Msunduzi

Environmental Management Framework

Final Draft Public Consultation Record

Report Prepared for

Department of Environmental Affairs,

Department of Agriculture and Environmental Affairs and Rural Development, and

Msunduzi Municipality

Report No. 376998/FDPCR

May 2010

SRK Consulting
Engineers and Scientists

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SRK Project Number 376998

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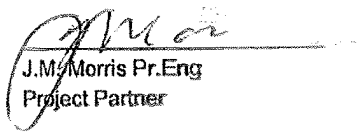

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Table of Contents

List of Tables

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Msunduzi Environmental Management Framework

Public Consultation Record

1 Introduction

The Msunduzi Municipality (Msunduzi), in partnership with the national Department of Environmental Affairs (DEA), previously the Department of Environmental Affairs and Tourism (DEAT) and the KwaZulu-Natal Department of Agriculture, Environmental Affairs and Rural Development (DAEA&RD) previously the Department of Agriculture and Environmental Affairs (DAEA), has recognised the need for an appropriate policy to inform development planning and approval that supports sustainable development within the Municipality. SRK Consulting (SRK) was therefore appointed to prepare the following for Msunduzi:

- Status Quo Analysis (State of the Environment);
- Strategic Environmental Assessment (SEA);
- Municipal Open Space System (MOSS);
- Strategic Environmental Management Plan (SEMP) and
- Environmental Management Framework (EMF).

This report details public and stakeholder consultation undertaken to obtain input on the Msunduzi EMF process. The report includes the following:

- An introduction to the project;
- A description of the public consultation process undertaken;
- A record of all comments received on the draft documents and associated responses;

- A copy of the IAP database (excl contact details);
- Copies of all comments received;
- Copies of Minutes of the stakeholder workshop and public meetings;
- Copies of Advertisements and Notices;

2 Consultation Process

SRK undertook an extensive process to notify, identify and register IAP's during the Inception Phase of the greater Msunduzi EMF project. A planning workshop was also held that provided stakeholders with the opportunity to provide input into the approach adopted for the remainder of the project. A list of registered IAPs was developed and has been added to during Phase two and three of the project. Public meetings were held during phase 2 and 3 of the project to discuss Draft Reports and facilitate discussion on the desired state of the environment. Details of public involvement undertaken to date is included in Table 2.1

Table 2.1: Public Involvement

Type	Date	Description
Steering Committee Meetings	23 August 2007 30 October 2007 14 February 2008 22 August 2008 30 October 2008 21 November 2008 13 April 2010	The project steering committee is made up of representatives from the following organisations: DEA, DAEA&RD, Msunduzi Municipality, uMgungundlovu District Municipality, Department of Water Affairs and Forestry (DWAF), Ezemvelo KZN Wildlife (EKZNW) and the KwaZulu-Natal Department of Local Government and Traditional Affairs (DLGTA). The steering committee has guided the process of developing the Msunduzi EMF
Discussion Document	12 September 2009	To facilitate discussions during the Planning Workshop a discussion document was drafted and circulated to all stakeholders invited to participate in the workshop.
Planning Workshop	19 September 2009	Organisations representing public interested where asked to provide input into the development of the EMF. This included the identification of issues and existing information that would inform the EMF and specialist studies.
Advertising	April 2008 23 June 2009 30 June 2009 9 March 2010	A legal Notice was placed in The Witness on 15 April 2008 calling for the registration of Interested and Affected Party' s (IAP's). In addition to the legal notice, The Witness stories ran numerous editorials on the Msunduzi EMF detailing progress, meeting dates and calls for comment.
Notices	April 2008 August 2009 March 2010	A list of IAP's developed during the formulation of the Msunduzi Integrated Environmental Management (IEM) policy was used to identify potential IAP's for the Msunduzi EMF. Notices in English or Zulu were sent to all identified IAP's as well as all municipal councillors and officials. The same process was repeated to inform IAP's of the availability of draft documents and public meetings.
Stakeholder Questionnaire	27 Jan 2009	A questionnaire was circulated to all registered IAP's. The questionnaire aimed to environmental issues and perceptions.
Public Meeting	05 August 2009	A public meeting was held to facilitate discussions on the Draft Status Quo Report and the existing IEM Policy with the intention of informing the identification of issues and the Desired State of the Environment.
Arosha Environmental Leadership Summit	24 August 2009	SRK facilitated a breakaway session on environmental planning at Arosha Environmental Leadership Summit During the breakaway session the need for input from the public was stressed. The opportunity was used to gain further input into the desired state of the environment.
Public Meeting	18 March 2010	A public meeting was held to facilitate discussions on the Draft SEA, ESP, EMF and SEMP Reports.

In addition to the public involvement undertaken all reports and mapping were made available to the public for review. A hard copy of all reports was made available for viewing at the SRK offices while electronic (CD) copies of the report were made available to all I&AP's on request.

The Status Quo Report was made available for comment from the 17 June 2009 to the 8 July 2009, while the SEA, ESP, EMF and SEMP Reports were made available from the 4 March 2010 to the 25 March 2010.

3 Comments Received and Associated Responses

Table 3.1 included below details all comments received on the draft documents and associated responses.

Table 3.1: Comments received on the draft documents and associated responses

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
Status Quo				
5 August 2009 Public Meeting	Not recorded	Not recorded	Concern was noted over the statement that the capacity of Dargle Sewerage Treatment Works (DSTW) is a constraint to development". It was noted that it is rather the capacity of the sewer reticulation network that poses that a constraint to development.	The point was noted. It was also noted that issues with the sewer reticulation network that result in stormwater passing through the DSTW impacts on its capacity. Further it was noted that the DSTW is upstream of areas where development has been proposed and therefore sewerage from these areas would either need to be pumped to the DSTW or an additional treatment works developed further downstream to allow such development to occur.
5 August 2009 Public Meeting	Not recorded	Not recorded	It was queried why the municipality should plan for bulk services servitudes and how these areas could be identified.	It was noted that this relates to the identification of areas suitable for powerlines, water and sewer pipelines and possibly major roads that must be allowed for in future planning. It was noted that, these servitudes must be taken into account at the planning phase and not delineated as part of the EMF, which is at a more strategic level. It does however require integrated forward planning between the service providers and planners.
5 August 2009 Public Meeting	Not recorded	Not recorded	It was queried whether the intention is to allow for other urban centres of development, such as at Ashburton, and to provide bulk services to these core areas. This was based on the recommendation that the municipality produce a cost model to spatially identify where it is financially feasible for the municipality to provide different levels of service provision.	It was noted that the study itself had not been undertaken but rather it was recommended that the model be developed to inform future service planning.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
5 August 2009 Public Meeting	Not recorded	Not recorded	It was noted that the study is based on a scientific determinism approach. It was queried whether there had been consideration of unknowns and unpredictable events? It was queried how “irreplaceability”, as used in the context of the Biodiversity Specialist Study, is determined? It was noted that it is essential to consider the unknowns in such a study for a balanced view.	It was noted that the irreplaceablity score in conservation planning is based on an areas relative contribution to achieving biodiversity conservation targets.
5 August 2009 Public Meeting	Not recorded	Not recorded	It was noted that the public participation process should be broadened and should encourage participation from the youth. Competitions or a series of articles on the EMF in the local press were suggested as a means to generate interest. It was noted that the Department of Education should be consulted.	The project team agreed to take these suggestions further.
5 August 2009 Public Meeting	Not recorded	Not recorded	The return period used to calculate the flood lines was queried?	It was noted that extensive information that was not available is required to determine flood lines. As such the project team used available information to determine 1:100 year flood zones and that this had been supplemented by available 1:100 year floodlines.
5 August 2009 Public Meeting	Not recorded	Not recorded	It was queried whether the entire provincial priority corridor had been considered in the Socio-Economic study? The implications of demoting the N3 to a provincial road were queried?	It was noted that the National Spatial Development Perspective, identifies importance of the N3 as a corridor. Only the section from Howick to Durban is included (Priority Corridor 1). It was noted that while some planning had been done to investigate the option of changing the N3 route to go around Pietermaritzburg this proposal had been around for over 15 years and therefore it would be impossible at this stage to identify the implications of such a proposal.

5 August 2009 Public Meeting	Not recorded	Not recorded	The definition of “commercial”, “industrial” and “mixed use” land use was queried? This was linked to the presentation where it was recommended that no new industrial areas be created but that mixed use development is anticipated along the N3 corridor. It was further noted that there are a number of applications already submitted for light industrial development within corridors for commercial and residential development,.	It was noted that these are accepted planning terms and that the definition of these within the Msunduzi Municipality would be included in the minutes. It was noted that the nature of development within corridors will need to be controlled and recommendations will be made in this regard. To this end the Msunduzi Town Planning Scheme Clauses and CSIR Human Settlement Planning and Design Guidelines were consulted. Neither of these documents however provided a definition for mixed land use. Isibuko Se Afrika provided the following generic definition. They did however note that this definition would need to be refined for the specific needs of the Msunduzi Municipality in consultation with the public and municipal officials. “*A mixed use zone allows for the development of a range of complementary land uses with varying degrees of mix: retail/commercial/business, administrative, community, educational and residential opportunities which, within the use zone, are compatible, and generally do not breach the level of amenity contemplated by the zone.*”

5 August 2009 Public Meeting	Not recorded	Not recorded	Concern was raised that little mention is made in the Status Quo Report of global warming and climate change. The level of research undertaken in this regard was queried?	It was noted that this aspect of the EMF would require further work and the following steps had been proposed to address this: The Municipal Open Space System that forms part of Phase 3 of the EMF will take climate change into account. Recommendations for further work relating to climate change have been included in the Biodiversity and Air Quality specialist studies. The extension of the eThekwini climate change study to cover Msunduzi is one such recommendation. This and other recommendations will be included in the Strategic Environmental Management Plan (SEMP) component of the EMF. The provincial climate change study is in progress and will provide a framework for local climate change strategies. It is recognised that this aspect should be enhanced. It is anticipated that the EMF will be reviewed and updated every 5 years. This will provide an opportunity to include any new information gathered during this time in the reporting and planning.
5 August 2009 Public Meeting	Not recorded	Not recorded	It was queried whether land value had been included in the EMF thus far, specifically the identification of areas of conservation importance.	It was noted that the Status Quo Report presents a "snapshot" of current environmental conditions. A Municipal Open Space System or Environmental Services Management Plan will be developed using the current biodiversity layer (derived using a Minset analysis) to determine priority conservation corridors within the open space system.
5 August 2009 Public Meeting	Not recorded	Not recorded	The availability of the SEA report for public comment was queried.	It was noted that the exact timing had not yet been determined, but that stakeholders would be notified in due course. It was also noted that the timing would be affected by the public participation process and the extension thereof as discussed above.

5 August 2009 Public Meeting	Not recorded	Not recorded	It was noted that from the Status Quo Report it would appear that parts of the Ashburton area are unsuitable for development, although the current trend is towards development in this area. The role of the EMF in decision-making was queried.	It was noted that once the he EMF has been finalised and adopted, it will be used to assess development applications and inform planning. It further noted that DAERD is the provincial environmental authority, and will use the EMF to inform strategic decisions around development applications.
5 August 2009 Public Meeting	Not recorded	Not recorded	It was requested that current development applications be placed on hold, pending finalisation of the EMF?	It was noted that it is not legal to place development applications on hold, pending an EMF as this will impact on the legal rights of applicants and developers. DAERD assured participants that they would however use all available information to assist in decision-making until the EMF study has been completed.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
SEA				
25 March 2010 Written Comments	Mr. N. Durow	Lower Mpushini Conservancy	There is a spelling error on the Figure 3.1 Msunduzi Locality Map. "ENDENDALE" should be spelt as "EDENDALE". Reading through the draft SEA document it would appear that the area included within the Msunduzi Municipality was studied and all areas that fell outside of the municipal boundaries were ignored or not taken into account.	The spelling error has been addressed. The terms of reference for the Msunduzi EMF limited the work to within the boundaries of Msunduzi. The proposed uMgungundlovu SEA and SEMP will undertake a similar assessment of the entire district.
25 March 2010 Written Comments	Alka Ramnath	Umgeni Water	What is the source of the water backlog information in Section 3.2.2 of the SEA? DWA's WSNIS database indicates that the backlogs have been decreasing	Information was sourced from the Msunduzi Integrated Development Plan however the SEA will be amended in light of this information.
25 March 2010 Written Comments	Alka Ramnath	Umgeni Water	In Section 4.1.3 of the SEA (pg. 26) reference is made to the use of the Msunduzi for economic, agricultural etc. purposes. It must be noted the Mgeni catchment is a closed catchment and therefore the Msunduzi is also a closed catchment and therefore new abstractions will not be allowed.	Noted the report has been amended to reflect this.
25 March 2010 Written Comments	Alka Ramnath	Umgeni Water	There is a spelling error on pg. 28 of the SEA – "lingages".	Noted – the report has been amended

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
ESP				
18 March 2010 Public Meeting	Mr. D. Johnson	Private	How where the limits for the C-Plan exercise determined? Thornveld habitat in the Mpushini area warrants greater conservation.	Provincial limits where used to inform the setting of limits for specific to Msunduzi in consultation with a number of experts and Ezemvelo KZN Wildlife (EKZNW).
18 March 2010 Public Meeting	Ms. S. Schutte	Upper Mpushini Conservancy	What level of ground truthing was undertaken as part of the C-Plan process? Additional information (species lists) for the Mpushini area was available.	The C-Plan process relied on input from experts that had undertaken primary data collection in various parts of Msunduzi. Additional information should be provided and will be used in the review of the C-Plan.
18 March 2010 Public Meeting	Ms. P. Long	Preservation of Mpushini and Mkhondeni Biodiversity (PMMB) Trust	Why are the areas identified in the Msunduzi C-Plan different from those identified by EKZNW in the provincial C-Plan	The C-Plan for Msunduzi was undertaken at a far greater scale and included additional information and therefore produced different results.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
18 March 2010 Public Meeting & in writing on the 25 March 2010	Ms. S. Schutte Ms. P. Long Mr. N. Durow	Upper Mpushini Conservancy Upper Mpushini Conservancy	Areas set aside for conservation in terms of the EKZNW stewardship program and the Upper and Lower Mpushini Conservancy should be included in the Environmental Services Plan (ESP). Further the following linkages between the Upper and Lower Mpushini Conservancy are proposed. 30 m buffers on both sides of the watercourses (Mpushini and Malkop Spruit). Where the linkage is blocked through existing properties at the bridge of the R103 over the Mpushini an additional buffer should be put in place on the eastern side of the river on the (as yet) undeveloped land. Should the R103 be widened at a later state, a suitable undercut should be provided.	During the public meeting it was agreed that if a spatial representation of these areas could be provided within the timeframe for comments their inclusion in the ESP would be considered. The draft ESP was prepared using the biodiversity value of untransformed land as the basis, with no consideration given to land ownership, current use, and zoning other than those areas already formally proclaimed as conservation areas or nature reserves. The terms of reference included the preparation of a draft ESP that would then inform the extensive consultation process required to identify areas of social significance, aesthetic appeal, landscape quality and critical for the maintenance of sense of place. Neither Conservancies nor land currently being put forward in terms of the “Stewardship” program have any legal status. Urban Conservancy boundaries have to a large extent not been established using biodiversity value as the criteria. There are substantial areas falling within conservancy boundaries which would be deemed to have very little or no biodiversity value at all although it must be acknowledged that in the more rural or undeveloped parts of the City, Conservancies are likely to encompass areas of biodiversity value. Land ownership and use models still need to be developed and will include a range of options (of which Land stewardship and conservancies are but two) to be presented to landowners when the public process of formally adopting the ESP begins. Clearly the ESP needs to be developed further using a broad range of ecosystem services rather than the current “narrow” focus on biodiversity value only. Action Plan E4 Implementation of the ESP with associated land ownership models outlines how this will be achieved. Conservancies and land stewardship status clearly needs to be acknowledged and addressed during this process and it certainly was never the intention to ignore or downplay the importance of these areas. Action Plan E4 has been amended to ensure that these areas are included in the next step towards finalising the ESP.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010 Email Comments	Ms. P. Long	PMMB Trust	Of what value are the community conservation initiatives with respect to the design and implementation of an Environmental Management Framework that seeks to ensure the sustainability of the Municipality of Msunduzi?	Response as above
18 March 2010 Public Meeting	Ms. P. Long	PMMB Trust	Raised concern that all areas outside the boundaries of the ESP would be made available for transformation and stressed that these areas have a role to play in the delivery of Ecosystem Goods and Services.	Areas outside the ESP also have conservation significance in terms of the EMF. Areas of development constraint identified in terms of the EMF also require further investigation in terms of their biodiversity value
18 March 2010 Public Meeting	R. Fincham	MIDI	Suggested an annual review for the C-Plan.	INR have indicated that to accont for transformation and new information the Cplan should be have a 3 – 5 year review period however should large scale transformation occur or should a large amount of new data become available the C-Plan should be amended as soon as possible thereafter. It is also recommended that any new information be used to review individual targets for species and habitats but that a review of all the targets should be undertaken every 10 years.
18 March 2010 Public Meeting	Mr. L. Ngobo	Greater Edendale Development Initiative (GEDI)	How much of Edendale was included in the ESP?	The ESP had focused on untransformed areas and therefore areas set aside within Edendale where limited by the level of transformation in the area. Mr. A. Goddard however was able to identify areas within Edendale that form part of the ESP and contribute to Msunduzi's Ecosystem Goods and Services. Criteria for the identification of additional areas from a social perspective have been proposed and will be used to identify additional areas. In addition Action Plan S1: Urban Greening Program identifies the steps towards the development of an Urban Greening Program for Msunduzi.
18 March 2010 Public Meeting	Ms. P. Long	PMMB Trust	How will the ESP affect the public's ability to conserve their areas.	Areas excluded from the ESP may still become private protected areas. These areas should however be included in the ESP as a next step as outlined in Action Plan E4 Implementation of the ESP.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
18 March 2010 Public Meeting	Mr. N. Masikane	Greater Edendale Development Initiative (GEDI)	Without appropriate management of Open Space areas they become a burden and can pose the threat to community safety.	Action Plan S1: Urban Greening Program identifies the steps towards the development of an Urban Greening Program for Msunduzi. Action Plan E4 also addresses implementation of the ESP and development of land management options.
18 March 2010 Public Meeting	Mr. N. Masikane	Greater Edendale Developmnet Initiative (GEDI)	How would the EMF affect the timing of EIA applications	The EMF does not negate the need for EIA's but rather provides information to developers and authorities to ensure that the EIA process and decision making is facilitated.
25 March 2010 Written Comments	Ms. S. Schutte Mr. N. Durow	Upper Mpushini Conservancy Lower Mpushini Conservancy	The term irreplaceable is questioned. Much of Mpushini is identified as being outside the irreplaceable areas but has conservation significance. Not many on-the-ground studies have been done in this area and we would like to encourage research studies within the conservancy. Rare species seen include amongst others serval, caracal and African python. Further information has been provided. According to Dr Bonkewitzz, a butterfly expert that studied the Mkhondeni valley, the Mpushini area is data deficient when it comes to butterflies, but certainly warrants more studies. We certainly see the need to a more detailed study at ground level that will proof that the area is not replaceable.	Noted – further investigation of the area and information supplied will be included in the next iteration of the C-Plan.
25 March 2010 Written Comments	Ms. S. Schutte	Upper Mpushini Conservancy	Hinterland Thornveld and Valley Bushveld are important in giving the Eastern areas the sense of place and African feel and therefore making PMB the "City of Choice" for many to live in.	Agreed – the criteria and limits identified in the SEMP aim to ensure that the sense of place is not lost.
23 March 2010 Written Comments	Dr. D. Johnson	Private	The terms irreplaceability originated in the GIS section of KZN Wildlife about 15 years ago. Its starting point was to tot up what remains of each habitat or landscape (not exactly the same thing) within reserves in KZN. I don't think it took account of what was conserved elsewhere in South Africa, nor further afield, a relevant point to which we will return. Habitats which were well conserved formally were then deemed "replaceable" outside the reserves, the degree depending roughly upon pro-rata arithmetic.	The use of the same system as EKZNW was intentional. This was done specifically so that it made it easier to align the local planning to district and provincial conservation planning as it occurred and/ or was refined.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
23 March 2010 Written Comments	Dr. D. Johnson	Private	To pick up these threads nearer home. Valley Bushveld occupies only a small part of our area. The idea that it is replaceable can only be on the basis that it is well enough conserved elsewhere in KZN. It is not well conserved within our area, and indeed occupies only a small part of it. If it were excluded altogether from development plans it would hardly make any difference at all to the greater whole.	It is important to define "our area" as the conservation planning took into account targets for habitat conservation for the Msunduzi Area.
23 March 2010 Written Comments	Dr. D. Johnson	Private	The dangerous ground, specifically avoided in the KZN Wildlife exercise, is to assume that conservation outside the area under jurisdiction will continue indefinitely at an adequate level. There can be no better illustration of this wisdom than the White Rhino saga. In about 1950 KZN had about 40 left. The only other population in the world was the "thriving" one in eastern Zaire. I can't remember the exact figure but there were certainly hundreds at least, and all in a proclaimed national park. Why bother with ours? We all now know the answer. The KZN stock grew to over 1000, with the surplus going to restock dozens of other (now) safe areas, while the Zaire population is down to single figures and undoubtedly doomed. Moral: look after your own immediate neighbourhood.	The Biodiversity report recognises that while the focus of the study was on Msunduzi there is a potential to relax targets in Msunduzi if they are strengthened in other municipalities. At this stage however the targets set for conservation are based solely on Msunduzi's responsibility and does not allow for habitats to be protected in other municipalities.
23 March 2010 Written Comments	Dr. D. Johnson	Private	Apart from anything else, Valley Bushveld is the only local habitat that looks like "real Africa"; to be unkind to make the point, the rest of our area looks much like many other places in the world.	Sense of place and other social aspects like aesthetics will be addressed in the public consultation process required to finalise the ESP prior to adoption.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010	Ms. D. Dold	WESSA	It must be ensured that the upper valley, and catchment area are kept in a natural state to ensure that the valley systems below, especially the river system, have sustainability. This aspect will become more and more important in terms of resource economics in the future. As far back at 1970 WESSA was appealing for this area to be kept intact due to its archeological and heritage significance, the sense of place and landscape considerations for the greater Pietermaritzburg area. WESSA also believes that the inclusion of informally and formally conserved areas should be in place in the EMF from the outset regardless of if this was in the terms of reference or not. This is simply common sense. We support the premise that alternative technologies for all development must work in a new paradigm otherwise we will just repeat the degradation of the past.	The draft ESP was prepared using the biodiversity value of untransformed land as the basis, with no consideration given to land ownership, current use, and zoning other than those areas already formally proclaimed as conservation areas or nature reserves. The terms of reference included the preparation of a draft ESP that would then inform the extensive consultation process required to identify areas of social significance, aesthetic appeal, landscape quality and critical for the maintenance of sense of place. Neither Conservancies nor land currently being put forward in terms of the "Stewardship" program have any legal status. Urban Conservancy boundaries have to a large extent not been established using biodiversity value as the criteria. There are substantial areas falling within conservancy boundaries which would be deemed to have very little or no biodiversity value at all although it must be acknowledged that in the more rural or undeveloped parts of the City, Conservancies are likely to encompass areas of biodiversity value. Land ownership and use models still need to be developed and will include a range of options (of which Land stewardship and conservancies are but two) to be presented to landowners when the public process of formally adopting the ESP begins. Clearly the ESP needs to be developed further using a broad range of ecosystem services rather than the current "narrow" focus on biodiversity value only. Action Plan E4 Implementation of the ESP with associated land ownership models outlines how this will be achieved. Conservancies and land stewardship status clearly needs to be acknowledged and addressed during this process and it certainly was never the intention to ignore or downplay the importance of these areas. Action Plan E4 has been amended to ensure that these areas are included in the next step towards finalising the ESP.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010	Ms. D. Dold	WESSA	Concerns in the Lower Mpushini Valley area are the Lynfieldpark Sewage Works; damming of the river, alien vegetation; mining operations, and the large number of development proposals for the catchment area (industry, commerce and high density residential) which will result in serious negative implications for the river system and provision of environmental goods and services for the protected area. The problem is that no-one seems to be looking at the cumulative impact that these developments are going to have on the river system which is going to mean that our water becomes more and more expensive to treat to potable standards in the future. Bear in mind that we are talking here not only of the Msunduzi Municipality but of the greater eThekwini area as well. Therefore Msunduzi are the custodians of this water supply and need to look after it properly.	Noted the management priorities for Water Quality particularly related to land use have been amended in line with comments received.
25 March 2010	Ms. D. Dold	WESSA	Lower Mpushini Valley forms a valuable contribution to the Provincial biodiversity targets which form part of the National Biodiversity targets, in the respective vegetation types which occur here in good condition, and this is why it is being proposed and going through the formal channels of becoming a Provincial Protected Area Environment. The area has a wilderness feel to it and will become more and more important to city dwellers in the future as a refuge to escape the trials of city life and is an asset to the City or Pietermaritzburg.	As above sense of place and other social aspects like aesthetics will be addressed in the public consultation process required to finalise the ESP prior to adoption as detailed in Action Plan E4.
25 March 2010	Ms. D. Dold	WESSA	The air quality is excellent in the Lower Mpushini Valley and a further asset to PMB in terms of free goods and services. The area is not suitable for extensive agriculture, but its value lies in the free goods and services it supplies. The entire Mkondeni/Mpushini area is rich in heritage and is currently being researched in this regard.	Action Plan AMAFA 1 Cultural Heritage Resource Assessment aims to extend the cultural heritage study undertaken as part of this EMF process and information gathered for this area should be included in the extended study. The action plan has been amended to reflect this.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010	Ms. D. Dold	WESSA	Ad hoc development proposals not aligned to SDF developed for Ashburton area. Unscrupulous marketing of N3 intersection at Lionpark as development node (this is not in accordance with PEDS or LUMS) Other development applications undermining the stability of the area; the area is zoned as agricultural and eco-tourism; protection of ecological goods and services and ecological integrity; conceptual development plan that is truly sustainable for these valleys; degradation of the environment; development over/through drainage lines; threats to river and riverine area; provision of extensive conservation corridors throughout the area bulldozing of natural vegetation; protection of fauna and flora.	The SDF process was undertaken separately to the EMF process, however Action Plan E1 Integrate EMF into SDF Review and preparation of the LUMS highlights tasks to be undertaken to ensure that the environmental planning undertaken as part of the EMF process is included in future planning for Msunduzi.
30 March 2010	Ms. M. Ngotho	GREEN	Public participation is fundamental to the production and implementation of the EMF. Concerns have been expressed by some Civil Sector organizations (CSOs on whom and how the public have been engaged in the process. Low participation in meetings may attests to this concern. Now that the EMF is almost complete my concern is, 'if the public were not widely engaged, then what will be the implications on the implementation of the EMF? For example, Section 1.1paragraph one on page 2 of the Environmental Services Plan (ESP) reads, '*It was agreed that this level of public involvement fell outside of the scope of the ESP and that the public involvement required would be undertaken during the implementation of the ESP"* (ESP report, Pg 2). Environmental goods and services are at the heart of all development processes, sometimes access, lack of access and distribution thereof may lead to conflict and fuel irresponsible behaviour towards the environment. Though the Strategic Environmental Management Plans (SEMP) alludes to some actions, I think there should be more explicit recommendations enhance ownership and commitment during implementation.	The draft ESP was prepared using the biodiversity value of untransformed land as the basis, with no consideration given to land ownership, current use, and zoning other than those areas already formally proclaimed as conservation areas or nature reserves. The terms of reference included the preparation of a draft ESP that would then inform the extensive consultation process required to identify areas of social significance, aesthetic appeal, landscape quality and critical for the maintenance of sense of place. Given the number of products that where to come from the EMF process it was agreed that the second step namely the public consultation would fall outside the terms of reference and would be undertaken by the municipality as part of the implementation. Action Plan E4 has been amended to include more specific recommendations for how this process will be undertaken.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
30 March 2010	Ms. M. Ngotho	GREEN	The EMF processes has been promoted through various media- newspapers, internet, public meeting and access to outputs (documents). Whereas this media has reached residents, why then there is low participation of the public. Given the low participation, strategies should be thought through to tackle this challenge may be change the approach or media used. Yes, public participation processes are sometimes problematic and gatherings poorly attended. If stakeholders are informed appropriately, it will enable the municipality to actualize the EMF.	Every effort was made to ensure that the public, councillors and municipal officials were made aware of the EMF process and its implications.
30 March 2010	Ms. M. Ngotho	GREEN	Civil sector organizations (CSOs) play and can play a vital role in engaging communities in environmental initiatives and contribute towards good environmental governance. Their inputs should be duly recognised and not be clustered under the term 'public'? Some sections of CSOs expressed concerns and inadequate knowledge of the EMF/process. Whereas there is no way to redo the process, I think the report should be explicit about this inadequacy and make recommendations on possible initiatives to engage CSOs in implementation, updating and review process of the EMF.	The report has been amended and Action Plan G2 looks at increasing participation of the public and organisations in municipal decision making.
30 March 2010	Ms. M. Ngotho	GREEN	The Msunduzi municipality will be the lead implementing body of EMF. However, experiences reveal that the environment department has inadequate capacity and human resources to tackle environmental concerns in the municipality. Enhancing capacity and collaboration of actors need to be a top priority to actualise the EMF. Complement to the team for using and delivering the EMF products with a state-of- the- art technology. Considerations should focus on the capacity of the municipal decision makers to use and sustain the technology. There should be provisions to extend these skills and knowledge to the public to enable them engage actively is implementation and review of the EMF. The SEMP has wonderful actions to achieve. All stakeholders need to engage actively in identifying and setting the indicators and targets. Hopefully, this will enhance implementation, monitoring and evaluation process.	Action Plan G1 Environmental Capacity Assessment looks at ensuring that Msunduzi has sufficient capacity to implement the EMF and all action plans identified in the SEMP.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
EMF				
18 March 2010 Public Meeting	Ms. T Collocott	Private	Industry such as a recycling plant may be achieving certain objectives it still poses significant impacts to the environment.	Msunduzi requires additional capacity to address on-site impacts and environmental issues. To address capacity constraints Action Plan G1 Environmental Capacity Assessment has been recommended.
18 March 2010 Public Meeting	Ms. M. Ngotho	GREEN	Queried the public consultation process and asked that it be detailed in the EMF Report.	The EMF public consultation process had built on the existing framework that was developed as part of the process to develop an Integrated Environmental Management Policy. The process has been extensive and is documented in Section 7 of the EMF Report.
18 March 2010 Public Meeting	Ms. P. Long	PMMB Trust	To what extent have linkages been addressed in the EMF and ESP.	Linkages have not been included as part of the EMF user interface but the ESP included the identification of links to maintain biodiversity and the EMF Mapping allows the investigation of linkages by officials.
18 March 2010 Public Meeting	Ms. S. Schutte	Upper Mpushini Conservancy	What are the management priorities for areas of development constraint in terms of the biodiversity layer? No industry should be permitted in these areas. Is it possible to submit additional information to inform the C-Plan process?	Prior to development of biodiversity constraint areas (yellow areas) it is recommended that a site specific biodiversity assessment be undertaken. The land use recommendations have been amended. Any additional information regarding biodiversity distribution should be submitted to Msunduzi and will inform the review of the C-Plan as part of the EMF review.
18 March 2010 Public Meeting	Ms. S. Schutte	Upper Mpushini Conservancy	The definition of agricultural land use should be amended to refer specifically to cultivation.	Given the comments received from IAP's it was decided that the approach should focus more on impact than land use and that land use definitions and preffered and non-preffered land use should rather be addressed by the LUMS. The definitions of different land use types have therefore been removed from the EMF. It is believed that this will reduce confusion during implementation of the EMF and reduce the risk of misinterpretation.
25 March 2010 Written Comments	Ms. S. Schutte	Upper Mpushini Conservancy	A number of changes to the preferred and Non preferred land uses in terms of the EMF are provided.	In light of these comments the approach to recommendations for land use in conservation zones has been amended. This is reflected in the amended EMF Report.
18 March 2010 Public Meeting	Cllr. S. Lyne	Msunduzi Municipality: Ward Councilor	How will illegal development be prevented and compliance ensured.	The SEMP includes Action Plan G1 Environmental Capacity Assessment to improve environmental capacity within Msunduzi.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
18 March 2010 Public Meeting	Mr. L. Ngobo	Greater Edendale Development Initiative (GEDI)	The use of preferred and non preferred land use should be more carefully explained.	In light of these comments the approach to recommendations for land use in conservation zones has been amended. This is reflected in the amended EMF Report.
25 March 2010 Written Comments	Mr. N. Durow	Lower Mpushini Conservancy	The definition of low density residential that is given on page 20 is incomplete. In terms of the definition given, for example, a development in which erf sizes are 300m2 would be considered low density even if each erf had a house of 200m2 on it and an outbuilding of 75m2. This would hardly be low-density. The definition should be amended to include a minimum erf (plot) size and a maximum ground coverage occupied by the buildings.	Given the comments received from IAP's it was decided that the approach should focus more on impact than land use and that land use definitions and preffered and non-preffered land use should rather be addressed by the LUMS. The definitions of different land use types have therefore been removed from the EMF. It is believed that this will reduce confusion during implementation of the EMF and reduce the risk of misinterpretation.
25 March 2010 Written Comments	Mr. N. Durow	Lower Mpushini Conservancy	The definition of open space given states: "These areas may include buffer areas between developments and animal preserve areas. " Here I would be happier if the word "animal" were replaced by the term "wildlife" or "nature". Areas set aside for the preservation of wildlife or nature are not necessarilly there only for the preservation of animals. They may be established for the preservation of plants, or birds, or certain invertebrate species.	Given the comments received from IAP's it was decided that the approach should focus more on impact than land use and that land use definitions and preffered and non-preffered land use should rather be addressed by the LUMS. The definitions of different land use types have therefore been removed from the EMF. It is believed that this will reduce confusion during implementation of the EMF and reduce the risk of misinterpretation.
25 March 2010 Written Comments	Mr. N. Durow	Lower Mpushini Conservancy	The report states that the wetland buffer areas should have a buffer of 20m. If river courses are taken as being wetlands the buffer should be 60m on either side of the river bank (as per page 137 of the Msunduzi SDF): "DAEA recommends 60m on either side of the river (120m). These buffers are already shown on the map." It is important that these widths are specified in the EMF so that there can be no ambiguity when it comes to EIA or DFA applications from developers.	Noted the management priorities have been amended in the report.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010 Written Comments	Neville Durow	Lower Mpushini Conservancy	Biodiversity Development Constraint Area : Light industry should be Non Preferred Identified Water Quality Areas - all industries should be omitted from the preferred land uses in natural areas. Any industry, no matter how "clean" its is made out to be is likely at some stage or other to have oil or other pollutant leaks and these can irreparably damage natural water systems. I did a search of the internet and discovered that, where planning documents mentioned water quality, the conservation or improvement of water quality was a primary aim in property developments. Most planning bodies stressed that natural, unpolluted drainage systems were to be maintained at all costs and that no industrial developments were to allowed in these areas. These areas were to be exclusively reserved for recreation, nature conseravtion and eco-tourism. The same should be true for the Msunduzi Municipality (and all other municipalities).	In light of these comments the approach to recommendations for land use in conservation zones has been amended. This is reflected in the amended EMF Report.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010 Written Comments	Mr. N. Durow	Lower Mpushini Conservancy	Environmental education should be the cornerstone of of all environmental planning for the conservation of our natural ecosystems. This education should be provided for all sections and sectors of our population, from pre-primary school level, through tertiary education and should be extended to all adults in South Africa. One often sees a person buy a piece of land and the first thing that they do is to bulldoze all existing natural vegetation before starting to design the buildings that will be erected on the property. The design of the house, or other buildings, does not fit in with the character of the area and all of the cleared space is planted to exotic lawn grass such as Kikuyu. If trees and shrubs are planted they are invariably water-thirsty exotics. A comprehensive education plan should be included in the EMF which should be targeted at all citizens in the municipal area. The education programme should include such things as the values of the natural environment in providing environmental goods and services, the necessity to preserve natural ecosystems, the creation of natural areas within built-up areas to provide natural habitats for wildlife, and the necessity for neighbours to co-operate in the establishment of eco-friendly environments in their neighbourhoods. This programme need not be costly as the municipality could hand this work over to local NGO's and finance it by subsidising their work. This plan, if implemented, could contribute to the greening of the city and make Msunduzi a true “City of Choice” instead of the present “City of litter and filth”.	The need for an educational component to each action plan has been included in the SEMP.
25 March 2010 Email Comments	Ms. P. Long	PMMB Trust	How was the questionnaire information fed into the EMF process? What steps were taken to gain further information to support the vision? Was there any consideration given to include the community conservation initiatives as part of in the implementation phase of the EMF.	Questionnaires received where analysed and used to inform the desired state of the environment in terms of Section 5.3.1 of the Draft SEA. In addion a public meeting was held on the 5 August 2009 to gain further input in the Desired State of the Environment. All identified conservancies where included in the process and where invited to all public meetings and to comment on all documents produced.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010 Email Comments	Ms. P. Long	PMMB Trust	The Msunduzi EMF impacts not only on the Msunuduzi Municipality but on adjacent Municipal areas as well. My property Sub 15 of Mpushini is in Mkhambathini Municipality just outside the Msunduzi boundary. What steps were taken within the EMF process to consult and engage with stakeholders in the Mkhambathini Municipality?	The terms of reference for the Msunduzi EMF limited the work to within the boundaries of Msunduzi. The proposed uMgungundlovu SEA and SEMP will undertake a similar assessment of the entire district.
23 March 2010 Written Comments	Dr. D. Johnson	Private	The second, and very serious flaw in the document was the idea that the best and strongest habitats would be the most suitable to exploit! Diametrically wrong, no matter what computer model supports it. Must we really damage the best habitat for the sake of trying to restore the worst!? Many of so-called restoration exercises fail because of expense and lack of follow-up. By contrast, undamaged habitats often manage themselves. Extending the principle suggested to the next level, would the planning committee build a low-cost township and an industrial estate in the Kruger Park? It's an ideal site – completely unspoilt, with lots of flat ground of poor agricultural potential. Try presenting that in a fair debate on TV.	The theory upon which the water quality preferred and non preferred land use was based was that untransformed sub catchments have a greater absorption capacity than those that have already been transformed. In light of comments received from the public however the approach to recommendations for land use in conservation zones has been amended. This is reflected in the amended EMF Report.
23 March 2010 Written Comments	Dr. D. Johnson	Private	We were invited to express comment at the public meeting. Presumably our comments were to be taken seriously, and if sound, to be incorporated, even if this means changing the original. Ignoring the two flaws exposed above means, what we the general public suspect, that public debates are window-dressing. Much effort, time and expense have already gone into the current documents. It is all too easy to sit with, and then proceed with an error, because to change anything at the last moment is to "admit" to the fault. Error is only a frailty if it is pushed through regardless.	Noted – as above in light of comments received from the public the approach to recommendations for land use in conservation zones has been amended.
23 March 2010	Mr. R. Trotter	Private	Has been any change in the spatial development framework plan for Foxhill and/or what your report found as to the development needs and potential of Foxhill down into Bisley Nature Reserve and of course the Almond Bank development. Presumably there is no change in planning for the west side of the freeway upon which France is situated.	The SDF was adopted by council in September 2009. While some of the status quo information gathered in terms of the EMF was used to inform the SDF there have been no changes to the SDF since its adoption. Action Plan E1 Integrate EMF into SDF Review and preparation of the LUMS actions to review the SDF in light of the EMF are detailed. The EMF has identified environmental constraints for the Municipality together with criteria and targets for environmental quality. The planning for the area will need to be undertaken in terms of the SDF review and development of the proposed LUMS for the area.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010	Ms. J. Longmore	Ezemvelo KZN Wildlife (EKZNW)	It is recommended that the definition of agriculture distinguish between extensive and intensive agricultural activities/ operations. Further, it is recommended that the cultivation of virgin land be incorporated into the definition.	Given the comments received from IAP's it was decided that the approach should focus more on impact than land use and that land use definitions and preffered and non-preffered land use should rather be addressed by the LUMS. The definitions of different land use types have therefore been removed from the EMF. It is believed that this will reduce confusion during implementation of the EMF and reduce the risk of misinterpretation.
25 March 2010	Ms. J. Longmore	Ezemvelo KZN Wildlife (EKZNW)	Review of the management priorities for wetlands is recommended. Since development should never be proposed on a wetland it is recommended that the word on be removed from section 5.2.2 Wetland Areas.	In terms of the legislation there is nothing preventing a developer from proposing development on a wetland. The intention here is to ensure that should this occur the developer is required to undertaken extensive investigations prior to any development and demonstrate the proposed development will not impact on the wetland in question. The report has been amended to reflect this. In addition the land use has been amended to reflect that wetland transformation is not considered apprioriate.
25 March 2010	Ms. J. Longmore	Ezemvelo KZN Wildlife (EKZNW)	It is recommended that for wetland buffer areas (areas of potential development constraint) site specific wetland buffers and protection measures still be required prior to development of these areas taking into account the type of development and the biophysical features of the site.	Agreed – prior to development of an area identified as a wetland buffer or potential development constraint area wetland delineation should be undertaken and site specific buffers to the proposed development should be determined. The report has been amended to reflect this.
25 March 2010	Ms. J. Longmore	Ezemvelo KZN Wildlife (EKZNW)	It is recommended that any development proposed within 100 m of the "potential development constraint areas be required to follow the Wetland Buffer Guidelines as per the Water research Commissions Wetland Buffer Project. This would be in line with the precautionary principles outlined in NEMA and the sustainability objectives of the Msunduzi Municipality.	The EMF report has been amended to include this recommendation. The EMF mapping has not however been amended to include a 100m buffer. The refinement of the wetland data is addressed in Action Plan B2: Wetland Functionality Assessment and refinement of the Wetland data. This action plan has been amended to include the amendment of the wetland data in the EMF to include areas within 100m of wetland buffers.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010	Ms. J. Longmore	Ezemvelo KZN Wildlife (EKZNW)	It is recommended that the "High Biodiversity Area" section be reworded as appropriate mitigation may not always be possible. Further, the terms "unavoidable" needs to be defined. Development should only be considered "unavoidable" if no alternative, more environmental benign options exist and the development is seen to be in the public interest. It is further recommended that any development proposed within "high Biodiversity Areas" be subject to a pre-feasibility assessment, which must include all necessary specialist biodiversity investigations. If the site is confirmed to be highly sensitive and the proposed activity is expected to result in the net loss of critical biodiversity elements, then the development should be considered fatally flawed from a biodiversity perspective and should not proceed. Developers need to be alerted to the fact that undertaking of an EIA does not provide any guarantee that development approval would be granted in full or in part.	The intention of the EMF is to highlight development constraints to developers as early as possible in the process. The report has been amended to address comments received.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010	Ms. J. Longmore	Ezemvelo KZN Wildlife (EKZNW)	It is strongly recommended that the Mpushini Protected Environment and necessary linkages and corridors be incorporated into the ESP. The failure to incorporate this protected environment in into the ESP as a "future protected area" is a serious oversight and will undermine the usefulness of this plan. EKZNW acknowledges the resource constraints of this project and will endeavour to support and assist SRK with refining this plan.	The draft ESP was prepared using the biodiversity value of untransformed land as the basis, with no consideration given to land ownership, current use, and zoning other than those areas already formally proclaimed as conservation areas or nature reserves. The terms of reference included the preparation of a draft ESP that would then inform the extensive consultation process required to identify areas of social significance, aesthetic appeal, landscape quality and critical for the maintenance of sense of place. Neither Conservancies nor land currently being put forward in terms of the "Stewardship" program have any legal status. Urban Conservancy boundaries have to a large extent not been established using biodiversity value as the criteria. There are substantial areas falling within conservancy boundaries which would be deemed to have very little or no biodiversity value at all although it must be acknowledged that in the more rural or undeveloped parts of the City, Conservancies are likely to encompass areas of biodiversity value. Land ownership and use models still need to be developed and will include a range of options (of which Land stewardship and conservancies are but two) to be presented to landowners when the public process of formally adopting the ESP begins. Clearly the ESP needs to be developed further using a broad range of ecosystem services rather than the current "narrow" focus on biodiversity value only. Action Plan E4 Implementation of the ESP with associated land ownership models outlines how this will be achieved. Conservancies and land stewardship status clearly needs to be acknowledged and addressed during this process and it certainly was never the intention to ignore or downplay the importance of these areas. Action Plan E4 has been amended to ensure that these areas are included in the next step towards finalising the ESP.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
30 March 2010 Written Comments	Ms. R Devereux	Amafa	Is there really anything substantive in the report covering heritage issues? Having spent so much time with you and you having spent time with Prof Thompson, we are both at a loss to understand what happened to heritage. The minutes of the meeting reflect its considered insignificance. At this stage we are left thinking that this exercise was yet another in the long list of fruitless expenditure this municipality has been involved in.	All cultural heritage zones and cultural heritage sited have been included as conservation zones in terms of the EMF. Management priorities for these areas have been outlines in Section 5.9.2 of the EMF Report. Areas of cultural Heritage Significance are also proposed for inclusion in the ESP in terms of section $.6 of the Social Criteria report. The SEMP identifies cultural heritage criteria and targets and includes Action Plan AMAFA 1: Cultural Heritage Resource Assessment that details tasks to be undertaken to refine the current heritage resource mapping.
25 March 2010 Written Comments	Alka Ramnath	Umgeni Water	Section 2.2 of the EMF has “geology” in the heading but the section itself does not have any points on the geology. Section 2.8 of the EMF is entitled “Economic and spatial drivers” but the section itself is actually demographic in nature with no economic and spatial drivers considered.	Additions to the EMF report have been made.
25 March 2010 Written Comments	Alka Ramnath	Umgeni Water	Were the impacts of HIV-AIDS evaluated in any of the reports because I have not come across the impact in the reports? And migration because again, I did not observe any reference to this.	The socio economic specialist study undertaken as part of the Status Quo Phase touched on HIV- AIDS. The urbanisation of Msunduzi and influx of people as a result is identified in the SEA and other documents as a major driver for development and increased needs for social services.
25 March 2010 Written Comments	Alka Ramnath	Umgeni Water	From Section 5.3.3 (in the EMF) onwards, references to the tables are not in synch with the actual table numbers.	The report has been amended
25 March 2010 Written Comments	Alka Ramnath	Umgeni Water	In Section 5.7.3 in the EMF, isn’t it a contradiction to have “heavy industries” and other high impact land uses in “natural” catchments? In the “seriously modified” catchments, one already has the high-impact uses, so doesn’t it make sense to keep them there? The recommended land uses in the tables seem to go against the conservation convention. Similar question for the air quality section in the EMF.	In light of these comments the approach to recommendations for land use in conservation zones has been amended. This is reflected in the amended EMF Report.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010 Written Comments	Alka Ramnath	Umgeni Water	With reference to the service delivery zones (Section 5.10.2), did these include the difference levels of services and the link with densities? The link between densities and service levels is important, especially from a sustainability perspective. Related to this point is that an assumption is being made that the entire Msunduzi area will be urban with the municipal boundary being the urban edge; the impression of this being the assumption is made with the statement of "bulk service requirements are met prior to development commencing". Is this assumption correct and is the entire Msunduzi area becoming urban the objective? Because the SDF does allow for rural areas	The proposal relates to determining where Msunduzi's Urban edge in fact lies. Identifying where the municipality is able to provide different levels of services rather than aiming to service the entire municipal area.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
SEMP				
18 March 2010 Public Meeting	Ms. P. Long Ms. T. Collocott	PMMB Trust Private	Education is critical in order to achieve environmental goals.	The need for an educational component to each action plan has been included in the SEMP.
18 March 2010 Public Meeting	Ms. S. Schutte	Upper Mpushini Conservancy	Only local indigenous plants (within a 50 km radius) should be used in urban greening projects.	Noted – Action Plan S1: Urban Greening Program has been amended to reflect this.
18 March 2010 Public Meeting	Mr. T. Mlase	Msunduzi Ward Councillor	Enforcement of environmental legislation and policy will be critical.	Agreed - Action Plan G1 Environmental Capacity Assessment to improve environmental capacity within Msunduzi to ensure it has sufficient capacity to enforce all legislation and policy.
18 March 2010 Public Meeting	Mr. L. Ngobo	GEDI	Community involvement will be required to ensure compliance with the proposed policy. Education and awareness of the value of ecosystem goods and services is the only way to ensure community envolvement.	The need for an educational component to each action plan has been included in the SEMP.
25 March 2010 Written Comments	Ms. S. Schutte	Upper Mpushini Conservancy	In table 3.1. (Biophysical limits of acceptable change): We would like to see “No sub catchment should deteriorate in quality.” In point 3.4.2 Social Environment: we would like to see as an objective: ‘The sense of place should be maintained” Page 24 Table 4.8 Action Plan to Develop Urban Greening Program To limit the impact that humans have on the environment the use of indigenous plants from a radius of 50 km should be promoted. All new developments as well as the Municipality and Government Departments should be only using local indigenous plants (with the exception of non-invasive food plants) A potential partner could be the Botanical Society KZN Inland Branch.	Changes have been reflected in the SEMP.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010 Written Comments	Mr. N. Durow	Lower Mpushini Conservancy	Biodiversity objective - "To manage inappropriate land use to limit land degradation and loss of agricultural potential, ecosystem goods and services and associated biodiversity." should read - "To manage inappropriate land use and to limit and prevent further land degradation and loss of agricultural potential, ecosystem goods and services and associated biodiversity." "Degraded areas are identified and rehabilitated to limit soil erosion and promote land productivity"should read: "Degraded areas are identified and rehabilitated to limit soil erosion and promote land productivity and to restore biodiversity as far as is humanly possible."	Noted the report has been amended
25 March 2010 Written Comments	Mr. N. Durow	Lower Mpushini Conservancy	South Africa is, and always will be, suffering from water shortages and deficiencies in the generation and supply of electrical energy. In order to overcome these problems provision the saving and storage of rainwater off roofs should be a priority in all new housing developments. Houses could be, quite easily, designed and built to have under-floor reservoirs built into them. In the same way, new housing developments should have to be equipped with solar water heating facilities and photovoltaic electricity panels and storage batteries sufficient to satisfy their lighting requirements. An educational programme should be implemented to encourage citizens to only use locally indigenous plants in their gardens. This could result in the creation of urban wildlife corridors being created when a whole chain of such gardens becomes established. This will also improve the nature and character of the urban environment.	Action Plan S1: Urban Greening Program has been amended to reflect the use of indigenous plants. Action Plan G4 also addresses sustain able development training and the need for further education.

