini and Mpevu Rivers that were flowing but which are now dry due to drought that has engulfed the area of Ntambanana. There are two hand pumps that were supplying water to the community of Nsimbakazi and Nkwenkwe. There is also an existing water scheme that used to be the main supply for the community of Emasangweni but it has now stopped functioning due to the drought.

Ncwane River

This river was best known to be seasonal in past few years up until 2008, that when the river started drying up.

Nkumanya River

The Nkumanya River dried up in March 2006, it is located, S: 28°40'37" and E: 31°38'21" and the elevation being 98m measured from the mean sea level.

Imfule River

The Imfule River is dry, it used to have water during summer seasons but that has not happen in the past 2 years (2008 and 2009). That implies that the river is slowly drying up as it can be observed along the river banks, vegetation is gradually developing. It is located, S: 28°42'09" and E: 31°39'05" and the elevation being 83m above the mean sea level.

Mkhukhwini River and the spring

Mkhukhwini River started drying up early in 2009. There are some areas which still have some minor spots of water. But the river itself is no longer flowing as it use to in the late 2007.

The spring was helping a lot of people who are residing at Mkhukhwini area but it started drying up in March 2009 and now it is completely dry.

Nogwaja River

The Nogwaja River dried up about 12 years ago, this river was helping the residents of Mpevu with their domestic animals and some people were using it for human consumption. It is located, S: 28°39'01" and E: 31°36'36" and the elevation being 166m.

Nsimbakazi Handpump

This handpump stopped functioning in 2003 and the evidence shows that it is due to shortage of underground water in this vicinity. This borehole was drilled within the river coarse to try and intercept water running along the fault line.

Emasangweni production borehole

There was a water supply system at Emasangweni, and the water source was a borehole. This scheme was shut down in 2007 and it was as a result of shortage of underground water. The pump was pumping water to the upper steel tank which then supplies the reticulation network. The borehole then ran dry in 2007. It is

located, S: 28°40'46" and E: 31°37'18" and the elevation being 145m measured from the mean sea level.

Ward 5

This ward has two main rivers. There are four handpumps which are non-functioning due to drought. The rivers are Nsimbakazi and Buccanana-Nselenyana River.

Nsimbakazi River

The river is now all sand. Water in this river used to flow in high quantities and with high velocities in about 10-15 years back. During the past summer seasons of year 2008 the river tried picking up but in May 2009 it started drying up again as it is at the moment. Locals are digging wells along the river coarse to get water for the livestock. The river is located, S: 28° 41' 16" and E: 41°38'55" and the elevation being 76m.

Buccanana-Nselenyana River

The Buccanana-Nselenyana River dried up in 1999. The river was flowing heavily in the 1990's but that changed as years passed by. The river has now been dry for a long time, trees and grass have developed all around the river banks and on the river basin itself. It is located, S: 28°35'51" and E: 31°43'48" and the elevation being 190m.

Handpumps

In the Nsimbakazi area, there are about four handpumps which have dried up since the year 2007 due to shortage of groundwater. The Mancence and Mondiya handpumps dried in 2008.

Ward 6

There is only one main river in this ward namely, Daflodi and four dry boreholes. There is also a spring that is dry at Kwalayini (known as Umthombo kaShaka) and also a Windmill that is also dry.

Daflodi River

The Daflodi River dried up between the years of 1999 to year 2000, it is located S: 28°30'47" and E: 31°49'57" and the elevation being 163m.

Daflodi Handpump

This hand pump is situated on the river bank of Daflodi River and it also dried up during drying up of the Daflodi River in the year 2000.

Kwalayini Spring (Umthombo kaShaka)

This spring dried up in 2006. It was best described as umthombo kaShaka in the past years. Many people surrounding Kwalayini area have been benefiting a lot from this spring. Its current status is dry. It is located S: 28°30'16" and E: 31°50'02".

Donda Borehole

This borehole at Donda dried up in 1970 and it had been of great help to the nearby community. It was a production borehole that pumped water to the concrete reservoir. There are three other handpumps that also dried up in 2002, namely at Entabeni, Engcobo and Ebhilingini.

Ward 7

Under this ward there are two main rivers which used to have a large quantity of water. It is Salukazana River and Nyokeni River.