4 Conclusion

SRK in partnership with Msunduzi Municipality made every attempt to include a broad range of IAP's from the outset of the EMF process. Documents were made available in a variety of ways and great effort was taken to facilitate comments. The wide range of comments received, as documented in Table 3.1 attest to the inclusive nature of the public consultation process.

All comments received have been responded to in the comments and response table and all reports have been amended accordingly. Where it was not possible to undertake certain tasks recommended within the current scope, the tasks were added to the list of action plans to be implemented by Msunduzi as part of the implementation of the EMF.

All documents barring the ESP have met the requirements for public consultation. The terms of reference required the development of a draft ESP based on the understanding that the extensive consultation required to finalise the ESP would be undertaken by Msunduzi outside the scope of the EMF process undertaken by SRK. Therefore public consultation undertaken in terms of the EMF development will be continued by Msunduzi into the EMF implementation.

Appendices

Appendix 1 IAP database

Interested and Affected Parties

TITLE	FIRST NAME	SURNAME	ORGANISATION
	James	Rodger	A Rocha
Mr	Sam	Smoot	UKZN
Mrs.	Adeline	Lewis	Msunduzi Municipality -Environmental Health
	Alka	Ramnath	
Mr.	Allen	Goddard	A Rocha
Mr.	Barry	Mashall	Amafa aKwaZulu-Natali
Mr	Andrew	Ferendinos	Ferncliffe Catchment Conservancy
Mr.	Andrew	Muir	Pietermaritzburg Chamber of Business
	Andrew	Venter	
	Andrew	Whitley	
	Anwar	Hoosen	Msunduzi Municipality
	Belinda	Talbot	
Mr.	Ron	Bennet	DAEA
Mr.	Brian	Millard	Community member (Ward 25)
	Brian	Saville	PG Bison
	Busisiwe	Mbokazi	Environmental Justice Networking Forum
Mr.	CC	Schutte	Tanglethorn Home Owners Association
	Chris	Metherell	Msunduzi Municipality
	Chris	Galliers	WESSA :EIA Trainer
	Cindy	Swann	EnviroServe
	Clive	Hunter	
Mr.	Cobus	Botha	National Dept of Agriculture
Ms.	Patricia	Collocott	Resident
Mrs.	Ruth	Mattingh	Wildlife and Environmental Society of South Africa
Ms.	Di	Dold	WESSA
	Craig	Norris	NCT
	Cyril	Naidoo	Msunduzi Municipality
Mr.	Damian	Walters	Mondi Wetlands Group
Dr.	David	Johnson	Private
	Shellique	Carby	Private
Mr.	John	Deare	
Dr.	Mark	Dent	CEAD

	Francious	Du Toit	MIDI
Mr.	Steven	Cohen	The Witness
Mr.	Glenn	McArthur	Transnet Enviro
Prof	Colin	Gardner	24 Yalta Road, Pietermaritzburg
	Gavin	Harrison	Msunduzi Municipality
	Geoff	Pascoe	Msunduzi Municipality
	Alison	Goebel	
Ms.	Mbali	Goge	SANBI
Mr.	John	Graff	Hesketh Conservancy
Mr.	Peter	Green	Msunduzi Municipality: Ward Councillor
Prof.	Trevor	Hill	Duzi Umgeni Conservation Trust & University of KwaZulu Natal
Mr	Colin	Holmes	UKZN
	Stephanie		DAEA
Mr	Ian	Baily	Canoeing SA
Mr.	Andrew	Booth	DUCT
Mr.	David	Still	Dusi-uMngeni Conservation Trust (DUCT)
Miss	Jessica	Brislin	Msunduzi Environment
	Jimmy	Pather	Msunduzi Municipality
Mr	James	Morris	SRK
	John	Gutridge	Msunduzi Municipality
Ms.	Julia	Denny-Dimitriou	The Witness
	Chris	Whyte	
	Keith	Strachan	Pietermaritzburg Chamber of Business
	Kamini	Naidoo	UKZN
	Kelson	Camp	Ferncliffe Catchment Conservancy
Ms.	Kim	Hodgson	Umgeni Water
Mr.	KJ	Mather	Msunduzi Municipality
	Kwazi	Hlongwane	National Dept of Agriculture
	Lawrence	Memela	Msunduzi Municipality
	Lesley	Oosterbroek	Self employed
	Linda	Hofmeyer	
Ms.	Lindiwe	Msume	Amafa aKwaZulu-Natali
Ms.	Jenny	Longmore	EKZNW
	Louis	Joubert	

Mr.	Lucas	Ntshangase Ngcobo	Ubuso Bomgungundlovu
Mr.	Mike	Jewitt	Preservation of the Mkhondeni Mpushini Biodiversity Trust.
Mr	Mike	Jewitt	PMMB Trust
Mrs.	Mandisa	Khomo	Umgungundlovu District Municipality
	Mandla	Sithole	Msunduzi Municipality
Mr.	Rob	Jardine	Corobrik
	Mbhe	Mdlalose	
	Busisiwe WC	Mbokazi	Sobantu Environmental and Agricultural Forum
	AP	Smith	A P SMITH & CO
Mr.	Phil	Mashucu	Msunduzi Municipality
Ms.	Michelle	Dye	ACT
	Mike	Greatwood	Msunduzi Municipality
	Mike	Viljoen	Msunduzi Municipality
Ms	Mpume	Sithebe	Msunduzi Municipality
	Musa		Groundwork
Ms.	Mothoni	Ngotho	CEAD (UKZN)
Mr.	Shaun	Naidoo	Dept of Water Affairs and Forestry
Mr.	Jeremy	Dixon	NCT
	Ndabuko	Majola	Maritzburg Environmental and Social Association (MESA)
Mr.	Sandile	Ndawonde	Greater Edendale Environmental Network (GREEN)
Mr.	Neil	Fox	Dept of Traditional and Local Government
Miss	Sandisiwe	Shamaze	Natal Witness
Mr.	Nevill	Durow	Lower Mpushini Conservancy
	Nick	Davids	Msunduzi Municipality
Miss	Nora	Choveaux	Presevation of Mkondeni Mpushini Biodiversity Trust
Ms.	Spume	Nowele	Dept Agriculture and Environmental Affairs

Dr.	Nosipho	Ntanzi	Umgungundlovu District Municipality -
Mr.	Ntawela	Masikane	Msunduzi (GEDI)
Mrs.	Pandora	Long	Lower Mpushini Valley Conservancy & Presevation of Mkondeni Mpushini Biodiversity Trust
Mr	Andrew	Layman	PCB
Ms.	Morag	Peden	Presevation of Mkondeni Mpushini Biodiversity Trust
Mr	Peter	Bristow	Clarendon Ridge Commununity Association
Mr.	Pieter	Opperman	Msunduzi Municipality Electricity
Mr.	Pieter	Swanepoel	Private
Mr	Paul	Jorgensen	UKZN
Mr.	Ntobeko	Msimang	Enviroserv - Waste Managment
Mr.	Poovasen	Naidoo	Msunduzi Municipality
Councilor	Gerrit	Meyer	Msunduzi Municipality
	Radha	Gounden	Msunduzi Municipality
	Riaz	Jogait	
	Richard	Rajah	Msunduzi Municipality
Mr	Richard	Norton	Molti Metals & Machinery
Mr.	Rob	Evans	Wembley Clarendon Conservancy
	Robbie	Mkhize	Msunduzi Municipality
	Robin	Denny	Private
	Rob	Montgomery	SSI
	Rodney	Trotter	
	Roelie	Kolpers	
	Ronel	Wood	
Mr.	Ronnie	Gwamanda	Fire Dept Msunduzi Municipality
Mr	Dave	Ryder	Ward Councillor & Ferncliffe Convancy
	Sandy	Lyne	Msundusi Council: Ward councillor
Ms.	Sarah	Baxter	UKZN
	Sandy	Brodie	
	Sergie	Naidoo	Msunduzi Muncipality

			Personal Assistant
Ms.	Sharon	Dell	MIDI
Ms	Shirley	Gault	ICWP
Ms.	Sbu	Hlela	Dept of Environmental Affairs and Tourism
	Sibongile	Mchunu	Msunduzi Municipality
	Sibusiso	Shange	
	Sithole	Mbanga	
Mr.	Bruce	Peattie	Confluence Property Company
Ms.	Stefanie	Schutte	Mpushini Conservancy: Chairperson
Ms	Stefanie	Schütte	Upper Mpushini Conservancy
	Stephan	Roeloffze	FFS Refiners - Pietermaritzburg
Mr.	Steve	Terry	Umgeni Water
Mr.	Steve	Terry	Umgeni Water
Ms.	Gill	Addison	Groundwork
Ms.	Jane	Harley	Groundwork
Mr	Thabani	Mkhize	Department of Agriculture- Cedara
Mrs.	Manisha	Thakurdin Maharaj	Department of Water Affairs and Forestry
	Themba	Lyons	Msunduzi Municipality
Ms.	Beth	Wahl	Ethembeni
Mr.	Paul	Tompson	Heritage Society
Mr.	Thulani	Mfeka	Msunduzi Municipality
ms	Dayle	Trotter	UKZN
Prof.	Robert	Fincham	MIDI
	Val	Spearman	Msunduzi Municipality
	Wayne	Marcus	BSI
	Dominic	Wieners	EzemveloKZN Wildlife
	William	Cooper	Msunduzi Municipality
Ms.	Yugus	Goge	Msunduzi Municipality
	Zandile	Makhaye	

Steering Committee

TITLE	FIRST NAME	SURNAME	ORGANISATION
Ms.	Spume	Nowele	Dept Agriculture and Environmental Affairs
Mr.	Chris	Tham	Dept Agriculture and Environmental Affairs
Mr.	Ian	Felton	Dept Agriculture and Environmental Affairs
Mrs	Kim	vanHeerden	Dept Agriculture and Environmental Affairs
Mr.	Khanyiso	Mtolo	Dept of Environmental Affairs and Tourism
Ms.	Sbu	Hlela	Dept of Environmental Affairs and Tourism
Mr.	Surprise	Zwane	Dept of Environmental Affairs and Tourism
Mr.	Narain	Singh	GEDI
Mr.	Clive	Anthony	Msunduzi Municipality - Environmental Health
Mr.	Rodney	Bartholomew	Msunduzi Municipality Environmental Branch
Mr.	Gavin	Holmes	Msunduzi Municipality Planning Dept
Mr.	Andy	Blackmore	Ezemvelo KZN Wildlife
	Pumi		Assistant
Ms.	Jenny	Longmore	Ezemvelo KZN Wildlife
Mr.	Shaun	Naidoo	Dept of Water Affairs and Forestry
	Julian	Kiepiel	Cooperative governance and Traditional Affairs (COGTA)
	Thulani	Bengu	Dept of Traditional and Local Government
	Craig	Rushtin	Dept of Traditional and Local Government
	Mandisa	Khomo	Umgungundlovu District Municipality - Municipal Manager
	Nosipho	Ntanzi	Umgungundlovu District Municipality - Municipal Manager
Ms.	Philippa	Emanuel	SRK Consulting
Mr.	James	Morris	SRK Consulting

Appendix 2 Comments Received

Murray-Rogers, Andrea

From: Lizanne [lizannec@stowell.co.za]
Sent: Tuesday, March 23, 2010 10:30 AM
To: Emanuel, Philippa
Subject: Msunduzi EMF
Attachments: Ms P Emanuel.doc

Please see attached letter.

<<...>>
Thank you very much.

Kind regards,

Lizanne Ellis
PA to R J Trotter
Stowell & Co. Attorneys
295 Pietermaritz Street
P O Box 33
Pietermaritzburg 3200
Tel : 033 845 0500
Fax : 086 618 5687

Stowell & Co
ATTORNEYS, NOTARIES PUBLIC & CONVEYANCERS

Ms P Emanuel
Email Add. : PEmanuel@srk.co.za

Our reference: R J TROTTER/Lizanne 23 March 2010
lizannec@stowell.co.za
Direct Tel: 033-845 0509
Fax: 0866 185 687

Your reference:

Dear Pippa,

MSUNDUZI EMF: AVAILABILITY OF DRAFT DOCUMENTS FOR PUBLIC COMMENT AND PUBLIC MEETING NOTICE

Your note of 04 March 2010 refers. I did not respond earlier as I thought I may be able to attend the meeting on 18 March but was not able to.

I do not require copies of all of the documentation which has been prepared and which is referred to in your letter but would be interested to learn whether, in terms of the various reports, there has been any change in the spatial development framework plan for Foxhill and/or what your report found as to the development needs and potential of Foxhill down into Bisley Nature Reserve and of course the Almond Bank development.

Presumably there is no change in planning for the west side of the freeway upon which France is situated.

Kind regards,
Yours sincerely,

"R J TROTTER"
STOWELL & Co

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(033) **394 8145**
(Litigation)
(033) **342 2976**
(Insolvency)
(033) **394 5643**
(Debt Recov)

Murray-Rogers, Andrea

From: David Johnson [davejohn@telkomsa.net]
Sent: Tuesday, March 23, 2010 10:38 PM
To: Emanuel, Philippa
Subject: Msunduzi plans my comments
Attachments: Msunduzi reports.rtf

Dear Philippa

My comments attached.

David Johnson

Two serious flaws emerged during the discussion last Thursday.

First was the interpretation of irreplaceability. I am almost certain the concept originated in the GIS section of KZN Wildlife about 15 years ago. Its starting point was to tot up what remains of each habitat or landscape (not exactly the same thing) within reserves in KZN. I don't think it took account of what was conserved elsewhere in South Africa, nor further afield, a relevant point to which we will return. Habitats which were well conserved formally were then deemed "replaceable" outside the reserves, the degree depending roughly upon pro-rata arithmetic.

To pick up these threads nearer home. Valley Bushveld occupies only a small part of our area. The idea that it is replaceable can only be on the basis that it is well enough conserved elsewhere in KZN. It is not well conserved within our area, and indeed occupies only a small part of it. If it were excluded altogether from development plans it would hardly make any difference at all to the greater whole.

The dangerous ground, specifically avoided in the KZN Wildlife exercise, is to assume that conservation outside the area under jurisdiction will continue indefinitely at an adequate level. There can be no better illustration of this wisdom than the White Rhino saga. In about 1950 KZN had about 40 left. The only other population in the world was the "thriving" one in eastern Zaire. I can't remember the exact figure but there were certainly hundreds at least, and all in a proclaimed national park. Why bother with ours? We all now know the answer. The KZN stock grew to over 1000, with the surplus going to restock dozens of other (now) safe areas, while the Zaire population is down to single figures and undoubtedly doomed. Moral: look after your own immediate neighbourhood.

Apart from anything else, Valley Bushveld is the only local habitat that looks like "real Africa"; to be unkind to make the point, the rest of our area looks much like many other places in the world.

The second, and very serious flaw in the document was the idea that the best and strongest habitats would be the most suitable to exploit! Diametrically wrong, no matter what computer model supports it. Must we really damage the best habitat for the sake of trying to restore the worst!? Many of so-called restoration exercises fail because of expense and lack of follow-up. By contrast, undamaged habitats often manage themselves. Extending the principle suggested to the next level, would the planning committee build a low-cost township and an industrial estate in the Kruger Park? It's an ideal site – completely unspoilt, with lots of flat ground of poor agricultural potential. Try presenting that in a fair debate on TV.

Another example can be offered to illustrate the fault in this argument. How do we decide which of two students gets a sports scholarship and subsidised training facilities? One is the top athlete in the class, the other is a couch potato. We all know who gets the award. The reasoning, although obvious, can also be expressed arithmetically. Couch potato potential zero; twice (or any factor) zero is still zero.

We were invited to express comment at the public meeting. Presumably our comments were to be taken seriously, and if sound, to be incorporated, even if this means changing the original. Ignoring the two flaws exposed above means, what we the general public suspect, that public debates are window-dressing. Much effort, time and expense have already gone into the current documents. It is all too easy to sit with, and then proceed with an error, because to change anything at the last moment is to "admit" to the fault. Error is only a frailty if it is pushed through regardless.

Murray-Rogers, Andrea

From: Pandora Long [pandoral@mweb.co.za]
Sent: Thursday, March 25, 2010 2:24 AM
To: Kevin McCann
Cc: Emanuel, Philippa; Ian Felton; Rodney Bartholomew
Subject: Msunduzi EMF

Dear Kevin,

Comments for the Msunduzi EMF process are due in tomorrow. I had every confidence that our proposed Mpushini Protected Environment would be included in the Environmental Services Plan together with the conservancy areas and necessary linkages and corridors. It is very disheartening for me to realise that our comments regarding this area have not been taken seriously and that whoever was consulted in KZN Wildlife by SRK had no knowledge of this iniative.

The consultants were informed about this initiative and the conservation status of our area as far back as 2007 and then during the process by way of questionaires. The farms that have applied for Protected Areas Status have been classified as "replaceable" in terms of the C Plan. It would seem there is some question over the biodiversity status in the Upper and Lower Mpushini Valleys that needs urgent clarification. I don't believe that the purpose for which the C Plan was designed is compatible with giving appropriate defininion to the biodiversity status,within the context of this municipal area as applied through this EMF.

Please could you make representation to the consultant Phillipa Emanual on behalf of the Mpushini Protected Environment Landowners.

Thank you so much for your assistance.

Kind regards,
Pandora Long

Murray-Rogers, Andrea

From: Pandora Long [pandoral@mweb.co.za]
Sent: Thursday, March 25, 2010 2:24 AM
To: Rodney Bartholomew; Ian Felton; Emanuel, Philippa
Subject: 376998_Stakeholder Questionaire
Attachments: 376998_Stakeholder Questionaire_.doc

Dear Philippa,

Herewith please find a completed questionare as submitted to yourself as part of the EMF process. With reference to my verbal comments at the recent public meeting and at your offices today please can you inform me as to how this information fed into the EMF process and what steps were taken to gain further information to support the vision as set out herein and whether there was any consideration given to include these community conservation initiatives as part of in the implementation phase of the EMF.

Of what value are these community conservation initiatives with respect to the design and implementation of an Environmental Management Framework that seeks to ensure the sustainability of the Municipality of Msunduzi?

The Msunduzi EMF impacts not only on the Msunuduzi Municipality but on adjacent Municipal areas as well. My property Sub 15 of Mpushini is in Mkhambathini Municipality just outside the Msunduzi boundary. What steps were taken within the EMF process to consult and engage with stakeholders in the Mkhambathini Municipality?

Kind regards,
Pandora Long

SRK Consulting
Engineers and Scientists

Suite 201, Sinodale Centre
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Pietermaritzburg 3201

P O Box 460
Pietermaritzburg 3200
South Africa

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Environmental Management Framework for the Msunduzi Municipality

Stakeholder Survey Questionnaire

(Please complete or tick the appropriate boxes)

1 **Area** (Please indicate the suburb or area where you stay. Should you wish to comment on the Msunduzi Municipal area as a whole please indicate as much.)

Lower Mpushini Valley

2 **General state of the environment**

Do you feel that the environment in your area is

☐ Negatively affecting community health	☐Bad	☐In need of improvement	☐ Good	☐ An asset to the area

Comment:

3 **Views on the state of the environment in the area in respect to development**

3.1	Are the geology and soils of the area	☐Poor	☐Good	☐Uncertain?

Comment: This area is undergoing promulgation as a protected area. The conservation of the upper valley, watershed and catchment area is critical to the sustainability of the Mkondeni/Mpushini Valley systems.

3.2	What is the condition of the rivers	☐Negatively affecting community health	☐Bad	x☐ Good?

Comment: There are several issues of concern along the Mpushini River i.e. Lynfieldpark Sewage Works; damming of the river without respect to legislation regarding ensuring ecological reserve and downstream domestic use is first accommodated; development in Ashburton having a negative effect on water percolation properties of dryland areas and perched wetland areas; illegal water extraction; alien vegetation; kariba weed; mining operations resulting in siltation and possible geological fracturing and subsequent hydrological changes due to blasting in close proximity to river; domestic stock trampling; development proposals contrary to the IDP and SDF for the area (industry, commerce and high density residential) will result in serious negative implications for river system and provision of environmental goods and services for protected area.

3.3	Is the vegetation of the area	x☐Natural / untransformed	☐Transformed	☐No vegetation?

Comment: This area forms a valuable contribution to the biodiversity targets in the respective vegetation types

3.4	Is the visual character of the area	X☐Attractive	☐Unattractive	☐Uncertain?

Comment: The two valley systems east of Pietermaritzburg and including the Foxhill Bisley Valley area are very attractive and a positive aesthetic and biodiversity asset for PMB. There has been a long term vision to promote the area backed by the Richmond Road and flanked by Shorttsretreat/Murray Road/Lincolnmeade on the one side and the Dardenelles Road/Lionpark Road on the other and extending across the Msundusi River into the Table Mountain area as a large eco-tourism corridor within a Biosphere Reserve. Organisations within these areas are currently working together towards making this vision a reality.

3.5	Is the noise levels of the area	☐Affecting quality of life	☐Moderate	x☐Not Noticeable?

Comment: The entire area has a spirit of peace and tranquillity one of the qualities that make this area so attractive to people living within the city and a major asset to the Capital City.

3.6	Is air pollution of the area	☐Negatively affecting community health	☐Concerning	x☐Not an issue?

Comment: The air quality is excellent and a quality that is an asset to PMB. It is valuable to note that air studies done for the city of PMB by Dr Ahrens of the CSIR identified the Mkondeni valley as being critical to the inflow of clean air for PMB as well as the outflow of stale air according to anabatic and katabatic airflow.

3.7	Is agriculture and important land use in the area	☐Yes	x☐No	☐Uncertain?

Comment: The area is not suitable for extensive agriculture except on improved lands; there are good hayfields in the area; intensive operations i.e. pigs/tomatoes are successful. There are alluvial lands along the Mpushini that were used for market gardening in the past but due to water insecurity these are no longer viable for production.

3.8	Is waste a problem in your area	☐Yes	x☐No	☐ Uncertain?

Comment: There have been a few incidents of illegal dumping in the Lower Valley. This will become a problem as the City expands unless there is buy in from all stakeholders to retain the conservation potential of the area and help educate the public of the value of bushveld/grassland. (Often perceived as untidy/vacant)

3.9	Are there important cultural heritage features in your area	x☐Many	☐A few	☐Non that I am aware of?

Comment: The entire Mkondeni/Mpushini area is rich in heritage. I am currently researching this aspect together with a collegue for publication. Of interest are: The narrow gauge rail tunnel and line constructed by Italian prisoners of war (Mkondeni/Mpushini) Railway viaducts; remains of homesteads including previous president of Transvaal (Upper Mpushini Valley) Theopolus Shepstones Residence (Broadleaze Farm) Pope Ellis Homestead and host to British Royal Family (demolished but some evidence and church remain) (Ashburton Training Centre); Pope Ellis aquaduct on Msunduzi River that served lower Mpushini Valley area (Ashburton Training Centre) Late Stone age sites (Along pipeline near Ashburton Training Centre) First Iron smelting kiln found in Mpushini Valley; Early and late stoneage tools found in Lower Mpushini Valley; Old goldmine shafts Ekukanyeni Bishopstoe area; Dingaans Kraal was at Ashburton (location still to be determined) Old Table Mountain Road traverses some of the area;

4 Open Space

Would you like to see more open space?

a)	Natural/open space	x☐Yes	☐No
b)	Recreational open space like picnicking, walking, relaxing etc.	x☐Yes	☐No
c)	Recreational open space for active sport	x☐Yes	☐No
d)	Formal protected areas	x☐Yes	☐No
e)	Ecologically functioning open spaces e.g. flood control areas	x☐Yes	☐No

5 Key Issues

Please indicate which of the following you feel are key issues within your area by ticking the box

x☐Water quality	x☐Biodiversity	x☐Wetlands	☐Air Quality	☐Noise Pollution
x☐Urban Sprawl	☐Informal Settlements	☐Erosion	☐Lack of Basic Services	☐Lack of job opportunities

Other (Please List): Ad hoc development proposals not aligned to SDF developed for Ashburton area. Unscrupulous marketing of N3 intersection at Lionpark as development node (this is not in accordance with PEDS or LUMS) Other development applications undermining the stability of the area; the area is zoned as agricultural and eco-tourism; protection of ecological goods and services and ecological integrity; conceptual development plan that is truly sustainable for these valleys; degradation of the environment; development over/through drainage lines; threats to river and riverine area; provision of extensive conservation corridors throughout the area bulldozing of natural vegetation; protection of fauna and flora

6 Institutions

Are you a member of an environmental forum/ committee/ trust / conservancy?	x☐Yes	☐No

If so please provide the name of the institution/s and details of their role/ function.

Lower Mpushini Valley Conservancy – Conservation/Events promoting biodiversity and area/Environmental

Education/ Talks/Walks

PMMBTrust – Promotion of vision for area and facilitation of conceptual development plan with eco-tourism as economic driver/ representation to safeguard biodiversity of area/ watchdog - comment on development applications for area / promotion of true sustainable development opportunities for area

Protected Areas Initiative – Application has been approved for the promulgation of a protected area in the Mpushini Valley.

PMB Honoury Officers Corp – Anti poaching, Biodiversity conservation activities

Mpushini Valley Eco-Education Initiative – Environmental Education and Training

SA Trust for Protected Areas – In formation – Conceptually its mission is to help establish, fund land aquisition and projects and conserve Protected Areas on the perifery of South African Cities

Adopt-a-River-Project which forms part of a national initiative to be rolled out at the end of 2009 by DWAF under the same name. Locally this projects objectives are to facilitate collective catchment management, rehabilitation, alien eradication, restoration and environmental education in the Mkondeni/Mpushini Valleys. One of the primary educational initiatives will be to allow for a common understanding of our environmental, health and safety legislation pertaining to rivers and their catchment and conveying an undertanding of this legislation, policy and best practice in a way that encourages and ensures public participation for the restoration of our catchment to our local communities. I am co-ordinating this project under the SA Trust for Protected Areas

7 **General Comment** (Please use the space provided below to make general comment around the state of environment in your area or Msunduzi Municipality as a whole and areas of concern)

There is the support for a large biosphere reserve on the eastern periphery of PMB which can be managed as a joint initiative by the community, conservation organisations in the area and the Msunduzi Municipality that will be a major asset to the capital city of Kwa-Zulu Natal. It is imperative that biodiversity targets are recognised and met and that the benefits in terms of ecological goods and services to the City are recognised. In addition to providing aesthetic and psychological benefits for people in the city this area needs to be set aside as our children's heritage and as an opportunity for them to experience wilderness areas and everything that they encompass including the opportunities to build connections with the landscape, fauna and flora. These opportunities are becoming increasingly difficult to provide due to land transformation on the one hand and the expense of travelling to existing Zululand bushveld nature reserves. Pietermaritzburg is the only city in the world, that I know of, that has more than 10 species that are on the protected species list in a beautiful relatively untransformed area. While the immediate boundaries will not be changed when PMB gains Metro status it is accepted that it is only a matter of time before boundaries are extended and within 10 years it is probable that Msunduzi will extend its boundaries to meet with Etekweni. It is important that a long term view be taken when determining an Environmental Management Framework for Msunduzi, a view that is not restricted by artificial boundaries that impinge upon the potential of the environment to provide for the future well-being of the City and its surrounding communities.

8 **Please complete the following:**

Title:	First Name: Pandora	Surname: Long	Initials: P N
Organization: SA Trust for Protected Areas PMMBTrust		Designation: Project Director – Adopt-a-River Trustee	
Tel: 033 3261 777 (mornings)		Fax: 086 607 0828	
Cell: 072 6928124		e-mail: pandoral@mweb.co.za	
Postal Address: P.O.Box 20056 Ashburton 3213			

Murray-Rogers, Andrea

From: Nev [nev@eco-focus.info]
Sent: Thursday, March 25, 2010 6:49 AM
To: Emanuel, Philippa
Subject: Comments and recommendations on draft EMF, SEA, ESP and SEMP reports
Attachments: Letter to SRK re Msunduzi EMF.doc

Dear Philippa,

Thank you for allowing me to submit my inputs on the draft Msunduzi EMF, SEA, ESP and SEMP reports. Please find my formal comments in the attached letter.

Should you require any further information, please contact me.

Kind regards,

Neville Durow

--
Neville Durow
Nature's Hideaway
Farm H8
D389
Ashburton East

Cell: 0827084285

Lower Mpushini Valley Conservancy

Telephone: Chairperson: 0827084285
Email: nev@eco-focus.info

P.O. Box 20003
Ashburton
3213

25 March 2010

Ms Pilippa Emanuel,
SRK Consulting
Sinodale Sentrum
Pietermaritzburg

Dear Pilippa,

Thank you for allowing me to submit comments and recommendations on the draft Msunduzi EMF, SEA, ESP and SEMP reports.

I have read through most of the reports and have come to the conclusion that, although a lot of work has been put into their compilation, much additional research has to be undertaken.

I have made several notes about what I see are their shortcomings and detail these hereunder:

Comments on the draft EMF of the Msunduzi Municipality

My comments on the Draft EMF of the Msunduzi Municipality will be restricted mainly to the impacts that the EMF is likely to have on the areas covered by the Lower Mpushini Valley Conservancy and the Upper Mpushini Conservancy – in other words the catchment areas of the Mpushini and Mkhondeni Rivers.
In the map in Figure 2.1 of the report the area covered in my comments is described as being mainly "Rural Areas" with a small area around Ashburton and Lynnfield Park being described as "Urban". I have no problem with these descriptions.

Definitions:

Low Density Residential

The definition that is given on page 20 is incomplete. In terms of the definition given, for example, a development in which erf sizes are 300m^2 would be considered low density even if each erf had a house of 200m^2 on it and an outbuilding of 75m^2. This would hardly be low-density. The definition should be amended to include a minimum erf (plot) size and a maximum ground coverage occupied by the buildings.

Open Space

The definition given states: "These areas may include buffer areas between developments and **animal** preserve areas. " Here I would be happier if the word "animal" were replaced by the term "wildlife" or "nature". Areas set aside for the preservation of wildlife or nature are not necessarilly there only for the preservation of animals. They may be established for the preservation of plants, or birds, or certain invertebrate species.

5.2.2. Management priorities

Wetland Buffer Areas

The paragraph states that the wetland buffer areas should have a buffer of 20m. If river courses are taken as being wetlands the buffer should be 60m on either side of the river bank (as per page 137 of the Msunduzi SDF):

“DAEA recommends 60m on either side of the river (120m). These buffers are already shown on the map.” It is important that these widths are specified in the EMF so that there can be no ambiguity when it comes to EIA or DFA applications from developers.

Table 5.2: Identified Biodiversity Constraints and the Preferred and Non Preferred Land uses on these sites

Development Constraint Area : Light industry should be moved from the Preferred Land Uses column and put in the Non Preferred Land Uses column.

Table 5.6: Identified Water Quality Areas and the Preferred and Non Preferred Land uses on these sites

I know that this table was discussed at length at the public meeting on 18 March, however, I still maintain that all industries should be omitted from the preferred land uses in natural areas. Any industry, no matter how “clean” its is made out to be is likely at some stage or other to have oil or other pollutant leaks and these can irreparably damage natural water systems. I did a search of the internet and discovered that, where planning documents mentioned water quality, the conservation or improvement of water quality was a primary aim in property developments. Most planning bodies stressed that natural, unpolluted drainage systems were to be maintained at all costs and that no industrial developments were to allowed in these areas. These areas were to be exclusively reserved for recreation, nature conseravtion and eco-tourism. The same should be true for the Msunduzi Municipality (and all other municipalities).

Omission of environmental education from the EMF

Environmental education should be the cornerstone of of all environmental planning for the conservation of our natural ecosystems. This education should be provided for all sections and sectors of our population, from pre-primary school level, through tertiary education and should be extended to all adults in South Africa.

One often sees a person buy a piece of land and the first thing that they do is to bulldoze all existing natural vegetation before starting to design the buildings that will be erected on the property. The design of the house, or other buildings, does not fit in with the character of the area and all of the cleared space is planted to exotic lawn grass such as Kikuyu. If trees and shrubs are planted they are invariably water-thirsty exotics.

A comprehensive education plan should be included in the EMF which should be targeted at all citizens in the municipal area. The education programme should include such things as the values of the natural environment in providing environmental goods and services, the necessity to preserve natural ecosystems, the creation of natural areas within built-up areas to provide natural habitats for wildlife, and the necessity for neighbours to co-operate in the establishment of eco-friendly environments in their neighbourhoods. This programme need not be costly as the municipality could hand this work over to local NGO's and finance it by subsidising their work. This plan, if implemented, could contribute to the greening of the city and make Msunduzi a true “City of Choice” instead of the present “City of litter and filth”.

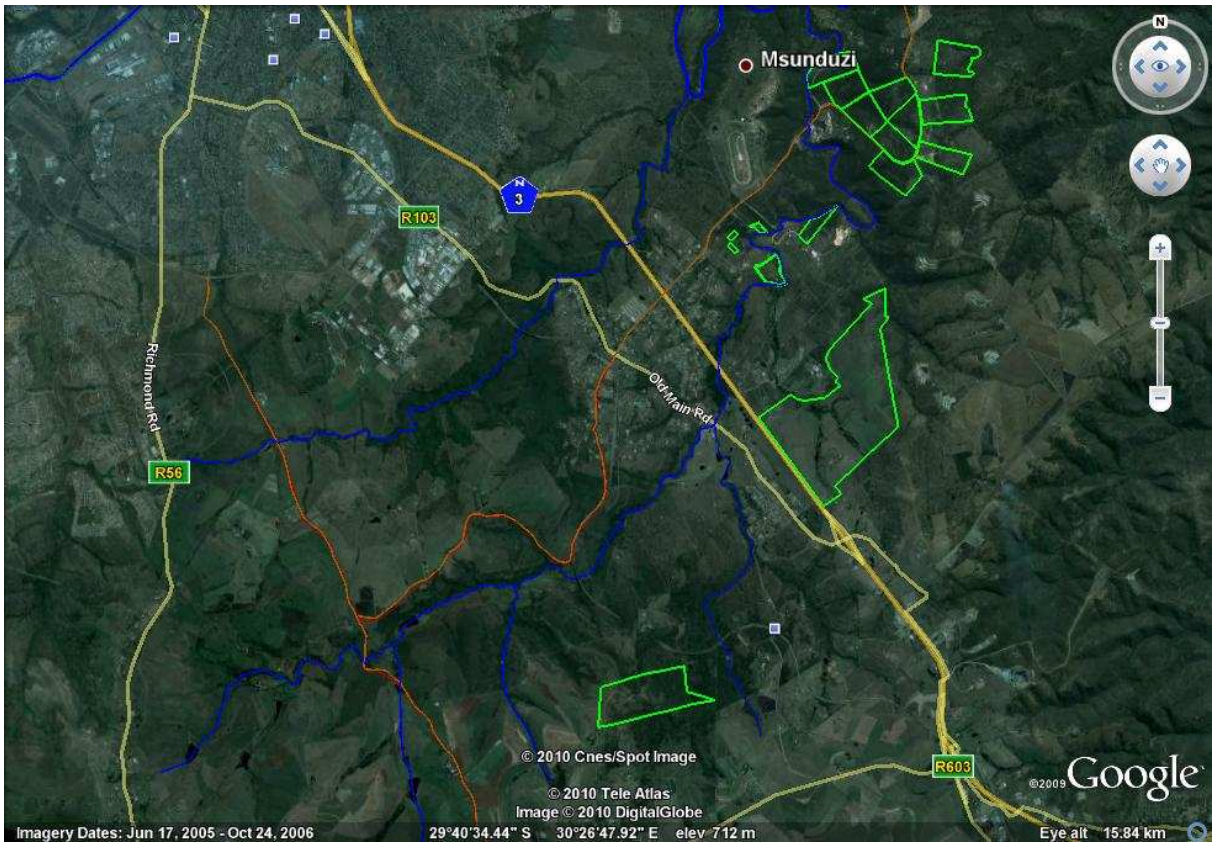
Comments on the Msunduzi Draft SEA

The comments contained in this section relate mainly to the areas that fall within the Mpushini and Mkhondeni River catchments.

There is a spelling error on the Figure 3.1 Msunduzi Locality Map. “ENDENDALE” should be spelt as “EDENDALE”.
Reading through the draft SEA document it would appear that the area included within the Msunduzi Municipality was studied and all areas that fell outside of the municipal boundaries were ignored or not taken into account.

In the Lower Mpushini Valley, the Mpushini River forms the boundary between the Msunduzi and Mkhambathini Municipalities. This area comprises some pristine Valley Bushveld which extends on both sides of the river. Several properties on the farm Mpushini 14835 and the Bar Cicle Ranch have been

evaluated and are shortly to be proclaimed as Protected Environments in terms of Section 28 of the NEM: Protected Areas Act 57 of 2003. Other properties within the Msunduzi Municipality have also been evaluated and included in the “Mpushini Protected Environment”. These properties are within the township of Ashburton and also the Tanglethorn Estate near Manderston. The map showing the locations of these properties is given below:



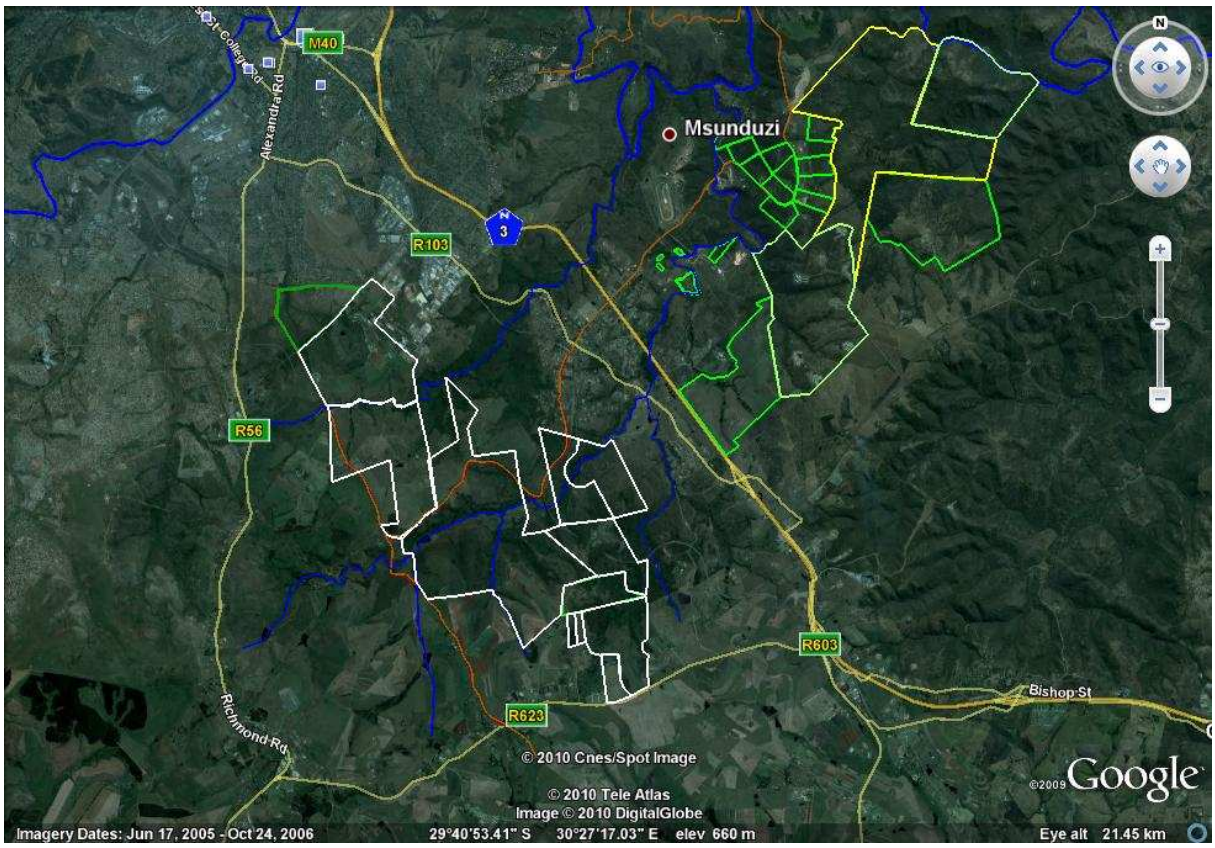
The boundaries of the Protected Environment properties are shown on green.

A list of the Protected Area properties that are within the Lower Mpushini Valley conservancy are:

Description of Property	Owner	Extent (Ha)
Portion 2 of Mpushini 14835	Kenneth Farnsworth	32,8435
Portion 4 of Mpushini 14835	Allan Erwin Spencer	28,0764
Portion 6 of Mpushini 14835	Stephanus M L Robberts	20,6118
Portion 9 of Mpushini 14835	Keith Seth Brown	21,5589
Portion 10 of Mpushini 14835	Sandra Burls	21,3407
Portion 11 of Mpushini 14835	Winston St Clair Carr	20,5850
Portion 12 of Mpushini 14835	Neville Terence Durow	22,1560
Portion 15 of Mpushini 14835	Estate Wilfred Arthur Long	24,1474
Portion 16 of Mpushini 14835	African Rockwood Construction cc	21,6005
Portion 17 of Mpushini 14835	Estate Christopher Hansen	22,1452
Portion 239 of Vaalkop and Dadelfontein 885	Valerie Mary Allsop	59,5424
Rem. Of Portion 309 of Vaalkop and Dadelfontein 885	Valerie Mary Allsop	57,0266
Rem. Of Portion 233 of Vaalkop and Dadelfontein 885	Valerie Mary Allsop	56,76
Rem. Of Portion 363 of Vaalkop and Dadelfontein 885	Valerie Mary Allsop	4,05
Portion 353 of Vaalkop and Dadelfontein 885	Valerie Mary Allsop	2,42
Portion 354 of Vaalkop and Dadelfontein	Valerie Mary Alsop	71,34

885		
Rem. Of Portion 355 of Vaalkop and Dadelfontein 885	Valerie Mary Allsop	52,87
Portion 368 of Vaalkop and Dadelfontein 885	Valerie Mary Allsop	14,28
Portion 78 of Vaalkop and Dadelfontein 885	Valerie Mary Allsop	8,0937
Units I and H of Rem. Of Portion 9 of Ockerts Kraal 1336	Raymond Aitchison Shirley Aitchison	20,000
Erf 433 Ashburton	Kenneth and Tracy Farnsworth	2,000
Erf 445 Ashburton	Graham and Darlene Bond	6,000
Erf 436 Ashburton	Ronald and Merrywyn Pieterse	2,000

In addition to the Protected Environment properties there are several other properties that are used for game farming, private nature reserves and nature estates that also need to be taken into account in any environmental planning. The consolidated map showing all of these areas is reproduced below:



Map showing all protected areas in the Mpushini – Mkhondeni catchments. Protected environments (green), game farms, Natal Lion Park, and Rainbow Ranch (white).

Comments on the Draft ESP of the Msunduzi Municipality

These comments are restricted to the area that falls within the catchment areas of the Mpushini and Mkhondeni Rivers.

In view of the fact that it appears that the ESP of the Msunduzi Municipality will be based on the INR report "Environmental Services Plan – Areas of biophysical imortance" I will restrict my comments to the contents of this document.

At the outset I would like to mention that I have lived in the Ashburton and Mpushini area since my retirement in 1995 and that I have devoted my time to the consevation of the natural environment since then.

Description of the area

The Mpushini and Mkhondeni River catchment area consists, where it is untransformed by human settlement, of mainly Eastern Valley Bushveld in the Lower catchment area, KZN Hinterland Bushveld in the intermediate zone and Dry Ngongoni Veld in the upper catchment areas.

The Eastern Valley Bushveld areas consist of fairly dense thicket vegetation that is home to a vast biodiverse number of species. I have attached a list of species that I have compiled over the years at the end of this document. This list has been based on what was observed in the Lower Mpushini Valley Conservancy. However, most of these species will also occur in the Upper Mpushini Conservancy as well. Most of the species rely on fairly vast tracts of land for their existence. Some, for example the Leopard, have territories which may be as large as 100 km^2. Almost all of the species also require migration corridors for seasonal searches for food and to prevent in-breeding.

The KZN Hinterland Thornveld areas are more open in character and provide a habitat for those species such as Zebra, Wildebeeste and certain bird species.

Irreplaceability Values

According to the map showing the irresplaceability values of the untransformed land (Figure 3) the Eastern Valley Bushveld has an irreplaceability of 0 – 0,2. This indicates that the species in the biome are almost totally replaceable and have very little conservation value. In my opinion this is where the E-KZN Wildlife "C-Plan" is at fault. If one were to search their database one would quickly come to the conclusion that their database is seriously data deficient and that this is the failing of the so-called "C-Plan". No serious data gathering research has been carried out in the Lower Mpushini Valley. One only has to look at the list of species occuring in the area (at the end of this document) to realise that this area has one of the most bio-diverse species populations in the whole Msunduzi Municipal area.

At this stage I would like to mention just some of the endangered, vulnerable and protected species that occur in this area:

Leopard - *Panthera pardus*
Giant Green Earthworm - *Microchaetus papillatus*
African (Cape) Clawless Otter - *Aonyx capensis*
Cristulate black millipede - *Doratogonus cristulatus*
Temminck's Hairy Bat - *Myotis tricolor*
Quekett's Cannibal Snail – *Natalina quekettiana*
Aardvark – *Orycleropus afer*
Blue Duiker – *Philantomba monticola tricolor*
Striped Weasel – *Poecilogala albinucha*
Martial Eagle – *Polemaetus bellcosus*
Southern African Python – *Python sebae natalensis*
African Crowned Eagle – *Siephanoaetus coronatus*

There are most probably more.

The low conservation rating that has been given to the Lower and Upper Mpushini Conservancies is a serious problem and I urge the INR to thoroughly research the biodiversity of the area and not to rely on the highly suspect E-KZN Wildlife C-Plan for their data.

Mpushini Protected Environment

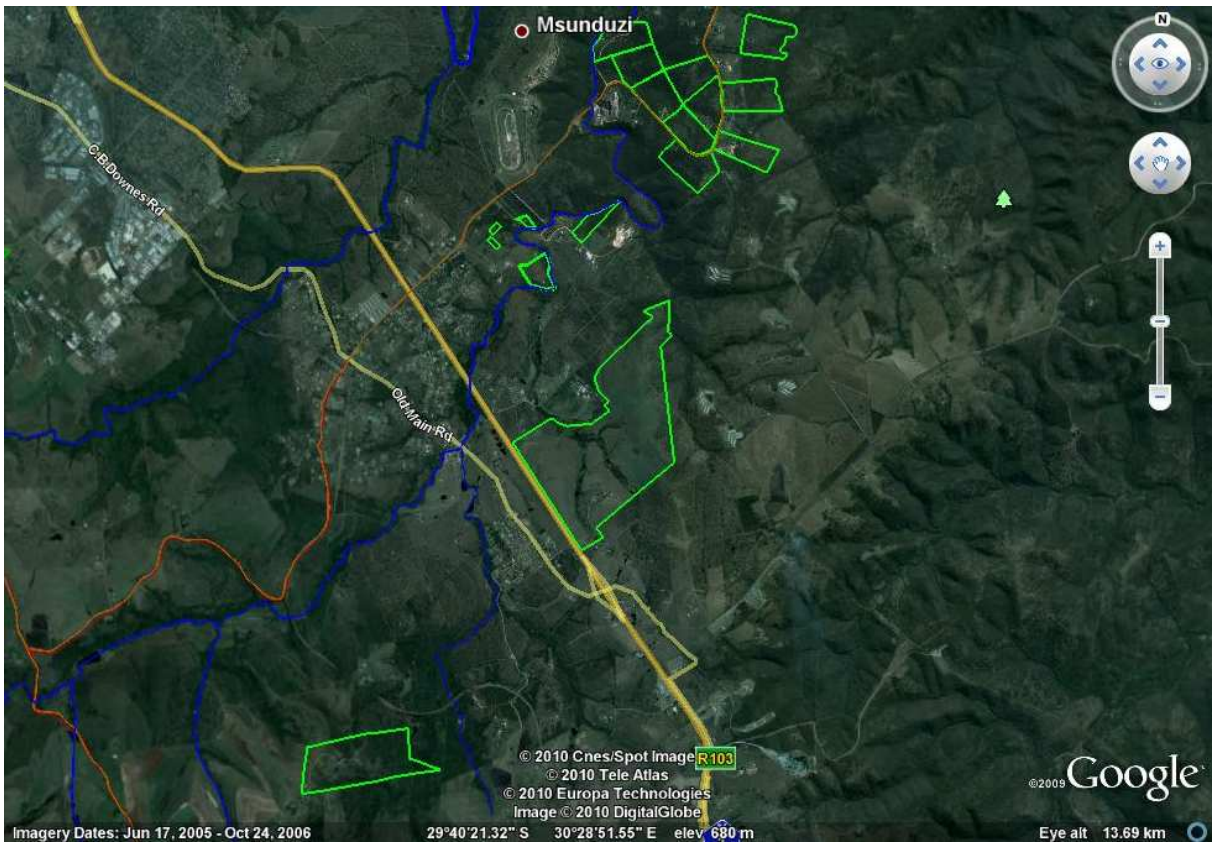
Several property owners in the Mpushini River catchment area have applied to have their properties proclaimed as Protected Environments in terms Section 28 of the National Environmental Management: Proteceted Areas Act 57 of 2003.

After a long process of applications, negotiations and the drawing up of management agreements, the formation of a Landowners Association and ecological assessmnts by E-KZN Wildlife the properties are in the final stages of proclamation as official Protected Environments. The two remaiining stages before proclamation are ratification by the KZN Nature Conservation Board which is sitting on 26 March 2010 to approve the declaration of the Mpushini Protected Environment and the final approval by the MEC and publication in the Provincial Gazette.

In terms of the Management Agreements which have been signed by all property owners the Protected Environment is for a minimum of 99 years.