Salukazana River at Emacekana

The Salukazana River dried up in June 2009, and it stopped flowing completely in December 2009. The river is located, S: 28°41'38" and E: 31°50'48".

Nyokeni River at Ningizimu (Emacekana)

Nyokeni River started drying up in 2008 but it used to have some water spots all along the river basin. It stopped flowing in February 2010 to be precise.

2. uMfolozi Local Municipality

The survey was also conducted in two Wards in the area under Mfolozi Local Municipality namely, Ward 12 & 13. In Ward 12, it was specifically conducted at Makhwezini and Fuyeni areas.

Ward 12

This Ward is situated close to the Kwalayini area which falls under the Ntambanana local municipality. There was water supply scheme at Fuyeni sourced by a borehole, a huge river, eight handpumps and a number of earth dams.

Fuyeni Water Supply Scheme

This water supply scheme ran dry in 2004 and it was shut due to the shortage of groundwater. It used to supply water to the community surrounding Fuyeni area of about 200- 300 households. The scheme is located, S: 28° 28' 47" and E: 31° 52' 29" and the elevation being 172m.

Nkawaneni dam

The Nkawaneni dam dried up in 2007. This earth dam was built by locals through the advise and assistance of the Department of Agriculture, using soil as the retaining structure. It used to supply water to the nearby residences for their domestic animals and in some instances even for human consumption during the past years. The dam is located, S: 28° 28' 29" and E: 31° 52' 46" and the elevation being 125m.

Umthombo at Fuyeni (Mfolozane)

A well known spring that was helping lot of people with water for human consumption in the Fuyeni area during the early 1990s dried up 1997 as a result of drought affecting the Ntambanana area.

Makhwezini and Fuyeni Handpumps

At Makhwezini area there are about two handpumps that dried up in the year of 2008.

Makhwezini Windmill

There was a windmill at Makhwezini area. This windmill dried up in the early 1990's. Many people benefited a lot from this water supply system before it dried up. It is located, S: 28° 30' 56" and E: 31° 53' 03" and the elevation being 138m.

Ward 13**Ezinqumeni River**

The river dried up early in 2009. It was best known as a seasonal river but during the 2009-2010 summers it did not flow like it used to in the past years.

Ichibilenyathi Dam

This dam has been drying since 2007. The vegetation has developed along the basin and even the trees have grown inside the dam basin and it has since dried completely. It is located, S: 28° 22' 58" and E: 31° 58' 57" with an elevation of 106m.

Shwashweni Dam

Shwashweni Dam was a huge Dam in the years from 1995 and 1999. The Dam started drying up in the year 2000. It is located, S: 28° 26' 14" and E: 32° 02' 44" with an elevation being 60m.

Current Status of existing schemes and interventions at Ntambanana (Including Ward 12 & 13 of UMfolozi)

| WARD | SCHEME NAME | AREA COVERED BY THE SCHEME | AREA NOT COVERED BY THE SCHEME (SUPPLIED BY WATER TANKER) | NO. OF JOJO TANKS (SUPPLIED BY WATER TANKER) |
|------|----------------------|---|---|---|
| 1 | Debe | Maduma, Nonsengwa, Debe | Qonqwane & Molozone | 24 |
| | Obuka/Kwama wanda | | Obuka | |
| | Ompentsheni | Whole of Ompentsheni area | Ovicini, Maphikanqola, Sundu, Elumbi, Qalukuvuka | |
| 2 | Ogelweni/Mkhandlwini | Part of Mkhandlwini area (ward 3) | Mkhandlwini (ward 2) | 43 |
| | Debe | Maduma | Maduma, Esidakaneni, Hawaii, Ezibayeni, Mgodlane, Gobihlahla, Ntab'sezini, Keteza, Shayamoya, Zakhamnyama, Danyini | |
| 3 | Njomelwano | Njomelwano, KwaGeje, Mhawini, Part of Fakinkomo | Fakinkomo, Geja, Ncaphayi, Sqhawe | 38 (Including 1 steel tank supplied by water tanke |
| | Ogqabhiyeni | Ogqabhiyeni | Nil | |
| | Nomponjwana | Part of Sthinta, Nkwenkwe, Ohawule, Madubane, Mpevu | Sthinta area, Stabho | |
| | Ogelweni/Mkhandlwini | Siqhomaneni, Kwatiki, Dukaneni, Upper Nseleni | Bhadaza, Phumosizini, Nungwini, Maqhwela, Zulwini, Nsimbini, Nqunqu, Foloshini, Mswanyaneni, Bethamoya, Bhekela, Kwagama & Dlomodlomo | |