A Google map showing the boundaries of the properties within the Protected Environment is shown below:

Google Map showing Mpushini Protected Environments:



This map shows the boundaries of the Mpushini Protected Environments in green.
Although several of the properties are outside the Msunduzi Municipal boundaries their position is important as migration corridors will have to be provided linking them.

Comments on the Draft Msunduzi SEMP

In the SEMP report 3.4.1 Biophysical Environment, one of the objectives is:

"To manage inappropriate land use to limit land degradation and loss of agricultural potential, ecosystem goods and services and associated biodiversity."

This should read:

"To manage inappropriate land use **and** to limit **and prevent further** land degradation and loss of agricultural potential, ecosystem goods and services and associated biodiversity."

In the same section under criteria it is stated:

"Degraded areas are identified and rehabilitated to limit soil erosion and promote land productivity"

This should read:

"Degraded areas are identified and rehabilitated to limit soil erosion and promote land productivity **and to restore biodiversity as far as is humanly possible**."

Other issues to be included in the appropriate document (s)

South Africa is, and always will be, suffering from water shortages and deficiencies in the generation and supply of electrical energy. In order to overcome these problems provision the saving and storage of rainwater off roofs should be a priority in all new housing developments. Houses could be, quite easily, designed and built to have underfloor reservoirs built into them.

In the same way, new housing devlopments should have to be equipped with solar water heating facilities and photovoltaic electricity panels and storage batteries sufficient to satisfy their lighting requirements.

An educational programme should be implemented to encourage citizens to only use locally indigenous plants in their gardens. This could result in the creation of urban wildlife corridors being created when a whole chain of such gardens becomes established. This will also improve the nature and character of the urban environment.

I trust that at least some of these recommendations and comments will be included in the final documents.

Kind regards,

Neville Durow

Appendix

Species list for the Mpushini and Mkhondeni Valleys

Animals of the Valley

The Lower Mpushini Valley Conservancy is host to a wide variety of animals. These include:

Leopard	*Panthera pardus*	They prey on anything from a mouse to mammals up to twice their size. They have food preferences such as bushpig, impala and some take porcupines.
Caracal	*Felix caracal*	They prey on birds, mammals and reptiles.
Aardwolf	*Proteles cristatus*	They are entirely insectivorous, devouring mainly termites, although they will sometimes eat moths and other insects.
Black-backed Jackal	*Canis mesomelas*	Their diet is varied with most of their food being from vertebrates and some from invertebrates. Their vertebrate prey includes rats and mice, hares, duikers, mongooses and some reptiles. The invertebrates that they consume are mainly grasshoppers and crickets as well as flying ants. They also eat carion.
Large Spotted Genet	*Genetta tigrina*	They prey on a wide variety of small animals and birds, including rats, mice, crabs, fresh-water mussels, insects, and birds including poultry.
White-tailed Mongoose	*Ichneumia albicauda*	Prey on small rodents, game birds, frogs and reptiles. They also eat insects, cane rats and hares. They also raid poultry runs.
Large Grey Mongoose	*Herpestes ichneumon*	They are powerful diggers and will excavate at thejbase of dead trees and in debris to find beetles and other prey. They will also kill and eat lizards and snakes. They also eat fish , crabs and frogs. They also take birds and poultry.
Water Mongoose	*Atilax palundinosus*	The major portion of their diet are amphibians, including frogs and crabs. They also hunt vlei rats and mice.
Slender Mongoose	*Galerella sanguinea*	Their main source of food are insects with grasshoppers and termites predominating although they also take beetles , lizards, small birds and eggs.
Cape Clawless Otter	*Aonyx capensis*	Their food, in order of preference, includes crabs, fish, frogs, water birds, reptiles and small mammals.
Striped Weasel	*Poecilogale albinucha*	They are carnivorous and prey on small rodents, chickens and birds.
Vervet Monkey	*Cercopithecus aethiops*	They are mainly vegetarians living on wild fruits, flowers, leaves, seeds and seed pods. They also eat some insects such as termites and flying ants
Thick-tailed Bushbaby	*Otolemur crassicaudatus*	They live almost exclusively on fruit and the gum that seeps from trees of the Acacia species. They will also eat some insects such as moths, grasshoppers and

		crickets.
Scrub Hare	*Lepus saxatilis*	They live on the leaves, rhizomes and stems of the grasses.
Eland	*Taurotragus oryx*	They are primarily browser but they are partial to fresh young grass after a fire.
Kudu	*Tragelaphus strepsiceros*	They are predominantly browsers although they will occasionally eat young grass shoot. They require a large territory.
Nyala	*Tragelaphus angasii*	They are predominantly browsers living on the leaves, twigs, flowers and fruits of a wide variety of plants. If young green grass is available they will graze on it.
Bushbuck	*Tragelaphus scriptus*	They are closely associated with riverine or other types of underbrush near water supplies. They must have wide corridors in order to move from bushveld areas to riverine areas in winter. They are predominantly browsers on lower plants.
Impala	*Aepyceros melampus melampus*	They are associated with light open woodland containing Acacia species. They both browse on trees and forbs and graze on grass, preferring it fairly short (50 -200mm). They must be allowed sufficient space in which to form herds of breeding females and batchelor herds consisting of males.
Common Reedbuck	*Redunca arundinum*	They have specialised habitat requirements in the form of tall grass or reed beds and a good water supply. These requirements are found in vleis and in grassland near streams and drainage areas. They are almost exclusively grazers. They are not attracted to fresh sprouting grass.
Grey Duiker	*Sylvicapra grimmia*	The presence of bush is an essential habitat requirement providing shade in which to rest during the day and leaves, twigs, flowers and fruit of a wide variety of trees, forbs and shrubs on which to browse. They will find food in the fringes of thickly forested areas but will avoid the forests themselves.
Blue Duiker	*Philanthomba monticola*	They are specialised in their habitat requirements and are confined to densely forested areas. They are browsers of the shoots and leaves of low-growing plants. They are extremely timid creatures and will not tolerate any disturbance of their habitat.
Burchell's Zebra	*Equus burchelli*	They are gregarious and live in family groups. They are predominantly grazers of a wide variety of grasses and herbs.
Blue Wildebeeste	*Connochaetes taurinus*	They are associated with savanna woodland where water is available. They are grazers with a preference for short lawn-like grass.
Bushpig	*Potamochoerus porcus*	They are predominantly nocturnal. They wallow in mud and therefore are never far from water. They root with their snouts and tend to feed in damp areas for bulbs, tubers and the rhizomes of grasses.

Tomb Bat	*Taphozous mauritianus*	They are insectivorous.
Sundevall's Leaf-nosed Bat	*Hipposideros caffer*	They are insectivorous.
Egyptian Slit-faced Bat	*Nycteris thebaica*	They are insectivorous.
Geoffroy's Horse-shoe Bat	*Rhinolophus clivosus*	They are insectivorous.
Schreiber's Long-fingered Bat	*Miniopterus schreibersii*	They are insectivorous.
Cape Serotine Bat	*Eptesicus capensis*	They are insectivorous.
Temminck's Hairy Bat	*Myotis tricolor*	They are insectivorous.
Kuhl's Bat	*Pipistrellus kuhlii*	They are insectivorous.
Yellow House Bat	*Scotophilus dinganii*	They are insectivorous.
Peter's Epauletted Fruit Bat	*Epomophorus crypturus*	Feed on most soft and pulpy fruits.
Egyptian Fruit Bat	*Rousettus aegyptiacus*	Feed on most pulpy fruit e.g wild figs.
Porcupine	*Hystrix africeaustralis*	They are predominantly vegetarians although they have been recorded eating the flesh of carrion. Food includes bulbs, tubers and roots. They are also fond of fallen fruits and they gnaw on the bark of some trees particularly the alien Syringa.
Spectacled Dormouse	*Graphiurus ocularis*	Mainly insectivorous. (Note: These animals have only been observed on the Pieterse's Izebushez property and on Nyala Place.)
Cane Rat	*Thryonomys swinderianus*	They are vegetarians feeding on the roots, shoots and stems of grasses and reeds. They are particularly fond of the stems of Rhodes grass (Chlorus gayana), Couch Grass (Cyanodon dactylon), Swamp Couch Grass (Hemarthia altissima), Antelope Grass (Echtnochloa pyramidalis), Pennisetum purpureum and Panicum maximum. They also feed on the exotic Sugar Cane and Napier Fodder if they are available.
Woodland Dormouse	*Graphiurus murinus*	They feed on the outer skin of the fruit of the Buffalo Thorn (Ziziphus mucronata) and also on insects such as large moths and beetles.
Rock Mouse	*Aethomys namaquensis*	They feed on grass and other seeds.
4-striped Field Mouse	*Rhabdomys pumilio*	They are predominantly graminivorous although their diet changes seasonally. They also eat insects and other small mice. They feed on the outside husks of the Buffalo Thorn (Ziziphus mucronata), the Raisin Bush (Grewia species) and the pods of Acacia trees.
Single-Striped Field Mouse	*Lemniscomys rosilia*	They feed on grass and other seeds.
Pouched Mouse	*Saccostomus campestris*	They pack their food in their cheek pouches to take back to their burrow. Their food is predominantly the larger seeds of forbs, bushes and trees. Seeds that have been found in their burrows include the Acacia species, Torchwood (Balanites maughamii), Raisin Bush (Grewia species), Bush Willow (Combretum species), the Sickle Bush

		(Dichrostachys cinerea) and Blue Guarri (Euclea crisps). A small amount of grass seed is also eaten.
Pigmy Mouse	*Mus minutoides*	The eat some green vegetable matter but their main diet is grass seeds, insects and termites.
Multimammate Mouse	*Mastomys natalensis*	They are omnivorous. Their diet includes grass and other seeds, dried Acacia pods, and the dry pulpy exterior of wild fruits. They also feed on insects including termites, grasshoppers, and Coleoptera. They are also carnivorous.
House Mouse	*Mus musculus*	They are omnivorous. They frequently feed on moths, weevils, spiders, earthworms, snails, fly larvae, ticks, aphids and mites as well as any seeds and plant food that is available.
Grey Climbing Mouse	*Dendromus melanotis*	They will eat seeds but are predominantly insectivorous eating termites, grasshoppers, crickets, small beetles and moths.
Brant's Climbing Mouse	*Dendromus mesomelas*	They eat grass seeds and insects.
Water Rat	*Dasymys incomtus*	They are predominantly vegetarians living on the succulent stems and fruiting heads of sem-aquatic grasses, reeds, and other vegetation. They will also eat insects.
House Rat	*Rattus rattus*	They are omnivorous.
Red Veld Rat	*Aethomys chrysophilus*	They feed on grass seeds as well as the dry outer layer of berries such as the Raisin Bush (Grewia species), Buffalo Thorn (Ziziphus mucronata) and Acacia pods.

Trees and shrubs of the Valley

Note: This list is by no means complete!
Some of the trees and bushes growing in the conservancy include:

Flame Thorn	*Acacia ataxacantha*	Host to the larvae of the Charaxes ethalon ethalon butterfly. The Red-billed Woodhoopoo and Bartailed Apalis feed on insects on the flowers, leaves and tree trunk. Nitrogen-fixing bacteria are found on the roots of all Acacia trees. This improves the soil fertility in the vicinity of the trees.
Common Hook Thorn	*Acacia caffra*	Browsed on by Black Rhino, Giraffe, Kudu, Impala, Reedbuck, Grey Duiker. Host to Van Son's Playboy and Amakosa Rocksitter butterflies. Nitrogen-fixing bacteria are found on the roots of all Acacia trees. This improves the soil fertility in the vicinity of the trees.
Red Thorn	*Acacia gerrardii*	The pods and young shoots are eaten by monkeys and baboons. The bark and leaves are eaten by Black Rhino, Giraffe, Grey Duiker, Kudu and Steenbok. Nitrogen-fixing bacteria are found on the roots of all Acacia trees. This improves the soil fertility in the vicinity of the trees.
Sweet Thorn	*Acacia karroo*	A good fodder tree. All parts of the tree

		are eaten by Black Rhino, Giraffe, Kudu, Impala, Reedbuck, Grey Duiker. Monkeys, Parrots and many other birds and insects are attracted to the flowers. Nitrogen-fixing bacteria are found on the roots of all Acacia trees. This improves the soil fertility in the vicinity of the trees.
Scented Thorn	*Acacia nilotica*	Browsed by Black Rhino, Giraffe, Eland, Kudu, Impala, Nyala, Grey Duiker. Nitrogen-fixing bacteria are found on the roots of all Acacia trees. This improves the soil fertility in the vicinity of the trees.
Splendid Thorn	*Acacia robusta*	The leaves are browsed by Kudu and Nyala. Nitrogen-fixing bacteria are found on the roots of all Acacia trees. This improves the soil fertility in the vicinity of the trees.
Paper-bark Thorn	*Acacia sieberiana*	The fallen pods and seeds are eaten by game animals. Birds are attracted to the tree especially the Bar-throated Apalis, which gets insects from the flowers, leaves and tree trunks. Sunbirds are also attracted to the tree. Nitrogen-fixing bacteria are found on the roots of all Acacia trees. This improves the soil fertility in the vicinity of the trees.
Umbrella Thorn	*Acacia tortillas*	The foliage is browsed by antelope and giraffe. The pods are eaten by all grazing and browsing animals. The bark is also eaten by animals. Nitrogen-fixing bacteria are found on the roots of all Acacia trees. This improves the soil fertility in the vicinity of the trees.
White Stinkwood	*Celtis africana*	The leaves are browsed by Kudu, Nyala, Bushbuck, Impala, Grey Duiker, and eaten by Vervet Monkeys and Baboons. Bulbuls, Mousebirds, Barbets, Parrots, Louries, Doves and Rameroon Pigeaons eat the seeds. Larvae of the African Snout and Blue-spotted Charaxes feed on the leaves.
Cabbage Tree	*Cussonia spicata*	The leaves are eagerly browsed by game. The roots and bark are eaten by Black Rhino, bushpigs, porkupines and baboons. The ripe fruit is eaten by many fruit-eating birds especially the Louries, bulbuls, Starlings, Barbets and Mousebirds.
Sickle Bush	*Dichrostachys cinerea*	The leaves are browsed by Giraffe, Buffalo, Nyala, Impala, Grey Duiker. The Larvae of Satyr Charaxes butterflies feed on the leaves
Dwarf Coral Tree	*Erythrina humeana*	Grey Duiker browse on the leaves. Sunbirds, Black-eyed Bulbuls, Cape White-eyes and Parrots feed on te seeds and insects that are attraced to the flowers.
Coral Tree	*Erythrina lysistemon*	Many insect species are attracted to the tree which, in turn, attract.many insect-eating birds. Barbets and Woodpeckers nest in these trees. Roots are unearthed and eaten by Bushpigs and Porcupine.

		The leaves and bark are eaten by Elephant, Black Rhino, Kudu, Nyala, and Baboons. Vervet Monkeys eat the flowers.
Cross Berry	*Grewia occidentalis*	Browsed on by Black Rhino, mGiraffe, Kudu, Nyala, Grey Duiker. Knysna and Purple-crested Louries, Bulbuls, Mousebirds, and Barbets feed on the berries. The tree hosts Rufous-winged Elfin and Buff-tipped Skipper Butterflies.
Buffalo Thorn	*Ziziphus macronata*	Giraffe, Eland, Kudu, Bushbuck, Nyala, Impala, Warthogs all browse on the tree or eat the fallen leaves and fruit. Guineafowl, Francolins, Purple-crested Louries and Burchell's Coucals feed on the fruit. Black Pie, Common Dotted Blue, Hintza Pie, White Pie Butterflies are hosted on the tree.
False Olive	*Buddleja saligna*	Various Butterflies and bees utilise the tree and its flowers.
Pompom Tree	*Dais cotinifolia*	The flowers attract bees and other insects which, in turn, attract insec-eating birds.
Puzzle Bush	*Ehretia rigida*	Kudu, Nyala, Bushbuck, Impala and Grey Duiker browse on the tree. The berries are eaten by Vervet Monkeys, Francolins, Guineafowl, Louries, Hornbills, Crested Barbets, Bulbuls and Starlings.
River Bushwillow	*Combretum erythrophyllum*	Browsed on by Giraffe, Nyala, Bushbuck, and Impala. Utilised by Pied Barbets, Herons and Cormorants as a perch.
Small Knobwood	*Zanthoxylum capense*	Browsed on by Kudu, Grey Duiker. Vervet Monkeys as well as several bird species eat the fruit. Host to the larvae of the Citrus Swallowtail, White-banded Swallowtail and Emporer Swallowtail Butterflies.
Tamboti	*Spirostachys africana*	Porcupines eat the bark and Giraffe, Eland, Kudu, Nyala, Bushbuck, Impala, Grey Duiker eat the fresh and fallen leaves.Guineafowl, Fracolins and Doves eat the fallen fruit.
Weeping Boer-bean	*Schotia brachypetala*	The caterpillars of three Charaxes butterfly species feed on the leaves as do Baboons, Giraffe, Kudu, Impala, Nyala. The nectar is favoured by Baboons, Vervet Monkeys, Bees, Sunbirds, Louries, Parrots and many insect species. Vervet Monkeys eat the flower buds and the seeds.
Wild Apricot	*Dovyalis zeyheri*	The larvae of the African Leopard Butterfly feed on the leaves. The fruit is eaten by Hornbills, Barbets, Louries, Mousebirds, Starlings, Rameroon Pigeons and Bulbuls.
Natal Laburnum	*Calpurnia aurea*	Leaves are eaten by Dassies and antelope. Bees and other insects are attracted to the flowers which, in turn, attract birds.
Wild Medlar	*Vangueria infausta*	The leaves are eaten by antelope. The fruit, which is high in vitamin C, is eaten by Bushbabies, Monkeys, Baboons, and Bushpigs. The flowers are visited by butterflies and flies.

Natal Wild Pear	*Dombeya cymosa*	Leaves browsed by antelope. Flowers visited by bees.
Coast Silver Oak	*Brachylaena discolor*	Young leaves are browsed by Nyala, Bushbuck and Blue Duiker. Copious nectar attracts bees and other insects which, in turn, attract insect-eating birds.
Small Bone Apple	*Coddia rudis*	Fruit is eaten by Louries, Bulbuls, Mousebirds and other birds.The leaves and stems are heavily browsed by game animals.
Natal Plane (Mickey Mouse Bush)	*Ochna natalitia*	Birds eat the drupelets. Leaves are browsed by antelope.
Small-leaved Plane	*Ochna serrulata*	Birds eat the drupelets. Leaves are browsed by antelope.
Common Spike Thorn	*Maytenus hetrophylla*	The fruit is eaten by birds. The flowers and young shoots are eaten by antelope.
Jacket Plum or Bushveld Cherry	*Pappea capensis*	Flowers attract insects. Delicious fruit eaten by people, birds (especially Starlings, Mousebirds and Barbets), Kudu, Nyala, Bushbuck, Impala and Grey Duiker. Larvae of the Pearlspotted Charaxes (*Charaxes jahlusa),* Common Haretail *(Anthene definite),* Brown Playboy (*Deudorix antalus*) butterflies feed on the tree.
Sneezewood	*Ptaeroxylon obliquum*	Food plant for the Citrus Swallowtail (*Princeps demodocus*) butterfly. Young shoots and leaves are browsed by Kudu, Nyala, Impala and Duiker.

Reptiles of the Valley

The wilds of Africa are often associated with snakes and rightly so, but, unfortunately, usually for the wrong reasons. While most people are afraid of snakes, South Africa is well known amongst herpetologists and snake lovers for the interesting variety of species of which some are highly priced in the pet trade. Because of the potential pressure by the export trade on natural populations, the collecting, keeping, trading and export of snakes is strictly controlled.
In general they are timid creatures which will avoid confrontations except in self defence. Most species are actually harmless, graceful, elegant and some even pretty to beautiful, but it also can not be denied that a few do look nasty, some are very dangerous and may take on terrifying poses and behaviour patterns when they feel threatened. Thus one should never attempt handling or picking up snakes unless they are positively identified as being harmless.

Snakes:		
Common Brown Water Snake	*Lycodonomorphus rufulus*	Prefers rivers, streams, vleis and damp areas in grasslands, savanna. Constrictor that feeds on frogs, tadpoles, small fish and nestlings and rodents.
Brown House Snake	*Lamprophis capensis*	Found almost everywhere. Common around human dwellings. Feeds mainly on rodents and small vertebrates including lizards, bats, birds and frogs.
Cape Wolf Snake	*Lycophidion capense*	Lives in savanna and grassland. It is active at night when it hunts for lizards, especially skinks and geckos. It is fond of damp localities and is often found under stones, logs or piles of grass.
Common or Brown Slug Eater	*Duberria lutrix*	Mainly a grassland inhabitant and is also found in savanna. It preys on snails and slugs.

Mole Snake	*Psuedopsis cana*	Common in scrub-covered and grassland areas. Adults feed on rats, moles, gerbils and other small land mammals. It also feeds on birds, nestlings and eggs.
Olive Grass Snake or Olive Whip Snake	*Psammophis mosambicus*	An inhabitant of lowland forest and moist savanna. Often found in the vicinity of water. Feeds on lizards, small mammals, frogs, birds and snakes (including Black Mamba and Puff Adder).
Cape Centipede Eater or Black-headed Centipede Eater	*Aparallactus capensis*	Found in old termite mounds in lowland forest, savanna and grasslands. Feeds exclusively on Centipedes.
Natal Black Snake	*Macrelaps microlepidotis*	Found along streams beneath rotting logs, stones, leaf litter, animal burrows and in storm water drains.
Common Egg Eater	*Dasypeltis scabra*	Found in all habitats except true desert and closed-canopy forest. Feeds exclusively on birds eggs.
Southern Brown Egg Eater	*Dasypeltis inornata*	Found in lowland forest and moist savanna. Seeks refuge under rocks, or any other suitable hiding place. Active at night when it seeks birds nests and eggs.
Spotted Bush Snake or Variegated Bush Snake	*Philothamus semivariegatus*	Preferred habitats are river banks, shrubs, bushes, rocky regions, savanna and lowland forest. Feeds on lizards, especially geckos. Occasionally takes frogs but not toads.
Natal Green Snake	*Philothamus natalensis*	Habitat is savanna and grassland. Feeds on lizards and geckos.
Green Water Snake	*Philothamus hoplogaster*	Common in lowland forest and moist savanna. Prefers reed beds, riverine thickets. Feeds mainly on frogs but fish and small lizards are also taken.
Red-Lipped Herald	*Crotaphopeltis hotamboei*	Common in lowland forest and savanna. Shelters under rocks, rubble and in compost. Feeds on amphibians and lizards. It also eats small snakes.
Boomslang	*Dispholidus typus*	Found in a variety of habitats. Actively hunts chameleons, tree-living lizards, birds, nestlings, eggs and frogs.
Mozambique Spitting Cobra	*Naja mossambica*	Found mainly in moist savanna and lowland forest in hollow logs, termite mounds and animal holes. Preys on toads, small mammals, birds, lizards, insects and snakes. Also eats eggs.
Black Mamba	*Dendroaspis polylepis*	Found in termite mounds, hollow tree trunks, deserted aardvark or porcupine burrows, rock crevices and granite hillocks. Actively hunts rodents, dassies, and other suitably sized mammals, birds and other snakes. Prefer warm-blooded prey.
Rhombic Night Adder	*Causus rhombeatus*	Favours damp environments in moist savanna where it seeks refuge in old termite mounds, under logs and large flat stones. Feeds almost exclusively on toads and frogs. Hatchlings feed on tadpoles.
Puff Adder	*Bitis arietans*	Occurs throughout South Africa in all

		habitats. Ambushes rats and mice and other small mammals. Also feeds on birds, lizards, toads and occasionally, snakes.
Southern African Python (aka, African Rock Python)	*Python natalensis*	Fairly widespread, preferring rocky outcrops in moist savanna. Diet includes, dassies, cane rats, hares, monkeys, small antelope and game birds. It may also take fish, monitor lizards and crocodiles.

Lizards:		
Cape Skink	*Mabuya capensis*	
Variable Skink	*Mabuya varia*	
Striped Skink	*Mabuya striata complex*	
Wahlberg's Snake-Eyed Skink	*Panaspis wahlbergii*	
Rock Monitor	*Varanus albigularis*	
Flap-Necked Chameleon	*Chamaeleo dilepis*	
Tropical House Gecko	*Hemidactylus mabouia*	
Spotted Thick-Toed Gecko	*Pachydactylus maculates*	
Southern Tree Agama	*Acanthocercus atricollis*	
Natal Midlands Dwarf Chameleon	*Bradypodion thamnobates*	
Marsh Terrapin	*Pelomedusa subrufa*	
Natal Hinged Tortoise	*Kinixys Natalensis*	

Bird List

1 Grey Heron
2 Egret Cattle
3 Hamerkop
4 Ibis, Hadeda
5 Duck, Yellowbilled
6 Kite, Yellowbilled
7 Kite, Blackshouldered
8 Eagle, Black
9 Eagle, Steppe
10 Eagle, Longcreasted
11 Eagle, Crowned
12 Buzzard, Steppe
13 Sparrowhawk, Little
14 Sparrowhawk, Black
15 Goshawk, African
16 Falcon, Lanner
17 Kestrel, Eastern Redfooted
18 Goshawk, Gabar
19 Gymnogene
20 Francolin, Natal
21 Guineafowl, Helmeted
22 Thrush, Kurrichane
23 Plover, Crowned
24 Spotted Dikkop
25 Bronzwinged Courser
26 Rock Pigeon

27 Redeyed Dove
28 Cape Turtle Dove
29 Laughing Dove
30 Greenspotted Dove
31 Purplecreasted Lourie
32 Black Cuckoo
33 Jacobin Cuckoo
34 Diederik Cuckoo
35 Burchell's Coucal
36 Spotted Eagle Owl
37 Speckled Mousebird
38 Pygmy Kingfisher
39 Brownhooded Kingfisher
40 Hoopoe
41 Redbilled Woodhoopoe
42 Scimitarbilled Woodhoopoe
43 Cardinal Woodpecker
44 Rufousnaped Lark
45 Cuckoo Hawk
46 Black Harrier
47 Blackcollared Barbet
48 Crested Barbet
49 Forktailed Drongo
50 Blackheaded Oriole
51 Black Crow
52 Pied Crow
53 Whitenecked Crow
54 Blackeyed Bulbul
55 Kurrichane Thrush
56 Olive Thrush
57 Natal Robin
58 Cape Robin
59 Yellowbreasted Apalis
60 Fantailed Cisticola
61 Neddicky
62 Yelloweyed Canary
63 Cape Canary
64 Streakyheaded Canary
65 Black Widowfinch
66 Pintailed Whydah
67 Bronz Mannikin
68 Blue Waxbill
69 Bluebilled Firefinch
70 Redcollared Widow
71 Whitewinged Widow
72 Redshouldered Widow
73 Yellowrumped Widow
74 Red Bishop
75 Lesser Masked Weaver
76 Spottedbacked Weaver
77 Greyheaded Sparrow
78 Cape Sparrow
79 House Sparrow
80 Black Sunbird
81 Whitebellied Sunbird
82 Glossy Starling
83 Plumcoloured Starling

84 Redwinged Starling
85 Greyheaded Bush Shrike
86 Olive Bush Shrike
87 Bokmakierie
88 Southern Tchagra
89 Southern Boubou
90 Cape Wagtail
91 Lazy Cisticola
92 Fiscal Shrike
93 Paradise Flycatcher
94 Black Flycatcher
95 Chinspot Batis
96 Fiscal Flycatcher
97 Dusky Flycatcher
98 Cape Batis
99 Sacred Ibis
101 Wood Owl
103 Pied Barbet
104 Greater Honeyguide
105 Black Cuckooshrike
106 Southern Black Tit
107 Familiar Chat
108 Whitebrowed Robin
109 Barthroated Warbler
110 Cape White-eye
111 Masked Weaver
112 Egyptian Goose
113 Kittlitz's Plover
114 Tambourine Dove
115 Redchestd Cuckoo
116 Fierynecked Nightjar
117 Little Swift
118 Chorister Robin
119 Tawnyflanked Prinia
120 Yellowthroated Longclaw
121 Orangethroated Longclaw
122 Black Stork
123 Common Waxbill
124 Redbilled Quelea
125 Orangebreasted Bush Shrike
126 Blackcrowned Tchagra
128 Spurwinged Goose
129 Southern Ground Hornbill
130 Woolly Necked Stork
131 Narina Trogan
132 Eagle, Martial
133 Eagle, Crowned
134 Eagle, African Fish
135 Falcon, Peregrine
136 Purple Heron

A quick list of raptors

Secretary Bird
Verreaux's Eagle
Martial Eagle Breeding Pair.
Fish Eagle Breeding Pair
Crowned Eagle Breeding Pair
Long Crested Eagle Breeding Pair
Wahlberg's Eagle Breeding Pair
Booted Eagle
Black Breasted Snake Eagle
Brown Snake Eagle
Steppe Buzzard
Honey Buzzard
Jackal Buzzard
Yellow Billed Kite Breeding Pair
Blackshouldered Kite Breeding Pair
African Harrier Hawk
African Marsh Harrier
Little Sparrowhawk Breeding Pair
African Goshawk Breeding Pair
Black Sparrowhawk Breeding Pair
Peregrine Falcon both minor and calidus
Lanner Falcon Breeding Pair
Rock Kestrel
Amure Falcon

At least 24 resident raptors in one area is amazing and is better then some protected areas! This area serves as a breeding ground for a number of these protected species, and as a vital feeding base for the rest. These birds need large tracts of undisturbed areas to survive. The Martial Eagle is the only pair left in the area with the next pair being the other side of Ixopo.
Butterfly Check List for the Mkondeni/Mpushini Valleys
Many thanks to Dr Americo Bonkewitzz for most of the information contained in this document.
The Mkondeni-Mpushini Valley is unique place, very close to town, so accessible to everyone. It holds a secret that is invisible to many people: ***Mkondeni-Mpushini is alive with "white" butterflies that the very same place generates by just three species of plants***. No matter the season, on a sunny day you will see plenty of butterflies flying. That is a sign that the bush is healthy, alive but at the same time highly vulnerable to human development.

---oooOooo---

Butterfly check list

Please note: The first column contains the Scientific names; the second column contains the common names; and the last column is the page reference in "Field Guide to the Butterflies of South Africa" by Steve Woodhall (Struik).

The numbers reflected in the last column (#) indicate the page numbers in the above book.