| | | | | |
|---|--|--|--|---|
| 4 | Nomponjwana | Nomponjwan a clinic, lower part of Sthinta & Ndundulu | Part of Nkwenkwe(Madubane & Makhubalo) & Mkhwakheni | 3 Jojos & 1 Concrete reservoir supplied by water tanke |
| | Masangweni | Area serviced by water tanker | Hlaza (Dukaneni) | |
| 5 | Crocodile dam | Buchanana town & part of Mancence | Mbhongampisi, Mondini, Large portion of Buchananana (Incl. Clinic, Police Station & Municipal Offices), Mancene, France, Dark City, Mxhwangu & Sabokwe. | 54 Jojos & 1 Concrete Reservoir supplied by water tanke |
| | Mambuka bulk supply | Thula-Thula game reserve and Maxwell reservoir. | Part of Buchananana | |
| | Ncemana | Ncemane area | Maqhina- No reticulation | |
| | Mabhensa | Mabhensa & Luwambe | Nil | |
| | Mhlana- Somopho bulk supply | Nil | Sangoyane, Mahhedle, Myovu & Makhanda | |
| 6 | Mambuka/Mkhi ze plant & Upper Nseleni bulk supply | Emaringini, Mvazane, Ntuzuma, Kwalayini, Mathunzini & Mambuka | Kwa-Mem, Othini, Esphekephekeni, Donda, Mgogodleni & Garage | 11 |
| | Mhlana- Somopho bulk supply | Bhiliya | Machamane, Nhlanguwini, Zimpolomba & Zakhekahle | |
| 7 | Isihuzu | Isihuzu | Nil | 18 |
| | Macekane | Ezithombothi ni, Macekane, Gxigxi | Nil | |
| 8 | Mquzankunzi | Mquzankunzi | Nil | |

| | | | | |
|---|-----------------------------|---|---|---|
| | Hlaza/ Nqutshini | Hlaza/ Nqutshini | Nil | 10 |
| | Obizo | Whole of Obizo | Nil | |
| | UpperNseleni bulk supply | Makholwase, Mambuka, Ndondwane & Maqedipuleti | Nil | |
| UMFOLOZI (WARD 12 & 13) | | | | |
| WARD | SCHEME NAME | AREA COVERED BY SCHEME | AREA NOT COVERED BY SCHEME (SUPPLIED BY WATER TANKER) | NO. OF JOJO TANKS (SUPPLIED BY WATER TANKER) |
| 12 | Nkumbaningi P/Station | Mhlana-Somopho bulk supply schemes | Bhiliya, Sangoyana & Fuyeni | 3 |
| | Fuyeni | 60% of Fuyeni & water tanker assisting in the area | Mfolozane & Nhlanguwini | |
| | Shayamoya | Part of Shayamoya | Area near Shayamoya School | |
| | Makhwezini | Only Makhwezini | Nil | |
| 13 | Shwashweni | 40% supply from Mendu | Matsheyitshe | 3 |
| TOTAL NUMBER OF TANKS SUPPLIED BY WATER TANKERS | | | | 209 |

The existing water supply schemes listed above are partially operational and some are no more operating especially those which using boreholes as sources. The reason being the diminishing ground water affecting yields and in some cases quality. It is now very risky to continue operating some of these projects as water quality cannot be guaranteed.

The areas which do not have any infrastructure (pipeline) are treated as grey areas and those areas are serviced by water tankers on a weekly basis. Some of the bulk water supply, like that of Mhlana-Somopho is no longer reaching the furthest areas (Sangoyana, Myovu & Makhanda), these areas had to be supplied by water tanker because the rivers are dry and the alternative of drilling boreholes has failed because of shortage of groundwater.