No.	Scientific Name	Common Name/s
1	*Eretis djaelaelae (Wallengren)*	Marbled Elf
2	*Sarangesa motozi (Wallengren)*	Forest Elfin
3	*Sarangesa phidyle (Walker)*	Small Elfin
4	*Spialia diomus ferax (Wallengren)*	Common Sandman
5	*Kedestes macomo (Trimen)*	Macomo Ranger
6	*Gegenes niso niso (Linnaeus)*	Common Hottentot Skipper
7	*Papilio (Princeps) dardanus cenea (Stoll)*	Mocker Swallowtail
8	*Papilio (Princeps) dardanus tibullus (Kirby)*	(Mocker Swallowtail)
9	*Papilio (Princeps) demodocus demodocus (Esper)*	Citrus Swallowtail
10	*Papilio (Princeps) nireus lyaeus (Doubleday)*	Green-banded Swallowtail
11	*Graphium (Arisbe) leonidas leonidas (Fabricius)*	Veigned Swallowtail

12	*Catopsilia florella (Fabricius)*	African or Common Migrant
13	*Colias electo electo (Linnaeus)*	African Clouded Yellow
14	*Eurema (Eurema) brigitta brigitta (Stoll)*	Broad-bordered Grass Yellow
15	*Eurema (Terias) hecabe solifera (Butler)*	Common Grass Yellow
16	*Pinacopteryx eriphia eriphia (Godart)*	Zebra White
17	*Nepheronia buquetii buquetii (Boisduval)*	Burquet's Vagrant ot Green-eyed Monster
18	*Eronia cleodora cleodora (Hubner)*	Vine-leaf Vagrant
19	*Eronia leda (Boisduval)*	Autumn-leaf Vagrant
20	*Colotis (Colotis) antevippe gavisa (Wallengren)*	Red Tip
21	*Colotis (Colotis) antevippe zera (Lucas)*	(Red Tip)
22	*Colotis (Colotis) auxo (Lucas)*	Sulphur Orange Tip
23	*Colotis (Colotis) danae annae (Wallengren)*	Scarlet Tip
24	*Colotis (Colotis) euippe omphale (Godart)*	Smoky Orange Tip
25	*Colotis (Colotis) evagore evagore (Klug)*	
26	*Colotis (Colotis) evagore antigone (Boisduval)*	Small Orange Tip
27	*Colotis (Colotis) ione (Godart)*	Bushveld or Common Purple Tip
28	*Colotis (Teracolus) eris eris (Klug)*	Banded Gold Tip
29	*Belenois (Belenois) thysa thysa (Hopffer)*	False Dotted Border
30	*Belenois (Anaphaeis) aurota aurota (Fabricius)*	Brown-viened White
31	*Belenois (Anaphaeis) creona severina (Stoll)*	African Common White
	Belenois (Pseudanaphaeis) gidica abyssinica Lucas	African Veined White
32	*Pontia (Pontia) helice helice (Linnaeus)*	Meadow White
33	*Dixeia charina charina (Boisduval)*	African Small White
34	*Dixeia pigea (Boisduval)*	Ant-heap Small White
35	*Appias (Glutophrissa) epaphia contracta (Butler)*	Diverse White
36	*Mylothris agathina agathina (Cramer)*	Common Dotted Border
37	*Leptosia alcesta inalcesta (Bernardi)*	African Wood White
38	*Acraea (Acraea) acara acara (Hewitson)*	Acara Acraea
39	*Acraea (Acraea) horta (Linnaeus)*	Garden Acraea
40	*Acraea (Stephenia) natalica (Boisduval)*	Natal Acraea
41	*Acraea (Stephenia) oncaea (Hopffer)*	Window Acraea
42	*Hyalites (Hyalites) cabira (Hopffer)*	Yellow-banded Acrea
43	*Hyalites (Hyalites) encedon encedon (Linnaeus)*	White-barred Acraea
44	*Hyalites (Hyalites) eponina (Cramer)*	Small Orange Acraea
45	*Hyalites (Hyalites) esebria esebria (Hewitson)*	Dusky Acraea
46	*Pardopsis punctatissima (Boisduval)*	Polka Dot
47	*Danaus (Anosia) chrysippus aegyptius (Schreber)*	African Monarch
48	*Amauris (Amaura) albimaculata albimaculata Butler*	Layman
49	*Bicyclus safitza safitza (Westwood)*	Common Bush Brown
50	*Henotesia perspicua perspicua (Trimen)*	Eyed Bush Brown or Marsh Patroller
51	*Cassionympha cassius (Godart)*	Rainforest Brown
52	*Phalanta phalantha aethiopica (Rothschild and Jordan)*	African or Common Leopard
53	*Hypolimnas anthedon anthedon (Doubleday)*	Variable Diadem
54	*Hypolimnas anthedon wahlbergi (Wallengren)*	Variable Diadem
55	*Hypolimnas misippus (Linnaeus)*	Common Diadem
56	*Salamis parhassus (Drury)*	Common Mother-of-Pearl
57	*Junonia archesia archesia (Cramer)*	
58	*Junonia hierta cebrene (Trimen)*	Yellow Pansy
59	*Junonia natalica natalica (Felder and Felder)*	Brown Pansy
60	*Junonia octavia sesamus (Trimen)*	
61	*Junonia oenone oenone (Linnaeus)*	Blue Pansy
62	*Junonia orithya madagascariensis Guenée*	Eyed Pansy
63	*Catacroptera cloanthe cloanthe (Stoll)*	Gaudy Commodore
64	*Cynthia cardui (Linnaeus)*	
65	*Byblia anvatara anvatara (Boisduval)*	Common Joker
66	*Eurytela dryope angulata Aurivillius*	Golden Piper
67	*Eurytela hiarbas angustata Aurivillius*	Pied Piper
68	*Sevenia boisduvali boisduvali (Wallengren)*	Boisduval's Tree Nymph
69	*Sevenia natalensis (Boisduval)*	Natal Tree Nymph
70	*Neptis laeta (Overlaet)*	Common Sailor

71	*Neptis saclava saclava (Boisduval)*		
72	*Neptis saclava marpessa (Hopffer)*	Spotted Sailor	
73	*Cymothoe coranus coranus (Grose-Smith)*	Blonde Glider	
74	*Charaxes brutus natalensis (Staudinger)*	White-barred Emperor	
75	*Charaxes cithaeron cithaeron (Felder and Felder)*	Blue-spotted Emperor	
76	*Charaxes ethalion ethalion (Boisduval)*	Saryr Emperor	
77	*Charaxes varanes varanes (Cramer)*	Pearl Emperor	
78	*Charaxes zoolina zoolina (Westwood)*	Club-tailed Emperor	
79	*Alaena amazoula amazoula (Boisduval)*	Yellow Zulu	
80	*Pentila tropicalis tropicalis (Boisduval)*	Spotted Buff	
81	*Lachnocnema bibulus (Fabricius)*	Common Woolly Legs	
82	*Lachnocnema laches*	Southern Pied Woolly Legs	
83	*Thestor basutus basutus (Wallengren)*	Basuto Skolly or Basutu Magpie	
84	*Myrina silenus silenus (Fabricius)*	Common Fig-tree Blue	
85	*Crudaria leroma (Wallengren)*	Silver-spotted Grey	
86	*Chrysoritis natalensis (Van Son)*	Natal Opal	
87	*Axiocerses tjoane tjoane (Wallengren)*	Common Scarlet	
88	*Leptomyrina (Leptomyrina) hirundo (Wallengren)*	Tailed Black-eye	
89	*Leptomyrina (Gonatomyrina) gorgias gorgias (Stoll)*	Common Black-eye	
90	*Anthene amarah amarah (Guérin-Méneville)*	Black-striped Hairtail	
91	*Cupidopsis cissus (Godart)*	Common Medow Blue	
92	*Cupidopsis jobates jobates (Hopffer)*	Tailed Meadow Blue	
93	*Lampides boeticus (Linnaeus)*	Long-tailed Blue	
94	*Cacyreus lingeus (Stoll)*	Bush Bronze	
95	*Cacyreus marshalli (Butler)*	Geranium Bronze	
96	*Leptotes pirithous pirithous (Linnaeus)*	Common Blue	
97	*Tuxentius melaena melaena (Trimen)*	Black Pie	
98	*Tarucus sybaris sybaris (Hopffer)*	Dotted Blue	
99	*Zintha hintza hintza (Trimen)*	Hintza Blue	
100	*Zizeeria knysna (Trimen)*	Sooty Blue	
101	*Zizina antanossa (Mabille*	Clover Blue	
102	*Actizera lucida (Trimen)*	Rayed Blue	
103	*Zizula hylax (Fabricius)*	Gaika Blue	
104	*Azanus jesous jesous (Guérin-Méneville)*	Topaz-spotted Blue	
105	*Azanus natalensis*	Natal Spotted Blue	
106	*Eicochrysops messapus messapus (Godart)*	Cupreous Blue	
107	*Euchrysops malathana (Boisduval)*	Common Smoky Blue	
108	*Euchrysops dolorosa*	Sabi Smoky Blue	
109	*Lepidochrysops plebeia plebeia (Butler)*	Twin-spot Blue	

Murray-Rogers, Andrea

From: Rodney Bartholomew [rodney.bartholomew@msunduzi.gov.za]
Sent: Thursday, March 25, 2010 8:21 AM
To: Emanuel, Philippa; ian.felton@kzndae.gov.za; shlela@deat.gov.za
Cc: Morris, James
Subject: RE: Changes to the ESP

Dear All – as you know the ESP was prepared using the biodiversity value of untransformed land as the basis, with no consideration given to land ownership, current use, and zoning other than those areas already formally proclaimed as conservation areas or nature reserves. Neither Conservancies or land currently being put forward in terms of the "Stewardship" program have any legal status and to be fair our Urban Conservancy boundaries have to a large extent not been established using biodiversity value as the criteria, Ferncliffe Conservancy and Cleland/Mkhondeni Conservancy being prime examples. There are substantial areas falling within conservancy boundaries which would be deemed to have very little or no biodiversity value at all although it must be acknowledged that in the more rural or undeveloped parts of the City, Conservancies are likely to encompass areas of biodiversity value.

It was explained at the public meeting that land ownership and use models still need to be developed and will include a range of options to be presented to landowners when the public process of formally adopting the ESP begins. Clearly the ESP needs to be developed further using a broad range of ecosystem services rather than the current "narrow" focus on biodiversity value only but this will evolve as the ESP process unfolds. Conservancies and land stewardship status clearly need to be acknowledged and addressed during this process and it certainly was never the intention to ignore or downplay the importance of these areas.

However Land stewardship and conservancies are but two of potentially many more land use and ownership options which will be developed and presented to landowners but I personally would regard conservancy status as being fairly low on the list of priorities simply because they have no "legal" standing and very little formal responsibility is placed on landowners to actually manage for and protect biodiversity.

In principle I would have no objection to a separate GIS layer being developed showing the Conservancy boundaries which could be used for information purposes during development of the "Land Ownership and Use" models. Including these boundaries in the current ESP would in my opinion add no value and may in fact shift attention away from high value areas which currently do not form part of a Conservancy.

Regards
Rodney

MR. RLC BARTHOLOMEW
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From: Emanuel, Philippa [mailto:PEmanuel@srk.co.za]
Sent: 24 March 2010 03:44 PM
To: ian.felton@kzndae.gov.za; Rodney Bartholomew; shlela@deat.gov.za

Cc: Morris, James
Subject: Changes to the ESP

Dear All

Today I had a meeting to facilitate comment from S. Schutte and P. Long both from the Ashburton area.
They have requested that the conservancies and the proposed private protected areas (they acknowledge that these have not been formalized) be included into the mapping of the ESP.
As discussed with Ian I indicated that this would be done as part of the implementation of the ESP and they were very unhappy about this suggestion. They are adamant that these areas be included in the Draft ESP as part of the Msunduzi EMF process.

I therefore agreed to put the issue to yourselves.

To assist in decision making I have included some of the implications of including these areas:

1. While it would be relatively easy to include the Upper and Lower Mpushini conservancy areas in the mapping. However for consistency all Msunduzi conservancies should then be included. The boundaries for other conservancies are not as defined and considerable work would be required to define the boundaries. In addition it may not be as applicable to add conservancies such as Ferncliff into the ESP?
2. It would be relatively simple to add the proposed private protected areas into the ESP however as indicated by P. Long these in fact have no legal standing as yet. While it would be easy to include these areas on the map should the information required be supplied by the PMMB Trust it would require changes to the various ESP reports that would be time consuming.
3. The inclusion of these areas was not part of the scope of work that was defined in July 2009. As such SRK views the changes to the mapping and more specifically the reporting as an addition to the scope of work.

I look forward to your communications. Please let me know should we need to discuss the matter further.

Kind Regards

Philippa Emanuel (Pr. Sci. Nat)
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SRK Consulting
Engineers and Scientists

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Murray-Rogers, Andrea

From: Stefanie Schutte [stefanie@sdc.co.za]
Sent: Thursday, March 25, 2010 9:40 AM
To: Emanuel, Philippa
Subject: Comments on draft EMF and other reports
Attachments: EMFcomment.doc; UMC members EMF subm.xls; UMC Species list.xls; Mpushini birds.rtf; Butterfly Survey Report~Tanglethorn.pdf; Wild species at Tanglethorn.xls

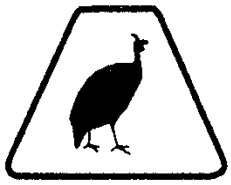
Hello Philippa,

Thanks for allowing us to comment on the draft EMF.

Attached find our comments, as well as a membership list inclusive property description for the Upper Mpushini Conservancy, as well as a species list for the Upper Mpushini Conservancy, a bird list for the Mpushini area (by Dr David Johnson), a short butterfly survey on Tanglethorn (by Dr A. Bonkowitzz) and a species list from Tanglethorn (which is obviously also included in the UMC list).

Kind regards,

Stefanie Schutte
Upper Mpushini Conservancy
Chairperson



Upper Mpushini Conservancy

P.O. Box 254, Umlaas Road, 3730, Tel: 0824886712, Fax: 033 2510356

25.3.2010
Draft, not for circulation

Dear Philippa,

Thank you for affording us the opportunity to make comments to the Msunduzi EMF Draft Report and other reports.

1. Conservancy properties

We would like to see the areas of all registered conservancies included into the relevant maps. The properties of members of the Upper Mpushini Conservancy are about 2000 hectares and are directly adjoining Bisley Nature Reserve. This forms an important green belt and includes Kwa Zulu –Natal Hinterland Thornveld, Eastern Valley Bushveld and Dry Ngongoni Veld. A list with property descriptions is attached. We did not manage to get shape files in the short time available, but I hope that the property descriptions will be sufficient, even if you only include properties above a certain size (50 h or so) into the map.

2. Proposed private protected areas (Ezemvelo Wildlife Stewardship Program)

We would like to see the proposed Mpushini Private Protected area included in the relevant maps.

3. Linkages between Upper and Lower Mpushini Conservancy

There is a very viable linkages and an undercut where the Mpushini flows below the N3. We see this linkage as a priority and viable with 30 m buffers on both sides of the watercourse (Mpushini and Malkop Spruit). Where the linkage is blocked through existing properties at the bridge of the R103 over the Mpushini an additional buffer should be put in place on the eastern side of the river on the (as yet) undeveloped land. Should the R103 be widened at a later state, a suitable undercut should be provided for here.

3. Irreplacability

We question how a natural area can be classified as replaceable.

Most of our area has been classified in the report as either totally or nearly completely replaceable.
We are experiencing the area of the Upper Mpushini Conservancy as an important area to protect. Not many on-the-ground studies have been done in this area and we would like to encourage research studies within the conservancy. Rare species seen include amongst others serval, caracal and African python. A more extensive but still very incomplete list is attached.
According to Dr Bonkewitzz, a butterfly expert that studied the Mkhondeni valley, the Mpushini area is data deficient when it comes to butterflies, but certainly warrants more studies.

We certainly see the need to a more detailed study at ground level that will proof that the area is not replaceable.

4. Sense of place and "African feel"
Hinterland Thornveld and Valley Bushveld are important in giving the Eastern areas the sense of place and African feel and therefore making PMB the "City of Choice" for many to live in.

5. Comments on Draft EMF report: Preferred and Non Preferred Land Use Types 5.53.3.

5.1 Biodiversity Development constraint Area
(Table 5.2.): we feel that light industrial should move from preferred to not preferred land use.

5.2 Agricultural zone
In map 4 Appendix Agricultural potential: the green areas are labeled suitable for development. Should this not rather read "uncertain agricultural potential (low)" as classified in the text?
Table 5.4: The preferred land uses in the text for those green areas are anything but agricultural? Should this not rather read intensive agriculture and extensive agriculture. Extensive agriculture than still be one of the preferred land uses. If only the areas presently marked on the map are kept for agriculture it will be impossible to feed Pietermaritzburg in the future. Also there are successful dairies and cattle /game ranges along the Bisley Road which fall outside the areas identified for agriculture.

5.3 Water Quality
Table 5.6: Natural water quality: the preferred land use is anything, including heavy industry? In our opinion the good water areas should get the most protection. It would be much more expensive to improve already disturbed areas than to look after natural areas. Also it seems like a punishment to the communities that looked after their area as if to say your area is near pristine, let's mess it up a little!

5.4. Air Quality
(Table 5.7) Sensitive Air Quality: In our opinion "light industrial", "mixed use" and "medium residential" should move from preferred to non-preferred land use.

6. Comments on Draft SEMP

6.1
In table 3.1. (Biophysical limits of acceptable change): We would like to see “No sub catchment should deteriorate in quality.”

6.2
In point 3.4.2 Social Environment: we would like to see as an objective: ‘The sense of place should be maintained”

6.3
Page 24 Table 4.8 Action Plan to Develop Urban Greening Program
To limit the impact that humans have on the environment the use of indigenous plants from a radius of 50 km should be promoted. All new developments as well as the Municipality and Government Departments should be only using local indigenous plants (with the exception of non-invasive food plants)
A potential partner could be the Botanical Society KZN Inland Branch.

Thanks again for allowing us to comment.

Kind regards,

Stefanie Schütte
Chairperson

Upper Mpushini Conservancy Membership List (as per March 2010)

	Name	Name of Property	Lot Number	Size of pro	Comments
1	Clarke, Liz	7A Greenpoint Road, Ashl	ERF 477, Ashburton	1.5	
2	Cooper, Judy and Ken	Pinmore Farm, Mandersto	await description	40	approx. size
3a	Goodall Family Trust		Rem. Of Portion 6 of the farm Leliefontain No.1175	19.4449	
3b	Goodall Family Trust		Rem. Of port. 14 of farm leliefontain No. 1175	81.8743	
3c	Goodall Family Trust		Rem. Of portion 130 of farm Leliefontain No.1175	168.3379	
3d	Goodall Family Trust		Port. 47 (of 14) of farm Leliefontain No.1175	81.977	
3e	Goodall Family Trust		Rem of Port 132 (of 130) of farm Leliefontain No.11	416.8059	
3f	Goodall Family Trust		Rem of farm Leliefontain 1175	5.2434	
3g	Goodall Family Trust		Portion 40 of farm Leliefontain 1175	0.1256	
4	Higgs, Alan and Allyson	77 Tanglethorn Estate	Port. 77 (of 13) of Farm Uitvlugt No. 858	n/a	
5	Jim Stockley and others	Rocky Valley	Port 1 -9 of Cluny Park 14809	230	approx. size
6	Late Estate WH Long Trust	Foxhill property	Erf 202 Slungspruit	16.52	
7	Malcome Florenz	Rocky Valley	Farm Cleveland No. 17926	152.5026	
8	Mpushini Estate	Spies Farm	Rem. Of Farm Bushy Park No. 13150, Reg Div FT	92.8568	
9	Price, Ashley and Lyn	Ashlyn Ridge, Ashburton	Rem. Of Farm Uitvlugt 858	173	
10	Price, Trevor	(Ashlyn Ridge, Ashburton)		n/a	
11	Rijkenberg. Helena and Marc	10 AP Smith Road, Ashburton		2.01	
12	Schutte, Carl and Stefanie	58 Tanglethorn Estate	Port. 58 (of 13) of Farm Uitvlugt No. 858	n/a	
13a	Smith, A.P. and Thelma	Boulder Hill	Port 26 (of 24) of the farm Uitvlugt No. 858	20.2815	
13b	Smith, A.P. and Thelma	Boulder Hill	Port. 34 of the farm Uitvlugt No. 858	120.2162	
13c	Smith, A.P. and Thelma	Boulder Hill	Port. 25 (of 24) of the farm Uitvlugt No. 858	69.5223	
13d	Smith, A.P. and Thelma	Boulder Hill	Rem. Of port. 23 of the farm Bushy Park No.13150	201.8158	
13e	Smith, A.P. and Thelma	Boulder Hill	Port. 43 of the farm Uitvlugt No 858	38.5649	
13f	Smith, A.P. and Thelma	Boulder Hill	Port. 40 (of 39) of the farm Boulder Hill No. 15137	20.2924	
13g	Smith, A.P. and Thelma	Boulder Hill	Rem. Of the farm Boulder Hill No. 15137	124.8226	
14	Tanglethorn Homeowners Assoc	Tanglethorn Estate	Rem. Of 13 of Farm Uitvlugt No. 858	77.7	Prop. Private
15	Vorster, Sue and Ben	30 Wally Hayward Drive		2.2	Protected Area
16	Wells, Craig and Lara	Shenendoah	Sub 14 of Farm Maizelands	10	
17	Wigham, Deborah	1 Paperbark Road, Ashburton		2	
	Total Conservancy area			**2169.614**	

Species list Upper Mpushini Conservancy

Flora

Number	Bot Name	Common name
1	*Abutilon grantii*	
2	*Acacia ataxacantha*	
3	*Acacia brevispica*	
4	*Acacia caffra*	
5	*Acacia karroo*	
6	*Acacia nilotica*	Scented Thorn
7	*Acacia robusta*	Ankle Thorn
8	*Acacia sieberiana*	
9	*Acacia tortilis*	Umbrella Thorn
10	*Acokanthera oppositifolia*	
11	*Acokanthera rotundata*	Round-leaved poison bush
12	*Aloe ferox*	
13	*Aloe maculata*	Common Soap Aloe
14	*Aloe pruinosa*	
15	*Brachylaena discolor*	Coastal Silver Oak
16	*Brachylaena elliptica*	Bitter leaf
17	*Buddleja pulchella*	
18	*Buddleja saligna*	False Olive
19	*Cadaba natalensis*	
20	*Calpurnea aurea*	
21	*Canthium ciliatum*	Hairy Turkey-Berry
22	*Canthium inerme*	
23	*Canthium mundianum*	
24	*Capparis sepiaria*	Wild Caper Bush
25	*Celtis africana*	
26	*Clerodendrum glabrum*	
27	*Coddia rudis*	Small Bone-Apple
28	*Combretum erythrophyllum*	River Bush Willow
29	*Combretum kraussii*	
30	*Commiphora woodii*	
31	*Cucumis zeyheri*	Wild Cucumber
32	*Cussonia spicata*	Common Cabbage Tree
33	*Cyphostemma natalitium*	
34	*Dalbergia obovata*	
35	*Dalbergia obovata*	Climbing Flatbean
36	*Dalechampia capensis*	
37	*Diospyros lycioides*	
38	*Dombeya rotundifolia*	
39	*Dovyalis caffra*	
40	*Dovyalis caffra*	Kei Apple
41	*Dovyalis lucida*	Glossy Sourberry
42	*Dovyalis zeyheri*	
43	*Ehretia rigida*	Puzzle Bush
44	*Euclea crispa*	
45	*Euclea divinorum*	Magic Guarri
46	*Euphobia*	Pin cusion Euphobia
47	*Euphorbia ingens*	
48	*Ficus burtt-davyi*	
49	*Grewia lasipcarpa*	

50	*Grewia occidentalis*	Cross-Berry
51	*Gymnosporia buxifolia*	
52	*Gymnosporia nemorosa*	
53	*Heteromorpha trifoliata*	Parsley Tree
54	*Hippobromus pauciflorus*	False Horsewood
55	*Hypoxis multiceps*	
56	*Lippia javanica*	
57	*Maerua cafra*	
58	*Maytenus heterophylla*	Common Spike-thorn
59	*Olea africana*	
60	*Olea capensis subsp. enervis*	
61	*Olea europea subsp. africana*	
62	*Pittosporum viridiflorum*	
63	*Rhoicissus tridentata*	
64	*Rhus dentata*	
65	*Rhus pentheri*	
66	*Rhus pentheri*	Common Crow-Berry
67	*Rhus pyroides*	
68	*Rhus rehmanniana*	
69	*Rhynchosia villosa*	Giant Hairy leaved Rhynchoisa
70	*Schotia brachypetala*	Weeping Boer-beam
71	*Scutia myrtina*	Catthorn
72	*Strychnos decussata*	
73	*Strychnos madagascariensis*	
74	*Tapiphyllum pauciflorum*	
75	*Tricalysia lanceolata*	
76	*Trimeria grandifolia*	Wild Mulberry
77	*Vangueria infausta*	
78	*Zanthoxylum capense*	Small Knobwood
79	*Ziziphus mucronata*	Buffalo Thorn

Species list Upper Mpushini Conservancy

Butterfly survey done by Americo Bronkowitch see separate report
Bird list (David Johnson) see separate report

	Fauna	
1	African Python	
2	Black Wildebeest	
3	Black-backed Jackal	
4	Blesbuck	
5	Burchell zebra	
6	Bushbuck	
7	Bushpig	
8	Caracal	
9	Common Reedbuck	
10	Giraffe	
11	Grey duiker	
12	Impala	
13	Kudu	
14	Large grey mongoose	
15	Nyala	
16	Oribi	
17	Porcupine	
18	Red Hartebeest	
19	Rock Monitor	
20	Serval	
21	Small grey mongoose	
22	Striped weasel	
23	Vervet Monkey	
24	Warthog	

MPUSHINI VALLEY BIRD LIST

Coqui Francolin
Shelley's Francolin
Natal Francolin
Swainson's Spurfowl
Common Quail
Harlequin Quail
Helmeted Guineafowl
White-faced Duck
Egyptian Goose
Spur-winged Goose
African Black Duck
Yellow-billed Duck
Red-billed Teal
Hottentot Teal
Small Buttonquail
Scaly-throated Honeyguide
Greater Honeyguide
Lesser Honeyguide
Brown-backed Honeybird
Red-throated Wryneck
Golden-tailed Woodpecker
Cardinal Woodpecker
Red-fronted Tinkerbird
Acacia Pied Barbet
Black-collared Barbet
Crested Barbet
Crowned Hornbill
African Hoopoe
Green Wood-Hoopoe
Common Scimitarbill
Narina Trogon
European Roller
Lilac-breasted Roller
Malachite Kingfisher
African Pygmy-Kingfisher
Brown-hooded Kingfisher
Giant Kingfisher
Speckled Mousebird
Red-faced Mousebird
Jacobin Cuckoo
Red-chested Cuckoo
Black Cuckoo
Common Cuckoo
African Cuckoo
Klaas's Cuckoo
Diderick Cuckoo
Burchell's Coucal
African Palm-Swift
Common Swift
Little Swift
White-rumped Swift
Purple-crested Turaco
Barn Owl
Spotted Eagle-Owl
African Wood-Owl
European Nightjar
Fiery-necked Nightjar
Square-tailed Nightjar
African Olive-Pigeon
Laughing Dove
Cape Turtle-Dove
Red-eyed Dove
Emerald-spotted Wood-Dove
Tambourine Dove
Namaqua Dove
Black-bellied Bustard
Corn Crake
Black Crake
Common Moorhen
Red-knobbed Coot
Common Greenshank
Wood Sandpiper
Common Sandpiper
Little Stint
Ruff
Spotted Thick-knee
Three-banded Plover
Blacksmith Lapwing
Crowned Lapwing
African Cuckoo Hawk
European Honey-Buzzard
Black-shouldered Kite
Black Kite
Yellow-billed Kite
African Fish-Eagle
African Harrier-Hawk
Gabar Goshawk
African Goshawk
Little Sparrowhawk
Black Sparrowhawk
Steppe Buzzard
Wahlberg's Eagle
Martial Eagle
Long-crested Eagle
Secretarybird
Amur Falcon
Eurasian Hobby
Lanner Falcon
Little Grebe
African Darter
Reed Cormorant
Grey Heron
Black-headed Heron
Cattle Egret
Hamerkop
Hadeda Ibis
African Sacred Ibis
Woolly-necked Stork
White Stork
Eurasian Golden Oriole
Black-headed Oriole
Fork-tailed Drongo
African Paradise-Flycatcher
Brubru
Black-backed Puffback
Black-crowned Tchagra

Southern Tchagra
Southern Boubou
Orange-breasted Bush-Shrike
Olive Bush-Shrike
Grey-headed Bush-Shrike
Cape Batis
Chinspot Batis
Cape Crow
Pied Crow
White-necked Raven
Red-backed Shrike
Lesser Grey Shrike
Common Fiscal
Black Cuckooshrike
Southern Black Tit
Brown-throated Martin
Barn Swallow
White-throated Swallow
Greater Striped Swallow
Lesser Striped Swallow
Rock Martin
Common House-Martin
Black Saw-wing
Dark-capped Bulbul
Sombre Greenbul
Terrestrial Brownbul
Cape Grassbird
African Reed-Warbler
Marsh Warbler
Lesser Swamp-Warbler
Icterine Warbler
Dark-capped Yellow Warbler
Long-billed Crombec
Willow Warbler
Broad-tailed Warbler
Garden Warbler
Cape White-eye
Red-faced Cisticola
Lazy Cisticola
Rattling Cisticola
Levaillant's Cisticola
Croaking Cisticola
Neddicky
Zitting Cisticola
Tawny-flanked Prinia
Bar-throated Apalis
Yellow-breasted Apalis
Green-backed Camaroptera
Rufous-naped Lark
Groundscraper Thrush
Kurrichane Thrush
Olive Thrush
Southern Black Flycatcher
Fiscal Flycatcher
Spotted Flycatcher
African Dusky Flycatcher
Cape Robin-Chat
White-throated Robin-Chat
Red-capped Robin-Chat
White-browed Scrub-Robin
African Stonechat
Familiar Chat
Mocking Cliff-Chat
Red-winged Starling
Cape Glossy Starling
Violet-backed Starling
Wattled Starling
Olive Sunbird
Grey Sunbird
Amethyst Sunbird
Malachite Sunbird
Collared Sunbird
Greater Double-collared Sunbird
White-bellied Sunbird
Lesser Masked-Weaver
Spectacled Weaver
Cape Weaver
Golden Weaver
Village Weaver
Red-billed Quelea
Southern Red Bishop
Fan-tailed Widowbird
White-winged Widowbird
Red-collared Widowbird
Cuckoo Finch
Thick-billed Weaver
African Firefinch
Blue Waxbill
Common Waxbill
Orange-breasted Waxbill
African Quailfinch
Bronze Mannikin
Red-backed Mannikin
Dusky Indigobird
Pin-tailed Whydah
Cape Sparrow
Southern Grey-headed Sparrow
Yellow-throated Petronia
African Pied Wagtail
Cape Wagtail
Yellow-throated Longclaw
Cape Longclaw
African Pipit
Plain-backed Pipit
Cape Canary
Yellow-fronted Canary
Brimstone Canary
Streaky-headed Seedeater
Cinnamon-breasted Bunting
Golden-breasted Bunting

Américo N. Bonkewitzz, Ph.D
P.O.Box 9, Mkondeni, 3204, South Africa
Tel . +27- 33-3865725
Cell: 0726208376
e-mail:americo@sai.co.za

Date: 17 January 2009

Stefanie Schütte
P.O.Box 254
Umlaas Rd, 3730

Butterfly survey at Tanglethorn, Estate N° 3

A brief survey was carried out on the 12 January 2009 for a period of 90 minutes (9:30AM-11:00 AM). The weather condition at that moment was cloudy with a temperature of around 25°C. The survey was concentrated mainly on a vegetation type of Bushland thicket (*) walking towards a nearby stream. The thicket shows encroachment done mainly by Flame Thorns. In spite of the encroachment, the host plants of Pierids (plants of the Capparaceae Family) are well represented with the presence of *Cadaba natalensis* (Natal Worm Bush) and *Maerua rosmaniroides* (Needle-leaved Bush-cherry), which are reflected by the number of Pierids present at that moment. Lamentably, it was not found Capparis (Caper Bush) and coincidentally, there were not recorded any *Eronia leda* (Autumn-Leaf Vagrant) and *Dixeia pigea* (Ant-heap White) and *Dixeia charina* (African Small White) which indicates probably that Caper Bushes are scarce in that particular area. There were seen plenty of Knobwood (*Zanthoxylum*) which is an important plant for swallowtails.

During the 90-minutes period it was recorded a total of 29 species of butterflies, a substantial number, considering the short period devoted for the survey. A more extensive study would be necessary in order to have a more realistic picture of the level of diversity of butterflies in the area. I suggest also an active search along the rocky ledges of the stream area for the red data species Amakosa Rocksitter (*Durbania amakosa*) in case it occurs in the area.

(*)A mixture of trees embedded among plenty of shrubs with medium level of encroachment.

List of species recorded

PAPILIONIDAE	LYCAENIDAE
Papilio demodocus (Citrus Swallowtail)	*Actizera lucida (*Rayed Blue*)*
Papilio nireus (Green-banded Swallowtail)	*Cupidopsis jobates (Tailed –meadow Blue)*
	*Leptotes pirithous (*Common Blue*)*
PIERIDAE	*Tuxentius melaena (*Black Pie*)*
Belenois aurota (Brown-veined White)	*Zizeeria knysna (*Sooty Blue*)*
*Belenois creona (*African Common White*)*	*Zizula hylax (*Gaika Blue*)*
*Belenois gidica (*African veined White*)*	
*Colotis antevippe (*Red Tip*)*	
*Colotis auxo (*Sulphur Orange Tip*)*	**HESPERIIDAE**
*Colotis danae (*Scarlet Tip*)*	*Sarangesa phidyle* (Small Elfin)
*Colotis egavore (*Small Orange Tip*)*	*Gegenes niso (*Common Hottentot Skipper*)*
*Colotis euvippe (*Smoky Orange Tip*)*	*Spialia diomus (*Common Sandman*)*
*Colotis ione (*Purple Tip*)*	
*Eurema brigitta (*Broad-bordered Grass Yellow*)*	
*Nepheronia buquetti (*Buquet's vagrant*)*	
*Pontia helice (*Meadow White*)*	
NYMPHALIDAE	
*Catacroptera cloanthe(*Pirate*)*	
Cynthia cardui (Painted Lady)	
*Danaus chrysippus (*African Monarch*)*	
Eurytela hiarbas (Pied Piper)	
Junonia hierta (Yellow Pansy)	
*Precis **o**ctavia (*Gaudy Commodore*)*	

Identified species at Tanglethorn, obviously many species still not identified

BOTANICAL NAME	COMMON NAME		
Abutilon grantii			
Acacia ataxacantha	Flame Thorn		
Acacia caffra	Common Hook Thorn		
Acacia karoo	Sweet Thorn		
Acacia nilotica	Scented Thorn		
Acacia robusta	Ankle Thorn		
Acacia tortilis	Umbrella Thorn		
Acokanthera rotundata	Round-leaved poison bush		
Aloe ferox	Bitter Aloe		
Aloe maculata	Common Soap Aloe		
Aloe pruinosa			
Brachylaena discolor	Coastal Silver Oak		
Brachylaena elliptica	Bitter leaf		
Buddleja saligna	False Olive		
Calpurnea aurea			
Canthium ciliatum	Hairy Turkey-Berry		
Canthium inerme			
Capparis sepiaria	Wild Caper Bush		
Coddia rudis	Small Bone-Apple		
Combretum erythrophyllum	River Bush Willow		
Combretum kraussii			
Cucumis zeyheri	Wild Cucumber		
Cussonia spicata	Common Cabbage Tree		
Cyphostemma natalitium			
Dalbergia obovata	Climbing Flatbean		
Dalechampia capensis			
Dovyalis caffra	Kei Apple		
Dovyalis lucida	Glossy Sourberry		
Ehretia rigida	Puzzle Bush		
Euclea divinorum	Magic Guarri		
Euphobia pulvinata	Pin cusion Euphobia		
Grewia lasipcarpa			
Grewia occidentalis	Cross-Berry		
Heteromorpha trifoliata	Parsley Tree		
Hippobromus pauciflorus	False Horsewood		
Hypoxis multiceps			
Maytenus heterophylla	Common Spike-thorn		
Olea capensis subsp. Enervis			
Olea europea subsp. Africana			
Rhus pentheri	Common Crow-Berry		
Rhus rehmanniana			
Rhynchosia villosa	Giant Hairy leaved Rhynchoisa		
Schotia brachypetala	Weeping Boer-beam		
Scutia myrtina	Catthorn		
Strychnos decussata			
Strychnos madagascariensis			
Trimeria grandifolia	Wild Mulberry		
Zanthoxylum capense	Small Knobwood		
Ziziphus mucronata	Buffalo Thorn		

Identified species at Tanglethorn, obviously many species still not identified

Butterfly survey done by Americo Bronkowitch see separate report

Fauna	Comments		
Black-backed Jackal			
Bushbuck			
Bushpig			
Caracal			
Grey duiker			
Impala	reintroduced		
Kudu	reintroduced		
Large grey mongoose	March 2010, dead animal found		
Burchells zebra	reintroduced		
Porcupine			
Reedbuck			
Rock Monitor			
African Python			
Serval	26.2.2010		
Small grey mongoose			
Vervet Monkey			
Warthog			

Murray-Rogers, Andrea

From: Di Dold [conservation@wessakzn.org.za]
Sent: Thursday, March 25, 2010 4:50 PM
To: Emanuel, Philippa
Cc: Chris Galliers; Rodney Bartholomew; Ian Felton; Pandora Long
Subject: EMP Msundusi
Attachments: 376998_Stakeholder Questionaire_.doc; Green Belt - Supporting documentation (1).doc

Hi Philipa,

Attached please find WESSA comments on your questionnaire, sorry for the late reply.