The overall tanker situation within uThungulu is as follows;

DROUGHT INTERVENTION

| KZ | NO. OF TANKERS | NO. OF JOJO TANKS | OTHER STORAGE |
|--------------|----------------|-------------------|--------------------------------------|
| 281 | 5 | 140 | 6 concrete reservoirs |
| 283 | 10 | 178 | 2 Steel tanks + 1 concrete reservoir |
| 284 | 8 | 133 | 2 concrete reservoir +2 steel tank |
| 285 | 1 | 14 | 7 concrete reservoirs |
| 286 | 1 | 18 | 7 concrete reservoirs +steel tank |
| TOTAL | 25 | 483 | 27 |

FUNDING REQUIREMENT FOR THE TANKER INTERVENTION

As can be seen in the table above, there are 483 (static tanks) jojo tanks situated at strategic points to service affected communities. These tanks service a total of 96 600 people per day.

In addition to the above, another 27 reservoirs from schemes with dry sources are now being filled by the water tankers. These schemes are scattered throughout the five municipalities.

Currently there are 25 water tankers sourced from private service providers through the formal bidding process that are servicing these affected areas. The historic cost of the tanker service dates as far back as 2005 when the first symptoms of drought were detected and the provincial and national government at that stage provided some funding to assist affected municipalities. The annual cost of the tanker operation can therefore be summarized as follows;

| YEAR | 2006/7 | 2007/8 | 2008/9 | 2009/10 |
|---------|--------|--------|--------|---------|
| GRANT | R7 M | 0 | 0 | 0 |
| OWN FUN | R12 M | R19 M | R32 M | R28 |
| TOTAL | R19 M | R19 M | R32 M | R28 |

The current allocation and future projections based on the current municipal affordability as per the approved budget is depicted as follows;

| YEAR | 2010/11 | 2011/12 | 2012/13 | 2013/14 |
|------------------|---------|---------|---------|---------|
| REQUIRED FUNDUNG | R24 M | R27 M | R29 M | 34 M |
| OWN FUN | R11 M | R M | R M | R35 |
| TOTAL REQUIRED | R35 M | R40 M | R40 M | R45 |

The above table indicates the shortfall as from 2010/11 onwards. Based on the approved budget of R11 million, the municipality can only render the tanker service till October 2010. It is for this reason that a funding request is submitted to the Provincial and National Government for financial intervention to prevent the catastrophe that is waiting to happen.

The whole of Ntambanana areas and sections of Mfolozi Municipal areas especially wards 11, 12 and 13 are the driest in the district. All the big rivers have dried up, dams are dry, handpumps are not functioning due to diminishing ground water and

the springs have also dried up. The newly drilled boreholes do not have sufficient yields or sometimes have no water at all.

The municipality do not have sufficient budget to provide the most needed intervention in terms of providing water tankers to the affected area. The current available municipal budget is only enough to provide water till October 2010, thereafter all communities currently serviced by water tankers will be without water.

It is for this reason that external intervention from Provincial and National Government is sort to prevent the catastrophic condition the municipalities and communities will find themselves in when the municipal fund runs dry.

The long term intervention is addressed in detail on the WSDP presentation and it also shows clearly that some areas will only get water between 2020 and 2025 almost 11 years beyond the millennium target.

If the situation is not contained through provision of short to medium term interventions, there is a high possibility of community unrest and strikes which will dent the good record of uThungulu District Municipality and the Provincial Government. This is a situation that no one would like find themselves in.

FUTURE PLANS

In terms of the Water Services Development Plan (WSDP), Ntambanana will receive water from the two bulk schemes namely; Upper Nseleni Water Scheme and Greater Mthonjaneni Regional Bulk Scheme. The entire UDM is divided into a number on Service Supply Areas (SSA) receiving water from each supply source.

In the case of the Mfolozi and Ntambanana areas that are scheduled to receive water from the Upper Nseleni Scheme, these areas are divided into 16 SSAs. The most affected areas are those falling under SSA 3, 4, 5, 6, 7 and 8. SSA 7 is shared between ward 6 of Ntambanana and ward 13 of Mfolozi and SSA 8 is shared between ward 6 of Ntambanana and Ward 12 of Mfolozi. This is depicted on maps in the next pages.

Currently parts of SSA 8 receives water from Mhlana/Somopho Bulk Water scheme which has proven to be a problem due to poor supply received from Umkhanyakude District Municipality at Nkolokotho Water Works. The planned pipeline will reactivate the non operating schemes and provide additional capacity to the schemes affected by high demands and dried sources.