Kind regards,

Di Dold
Environmental Co-ordinator
WESSA KZN Region
100 Brand Road
Durban. 4001
Tel: 031 7652141
Fax: 031-2019525
conservation@wessakzn.org.za
Web: www.wildlifesociety.org.za

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Fax:+27 (0) 33 345 6403

Environmental Management Framework for the Msunduzi Municipality

Stakeholder Survey Questionnaire

(Please complete or tick the appropriate boxes)

1 Area (Please indicate the suburb or area where you stay. Should you wish to comment on the Msunduzi Municipal area as a whole please indicate as much.)

Lower Mpushini Valley in particular and the areas that are above this area and impact on said area, but also the whole municipal area.

2 General state of the environment

Do you feel that the environment in your area is

☐ Negatively affecting community health	☐Bad	☐In need of improvement	☐ Good	X Asset to the area.

Comment: This area is currently in the process of gaining Provincial Protected Area Environment status and as such must be protected for future generations.

3 Views on the state of the environment in the area in respect to development

3.1	Are the geology and soils of the area	☐Poor	☐Good	☐Uncertain?

Comment: It must be ensured that the upper valley, and catchment area are kept in a natural state to ensure that the valley systems below, especially the river system, have sustainability. This aspect will become more and more important in terms of resource economics in the future.
As far back at 1970 WESSA was appealing for this area to be kept intact due to its archeological and heritage significance, the sense of place and landscape considerations for the greater Pietermaritzburg area.
WESSA also believes that the inclusion of informally and formally conserved areas should be in place in the EMF from the outset regardless of if this was in the terms of reference or not. This is simply common sense.
We support the premise that alternative technologies for all development must work in a new paradigm otherwise we will just repeat the degradation of the past.

3.2	What is the condition of the rivers	☐Negatively affecting community health	☐Bad Not as good as it should be.	x☐

Comment: Concerns in this area are the Lynfieldpark Sewage Works; damming of the river, alien vegetation; mining operations, and the large number of development proposals for the catchment area (industry, commerce and high density residential) which will result in serious negative implications for the river system and provision of environmental goods and services for the protected area. The problem is that no-one seems to be looking at the cumulative impact that these developments are going to have on the river system which is going to mean that our water becomes more and more expensive to treat to potable standards in the future. Bear in mind that we are talking here not only of the Msunduzi Municipality but of the greater eThekwini area as well. Therefore Msunduzi are the custodians of this water supply and need to look after it properly.

3.3	Is the vegetation of the area	x☐Natural / untransformed	☐Transformed	☐No vegetation?

Comment: This area forms a valuable contribution to the Provincial biodiversity targets which form part of the National Biodiversity targets, in the respective vegetation types which occur here in good condition, and this is why it is being proposed and going through the formal channels of becoming a Provincial Protected Area Environment.

3.4	Is the visual character of the area	X☐Attractive	☐Unattractive	☐Uncertain?

Comment: Please see supporting documentation which was produced by WESSA in 1970 and still holds true for this area.

3.5	Is the noise levels of the area	☐Affecting quality of life	☐Moderate	x☐Not Noticeable?

Comment: The area has a wilderness feel to it and will become more and more important to city dwellers in the future as a refuge to escape the trials of city life and is an asset to the City or Pietermaritzburg.

3.6	Is air pollution of the area	☐Negatively affecting community health	☐Concerning	x☐Not an issue?

Comment: The air quality is excellent and a further asset to PMB in terms of free goods and services. .

3.7	Is agriculture and important land use in the area	☐Yes	x☐No	☐Uncertain?

Comment: The area is not suitable for extensive agriculture, but its value lies in the free goods and services it supplies..

3.8	Is waste a problem in your area	☐Yes	x☐No	☐ Uncertain?

Comment:

3.9	Are there important cultural heritage features in your area	x☐Many	☐A few	☐Non that I am aware of?

Comment: The entire Mkondeni/Mpushini area is rich in heritage and is currently being researched in this regard.

4 Open Space

Would you like to see more open space?

a)	Natural/open space	x☐Yes	☐No
b)	Recreational open space like picnicking, walking, relaxing etc.	x☐Yes	☐No
c)	Recreational open space for active sport	x☐Yes	☐No
d)	Formal protected areas	x☐Yes	☐No
e)	Ecologically functioning open spaces e.g. flood control areas	x☐Yes	☐No

5 Key Issues

Please indicate which of the following you feel are key issues within your area by ticking the box

x☐Water quality	x☐Biodiversity	x☐Wetlands	x☐Air Quality	☐Noise Pollution
x☐Urban Sprawl – very negative	☐Informal Settlements	x☐Erosion	☐Lack of Basic Services	☐Lack of job opportunities

Other (Please List): Ad hoc development proposals not aligned to SDF developed for Ashburton area. Unscrupulous marketing of N3 intersection at Lionpark as development node (this is not in accordance with PEDS or LUMS) Other development applications undermining the stability of the area; the area is zoned as agricultural and eco-tourism; protection of ecological goods and services and ecological integrity; conceptual development plan that is truly sustainable for these valleys; degradation of the environment; development over/through drainage lines; threats to river and riverine area; provision of extensive conservation corridors throughout the area bulldozing of natural vegetation; protection of fauna and flora

6 Institutions

Are you a member of an environmental forum/ committee/ trust / conservancy? x☐Yes ☐No

If so please provide the name of the institution/s and details of their role/ function.

WESSA is an environmental organisation which was started in 1926 and has had extensive experience on environmental issues and know this area well. WESSA works with all environmental organisations and many civil organisations.

7 **General Comment** (Please use the space provided below to make general comment around the state of environment in your area or Msunduzi Municipality as a whole and areas of concern)

While WESSA understands the value of this eastern section of Msunduzi we firmly believe that this area should not be seen in isolation in terms of the few natural areas that still remain intact in the municipal area, and we are therefore pleased to note that the EMF has placed high constraints over the majority of the remaining fragments of grassland s and misbelt forest in other areas of this municipality. However, this is probably the largest area still intact in a natural state and as such deserves special protection which it will receive through the Provincial Protected Area status.

There is great archeological and heritage significance in this area which must be recognised.

There is a strong sense of place and landscape considerations for the greater Pietermaritzburg area – this aspect must never be under-estimated.

Again we mention that we believe that the inclusion of informally and formally conserved areas in EMF are needed regardless of the terms of reference.

Education and training must underpin entire framework and implementation and WESSA is ideally suited for this purpose. The Eco-Schools programme also needs to be put forward in implementation phase.

Funding strategies to support realising sustainability criteria will need to be developed or this will become yet another report gathering dust on some shelf which would be a great pity as some very good work has been done here.

Monitoring and Evaluation for all stages need to be included from the outset.

Continueous evaluation and review built in - process of constantly updating and revising

8 **Please complete the following:**

Title:	First Name: Diana	Surname: Dold	Initials: DM
Organization: WESSA (Wildlife and Environment Society of S.A.)		Designation: Environmental Co-ordinator	
Tel: 031 7652141		Fax: 031 2019525	
Cell083 3032504		e-mail: conservation@wessakzn.org.za	
Postal Address: 100 Brand Road, Durban;. 4001			

TOWARDS A CRONOLOGICAL STUDY OF THE GREEN BELT/GAME RESERVE PROPOSALS FOR THE EASTERN PERIFERY OF PIETERMARITZBURG

(THE THEN: WILDLIFE SOCIETY OF SA – MIDLANDS BRANCH)

DATE	PUBLICATION	AUTHOR	
March 1973	Proposals for the Pietermaritzburg Green Belt	The Wildlife Protection and conservation Society – Midlands Zone of the Natal Branch	Extracts

PROPOSALS FOR THE PIETERMARITZBURG GREEN BELT

"After a survey conducted in 1970 a scheme was conceived whereby several interconnected areas on the northern and north-eastern sides of the City would be protected by being declared a visual relief area. Limited development of these regions, subject to certain conditions, is permitted, provided that the overall appearance and quality of the swathe is not destroyed."

"The Thornveld areas (Acacia) have a charm of their own; they are more park like than the mist belt forest and therefore provide more suitable recreational areas for the people living there."

"The foregoing detailed accounts apply to those areas proposed by the Town and Regional Planning Commission for Protection and Preservation within a visual and natural relief system, in which only very strictly controlled development may occur provided it is in harmony with the concept as a whole. There are, however, as many areas to the South of the city which should be equally accorded the protection and the preservation provided by such a scheme. The thornveld is no less spectacular the mist belt forest, it is more liable to inroads, and since it is, for the main part, on less sloping ground, building costs in these areas are reduced. It forms a very strong contrast to the climax forest of the Northern Slopes and thus makes a valuable educational asset to the scheme as a whole."

B. THE SOUTHERN VISUAL RELIEF SCHEME

GENERAL NOTES ON THE THORNVELD

The Thornveld, or more correctly the Acacia savanna, is generally less steep than those areas of Mist Belt Forest already discussed, the rainfall is considerably lower, and the soil cover often very thin. If the proposed scheme for this area is adopted, it will be necessary to ensure that the wedges of this veldt ye that protrude into the suburbs are large enough to maintain a viable zone of the habitat."

As the name implies the dominant species in this area are the acacias. Aloes are frequently found in association with the Thorn.. The majority of aloes are autumn- or winter flowering and the acacias bloom in spring. Both species attract numerous insects and thus insectivorous as well as nectar-loving birds are also attracted. These areas are therefore of prime importance to ornithologists and entomologists. Botanists too, make use of the area. Aloes hybridize with ease and this alone forms an interesting avenue of research. There are fine stands of the Paper Bark Thorn, Acacia sieberana, parituclarly on the slopes below the Hesketh Circuit towards the Golf Course. In this area the staff of the Botanical Gardens collect seed."

Much evidence has been found that indicates the presence of early man in the area. Old and Middle Stone Age artifacts have been found in Scottsville and Mkondeni. Late Stone Age implements have been found in Bishopstowe, while in the Umlaas Valley traces of smelter slag suggest iron Age occupation. Exposures of geological interest have been found in this area and include glacial striations, post glacial deposits, and caves in the jointed sandstones."

"As this area is viewed at present there is much open space, several large hay farms, Corporation plantations, the Darvill sewage works, the Golf Course, the University Farm, the aerodrome and the zero building height area adjacent to it. Towards Manderston are the aloe farms. Along the Bisley Road are several attractive small farms. In addition there is the Roy Hesketh circuit which although an area for intensive sport is a large open space. It could no doubt be maintained in a more attractive form with trees planted around the border and closer to the track, thus providing visual relief as well as shade relief for spectators."

3. DARVIL/MKONDENI

The Pietermaritzburg National Road By-Pass forms the western boundary for a short distance, along the new Golf Course. The Blackborough and Baynes Spruits then form the boundary which skirts Sobuatu Village. Most of this portion of land is Corporation-owned and comprises plantations and the Darvill Sewage Works. The area is then bounded by the line between the plantation and the Township, and then by the Hollingwood Road past the Sewage Farm. The boundary then runs uphill to Murray Road which serves as boundary as far as the New England land grant. This line bounds the area as far as the Msunduzi. This river is the boundary as far as the Mpushini junction. The latter is then the boundary as far as the very well worn foot-track The track then takes the boundary to the road along which it runs to the National Road. It is then directed slightly westward along the road until it crosses the 2200ft. contour which serves as the boundary as far as Old Durban Road. This road is the divide as far as the south-eastern boundary of Cleland. This boundary crosses the National Road and then the 2200ft contour serves as boundary as far as the lower New England devide. The boundary follows this line as far as Murray Road. The boundary then runs north-west towards the take-off point but remaining above the houses and factory. (See map 2930 CB) (Diag 5 + 8)"

The New England area is recommended for small holdings. The size criterion would be based on the area required for viable production in fields such as market gardening, flower production or nursery developments. An extreme minimum size of 5 hectare is suggested. These comments apply equally to the northern portion of Bellevue. Of course as long as the present medium-sized farms remain, they should be encourages, providing that their management is sound. The southern areas of Bellevue, on both sides of the National Road, are suggested for division into plots of not less than 2 hectare. This is an extreme minimum size for those who wish to keep a cow or two, or horses.

4. BISLEY

This is a varied area and includes areas such as Shortts Retreat, Ukalinga and the Aerodrome. It is bounded by the Old Durban Road beyond which is the Darvill/Mkondeni Area. At the 2200ft contour the boundary swings westwards along that line as far as the railway line. The boundary then swings along the property divisions until spot height 2567 ft. The boundary then runs along the property division between Lamont's Vale and Bushy Park until the second crossing of the 2550ft contour. It then swings westwards, again along

the property division until it meets the Bisley Road, down which the boundary then passes until it crosses the property divide of the original land grant, Lamont's Vale. It moves along this line until it crosses the 2600ft contour. The 2600ft contour is then the boundary as far as the Aerodrome road. The boundary then passes along the outer edges of the Aerodrome and thus skirts the factories. It then swings along the Aerodrome road again until it meets the Ukulinga 14068 boundary. It passes along this line until the extension of the Lily Triangle road touches it. This road is then the boundary. This is an area of tremendous interest, since there are established Acacia savanna climax areas, a few areas of dense kloof su-climax forest, areas approaching Ascacia savanna climax and open grassland. (etc)

The animal life in this area is most worthy of preservation. A sizeable group of oribi still exists despite heavy depredations of local poachers. Duiker may be seen in the evenings and early mornings. It is thought that wild cat may still be found in the area. The

The bird life in the area is particularly significant. Open Thornveld always attracts many birds; in addition some of the grassland species are also represented: - bird list follows

Whilst the aerodrome remains in its present site and the experimental farm lies against the hill and exends onto the plateau, a large piece of carefully managed ground exists which makes up a fair portion of this area. These sites support considerable small mammal and flowering plant communities. As a result of the Aerodrome a reserved zone of zero building height exists along the take-off line.

The inclusion of such an area in the Scheme would reflect far-sightedness and a deep concern for the protection of the habitat.

Another important consideration in conserving the area is the opportunities it would afford to the newly developed Bisley and Grange housing areas. The plots in this area are extremely small, the majori8ty of roads without trees. Where there were gums of exceptional size and extreme beauty, they were felled. In general the appearance is bleak. This sector would obtain considerable relief from access to the area discussed. \

CONCLUSION

If one accepts that, for educational, psychological, recreational, ethical and aesthetic reasons, it is essential to have areas available for communion with natural beauty, then one accepts in principle the concept of a Natural Relief Scheme. In this age of rapidly spreading urban sprawl there is a necessity to move with considerable haste to conserve, protect and preserve these few unspoilt areas that remain.

The Town and Regional Planning Commission and the City Councillors of Pietermaritzburg are to be greatly commended for their foresight in this connection. A hundred years ago Pietermarizburg was called the "City of Flowers" In Africana literature frequent reference is made to the beauty of the city which nestled at the base of well-wooded and lushly grasses slopes. With the implementation of such a concept these attributes may remain and will be a credit to those involved.

In certain areas, notably the Thornveld and the drier areas, a minimum plot size of 5 hectare is recommended. It is hoped in this way, to maintain a cohesive, attractive and somewhat rural atmosphere. If people by land, in good faith, in an outlying area, say Winterskloof, it seems an unethical practice to

allow the sub-division and development of the adjacent plot so that the landowner finds the plot next door now houses 15 duplex flats.

If the landowner so desires, these smallholdings may be used for several purposes, provided that the overall appearance is not detrimental to the effect, e.g. intensive market gardening, flower production or nursery practices, and horse stud units, are acceptable, whereas a 5 acre plot of intensive battery chicken houses would not be; nor would a caravan sales ground, whereas in a well-sited areas, with many trees and a few discreetly placed stands, a small caravan park might be, provided that it is visually acceptable.

Much of the area intended for recreation is in close proximity to Pietermaritzburg and is already very beautiful. Nothing need be done to the majority of these areas except for a few management practices such as the burning of protected fire-breaks; in open grassland an occasional natural burn, and the control of exotic weeds. Any attempt to develop these areas in a way that involves the building of further roads, artificial recreation areas (tennis courts, putt-putt grounds, etc). tea-rooms, tarred pathways, swings and amusement parks is to be deplored. These amenities, in themselves, are not decried, but the placing of such amenities in a green belt area would be to contravene the purpose for which it was established.

During the past few years it has become an internationally accepted tenet of natural area management that the visitors to an area must accept the codes laid down for conduct within that area. These codes are formulated with extreme care and consideration, and the aim in their enforcement is to protect the area for posterity.. One does not impose on a city area the terms that apply in a wilderness area; similarly the codes of the city (neon lights, cigarette dispensing machines, tea-rooms, mass parking areas) should not be imposed on wilderness areas. With enlightened, perceptive and delicate administration the two areas can co-exist.

EDUCATIONAL CONSIDERATIONS

What is needed is the setting aside of a reasonably extensive area (too small a zone will fail in its purpose because of natural limitations imposed) where water, plants and animals inter-react naturally. Ideally , such an area should be within reasonable walking distance of the City making possible frequent visits. The same area could be used for the provision of suitable materials for teaching purposes, and under adequate control, might also provide relaxation for the genuine nature lover.

In view of the growing awareness of the importance of training in environmental science at both schools and universities, it behoves an educational centre such as Pietermaritzburg to appreciate fully the value of those natural resources which still remain and to take steps to ensure that these are preserved as a mojor civic and indeed national educational asset.

The inclusion of such study areas in the present Green Belt proposals for Pietermaritzburg is a matter of paramount importance, providing as it does an amenity of a kind which will unquestionably appreciate in value as more and more emphasis is laid upon educational work of this kind.

The example provided by London is an instructive one. In one of the most densely populated areas in the world, parks and wilderness areas are provided on a most realistic scale. Excluding the numerous small parks and squares, i.e. considering only areas each in excess of 40 ha (100 acres), we find 900 ha (2,200 acres) within a 5 km radius of Piccadilly and 2800 ha (6,400acres) within a 10 km radius. Hamstead Heath

(820 acres) and Wimbledon Common (1045 acres) are to a very large extent areas of natural vegetation and are comparable with the nature reserves advocated for Pietermaritzburg. If the tremendous pressure on space for residential and industrial development in one of the world's greatest cities can be balanced against the importance of relief areas on such a scale, then surely there is an object lesson for us in this.

ARCHEOLOGICAL SIGNIFICANCE OF SITES WITHIN THE GREEN BELT

Whilst may items of considerable archelogical value have been found in the Pietermaritzburg district much work remains still to be done.

When the Scottsville Race Course was laid out, numerous items of the Old and Middle Stone Ages were found, in an hitherto unexpected area. Studies in this area revealed several layers of occupation indicating that this was a predilection site of primitive man. During the development of the older parts of Scottsville numerous items of this type were found. A large number of similar items have been found at Mkondeni. These findings indicate that in many areas of the Pietermaritzburg environs, particularly the Thornveld, much of archeological interest remains to be uncovered, for instance in the Mpushini Valley.

NOTES ON IMPORTANT GEOLOGICAL FEATURES

There are several sites of geological interest in and around Pietermaritzburg. Many of these occur within the proposed "Green Belt" scheme.

Intrusions of dolerite into the sedimentary rock may be seen. The relationship between dolerite and the sedimentary rock is worth of study. Such sites will require protection to maintain them in a state fit for study.

In all there is a need to preserve all existing rock face exposures. Before dams are constructed, roads built or other major construction works undertaken, a geological study, from an academic point of view, should be conducted.

PROPOSALS FOR A TRAILS SYSTEM WITHIN THE GREEN BELT

The proposed network of trails will satisfy a great many people – the teacher and her pupils, the lay botanist, the scout master and his scouts, the naturalist, the photographer, the artist or the tape recordist (whether amateur or professional) the bird watcher, the horse rider or the cross-country runner in training, the energetic flat-dweller, or the no-so-energetic gardener seeking inspiration. Some trials would be of a distance that could be covered in an afternoon, others would be a day trip and hopefully there would be some providing an outing of 3 or 4 days. The trails would be of varying degrees of remoteness as well as varying degrees of difficulty. Access to some of the trails should be free, although it may be feasible to charge a token amount at the stop-over points.

The areas discussed are large enough to incorporate several distinct but connecting trails. The empasis on various trails could be slanted thus:

i) Historical
ii) Spring Flowers
iii) Summer Flowering Plants

iv) Autumn
v) Walking
vi) Horse Trails
vii) Cross-Country and long distance Running
viii) Camps (Boy Scout/Girl Guide/ Pony Club)

ROADS, RAILWAYS AND RIVERS

The incidence of travel, in terms of miles per captia per annum, increases in all community sectors and population groups so considerable care should be given to maintaining the scenic qualities of their routes.

A very real plea is expressed to protect a strip of each side of such routes as free from development. An attempt has been made in this direction along some of the major roads; however the greater number of roads receive no such attention. By ther provision of areas of considerable beauty along some roads (the highway from Durban to Maritzburg and on towards Mooi River), the lack of care in maintaining the scenic qualities of other roads becomes more evident.

As the built-up areas increase in size, number and density, so will the relief of scenically attractive acess roads increase immensely. It is envisaged that these high density built-up areas be isolated from each other and separated from the roads by a narrow undeveloped strip. As Pietermaritzburg increases in size so it is envisaged that development of residential areas will recommence beyond the further limits of the Green Belt.

An unfortunate aspect of the development of Pietermaritzburg is the extremely high incidence of river misuse, abuse and pollution. Where legislation does exist to protect waterways this is seldom enforced, with the result that where properties extend up to the centre of the stream to the banks or a little distance from the bank, the majority of these landowners consider that portion of the stream part of their property and pollute it, or abuse it freely. It is thus suggested that a narrow strip along the banks of the waterways be protected and considered public land, and in this way it is hoped that the state of the water courses will be improved. It is also hoped that citizens encountering rubbish dumps extending over the property boundaries into the stream reserve, or other forms of pollution, will report the matter,

PUBLIC SUPPORT

The greater portion of the general public in Pietermaritzburg is strongly in favour of the Green Belt Scheme but has become dissatisfied by the delay between the initial discussions of the proposals and these becoming fact. Moreover reports that have appeared from time to time are vague, theoretical and indefinite in terms of the position of the present landowner within the belt. Due to this lack of information much of the public doubts whether the scheme will even come about. To overcome this perhaps as soon as the plan is accepted in final detail, a brochure should be published showing maps of the position of the present land-owners as well as that of the future landowners.

An interesting and valuable inclusion would be the ordinances or the legislation concerning conservation in layman's terms. It is interesting to note that one of the earliest attempts at legal conservation was made in Natal when Provincial Ordinance 10 of 1866 was passed which imposed a hunting season.

AGRICULTURAL USAGE WITHIN THE GREEN BELT

Where the green belt extends over privately owned farm land there will be a minimum of additional restrictions on the farmer, but he will be required to manage it in accordance with approved agricultural practices such as burning only at the time of the year most beneficial, in the long-term, to the grazing. The provisions of existing agricultural legislation, indigenous forest, soil and water conservation and stock improvement, when properly applied, should ensure that, within a reasonably short time, each farm within the Green Belt will be an example of correct, appropriate and therefore profitable farming.

ADMINISTRATION WITH THE GREEN BELT

There will be a total embargo on some practices, such as sand stripping to obtain sand for sale, the sale of indigenous plants that have not been propogated for sale (i.e. the sale of flowers or plants dug from the veld.) and the clearing of natural growth except with due permission.

iv) The general public at present accept that any area of the Green Belt is subject to the "minimum plot size of 2 hectare" clause. This is most clearly not the case, and surely applies only to residential/smallholding areas. The present agricultural land within the swathes may not be subdivided into such small plots but is subject to the general restriction that prevents subdivision into plots that are, on a size basis, not economically viable, without special permission.

Full document available – 66 pages excluding maps and diagrams

please contact **Ms. Philippa Emanuel** of **SRK Consulting.** Contact details and the location of the SRK offices are provided below.

Yours faithfully,
Pippa Emanuel (Pr. Sci. Nat)
Environmental Scientist

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web: www.srk.co.za

Murray-Rogers, Andrea
From: Alka Ramnath [alka.ramnath@umgeni.co.za]
Sent: Thursday, March 25, 2010 5:46 PM
To: Emanuel, Philippa
Subject: RE: Msunduzi EMF: Availability of Draft Documents for public comment and public meeting notice

Hi Pippa
I hope that you are well. :)
Unfortunately, due to time constraints, I have not been able to do justice to the reports. I have skimmed through the
reports and the comments from my quick perusal are:

- Section 2.2 of the EMF has "geology" in the heading but the section itself does not have any points on the geology.
- Section 2.8 of the EMF is entitled "Economic and spatial drivers" but the section itself is actually demographic in nature with no economic and spatial drivers considered.
- Were the impacts of HIV-AIDS evaluated in any of the reports because I have not come across the impact in the reports? And migration because again, I did not observe any reference to this.
- From Section 5.3.3 (in the EMF) onwards, references to the tables are not in synch with the actual table numbers.
- In Section 5.7.3 in the EMF, isn't it a contradiction to have "heavy industries" and other high impact land uses in "natural" catchments? In the "seriously modified" catchments, one already has the high-impact uses, so doesn't it make sense to keep them there? The recommended land uses in the tables seem to go against the conservation convention…
- Similar question for the air quality section in the EMF.
- With reference to the cultural heritage section in the EMF, one can specify the non-desired land uses e.g. there are land uses that one would not want near archaeological and cultural heritage sites e.g. heavy industry and other high impact uses. This is a primarily air pollution consequence as these high impact activities will give off by-products which will corrode the archaeological and cultural heritage sites.
- With reference to the service delivery zones (Section 5.10.2), did these include the difference levels of services and the link with densities? The link between densities and service levels is important, especially from a sustainability perspective. Related to this point is that an assumption is being made that the entire Msunduzi area will be urban with the municipal boundary being the urban edge; the impression of this being the assumption is made with the statement of "bulk service requirements are met prior to development commencing". Is this assumption correct and is the entire Msunduzi area becoming urban the objective? Because the SDF does allow for rural areas…
- What is the source of the water backlog information in Section 3.2.2 of the SEA? DWA's WSNIS database indicates that the backlogs have been decreasing.
- In Section 4.1.3 of the SEA (pg. 26) reference is made to the use of the Msunduzi for economic, agricultural etc. purposes. It must be noted the Mgeni catchment is a closed catchment and therefore the Msunduzi is also a closed catchment and therefore new abstractions will not be allowed.
- There is a spelling error on pg. 28 of the SEA – "lingages".

I hope that the above assists? If you have any queries/comments for clarity or if there is anything we may be of
assistance, please do not hesitate to contact me.
Thank you. :)
Regards,
Alka
2
Alka Ramnath
Planner
BScHons (Natal) MTRP (UKZN)

Planning Services
Umgeni Water
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From: Emanuel, Philippa [mailto:PEmanuel@srk.co.za]
Sent: 11 March 2010 10:08 AM
To: Alka Ramnath
Subject: Msunduzi EMF: Availability of Draft Documents for public comment and public meeting notice
11 March 2010
370155
Attention: Alka Ramnath

Msunduzi EMF: Availability of Draft Documents for public comment and public meeting notice

Dear Alka,

The Msunduzi Municipality (Msunduzi), in partnership with the national Department of Environmental Affairs (DEA), and the KwaZulu-Natal Department of Agriculture and Environmental Affairs and Rural Development (DAEA&RD), has recognised the need for an appropriate policy to inform development planning and approval that supports sustainable development within the Municipality. SRK Consulting (SRK)
was therefore appointed to prepare the following for Msunduzi:

- Status Quo Analysis (State of the Environment);
- Strategic Environmental Assessment (SEA);
- Environmental Service Plan (ESP) previously known as the Municipal Open Space System (MOSS);
- Environmental Management Framework (EMF); and
- Strategic Environmental Management Plan (SEMP).

The Status Quo report was made available for public comment in July 2009. The remainder of the products
namely the SEA, ESP, EMF and SEMP are now available for public comment. Hardcopies of the SEA, ESP,
EMF and SEMP Reports are available for viewing at the SRK offices. Alternatively electronic (CD) copies of
the report and all appendices are available on request from SRK's offices or from SRK's website www.srk.co.za. Any comments on these documents should be submitted to SRK by the **25 March 2010**.
To further facilitate comment in the Draft Reports a Public Meeting will be held as follows:

Date: 18 March 2010
Time: 16:30 (4:30 pm)
Place: Harry Gwala Stadium Boardroom (Alexander Park, Princess Margaret Drive)

As a member of the Environmental Task Team from the Msunduzi City Summit hosted by MIDI it was anticipated that you may wish to participate in the public involvement process to finalise the Msunduzi EMF.
Should you require any additional information or would like to register as an IAP for the Msunduzi EMF

please contact **Ms. Philippa Emanuel** of **SRK Consulting.** Contact details and the location of the SRK offices are provided below.

Yours faithfully,

Pippa Emanuel (Pr. Sci. Nat)
Environmental Scientist
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Murray-Rogers, Andrea

From: gwiri waweru [ngothomm@gmail.com]
Sent: Tuesday, March 30, 2010 11:48 AM
To: Emanuel, Philippa
Subject: COMMENTS ON EMF
Attachments: COMMENTS_MEMF.docx

Dear Pippa

Find attached comments on the EMF
Kindly use my gmail email account for all future communications

Regards

--
Muthoni Ngotho Ms
Environmental Scientist
Cell:+27 72 530 6108
Email.ngothomm@gmail.com
skype:m.ngotho

To Pippa Emanuel
SRK Consulting

Comments on the Environmental Management Framework Documents

Complement to the team for the work done so far on the Environmental Management Framework (EMF) for Msunduzi municipality. As an interested party, it is always great to receive updates informing on progress and request for input. At a personal level, I am very excited to see the fruition of this process and outcomes. I am optimistic that implementation of provisions in the EMF will bring relief to the residents and improve the environment in Msunduzi municipality and its environs. My comments are cross-cutting and examples are mentioned where I refer to specific documents.

1.0 Public participation

Public participation is fundamental to the production and implementation of the EMF. Concerns have been expressed by some Civil Sector organizations (CSOs on whom and how the public have been engaged in the process. Low participation in meetings may attests to this concern. Now that the EMF is almost complete my concern is, 'if the public were not widely engaged, then what will be the implications on the implementation of the EMF?

For example, Section 1.1paragraph one on page 2 of the Environmental Services Plan (ESP) reads, '*It was agreed that this level of public involvement fell outside of the scope of the ESP and that the public involvement required would be undertaken during the implementation of the ESP"* (ESP report, Pg 2). Environmental goods and services are at the heart of all development processes, sometimes access, lack of access and distribution thereof may lead to conflict and fuel irresponsible behaviour towards the environment. Though the Strategic Environmental Management Plans (SEMP) alludes to some actions, I think there should be more explicit recommendations enhance ownership and commitment during implementation.

1.1 Informed participation

The EMF processes has been promoted through various media- newspapers, internet, public meeting and access to outputs (documents). Whereas this media has reached residents, why then there is low participation of the public. Given the low participation, strategies should be thought through to tackle this challenge may be change the approach or media used. Yes, public participation processes are sometimes problematic and gatherings poorly attended. If stakeholders are informed appropriately, it will enable the municipality to actualize the EMF.

1.2 Engagement of Civil Sector Organizations

Civil sector organizations (CSOs) play and can play a vital role in engaging communities in environmental initiatives and contribute towards good environmental governance. Their inputs should be duly recognised and not be clustered under the term 'public'? Some sections of CSOs expressed concerns and inadequate knowledge of the EMF/process. Whereas there is no way to redo the process, I think the report should be explicit about this inadequacy and make recommendations on possible initiatives to engage CSOs in implementation, updating and review process of the EMF.

2.0 Capacity to Implement the EMF

The Msunduzi municipality will be the lead implementing body of EMF. However, experiences reveal that the environment department has inadequate capacity and human resources to tackle environmental concerns in the municipality. Enhancing capacity and collaboration of actors need to be a top priority to actualise the EMF.

2.1 Technology

Complement to the team for using and delivering the EMF products with a state-of- the- art technology. Considerations should focus on the capacity of the municipal decision makers to use and sustain the technology. There should be provisions to extend these skills and knowledge to the public to enable them engage actively is implementation and review of the EMF.

2.2 Monitoring and evaluation

The SEMP has wonderful actions to achieve. All stakeholders need to engage actively in identifying and setting the indicators and targets. Hopefully, this will enhance implementation, monitoring and evaluation process.

Muthoni Ngotho Ms

29.03.2010

Appendix 3 Minutes of the Stakeholder Workshop and Public Meetings

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Engineers and Scientists

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Final Minutes of the Planning Workshop
Msunduzi Environmental Management Framework

Held at Sinodale Centre, Pietermaritzburg on 19 September 2007

Attendance

	Name			Organization
1	Ms.	C.	Rosssouw	Amafa KwaZulu-Natal
2	Ms.	B.	Wahl	Ethembeni Cultural Heritage
3	Ms.	F.	Ballim	Department of Water Affairs and Forestry
4	Mrs.	M.	Thakurdin Maharaj	Department of Water Affairs and Forestry
5	Ms.	J.	Harley	Groundwork
6	Ms.	G.	Addison	Groundwork
7	Prof.	T.	Hill	Duzi Umgeni Conservation Trust & University of KwaZulu Natal
8	Mr.	R.	Govender	Izibuko Se Africa
9	Mr.	D.	McElwee	Simpson Ryder &Associates
10	Mr.	K.	Strachan	Pietermaritzburg Chamber of Business: Environment Forum
11	Ms.	M.	Ngotho	Centre for Environment, Agriculture and Development & University of KwaZulu Natal
12	Mr.	J.	Rodger	A Rocha
13	Mr.	K.	Mather	Msunduzi Municipality
14	Mr.	P.	Naidoo	Msunduzi Municipality
15	Mr.	P.	Opperman	Msunduzi Municipality Electricity
16	Mr.	G.	Harrison	Msunduzi Municipality
17	Clr.	G.	Meyer	Msunduzi Municipality Exco
18	Ms.	B.	Mbokazi	Greater Edendale Environmental Network
19	Ms.	M.	Thornhill	Thorn-Ex
20	Mr.	I.	Felton	Department of Agriculture and Environmental Affairs
21	Ms.	K.	Van Heerden	Department of Agriculture and Environmental Affairs
22	Mr.	K.	Mtolo	Department of Environmental Affairs and Tourism
23	Ms.	S.	Hlela	Department of Environmental Affairs and Tourism
24	Mr.	T.	Mfeka	Msunduzi Municipality -Environmental Health
25	Mrs.	A.	Lewis	Msunduzi Municipality -Environmental Health
26	Mr.	C.	Antony	Msunduzi Municipality -Environmental Health
27	Ms.	M.	Peden	Preservation of Mkondeni Mpushini Biodiversity Trust
28	Mr.	B.	Bassett	Greater Edendale Development Initiative
29	Mr.	R.	Bartholomew	Msunduzi Municipality - Environment Branch
30	Ms.	P.	Long	Lower Mpushini Valley Conservancy & Preservation of Mkondeni Mpushini Biodiversity Trust
31	Ms.	N.	Choveaux	Preservation of Mkondeni Mpushini Biodiversity Trust
32	Mr.	C.	Tham	Department of Environmental Affairs and Tourism
33	Mr.	A.	Blackmore	Ezemvelo KZN Wildlife
34	Mr.	N.	Majola	Maritzburg Environmental and Social Association (MESA)
35	Mr.	D.	MacFarlane	Institute for Natural Resources
36	Ms.	N.	Ntanzi	uMgungundlovu District Municipality
37	Ms.	M.	Khomo	uMgungundlovu District Municipality

38	Mr.	G.	Holmes	Msunduzi Municipality
39	Miss	D.	GroBmann	Simpson Ryder & Associates.
40	Mr.	J.	Graaf	Hesketh Conservancy
42	Mr.	N.	Msimang	Enviroserv - Waste Management
43	Mr.	S.	Ndawonde	Greater Edendale Environmental Network
44	Mr.	N.	Fox	Department of Local Government and Traditional Affairs
45	Mr.	M.	Greatwood	Greater Edendale Development Initiative
46	Ms.	S.	Nowele	Department of Environmental Affairs and Tourism
47	Ms.	R.	Mattingh	Wildlife and Environmental Society of South Africa
48	Ms.	V.	Spearman	Msunduzi Municipality Housing Delivery
49	Mr.	R.	Gounden	Msunduzi Municipality Housing Delivery
50	Mr.	R.	McNeill	SRK Consulting
51	Ms.	K.	King	SRK Consulting
52	Ms.	P.	Emanuel	SRK Consulting

2. Structure of the Minutes

These minutes summarise discussion at the Planning Workshop held in Pietermaritzburg on 19 September 2007 as part of the Inception Phase of the project to prepare an Environmental Management Framework (EMF) for the Msunduzi Municipality. The objectives of the meeting were to notify key stakeholders about the project, to gain input regarding the proposed process and methodology and to identify additional information sources and data. The PowerPoint slides, as presented during the meeting, are available on request.

These minutes do not reflect a verbatim recording of the workshop, but rather summarise key points raised during discussion.

3. Discussion

Points noted in the discussions are as follows:

Specialist Studies

Geotechnical (SRK Consulting)

1. Ms. V. Spearman (Msunduzi, Housing) enquired as to who would be undertaking the geotechnical specialist assessment? Ms. K. King of SRK Consulting (SRK) responded that the geotechnical and geohydrological components would be undertaken by SRK and that these studies would be based on existing information.

Floodlines (SRK)

2. Ms. Spearman raised concern over existing unsustainable development practices, such as settlements within floodline areas. Mr. R. McNeill (SRK) responded that it is possible to determine exact floodlines for rivers as well as hazard ratings for potential flooding but that this would require considerable baseline information and resources and therefore this aspect could only be included as a recommendation and action plan to be undertaken in the future.
3. Mr. K Mather (Msunduzi Municpality) indicated that floodlines for the Msunduzi area were available in electronic format from the Municipality. Mr McNeill responded that SRK was aware of this information and would use it where available, to verify modelled flood zones.
4. Mr. G. Holmes (Msunduzi Municipality, Planning) raised concern over the identification of line based floodlines due to the variable nature of flood areas and the impact that development may have on flood regimes even over short periods of time. Mr. McNeill responded that as a part of the EMF it would not be possible to determine the exact floodlines for all rivers within the municipality and therefore the proposed methodology would model flood zones and assign buffer areas where further site specific

floodline assessment would be required prior to development.

5. Mr McNeill indicated that as part of the modeling, rivers with a diameter smaller than 1.2m once canalized would not be included in the assessment. Mr. S. Ndawonde of the Greater Edendale Environmental Network (GREEN) raised concern regarding the canalization of rivers. Mr McNeill confirmed that it was not the intention to canalize rivers but rather that the methodology to be used for the project, limited the study to consider only those rivers that would be larger than 1.2m in diameter if canalized.

Water Quantity and Quality (Institute for Natural Resources & SRK)

6. Ms. M. Thakurdin Maharaj of the Deptartment of Water Affairs and Forestry (DWAF) enquired as to how rivers in the study area would be classified and highlighted the need for background information to substantiate the classification. Mr. D MacFarlane of the Institute for Natural Resources (INR) responded that the assessment would take a catchment-based approach with focus on those catchments where development pressures where identified. He added that limited sampling would be undertaken and therefore the study would largely be based on existing sampling undertaken by Umgeni Water and other organisations.
7. Mr. C. Anthony (Msunduzi Municipality, Environmental Health) enquired whether the water quality assessment would be based on water quality in rivers or potable water and whether the impact of water quality on health was to be assessed? Mr MacFarlane indicated that the study would focus on river health and that the correlation between water quality and health would need to be addressed as one of the action plans recommended for future implementation. Mr. Anthony indicated that further assessment would then need to include all water sources such as springs etc. used for potable water in rural areas.
8. Mr. M. Greatwood of the Greater Edendale Development Initiative (GEDI) indicated that boreholes in the Vulindela area had been mapped and some (but not all) are being monitored in terms of water quality and quantity. It was indicated that this information was available from the Water Section of Msunduzi Municipality and should be taken into account in the geohydrological assessment. Ms. King responded that this information would be sourced.
9. Clr. G. Meyer (Msunduzi Municipality) indicated concern over the affect development has on the water table and the need for stormwater management in all developments. Ms. King agreed that Stormwater Management Plans should be included as part of Environmental Management Plans for development.
10. Ms. P. Long of the Lower Mpushini Valley Conservancy & Preservation of Mkondeni Mpushini Biodiversity Trust (PMMB) Trust) stressed the need for a hydrological assessment to inform development and its impact on valley hydrology. Ms. King noted that an assessment of both ground and surface water was proposed as part of the EMF.

Wetlands (INR)

11. Ms. B. Mbokazi (GREEN) queried the methodology for the identification of wetlands as she felt that existing wetland mapping would not be adequate to address the needs of the EMF. Mr. MacFarlane noted that existing information for wetland is extremely limited and that delineation of wetlands requires extensive resources. The proposed methodology for delineation of wetlands is to map wetlands from aerial photography with limited ground-truthing in areas of high development pressure. Ms. S. Hlela of the Department of Environmental Affairs and Tourism (DEAT) added that the intension during the preparation of the EMF is to use all available information, build on it with the resources available and identify gaps to inform action plans for further assessment to be undertaken as part of the implementation and review phases.

Biodiversity (INR)

12. Ms. Long indicated that the Municipality has an obligation to meet biodiversity targets and that, should they be unable to achieve these targets with the land available, negotiations would need to be entered into with neighbouring municipalities to identify and conserve areas in adjacent municipalities. Ms. King noted that the determination the Municipality's responsibilities in terms of achieving provincial and national targets was a component of the biodiversity assessment and on completion of the status quo assessment, recommendations towards achieving biodiversity targets would be recommended.

Air Quality (Simpson, Ryder & Associates)

13. Ms. Mbokazi requested further explanation of the methodology to be used for the assessment of air quality for the Municipality and Ms. M. Peden (PMMB Trust) raised concern over the lack of baseline information in respect of air quality. Mr. D. MacElwee of Simpson Ryder & Associates noted that existing air quality information for Msunduzi Municipality is extremely limited. Air quality monitoring should be undertaken over a long time period and the equipment and resources needed for the collection of primary data is extremely costly. Effort was being made by the Pietermaritzburg Chamber of Business Air Quality Forum to gather primary air quality data and all available information would be used to give an indication of the existing air quality and to identify information gaps to inform action plans for further information gathering in the future.
14. Ms. Spearman raised concern over the loss of anecdotal information should a GIS based approach be adopted specifically relating to air quality and odours that are difficult to quantify. Ms. King indicated that community perception would be obtained through the administration of a questionnaire which included issues around air quality. Ms. King furthermore requested those present to take a copy of the questionnaire and provide responses and/or comments on the questionnaire to SRK.
15. Mr. Anthony indicated that in terms of the new Air Quality Act (No. 39 of 2004) pollutants had been identified with specified limits and that odour does form part of the Act. He went on to say that baseline information regarding sulphur dioxide (SO_2) and smoke was available from the Msunduzi Environmental Health Department. In addition, groundWork is involved in air quality monitoring and may makje this information available. Ms. King thanked Mr. Anthony for the information indicated that the data would be collected and used during the preparation of the Air Quality Assessment.
16. Mr. Holmes suggested that the air quality study should consider macro level influences such as those contained in the "Ventilation Report" that deals with air flows and suggests suitable locations for development. Ms. King responded that this report would be sourced.

Cultural Heritage (Ethembeni Cultural Heritage)

17. Mr. B. Bassett of GEDI noted that GEDI had information available regarding cultural heritage sites within the Edendale area. Ms. B. Wahl of Ethembeni Cultural Heritage (Ethembeni) responded that this information would be greatly appreciated as it should be included in the Cultural Heritage Assessment.

Resource Economics (Palmer Development Group)

18. Ms. Thakurdin Maharaj queried whether the biodiversity goods and services assessment would be based on current or potential future biodiversity resource values. Ms. King indicated that the assessment would consider only current services.
19. Ms. Long stressed that the open space system and resource economics components of the product where critical and that the SEMP should make allowances for further refinement of these in the action plans. Ms. King confirmed that these components would be included in the EMF and their refinement would form part of the monitoring and evaluation component of the EMF.

Current Service Capacity (SRK)

20. Ms. Thakurdin Maharaj indicated that basic services needed to inform limits to change as the development of services had significant environmental impacts that needed to be assessed. Ms. King confirmed that this was the basis for including a review of service capacity in the Status Quo Assessment.

Socio Economic Analysis and Planning Review (Izibuko Se Africa)

21. Ms. Spearman queried how the areas of high development pressure which are to be mapped at a finer scale would be identified and what the Municipality's role would be in identifying these areas. Ms. King indicated that existing planning information would be used in consultation with the Municipality and the Department of Agriculture and Environmental Affairs (DAEA) to identify areas of high development pressure.
22. Ms. N. Chaveaux (PMMB Trust) enquired whether the EMF would make recommendations on the type and density of development that should be permitted in various zones. Ms. King indicated that the EMF would identify geographical areas with associated clauses that would inform the extent of the environmental approval process required prior to development proceeding.

23. Mr. N. Fox of the Department of Traditional and Local Government Affairs (DTLGA) indicated that the Spatial Development Framework (SDF) and EMF processes should work closely and that each should build on the other at successive review phases. He did however raise concern that the SDF would only be adopted in June 2008 and that the SDF had been prepared a very broad level. He further noted that the DTLGA had spatial information that they would make available for the project. It was indicated by Mr. I. Felton (DAEA) that the EMF and SDF should both be at the same strategic level and that it was critical that the SDF be taken into account during preparation of the EMF.
24. Ms. Long expressed concern over the alignment of all planning within the district and felt that the project could not be limited to the municipal boundary but needed to consider both current and future land use in neighbouring municipalities in the planning process. Ms. King indicated that the SDF and Integrated Develop Plan (IDP) for the uMgungundlovu District Municipality (uMDM) are also to be considered.
25. Ms. Long indicated that the public had not, as yet provided input into the draft Msunduzi Municipality SDF. She therefore indicated that it did not reflect the desires of the public and should therefore not be used to inform the EMF. She added that an IDP and SDF for Ashburton developed in 1997 was supported by the Ashburton residents. Comment noted.
26. Ms. Spearman agreed that the communities needed to be consulted in the preparation of the SDF. Mr. Felton responded that the intension of the EMF was not to redo the SDF but to identify potential environmental issues using scientific best practice to inform the SDF in terms of environmental issues.

Strategic Environmental Assessment (ThornEx)

27. Mr. R. Gounden (Msunduzi Municipality, Housing) noted the need for interventions for inappropriate development. Mr. Felton explained that the SEA and SEMP would identify conflicting land use and suggest mitigation measures. It was noted, however, that many of the existing inappropriate land use issues have existing policy to address these issues and the intension is not to redo this work.
28. Mr. Mather noted that the desired state of environment needs to be developed in consultation with interested and affected parties (IAPs) and that this would be the point of departure for the remainder of the project. Comment noted.
29. Ms. Choveaux enquired what the vision for Msunduzi Municipality would be and whether it will be determined purely by the Municipality and the planning processes undertaken thus far. Ms. King noted that the Municipality has an existing adopted environmental policy which may require review based on the work undertaken during the EMF process. Mr. Felton added that the vision would form part of the desired state of the environment component of the EMF that would be workshoped during public consultation.

Open Space System, Environmental Policy and Strategic Environmental Management Plan (SRK &INR)

30. Mr. Holmes enquired where the institutional home of the EMF would be and indicated that responsibilities for implementation of the EMF would need to be clearly defined. He also raised concern over how the issue of planning outside the municipal boundaries would be addressed. Ms. King indicated that an institutional framework that would address the responsibilities for implementation of action plans would be included in the Strategic Environmental Management Plan (SEMP). She further noted that a catchment-based approach would address non-biophysical boundary issues as well as consideration of the IDP for the uMDM. Mr. Felton added that the EMF would be used by DAEA but housed within Msunduzi and therefore GIS capacity would be required within the Municipality. He also indicated that he hoped that the action plans developed could be incorporated into the municipal performance management system. Ms. Hlela added that DEAT had recognised the need for GIS capacity building coming from the EMF process. She indicated that budget will be set aside for GIS training to ensure the successful implementation of the EMF.
31. Ms. Spearman noted concern regarding the responsibility for maintaining open space areas due to current abuse of open spaces such as dumping, informal settlement and the extension of private gardens into sensitive areas. Ms. King agreed that the role out of the EMF would need to cut across a number of departments of the Municipality and that there are a number of issues surrounding the development of an open space system such as land owner rights.
32. Mr. J. Rodger (A Rosha) enquired what the legal requirements for review of the EMF were and whether funding for the review phases had been identified. Mr. Felton indicated that the review of the EMF is not

regulated but that it is an iterative process like the IDP and SDF and that funding for the review and refinement would form part of the SEMP that could then be included as part of the IDP budget. The need for stakeholders to play a role in applying pressure to achieve action plans and constant review and refinement of the EMF was also noted by Mr. Felton.

33. Mr. Basset noted that Edendale was subject to serious environmental challenges and that communities within Edendale have little understanding of the EMF process or the implications of inappropriate development. He noted that implementation of the EMF would require an empowerment process for these communities. He added that GEDI had information available on local economic development and cultural heritage resources that he would make available. Ms. King noted that environmental education and the maintenance of open space areas would need to be included as action plans in the SEMP.
34. Ms. Hlela indicated that the EMF would form the basis for an ongoing process and the focus for this project would be the identification of available information and gaps, a status quo analysis, a framework to inform development planning at a municipal scale and the development of action plans to obtain further information where gaps are identified. She stressed that the EMF would be continually reviewed and refined in later years and that this was a first attempt.

EMF GIS

35. Mr. T. Hill (Duzi Umgeni Conservation Trust (DUCT)) enquired what would be done with all the GIS layers that would be produced as part of the various specialist studies. Mr. Felton indicated that this information would be included in an Environmental Information Management System (EIMS) that would then be supplied to the Municipality for use and maintenance. He indicated that the EIMS would be linked to cadastral information so that sites could be queried for development opportunities and constraints. Ms King indicated that there may be the opportunity for this to become an interactive web based system in the future.
36. Ms. Spearman raised concern over the integration of various GIS resources and confusion over which data sets would be applicable. Ms. King agreed that there was a need to build on all existing data but that inconsistencies in scale and the purpose for which information was produced pose challenges to the use of existing data. Ms. King stressed the importance of maintaining appropriate metadata (i.e. scale, date, source, etc).

Issues identified outside Specialist Investigation

37. Ms. Peden raised global warming as an issue and indicated that she felt that an action plan to reduce energy consumption should form part of the SEMP. Mr. Rodger indicated that they had started a project to reduce energy consumption and would make further information available. Ms. King indicated that this information would be appreciated.
38. The need for environmental education was raised by Ms. Peden and supported by Mr. Bartholomew (Msunduzi Municipality, Environment), who did however indicate that at this stage capacity within the Municipality to undertake environmental education, was extremely limited. He suggested that this aspect could be included as an action plan in the SEMP.
39. Mr. N. Msimang (Enviroserv, Waste Management) raised issues around the management of the current landfill site in terms of access, security and the dumping of hazardous waste. Ms. King noted his concern but indicated that issues around the management of the landfill site should be dealt with at the New England Road Landfill Site Monitoring Committee meeting and that this was not the appropriate forum.
40. Mr. Ndawonde raised issues around rehabilitation and noted concern over the Georgedale Tannery. Ms. King indicated that the determination of biodiversity targets would assist in identifying the need for rehabilitation of specific areas.
41. Ms. G. Addison (groundWork) raised concern over the impact of the N3 highway on the environment. Ms. King indicated that noise did not form part of the EMF but that would be identified as an information gap.
42. Ms. Spearman raised concern over the environmental impact of quarries including the closure and rehabilitation of quarries. Comment noted.

Public Consultation

43. Ms. Mbokazi stressed the need for public consultation through-out the project.

44. Ms. M. Ngotho of the Centre for Environment, Agriculture and Development (CEAD) of the University of KwaZulu-Natal noted that business would have a large role to play in providing input into the process and enquired how they would be included in the process. Ms. King indicated that a presentation to the Pietermaritzburg Chamber of Business was planned for October 2007.
45. Mr. Bartholomew enquired as how the public involvement process would be approached and stressed that public consultation from the outset was critical. Ms. King noted that public consultation would continue through out the EMF process and that the project team would appreciate assistance in identifying additional IAPs.
46. Mr. Bartholomew raised concern over the lack of understanding by the general public around the EMF and the need to include some background to what an EMF is in documents that would be circulated to IAPs. Ms. King agreed and added that documents needed to avoid using confusing jargon.
47. Ms. Addison enquired whether the budget for the project would be made publicly available. Mr. Felton noted that the total budget for the project is R1,500,000 (including VAT) and that a breakdown of the budget could be made available with the terms of reference, once they have been finalised.
48. Ms. Long enquired whether budget had been made available for public consultation. Ms. King noted that there was a limited budget for public consultation which must therefore be undertaken in the most efficient manner possible in order to obtain valuable public input in the process.

General

49. Ms. Wahl expressed concern regarding the composition of the Steering Committee (SC) for the project as she felt there was no representative to provide input regarding cultural heritage. This was supported by Ms. C Rossouw of Amafa. Ms. K. Van Heerden (DAEA) noted that an attempt was being made to keep the SC as small as possible and that the composition of the SC had been informed by other similar projects being undertaken within South Africa.
50. Mr. Ndawonde also expressed his concern regarding the composition of the SC as he felt civil society should be represented. It was noted that one representative from various institutions could be selected to represent civil society. Mr. Felton explained that the SC was not part of the public participation process and was not intended to provide input but rather guidance for the project. He stressed that civil society was given the opportunity to provide input through this Planning Workshop and in the future through the public participation process.
51. Ms. Wahl queried whether Ashburton fell within the Msunduzi Municipality or not. Ms. King indicated that Ashburton did fall within the Msunduzi municipal boundary.
52. Ms. Long indicated that she felt that the budget was inadequate to collect the primary data required to achieve the objectives of the EMF. Mr. Felton indicated that the intention is to develop the best possible product within the budget constraints, identify requirements for further investigations and then refine the EMF as more information becomes available. He also noted that the action plans for obtaining more detailed information would be built into the SEMP. Mr. Bartholomew noted that development would not wait until detailed information was available and due to the dynamic nature of the environment there will always be a requirement for further information. However he indicated that the EMF, even with its limitations, will assist in informing development planning.
53. Mr. T Mfeka queried what criteria would be used to identify areas of high development pressure. Mr. Felton noted that existing planning policy would be the first informant together with input from the Municipality and DAEA but that these areas would also be identified through the process and that the Planning Workshop would be a good opportunity to provide input on high pressure development areas.
54. Mr. Ndawonde expressed concern over the number of processes currently underway i.e SDF, EMF. He indicated that this resulted in much confusion for communities. He went on to support the development of a GIS based product as he felt that this would make it more accessible. Comment noted.
55. Ms. Long enquired what the aim of the EMF is and raised concern over the number of products that were being proposed and suggested that the title of the project be amended to reduce confusion. She went on to say that she felt that either more funding should be made available or that the number of proposed products should be reduced to make more budget available for one product. Ms. Long went on to enquire whether the EMF would have legal status and therefore would have to be considered in application under the Development Facilitation Act (No.67 of 1995). Ms. Hlela indicated that the EMF could be adopted by the Minister or MEC, in terms of the National Environmental Management Act (No.107 of 1998)

Environmental Impact Assessment (EIA) Regulations. Mr. Felton noted that each of the products had been identified as critical to ensure sound environmental management within the municipality. He also noted that the intention was to develop a basis from which to work from and that the EMF could then be refined through further investigations at a later stage.

56. Ms. Long noted that she would like to see a practical product that the Municipality could easily implement. She went on to stress the need to clearly define sustainable development and that perceptions and the use of terminology would be critical. Comment noted.

4. Closure

The meeting was closed at 12:52 pm and all attendees were thanked for their attendance and participation by Ms. King.

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Notes for the Meeting: Msunduzi EMF Public Meeting

Held: Sinodale Centre, Burger Street, 5 August 2009, 17h30

1 Attendance

Dave	Ryder	Ward Councillor & Ferncliffe Conservancy
Nora	Choveaux	PMMB Trust
Sam	Smoot	University of KwaZulu Natal (UKZN)
Paul	Jorgensen	UKZN
Stefanie	Schutte	Upper Mpushini Conservancy
Neville	Durow	Lower Mpushini Conservancy
Brian	Millard	Private
Gavin	Holmes	Msunduzi Municipality
Radha	Gounden	Msunduzi Municipality- Housing
Peter	Green	Msunduzi City Hall
Thabani	Mkhize	Department of Agriculture- Cedara
Dave	Still	Dusi-uMngeni Conservation Trust (DUCT)
Keith	Strachan	Pietermaritzburg Chamber of Business
Khanyiso	Mtolo	Department of Environmental Affairs and Tourism
Shirley	Gault	Private
Jessica	Brislin	Msunduzi Municipality – Environment Branch
Richard	Norton	Molti Metals & Machinery
Colin	Gardner	Private
Colin	Holmes	UKZN
Mike	Jewitt	Preservation of Mkondeni and Mpushini Biodiversity Trust
Steve	Terry	Umgeni Water
Mpume	Sithebe	Msunduzi Municipality - Environment Branch
Sandisiwe	Shamaze	Natal Witness
Ian	Felton	Department of Agriculture, Environmental Affairs and Rural Development
Rodney	Bartholomew	Msunduzi Municipality - Environment Branch
James	Morris	SRK Consulting (SRK)
Natalie	Way Jones	SRK
Darryll	Killian	SRK
Philippa	Emanuel	SRK
Rod	Bulman	Phelamanga Projects (Meeting Facilitator)

2 Structure of the Minutes

These notes summarise discussion at the Public Meeting held at the Sinodale Centre in Pietermaritzburg on 5 August 2009 as part of the Public Involvement process to inform the preparation of an Environmental Management Framework (EMF) for the Msunduzi Municipality. The objectives of the meeting were to:

- Provide opportunities for clarification on Status Quo Report and associated Specialist Studies;
- Present the existing Integrated Environmental Management Policy Vision and Objectives; and

- Allow for discussions to inform the Desired State of Environment that forms part of the Strategic Environmental Assessment (SEA).

The PowerPoint slides, as presented during the meeting, are available on request. These notes do not reflect a verbatim recording of the meeting, but rather summarise key points raised during discussion.

3 Welcome and Introduction

The meeting was facilitated by Rod Bulman of Phelamanga Projects. Attendees where welcomed to the meeting. The project team and authorities involved in the preparation of the EMF were introduced. All attendees were encouraged to participate and opportunities for further stakeholder input were highlighted.

4 Agenda

The agenda for the meeting was presented. It was noted that the focus of the meeting was to provide broad clarity on the Status Quo and receive input into the Desired State component of the Strategic Environmental Assessment (SEA). The agenda was accepted with no changes.

5 Status Quo Presentation

An overview of the Environmental Management Framework (EMF) process, components of the Msunduzi EMF and the findings of the Status Quo specialist studies were presented by SRK. Thereafter a discussion session on the Status Quo presentation was facilitated. Table 1 provides a summary of the questions pr issues raised and associated responses.

Table 1: Questions and Responses from the Status Quo Presentation

Question/ Issue	Response
Services	
Concern was noted over the statement that the capacity of Dargle Sewerage Treatment Works (DSTW) is a constraint to development". It was noted that it is rather the capacity of the sewer reticulation network that poses that a constraint to development.	The point was noted. It was also noted that issues with the sewer reticulation network that result in stormwater passing through the DSTW impacts on its capacity. Further it was noted that the DSTW is upstream of areas where development has been proposed and therefore sewerage from these areas would either need to be pumped to the DSTW or an additional treatment works developed further downstream to allow such development to occur.
It was queried why the municipality should plan for bulk services servitudes and how these areas could be identified.	It was noted that this relates to the identification of areas suitable for powerlines, water and sewer pipelines and possibly major roads that must be allowed for in future planning. It was noted that, these servitudes must be taken into account at the planning phase and not delineated as part of the EMF, which is at a more strategic level. It does however require integrated forward planning between the service providers and planners.
It was queried whether the intention is to allow for other urban centres of development, such as at Ashburton, and to provide bulk services to these core areas. This was based on the recommendation that the municipality produce a cost model to spatially identify where it is financially feasible for the municipality to provide different levels of service provision.	It was noted that the study itself had not been undertaken but rather it was recommended that the model be developed to inform future service planning.

Question/ Issue	Response
Approach and Methodology	
It was noted that the study is based on a scientific determinism approach. It was queried whether there had been consideration of unknowns and unpredictable events? It was queried how "irreplaceability", as used in the context of the Biodiversity Specialist Study, is determined? It was noted that it is essential to consider the unknowns in such a study for a balanced view.	It was noted that the irreplaceablity score in conservation planning is based on an areas relative contribution to achieving biodiversity conservation targets.
It was noted that the public participation process should be broadened and should encourage participation from the youth. Competitions or a series of articles on the EMF in the local press were suggested as a means to generate interest. It was noted that the Department of Education should be consulted.	The project team agreed to take these suggestions further.
The return period used to calculate the flood lines was queried?	It was noted that extensive information that was not available is required to determine flood lines. As such the project team used available information to determine 1:100 year flood zones and that this had been supplemented by available 1:100 year floodlines.
It was queried whether the entire provincial priority corridor had been considered in the Socio-Economic study? The implications of demoting the N3 to a provincial road were queried?	It was noted that the National Spatial Development Perspective, identifies importance of the N3 as a corridor. Only the section from Howick to Durban is included (Priority Corridor 1). It was noted that while some planning had been done to investigate the option of changing the N3 route to go around Pietermaritzburg this proposal had been around for over 15 years and therefore it would be impossible at this stage to identify the implications of such a proposal.
The definition of "commercial", "industrial" and "mixed use" land use was queried? This was linked to the presentation where it was recommended that no new industrial areas be created but that mixed use development is anticipated along the N3 corridor. It was further noted that there are a number of applications already submitted for light industrial development within corridors for commercial and residential development,.	It was noted that these are accepted planning terms and that the definition of these within the Msunduzi Municipality would be included in the minutes. [i] It was noted that the nature of development within corridors will need to be controlled and recommendations will be made in this regard.
Concern was raised that little mention is made in the Status Quo Report of global warming and climate change. The level of research undertaken in this regard was queried?	It was noted that this aspect of the EMF would require further work and the following steps had been proposed to address this: • The Municipal Open Space System that forms part of Phase 3 of the EMF will take climate change into account. • Recommendations for further work relating to climate

Question/ Issue	Response
	change have been included in the Biodiversity and Air Quality specialist studies. The extension of the eThekwini climate change study to cover Msunduzi is one such recommendation. This and other recommendations will be included in the Strategic Environmental Management Plan (SEMP) component of the EMF. • The provincial climate change study is in progress and will provide a framework for local climate change strategies. It is recognised that this aspect should be enhanced. • It is anticipated that the EMF will be reviewed and updated every 5 years. This will provide an opportunity to include any new information gathered during this time in the reporting and planning.
It was queried whether land value had been included in the EMF thus far, specifically the identification of areas of conservation importance.	It was noted that the Status Quo Report presents a "snapshot" of current environmental conditions. A Municipal Open Space System or Environmental Services Management Plan will be developed using the current biodiversity layer (derived using a Minset analysis) to determine priority conservation corridors within the open space system.
The availability of the SEA report for public comment was queried.	It was noted that the exact timing had not yet been determined, but that stakeholders would be notified in due course. It was also noted that the timing would be affected by the public participation process and the extension thereof as discussed above.
Linkages with Planning and Decision-Making	
It was noted that from the Status Quo Report it would appear that parts of the Ashburton area are unsuitable for development, although the current trend is towards development in this area. The role of the EMF in decision-making was queried.	It was noted that once the he EMF has been finalised and adopted, it will be used to assess development applications and inform planning. It further noted that DAERD is the provincial environmental authority, and will use the EMF to inform strategic decisions around development applications.
It was requested that current development applications be placed on hold, pending finalisation of the EMF?	It was noted that it is not legal to place development applications on hold, pending an EMF as this will impact on the legal rights of applicants and developers. DAERD assured participants that they would however use all available information to assist in decision-making until the EMF study has been completed.

6 Msunduzi Integrated Environmental Management Policy (IEMP)

The development and adoption of the Msunduzi IEM Policy was discussed and the vision and objectives presented for discussion. It was noted that IEM Policy is intended to be a dynamic document, which is regularly reviewed and that part of the EMF process is to review the policy as part of the development of the Desired State of the Environment.

7 Desired State of Environment

The process to determine the Desired State of Environment was outlined by SRK. It was noted that the process was informed by limits of acceptable environmental change (based on legislated and policy limits) and a visioning process, based on the existing Msunduzi IEM Policy. It was noted that input from stakeholders is required to inform the visioning process. To this end the following questions where posed to facilitate the visioning process:

- How would you like to see Msunduzi in the future?
- Does the Vision still address priorities and public needs of the city and the national policy limits / targets?
- What issues are not addressed in the IEM Policy Vision and Objectives?
- What can be done to address issues?