UPPER NSELENI SSA

| SUB-SUPPLY AREA | ESTIMATED DIRECT COSTS (incl VAT) | PROFESSIONAL FEES (incl VAT) | TOTAL (incl VAT) | WARDS | SUBWARDS | ESTIMATED PLANNED IMPLEMENTATION |
|---------------------------------|-----------------------------------|------------------------------|------------------|---------------------------|---|----------------------------------|
| KZ 283 Upper Nseleni SSA | | | | | | |
| 3 | R 9,406,154 | R 1,531,234 | R 10,937,388 | Partially 7 & 8 | Sihuzu, Ningizimu, Partially Obizo, Nqutshini, Partially Ndondwane | 2010/11 to 2012/13 |
| 4 | R 6,199,473 | R 1,009,217 | R 7,208,690 | Partially 7 | Makhwela, Macekane, Stezi, Ntabinamasi | 2013/14 to 2016/17 |
| 5 | R 53,706,198 | R 8,742,870 | R 62,449,068 | Partially 6 & 8 | Madlanzini, Mabhuka, Makhohlwase, PartiallyNdondwane, Malongweni, Maqedipleti | 2016/17 to 2019/20 |
| 6 | R 18,184,147 | R 2,960,210 | R 21,144,357 | Partially 5 | Bhuchanana | 2019/20 to 2022/23 |
| 7 | R 19,184,659 | R 3,123,084 | R 22,307,743 | Partially 6 & Mbo 12 | Mvazane, Ntuzuma, Mningi, Magwetshana, Emakwezini | 2022/23 to 2025/26 |
| 8 | R 11,898,762 | R 1,937,008 | R 13,835,770 | Partially 6 & Mbo 12 & 13 | Sangoyana, Partially Emkhandlini, bhiliya, Fuyeni, Ntuthunga | 2025/26 to 2028/29 |

The table above reflects the wards to be covered, estimated budget at current value as well as timeframe at which these projects will be implemented with a respective SSA. Of concern is the fact that SSA 4,5,6,7 and 8 will be covered beyond 2014 which is the millennium target set by cabinet. In terms of the master plan, SSA 8 will be completed in 2028/29. In total this eastern side of Ntambanana will require a total of just over R137.00 million.

The western side of Ntambanana is earmarked to get water from the Greater Mthonjaneni Water Scheme. The Greater Mthonjaneni is divided into nine SSAs however the SSA falling under Ntambanana are 5, 6, 7, 8 and 9. It should also be noted that 8 and is shared between Ntambanana and Mthonjaneni. The footpath of these SSAs is depicted in the map below;

GREATER MTHONJANENI MASTER PLAN PROPOSAL AND EXISTING PROJECT LAYOUT

This section of the municipality will get water from the newly constructed Greater Mthonjaneni Water Scheme. This project gets water from the Phobane Dam and water is purified through a 20ML plant and pump to Eshowe and Zigagayi reservoir respectively. The Ntambanana pipeline will receive water from the Zigagayi Reservoir. This reservoir has been constructed and the bulk pipe to Nomponjwana reservoir (SSA4) is under construction with the planned completion date being December 2010.

As can be seen, the first section of SSA4 will be getting water from December 2010 however the entire project is planned according to the current MIG cash flows as per the DoRA figures. Based on the historic MIG tranches and the DoRA figures, the water supply to all SSA is planned as follows;

| SUB-SUPPLY AREA | ESTIMATED DIRECT COSTS (incl VAT) | PROFESSIONAL FEES (incl VAT) | TOTAL (incl VAT) | WARDS | SUBWARDS | ESTIMATED PLANNED IMPLIMENTATION |
|---------------------------------------|-----------------------------------|------------------------------|------------------|------------------------------|--|----------------------------------|
| KZ 283 Greater Mthonjaneni SSA | | | | | | |
| 4 | R 37,355,418 | R 6,081,114 | R 43,436,532 | Partially 3, 4 & Mth 5 | Ntundulu, awule, Wabaza, Mpevu, Nkwenkwe, Emasangweni, Nomponjwana | 2011/12 to 2013/14 |
| 5 | R 76,505,314 | R 12,454,354 | R 88,959,668 | Partially 3 & 2 | Oqhabiyeni, Ogelweni, Emfeni, Esidakeni, Gobihlahla, Partially mkhandlwini | 2011/12 to 2013/14 |
| 6 | R 33,798,347 | R 5,502,056 | R 39,300,403 | Partially 2, 3, 4 & 5 | Diomodomo, Qomintaba, Esicothweni, Kwa Gamu, Mabhensa | 2018/19 to 2021/22 |
| 7 | R 21,845,987 | R 3,556,324 | R 25,402,311 | Partially 1 & 2 | Partially Mkhadlwini, Debe, Emaphikanqola, Partially Mawanda | 2018/19 to 2021/22 |
| 8 | R 49,759,066 | R 8,100,313 | R 57,859,379 | Partially 3 & 2 | Partially Mahere, Mhoyiza, Ntabayenkosi, Njomekwane, Kwabhadaza | 2014/15 to 2017/18 |
| 9 | R 64,515,907 | R 10,502,589 | R 75,018,496 | Partially 1, 3 & Mtho Part 4 | Partially Mawanda, Lumbi, Nqekwane, Mgojane, Gandolo, Phezukwehlanze, Zululiyaduma, Nogalaza | 2022/23 to 2025/26 |
| | R 283,780,039 | R 46,196,750 | R 329,976,789 | | | |

As can be seen from this table, this part of the municipality requires just under R320 million to be fully supplied with water. In terms of the current and projected MIG allocations, the last phase of this project under SSA 9 will only be covered between 2023 and 2025.

MUNICIPAL CAPITAL FUNDING SOURCES

UDM requires R 467 859 806 to bring sustainable water to the affected areas or the aforementioned SSAs. Overall the UDM needs R3.5 billion to eradicate current water backlogs. The municipality is dependent on MIG for funding of its capital projects and DWA has also committed R40 million through DoRA for the next three years to assist on the bulk infrastructure implementation. Over the next three years the DoRA figures under MIG are reflected as follows;

| | |
|-----------|------------------------|
| 2010/2011 | 100% W&S: R133 809 000 |
| 2011/2012 | 100% W&S: R160 933 000 |
| 2012/2013 | 100% W&S: R190 000 000 |

In total the municipality have R484 742 000 over the next three years for capital projects throughout the district. These projects include both water and sanitation. This budget must be spread throughout the district as most areas are in dire need of water services and communities are running out of patience waiting for these services.

MEETING THE MILLENIUM TARGET

To meet the millennium target of 2014 on water, the municipality needs over R 800 million per annum. At a rate of R 190 million (*2012/13 allocation*), if MIG funding were to remain constant, it will take over 18 years to eradicate the water backlogs. This means that it UDM will only eradicate its backlogs in 2028.

This is based on an assumption that all received funding will be utilised for water projects. Utilizing R30 million of this allocation for sanitation as required by DWA, will extend this period to 2032. It is therefore important that MIG allocation be increased based on the backlogs per municipality in order to reduce this period.

UTILISATION OF OWN MUNICIPAL FUNDING

- Municipal own funding is used for the O&M
- R80 million is used for water services
- R11 million will be used for tankers
- R6 million will be used for boreholes
- R750 000 will be used for water quality improvements
- R1 million will be used for projects extensions
- In total about 80% of UDM budget is allocated to water services.

SUMMARY OF REQUIRED INTERVENTIONS

Based on the detailed needs analysis that has been done it is clear that the municipality needs a twofold intervention.

The current crisis requires that additional funding be received to address the most pressing water needs emanating from dry sources. In the absence of good boreholes and quality ground water, the municipality is only left with a water tanker option to provide survival water to affected communities.

The current and future external funding requirement is tabled below.

| YEAR | 2010/11 | 2011/12 | 2012/13 | 2013/14 |
|------------------|----------|----------|-----------|---------|
| REQUIRED FUNDUNG | R24 M | R30 M | R27 M | 20 M |
| OWN FUN | R11.47 M | R15.43 M | R 23.00 M | R30 |
| TOTAL REQUIRED | R35 M | R45 M | R50 M | R30 |

The second phase of intervention is on the review of MIG allocation as it is clear that with the current or even projected allocation of R190 million, the municipality will only be able to eradicate its water backlog in 2028.

In order to be able to eradicate all water backlogs by 2019, the municipality will need R390 million per annum. For the sanitation, the municipality will require R67 million per annum. Therefore the municipality will need a total of R456 million per annum over the next nine years to eradicate all its water services backlogs.