Input from this has been captured below:

- "No Midrand type development"- Midrand is characterised by traffic congestion, lack of good quality of life, wall-to-wall development, no natural areas, lack of sense of place, no open spaces
- Biggest challenge is to achieve an environmentally responsible population, which will make it easier to "sell" the vision, although changing attitudes is difficult
- Should not just focus on input from people or "people first" approach
- Need for a new mindset that sees humans as part of the system, not just controlling it
- Need natural areas
- Need a corridor system to link natural areas
- Limited industry
- Use of indigenous landscaping by the municipality, to set an example
- Manage alien and invasive species
- Need for improved waste management -the District Integrated Waste Management Plan is underway and should be considered
- One of the goals is tourism and developments should be planned to limit negative impacts on tourism
- Development should expand upwards (i.e. high rises) rather than outwards
- Need improved linkages between the municipality, provincial authorities and academic and research institutions
- Encourage recycling to reduce landfill space requirements, through market incentives, not legislation
- Better education and awareness programs around recycling, the use of media (newspapers etc) as well as active programmes to educate the public on environmental awareness and responsibility
- Need for improved public transport to minimise congestion and reduce vehicle emissions
- Move towards greater use of renewable resources
- Use of green design principles in new developments, such as capture of rainwater and insulation
- Need for incentives, such as rates rebates to encourage sustainable land use practices
- Need for prioritisation of environmental issues in municipal planning and look for "quick wins"
- Improved municipal budgets and capacity to address environmental issues
- Global warming is an issue which mobilises people and should be used to increase participation
- Need for improved and sustained environmental awareness campaigns

8 Way Forward and Closure

It was noted that the input as above would inform the development of the Desired State of the Environmental which forms part of the Strategic Environmental Assessment, a component of the greater EMF. Attendees were encouraged to provide written submission to SRK on both the Status Quo Report and Desired State of the Environment on or before the 14 August 2009. It was also noted that further opportunities would be provided to comment on the Strategic Environmental Assessment once it had been drafted. It was also noted

that there would be further opportunities for public input in Phase 3 of the EMF. The meeting was closed at 19h30 and attendees were thanked for their attendance and input.

Notes taken by: Natalie Way-Jones (SRK)

Signed by: _____ Date: _____

Project Manager

[i] To this end the Msunduzi Town Planning Scheme Clauses and CSIR Human Settlement Planning and Design Guidelines were consulted. Neither of these documents however provided a definition for mixed land use.
Isibuko Se Afrika provided the following generic definition. They did however note that this definition would need to be refined for the specific needs of the Msunduzi Municipality in consultation with the public and municipal officials.
"*A mixed use zone allows for the development of a range of complementary land uses with varying degrees of mix: retail/commercial/business, administrative, community, educational and residential opportunities which, within the use zone, are compatible, and generally do not breach the level of amenity contemplated by the zone.*"

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SRK Consulting (SA) (Pty) Ltd

Notes for the Public Meeting: Msunduzi Environmental Management Framework

Held: Harry Gwala Stadium Boardroom, Alexander Park, Princess Margaret Drive, 18 March 2010, 16h30

1 Attendance

Mr	Lucas	Ntshangase Ngcobo	Ubuso Bomgungundlovu
Ms	Michelle	Dye	ACT
Ms.	Patricia	Collocott	Resident
Mr.	Neville	Durow	Lower Mpushini Conservancy
Dr	David	Johnson	Private
Ms.	Stefanie	Schutte	Mpushini Conservancy: Chairperson
Prof.	Robert	Fincham	Msunduzi Innovation and Development Initiative
Mr.	Allen	Goddard	A Rocha
Mrs.	Pandora	Long	Preservation of Mkondeni and Mpushini Biodiversity Trust
Cllr.	Sandy	Lyne	Msunduzi Municipality: Ward Councillor
Mr.	Peter	Green	Msunduzi Municipality: Ward Councillor
Mr	Paul	Jorgensen	University of KwaZulu Natal
Miss	Jessica	Brislin	Msunduzi Municipality
Ms	Mpume	Sithebe	Msunduzi Municipality
Ms.	Spume	Nowele	Dept Agriculture and Environmental Affairs and Rural Development (DAEA&RD)
Mr.	Ian	Felton	DAEA&RD
Mrs	Kim	Van Heerden	DAEA&RD
Ms.	Sbu	Hlela	DAEA&RD
Ms.	Philippa	Emanuel	SRK Consulting
Mr.	Rod	Bulman	Phelamanga Projects

2 Structure of the Minutes

These notes summarise discussion at the Public Meeting held at the Harry Gwala Boardroom in Pietermaritzburg on 18 March 2010 as part of the public consultation process to inform the preparation of an Environmental Management Framework (EMF) for the Msunduzi Municipality. The objectives of the meeting were to:

- Provide obtain input to the vision, sustainability criteria and targets proposed in terms of the Strategic Environmental Assessment (SEA) and Strategic Environmental Assessment (SEMP);
- Understand how the Environmental Service Plan (ESP) will be implemented and the implications;
- Understand how the EMF will be used and provide input regarding preferred and non preferred land use; and
- Understand the links between the policy and action plans proposed.

The PowerPoint slides, as presented during the meeting, are available on request. These notes do not reflect a verbatim recording of the meeting, but rather summarise key points raised during discussion.

3 Welcome and Introduction

The meeting was facilitated by Rod Bulman of Phelamanga Projects. Attendees where welcomed to the meeting. The project team and authorities involved in the preparation of the EMF were introduced. All attendees were encouraged to participate and opportunities for further stakeholder input were highlighted.

4 Agenda

The agenda for the meeting was presented. It was noted that while there was extensive information available in the documents but that public input on specific issues was required. It was therefore noted that the agenda and presentation would focus on gaining input in terms of the objectives as detailed above. The agenda was accepted with no changes.

5 Strategic Environmental Assessment (SEA) Presentation

An overview of the EMF process, components of the Msunduzi EMF and the outcomes of the SEA, particularly the sustainability criteria and limits of acceptable change, were presented by SRK. Thereafter a discussion session was facilitated. Discussion that followed focused less on the sustainability criteria and limits of acceptable change and more on the Conservation Plan (C-Plan) mapping produced as part of the Status Quo Phase. Table 1 provides a summary of the questions or issues raised and associated responses.

Table 1: Questions and Responses from the SEA Presentation

Question/ Issue	Response
Dr. D. Johnson queried how the limits for the C-Plan exercise had been determined as he felt that the Thornveld habitat in the Mpushini area warranted greater conservation.	It was noted that provincial limits had been used to inform the setting of limits for Msunduzi but that limits specifically for Msunduzi had been developed in consultation with a number of experts and Ezemvelo KZN Wildlife (EKZNW).
Ms. S. Schutte queried the level of ground truthing undertaken as part of the C-Plan process and noted that additional information (species lists) for the Mpushini area was available.	It was noted that while it may not be possible to include the information prior to the finalisation of the EMF. The EMF is a living document that will need to be updated regularly and that the additional information should be provided so that it may be included in the next iteration of the C-Plan.
Ms. P. Long raised concern that areas identified as critical in the EKZNW provincial C-Plan are not the same as the areas identified in the C-Plan for Msunduzi.	It was noted that the C-Plan for Msunduzi was undertaken at a finer scale than the provincial plan and it is therefore anticipated that the areas would be different.
Ms. S. Schutte indicated that areas set aside for conservation in terms of the EKZNW stewardship programme and the Preservation of the Mpushini and Mkondeni Biodiversity (PMMB) Trust should be included in the ESP.	It was agreed that if a spatial representation of these areas could be provided within the timeframe for comments their inclusion in the ESP would be considered.

Ms. P. Long raised concern that all areas outside the boundaries of the ESP would be made available for transformation and stressed that these areas have a role to play in the delivery of Ecosystem Goods and Services.	It was noted that areas outside the ESP also have conservation significance in terms of the EMF and that the demonstration of the EMF would provide an example of how these areas are to be used in terms of the EMF.
Prof. R. Fincham suggested that to address some of the issues, and ensure that we have the best possible planning information, that the C-Plan should be reviewed more often than the proposed 5 year review period for other documents. Prof Fincham suggested an annual review for the C-Plan.	It was agreed that more frequent review of the C-Plan should be considered.

6 Environmental Service Plan (ESP) Presentation

An overview of the Draft ESP was presented together with a description of the implementation process and the implications of the ESP. Thereafter a discussion session was facilitated. Table 2 provides a summary of the questions or issues raised and associated responses. Table 1 also includes comments received regarding the C-Plan which forms the basis for the Draft ESP. Therefore comments documented in Table 1 are also relevant to the ESP.

Table 2: Questions and Responses from the ESP Presentation

Question/ Issue	Response
Mr. L. Ngobo queried the areas within Edendale that had been set aside in terms of the ESP and noted the need for urban greening in the Edendale area.	It was noted that to the ESP had focused on untransformed areas and therefore areas set aside within Edendale where limited by the level of transformation in the area. It was however noted that the ESP had included criteria for the identification of additional areas from a social perspective and that it was anticipated that the implementation process would identify additional areas within Edendale for inclusion in the ESP. It was also noted that the SEMP includes an action plan for Urban Greening which had been recognised as a priority in Edendale.
Mr. R. Bartholomew added for clarity that the ESP had specifically excluded land ownership as a criterion for inclusion in the ESP. He also stressed that the document prepared by INR and SRK was a Draft ESP and would only be finalised after extensive consultation that would form part of the implementation of the ESP. Mr. Bartholomew also indicated that as much of the land proposed for conservation in terms of the ESP was privately owned implementation of the ESP would require the development of alternative land ownership and use options to ensure that areas within the ESP are appropriately managed.	Noted
Mr. A. Goddard identified areas within Edendale that form part of the ESP and contribute to Msunduzi's Ecosystem Goods and Services.	Noted
Ms. P. Long noted concern over how the ESP would affect the ability of owners of land outside the ESP boundaries to conserve land.	It was noted that areas outside the ESP are not all proposed for development and as part of the EMF demonstration land management priorities for areas outside the ESP would be identified.
Mr. N. Masikane noted issues around the management of open spaces and how if these areas go unmanaged can become a burden to the Municipality. Mr. Masikane also queried how the EMF would affect EIA timing.	It was noted that the EMF did not negate the need for EIA's but rather provided information to developers and authorities to ensure that the EIA process and decision making was facilitated.

7 Environmental Management Framework (EMF) Demonstration

A demonstration of the EMF user interface was provided together with an overview of the content of the EMF report. Thereafter a discussion session focussing in the definition of various land uses and preferred

and non preferred land use options for the identified various management zones was facilitated. Table 3 provides a summary of the questions or issues raised and associated responses.

Table 3: Questions and Responses from the ESP Presentation

Question/ Issue	Response
Ms. T Collocott noted concern that while an industry such as a recycling plant may be achieving certain objectives it still poses significant impacts to the environment.	It was noted that capacity within Msunduzi was required to address on-site impacts and environmental issues.
Ms. M. Ngotho raised concern over the public consultation process undertaken to develop the EMF and noted that any limits to the public consultation process should be detailed in the report.	Mr Bartholemew noted that he believed that the public consultation process had been extensive. That the EMF public consultation had built on the existing framework that was developed as part of the process to develop an Integrated Environmental Management Policy and that all IAP's, councillors and officials had been personally invited to attend the meeting and had been given access to the documentation.
Ms. P. Long queried to what extent the EMF and ESP had addressed linkages.	It was noted that by zooming out of the EMF tool from a specific site it was possible to view information regarding surrounding properties but that linkages had not been included as part of the user interface. It was further noted that linkages had been extensively investigated as part of the draft ESP development.
Ms. S. Schutte raised concern over the reporting for areas that are not high conservation significance in terms of the EMF. Ms. Schutte also requested that for areas of Biodiversity Constraint light industry should be removed as a preferred land use. She also requested that the PMMB Trust be allowed to submit additional information to inform the development of the C-Plan.	It was noted that another category exists, namely areas of biodiversity significance, and that in terms of the EMF these areas also require further investigation prior to development being approved. The change in preferred land use was noted and it was agreed that the additional information should be submitted and could be used in the refinement/ review of the C-Plan.
Cllr. S. Lyne noted that while access to information was beneficial the greatest challenge facing Msunduzi was enforcement.	It was agreed was enforcement would be critical and therefore an action plan to increase Msunduzi's capacity to address environmental Issues had been included in the SEMP.
Ms. S. Schutte noted with concern that all development was considered preferred within Natural Catchments. She also requested that Light industry, Mixed Use and Medium Density land use be considered non-preffered in fair catchments.	It was noted that natural habitats had greater absorption capacity than transformed habitats which is why development was proposed for these catchments. It was however stressed that the National Water Act stipulated that no development should be allowed to pollute water courses.
Ms. P. Long noted concern over the detail included in the EMF and that insufficient ground truthing had been undertaken to allow for planning for Msunduzi.	It was agreed that this was a first step and that the EMF would need to be reviewed and refined as new information became available. It was however felt that it was important to have some environmental planning in place that can then be improved upon in the future. Mr. I. Felton also noted that the preferred and non-preferred land use should also be considered in light of the proposed sustainability criteria as these provide the limits against which development proposals will be assessed.
Mr. N. Masikane raised concern over the need to consider the Municipality as a whole and raised concern regarding capacity to ensure compliance.	It was agreed that environmental capacity within the Municipality would need to be increased and that an action plan to address this had been included in the SEMP.
Ms. T. Collocot queried how the sawmill in Mayors Walk would be defined.	It was noted that as it has two kilns it would not be defined as light industry but may be either industry or heavy industry.
Cllr. S. Lyne noted with concern that most development that causes significant environmental issues is in fact illegal and that compliance monitoring will be key for addressing environmental issues.	Noted the SEMP includes an action plan to increase capacity within the Municipality to address environmental issues.
Ms. S. Schutte indicated that the definition of agricultural land use should be amended to refer specifically to cultivation as the areas identified for agricultural use only considered at this aspect.	Noted. - The definition will be amended

Ms. P. Long requested that areas that have been set aside in terms of the EKZNW stewardship trust should be indicated in the ESP.	It was agreed that should these areas be provided that their inclusion will be considered by the authorities.
Mr. L. Ngobo noted that it would be important for IAP's to understand the distinction between preferred and non preferred land use as some groups may believe that an activity such as market gardening would not be allowed in certain areas.	It was agreed that the dissemination of information would be critical.

8 Strategic Environmental management Plan (SEMP) Presentation

An overview of the Draft SEMP was presented and focused on the action plans proposed. Thereafter a discussion session was facilitated. Table 4 provides a summary of the questions or issues raised and associated responses.

Table 4: Questions and Responses from the SEMP Presentation

Question/ Issue	Response
Ms. P. Long stressed the need for education in order to achieve environmental goals	It was agreed and noted that action plans for sustainable development training had been included in the SEMP
Ms. S. Schutte noted the need for local indigenous plants (local to within a 50 km radius) to be used in urban greening programs.	It was noted that eThekwini had recently produced a Landscape guideline that may assist Msunduzi.
Mr. T. Mlase noted the need for enforcement of environmental legislation and that environmental goals should be prioritised.	It was agreed that the purpose of the SEMP was to provide a practical guideline to achieve this.
Ms. T. Collocatt indicated that education was critical particularly in order to meet waste management objectives.	It was noted that a Integrated Waste Management Plan and sustainable development training where both included as action plans in the SEMP.
Mr. L. Ngobo thanked the group for the open dialog and noted the need to include the community in achieving environmental goals. It was noted that this involvement would only be achieved through education of the importance of ecosystem goods and services.	Mr. R. Bartholomew noted that the Area Based Management offices had agreed to disseminate notices of the EMF public consultation process at community level but to date no NGO's or CBO's had requested presentations or copies of documentation Other methods of information dissemination may be required.

9 Way Forward and Closure

It was noted that the input as above would inform the Finalisation of the SEA, ESP, EMF and SEMP. Attendees were encouraged to provide written submission to SRK on or before the 25 March 2010. It was noted that the minutes of the meeting would be circulated to all attendees at the contact details provided in the attendance register. The meeting was closed at 19h30 and attendees were thanked for their attendance and input.

Notes taken by: Philippa Emanuel (SRK)

Appendix 4 Copies of Advertisements and Notices

SRK Consulting
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05 September 2007
376998

Dear Stakeholder

Preparation of an Environmental Management Framework for the Msunduzi Municipality

Invitation to Planning Workshop

The Msunduzi Municipality in conjunction with the national Department of Environmental Affairs and Tourism (DEAT) and the provincial Department of Agriculture and Environmental Affairs (DAEA) have appointed SRK Consulting (SRK) and their proposed team to prepare an Environmental Management Framework (EMF) for the Msunduzi Municipal Area.

A Planning Workshop is to be held during the Inception Phase of the project to gain key stakeholder input into the EMF process and proposed methodology. This phase will therefore inform the Terms of Reference for the project.

The details for the workshop are as follows:

Time: 08h00 – 13h00
Date: Wednesday, 19 September 2007
Venue: Auditorium G4, Sinodale Centre, 345 Burger Street, Pietermaritzburg
(see directions on the following page)

The SRK project team including the various specialists, will present an overview of the proposed project methodology including existing information sources, scale of mapping and levels of public consultation, which will be followed by discussion and comments. Please find the Agenda for the Planning Workshop attached.

Cape Town +27 (0) 21 659 3060
Durban +27 (0) 31 279 1200
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Johannesburg +27 (0) 11 441 1111
Pietermaritzburg +27 (0) 33 345 6311
Port Elizabeth +27 (0) 41 581 1911
Pretoria +27 (0) 12 361 9821
Rustenburg +27 (0) 14 594 1280

Please respond by Friday 14 September 2007 to Ms. Pippa Emanuel to confirm whether you will be able to attend the workshop. If you are not able to attend please could you provide the name and contact details of a representative who could attend the workshop on your behalf.

Please do not hesitate to contact Ms. Kirsten King or myself on the contact details below should you have any queries or require further information.

Yours faithfully,

Pippa Emanuel
Environmental Scientist

Kirsten King
Senior Environmental Scientist

for SRK Consulting

PH: 033 3456 311
FX: 033 3456 403
Cell: 083 651 3462
E-mail: pemanuel@srk.co.za

DIRECTIONS

Directions to Sinodale Centre

From Durban follow the N3 highway to Pietermaritzburg and take the Alan Paton Drive (Durban Road) off-ramp into the city centre. After passing McDonalds on the right, turn right into Burger Street and continue past St. Anne's Hospital. Sinodale Centre is located at 345 Burger Street, adjacent to St. Anne's Hospital on the left-hand side and before the traffic lights at the intersection of Burger and Boshoff Street.


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Planning Workshop for the preparation of an Environmental Management Framework for the Msunduzi Municipality

Sinodale Centre, Pietermaritzburg, 19 September 2007, 08h00

Agenda

		Time
1	Arrival and registration	08h00
2	Welcome and introduction	08h30
3	Housekeeping	08h35
4	Purpose of the workshop	08h40
5	Overview of the Environmental Management Framework (EMF)	
	a. What is an EMF? b. Implications of the EMF c. The study area d. The EMF process e. Links to other policy	08h45
6	Status Quo / Specialist Studies	
	a. Objectives b. Information Sources c. Methodology d. Products	09h00
TEA		10h30
7	Discussion on Specialist Studies	10h45
8	SEA	11h45
9	EMF, MOSS, Policy & SEMP	12h15
10	Closure	13h00

The Witness, 15 April 2008

Msunduzi
Environmental Management Framework

The Msunduzi Municipality in conjunction with the national Department of Environmental Affairs and Tourism and the provincial Department of Agriculture and Environmental Affairs have commissioned SRK Consulting and their specialist team to develop an Environmental Management Framework (EMF) for the Msunduzi Municipality.

Should you wish to register as an IAP, or if you require any additional information or have queries or comments about the proposed project, please contact **Ms. Pippa Emanuel** of **SRK Consulting** at the contact details provided below.

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Email: pemanuel@srk.co.za

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21 May 2008
376998

Msunduzi Environmental Management Framework

The Msunduzi Municipality (Municipality) in conjunction with the national Department of Environmental Affairs and Tourism (DEAT) and the provincial Department of Agriculture and Environmental Affairs (DAEA) have appointed SRK Consulting and their specialist team to develop an Environmental Management Framework (EMF) for the Msunduzi Municipality. The intention of this project is to create a strategic framework for sustainable development within the study area while protecting sensitive or over-utilized areas.

The products of the EMF include the following:

- A situational analysis of the Msunduzi Municipality;
- A Strategic Environmental Assessment (SEA);
- A draft Municipal Open Space System (MOSS);
- An EMF, and
- An Environmental Policy.

The final Inception Report which details the methodology for the project has been adopted by the Project Steering Committee and is available electronically on request. Should you wish to register as an interested and affected party, or if you require any additional information or have queries or comments about the proposed project, please contact **Ms. Pippa Emanuel** of **SRK Consulting** at the contact details as provided in the letterhead above.

Yours faithfully,

Philippa Emanuel

Environmental Scientist

SRK Consulting

UHLAKA LOKULAWULWA KWEMVELO EMSUNDUZI

UMasipala waseMsunduzi ngokubambisana noMnyango kaZwelonke weZemvelo kanye nezokuVakasha (DAET) kanye noMnyango wesiFundazwe kweZolimo kanye nezeMvelo (DAEA) sebeqoke iKhonsalithenti yakwa SRK Consulting kanye neThimba layo loNgoti ukwakha uHlaka kokuLawulwa kweMvelo (EMF) lukaMasipala waseMsunduzi. Inhloso yalePhrojekhthi ukwakha iQhingasu loHlaka lweNtuthuko eQhubekayo kuleyondawo abenza uhlolovo kuyona ukuvikela izindawo ezibucayi okanye esezisetshenziswe ngokweqile.

Imisebenzi ye EMF izohlanganisa naloku okulandelayo:

- Ukucutshungulwa kweSimo sikaMasipala waseMsunduzi;
- IQhingasu lwezokuHlolwa kweMvelo (SEA);
- Uhlelo lokubhekwa kweZindawo zikaMasipala eziVulekile olusaPhothulwa; (MOSS)
- UHlaka lwezokuLawulwa kweZemvelo (EMF) kanye
- NeNqubomgomo yezeMvelo

Umbiko wokugcina onemininingwane ngohlelo oluzosetshenziswa kwiPhrojekhthi selwamukelwa yiKomidi lezokuQondiswa kwePhrojekhthi futhi uyatholakala kumaKhompuyutha uma uwudinga.Uma ufisa ukubhalisa njengonentshisekelo noma uyingxenye ethintekayo, noma udinga olunye ulwazi olwengezelelwe noma unemibuzo, noma imibono ngalephrojekhthi ephakanyisiwe, ungathintana no Ms. Pippa Emanuel wakwa SRK Consulting kulemininingwane ehlinzekiwe ngenhla..

Yimi oZithobayo,

Philippa Emanuel

Environmental Scientist

SRK Consulting

PHONE: 033 355 1111
E-MAIL: newsed@witness.co.za
WEBSITE: www.witness.co.za

Give input on green report

STEPHEN COAN

THE inception report for the preparation of the Msunduzi municipality's Environmental Management Framework (EMF) is now available for comment. The report details the terms of reference, objectives and methodology and deadlines for the EMF. It is anticipated that the final EMF will be ready for municipal committees in February 2009.

"A comprehensive environmental policy framework will allow systematic conservation planning and management of environmental resources," says Philippa Emanuel, an environmental scientist with SRK Consulting.

SRK Consulting has been appointed to prepare the Msunduzi EMF, which will include:

- a situational analysis of the Msunduzi Municipality;
- a strategic environmental assessment (SEA);
- a draft Municipal Open Space System;
- an EMF — to include a spatial representation of areas of both development opportunity and constraint linked to activities listed in terms of the National Environmental Management Act 107 of 1998, and
- an environmental policy.

The inception report has been adopted by the project steering committee and is available electronically on request.

Legal notices providing background information regarding the project will be published shortly.

Should you wish to register as an IAP and become involved in the EMF process, or if you require any additional information or have queries or comments, please contact Pippa Emanuel of SRK Consulting on 033 345 6311.

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17 June 2009
376998

Dear: Interested and Affected Parties

Msunduzi EMF: Availability of the Status Quo Report for Comment

The Msunduzi Municipality (Municipality) in conjunction with the national Department of Environmental Affairs and Tourism (DEAT) and the provincial Department of Agriculture and Environmental Affairs (DAEA) have appointed SRK Consulting and their specialist team to develop an Environmental Management Framework (EMF) for the Msunduzi Municipality. The intention of this project is to create a strategic framework for sustainable development within the study area while protecting sensitive or over-utilized areas.

The products of the EMF include the following:

- A Status Quo analysis of the Msunduzi Municipality;
- A Strategic Environmental Assessment (SEA);
- A draft Municipal Open Space System (MOSS);
- A Spatial Decision Support Tool (SDST), and
- A Strategic Environmental Management Plan.

The Status Quo Report is now available for public comment. The Status Quo Report includes the following Specialist Studies:

- Institutional Arrangements;
- Catchment Hydrology;
- Surface Water Resources;
- Wetlands;
- Agriculture;
- Biodiversity;

- Air quality;
- Cultural heritage;
- Current service capacity (Water, Sanitation, Electricity, Refuse Removal, Access/ Roads);
- Socio-economic analysis and planning policy review; and
- Overview of Ecosystem Goods and Services.

Together these specialist studies provide an indication of the current state of the environment within the Msunduzi Municipality.

A hardcopy of the report is available for viewing at the SRK offices. Alternatively electronic (CD) copies of the report and all appendices are available on request from SRK's offices. Comments on the Status Quo Report should be submitted to SRK by the 8 July 2009.

Should you require any additional information please contact **Ms. Philippa Emanuel** of **SRK Consulting.** Contact details and the location of the SRK offices are provided in the letter head above.

Yours faithfully,

Philippa Emanuel Pr.Sci.Nat

Environmental Scientist

SRK Consulting

WITNESS (Durban)
Tuesday, 23 June 2009, p. 5

Msunduzi 'green' report out now

THE status quo report for the preparation of the Msunduzi Municipality's environmental management framework ((EMF) is now available for comment.

The framework is being prepared by SRK Consulting and is aimed at providing an appropriate policy to inform development planning, with a view to supporting sustainable social, economic and environmental development within the municipality while protecting sensitive or over-utilised areas.

The products of the EMF will include: a status quo analysis of the Msunduzi Municipality; a strategic environmental assessment; a draft municipal open space system; a spatial decision support tool; and a strategic environmental management plan.

The status quo report includes the following specialist studies: institutional arrangements; catchment hydrology; surface water resources; wetlands; agriculture; biodiversity; air quality; cultural heritage; current service capacity (water, sanitation, electricity, refuse removal, access/roads); socio-economic analysis and planning policy review; and overview of ecosystem goods and services.

These specialist studies provide an overall indication of the current state of the environment within the municipality.

A hard copy of the report is available for viewing at the SRK offices at Suite 201, Sinodale Centre, 345 Burger Street.

Alternatively, electronic copies of the report and all appendices are available on request from SRK's offices.

Comments on the status quo report should be submitted to SRK by July 8.

Direct your questions and comments to Philippa Emanuel of SRK Consulting at 033 345 6311 or e-mail emanuel@srk.co.za

— Witness Reporter.

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13 July 2009
376998

Dear: Interested and Affected Parties

Msunduzi EMF: Public Meeting to discuss Draft Status Quo and Strategic Environmental Assessment Reports

The Msunduzi Municipality (Municipality) in conjunction with the national Department of Environmental Affairs and Tourism (DEAT) and the provincial Department of Agriculture and Environmental Affairs (DAEA) have appointed SRK Consulting and their specialist team to develop an Environmental Management Framework (EMF) for the Msunduzi Municipality. The intention of this project is to create a strategic framework for sustainable development within the study area while protecting sensitive or over-utilized areas.

The Status Quo Report has been made available for public comment and SEA Report will be available for public comment from the 22 July 2009. As for the Status Quo Report, a hardcopy of the SEA Report will be available for viewing at the SRK offices from the 22 July 2009. Alternatively electronic (CD) copies of the report and all appendices will be available on request from SRK's offices.

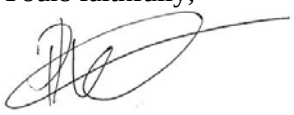
The initial comment period for the Status Quo Report closed on the 8 July 2009, however due to the magnitude of the Status Quo Report this comment period has been extended to the 14 August 2009. Equally comments on the SEA Report should be submitted on or before the 14 August 2009.

To further facilitate comment on the Status Quo and SEA Reports a Public Meeting will be held as follows:

Date: 5 August 2009
Time: 17:30 (5:30 pm)
Place: Ground Floor of the Sinodale Centre (on the corner of Burger and Boshoff St.)

Should you require any additional information please contact **Ms. Philippa Emanuel** of **SRK Consulting.** Contact details and the location of the SRK offices are provided in the letter head above.

Yours faithfully,



Philippa Emanuel Pr.Sci.Nat
Environmental Scientist
SRK Consulting

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WITNESS (Durban)
Wednesday, 22 July 2009, p. 6

Deadline for EMF comment extended

DUE to the size of the status quo report for the preparation of the Msunduzi Municipality's environmental management framework (EMF) the comment period has been extended until August 14.

The EMF is being prepared by SRK Consulting for the Msunduzi Municipality and is designed to provide an appropriate policy to inform development planning with a view to supporting sustainable social, economic and environmental development within the municipality, while protecting sensitive or over utilised areas.

The products of the EMF will include the following: a status quo analysis of the Msunduzi Municipality; a strategic environmental assessment; a draft municipal open space system; a spatial decision support tool, and a strategic environmental management plan.

The status quo report includes the following specialist studies: institutional arrangements; catchment hydrology; surface water resources; wetlands; agriculture; biodiversity; air quality; cultural heritage; current service capacity (water, sanitation, electricity, refuse removal, access/roads); socio-economic analysis and planning policy review; and overview of ecosystem goods and services.

These specialist studies provide an overall indication of the current state of the environment within the municipality.

It was anticipated that the draft SEA report would be available for public comment from today.

Unfortunately, due to amendments required prior to the release of the report, it is not yet available.

Opportunities for public comment will be provided for at a later stage.

However, a public meeting on the status quo report is due to proceed as planned on August 5 at 5.30 pm at the Sinodale Centre (on the corner of Burger and Boshoff streets).

The focus of the meeting will be to provide an opportunity to comment on the status quo and specialist study reports and to initiate discussions and consultation in developing the desired state of the environment for the Msunduzi area, using the existing Msunduzi integrated environmental policy as a basis.

The existing Msunduzi integrated environmental policy is available for review prior to the public meeting on the Internet at http://www.srk.co.za.

Should you require any additional information or a hardcopy of the Msunduzi integrated environmental policy, please contact Philippa Emanuel of SRK Consulting at 033 345 6311 or e-mail emanuel@srk.co.za or contact Rodney Bartholomew, Msunduzi environmental branch, or 033 392 3240 or fax 033 342 7107, or e-mail rodney.bartholomew@msunduzi.gov.za

— Witness Reporter.

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4 March 2010
370155

Dear: Interested and Affected Parties

Msunduzi EMF: Availability of Draft Documents for public comment and public meeting notice

The Msunduzi Municipality (Msunduzi), in partnership with the national Department of Environmental Affairs (DEA), and the KwaZulu-Natal Department of Agriculture and Environmental Affairs and Rural Development (DAEA&RD), has recognised the need for an appropriate policy to inform development planning and approval that supports sustainable development within the Municipality. SRK Consulting (SRK) was therefore appointed to prepare the following for Msunduzi:

- Status Quo Analysis (State of the Environment);
- Strategic Environmental Assessment (SEA);
- Environmental Service Plan (ESP) previously known as the Municipal Open Space System (MOSS);
- Environmental Management Framework (EMF); and
- Strategic Environmental Management Plan (SEMP).

The Status Quo report was made available for public comment in July 2009. The remainder of the products namely the SEA, ESP, EMF and SEMP are now available for public comment. Hardcopies of the SEA, ESP, EMF and SEMP Reports are available for viewing at the SRK offices. Alternatively electronic (CD) copies of the report and all appendices are available on request from SRK's offices or from SRK's website www.srk.co.za. Any comments on these documents should be submitted to SRK by the **25 March 2010**.

To further facilitate comment in the Draft Reports a Public Meeting will be held as follows:
Date: 18 March 2010
Time: 16:30 (4:30 pm)
Place: Harry Gwala Stadium Boardroom (Alexander Park, Princess Margaret Drive)

Should you require any additional information please contact **Ms. Philippa Emanuel** of **SRK Consulting.** Contact details and the location of the SRK offices are provided in the letterhead above.

Yours faithfully,

Philippa Emanuel Pr.Sci.Nat
Environmental Scientist
SRK Consulting

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Msunduzi environmental reports available for public comment

THE draft of the Msunduzi Environmental Management Framework, and several other related reports, are available for public comment.

The Msunduzi Municipality, in partnership with the national Environmental Affairs Department and the KwaZulu-Natal Agriculture, Environmental Affairs and Rural Development Department, appointed SRK Consulting to prepare the Environmental Management Framework and other related reports.

The aim is to develop a policy to form the basis of development planning and approval that is supportive of sustainable development in the municipality.

The status quo report was made available for public comment in July 2009. The following reports are also now available: status quo analysis (state of the environment); strategic environmental assessment; environmental service plan; environmental management framework; and the strategic environmental management plan.

Hard copies of the reports are available for viewing at SRK's offices. Electronic copies are available on request from SRK or on its website at www.srk.co.za. Input should be submitted to SRK by March 25.

To invite comments, a public meeting will be held on March 18 at 4.30 pm at the Harry Gwala Stadium boardroom. For details, call Philippa Emanuel at 033 345 6311 or 083 651 3462. — Witness Reporter.

SRK Report Distribution Record

Report No.	EMF/Public Consultation Record
Copy No.	

Name/Title	Company	Copy	Date	Authorised by
DEMF	DEAT	1	06/05/2010	P. Emanuel
DEMF	DAEA RD	2	06/05/2010	P. Emanuel
DEMF	Msunduzi Municipality	3	06/05/2010	P. Emanuel

Approval Signature: