

**Msunduzi Municipality  
Final Draft Environmental Services Plan**

Report Prepared for  
**Department of Environmental Affairs,  
Department of Agriculture, Environmental Affairs  
and Rural Development, and  
Msunduzi Municipality**

**Report No 376998/2DESP**

**May 2010**



# **Msunduzi Municipality Final Draft Environmental Services Plan**

**Department of Environmental Affairs,  
Department of Agriculture, Environmental Affairs  
and Rural Development, and  
Msunduzi Municipality**

**SRK Project Number 376998**

**SRK Consulting**

**Suite 201 Sinodale Centre  
345 Burger Street  
Pietermaritzburg, 3201  
South Africa**

**P O Box 460  
Pietermaritzburg  
3200  
South Africa**


**Tel: (033) 345-6311**

**Fax: (033) 345-6403**

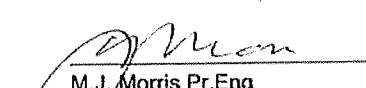
**[pietermaritzburg@srk.co.za](mailto:pietermaritzburg@srk.co.za)**

**May 2010**

Compiled by:

  
P. Emanuel Pr.Sci.Nat  
Environmental Scientist

Reviewed by:

  
M.J. Morris Pr.Eng  
Partner

# Executive Summary

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 that to support sustainable social, economic and environmental development within the municipal area of Msunduzi, the adoption and implementation of an appropriate policy that informs both development planning and approval is required. To address these requirements, the preparation of an Environmental Management Framework (EMF) is being undertaken by SRK Consulting (SRK). The Msunduzi EMF includes a Status Quo Analysis, a Strategic Environmental Assessment (SEA), a Municipal Open Space System (MOSS), a Strategic Environmental Management Plan (SEMP) and a GIS based Spatial Decision Support Tool (SDST) in respect of the municipal area of Msunduzi.

During the development of the MOSS document it was recognised that the MOSS should focus on identifying areas to be set aside to maintain ecosystem goods and services as the process of identifying areas for social use value would require extensive public consultation which was outside of the scope of work for this study. It was however recognised that protection of areas of biodiversity importance achieves both biophysical and social objectives. Due to this shift in thinking and approach it was decided that the product would be more aptly named the **Msunduzi Environmental Services Plan (ESP)**.

To meet the requirements of the terms of reference the Institute for Natural Resources (INR) was appointed to identify areas for inclusion in the ESP from a biophysical perspective, while SRK undertook to identify social criteria. The remainder of the report was therefore split into two components namely:

- Environmental Services Plan – Areas required to maintain ecosystem goods and services; and
- Environmental Services Plan – Identification of Social Criteria.

These reports are elaborated on further below.

During public involvement many requests were received to include additional areas, most notably, conservancy areas and proposed protected areas identified in terms of the Ezemvelo Stewardship program in the ESP. The purpose of the Draft ESP was to identify untransformed areas of biodiversity significance. It was agreed that in the development of the ESP no consideration was to be given to land ownership, current use, or zoning other than those areas already formally proclaimed as open space, conservation areas or nature reserves. It was agreed that the extensive public involvement process, required to identify areas of social significance, aesthetic appeal, landscape quality and critical for the maintenance of sense of place would be undertaken as a next step. To this end Action Plan E4 Implementation of the ESP with associated land ownership options was included as part of the SEMP. The action plan includes tasks associated with identifying additional areas for inclusion in the ESP and land ownership and use models that will be used to implement the ESP. Part of this process will be the consideration of the conservancies and proposed protected areas identified in terms of the Ezemvelo Stewardship program for inclusion in the ESP.

## **Environmental Services Plan – Areas required to maintain ecosystem goods and services**

The “Environmental Services Plan – Areas required maintaining ecosystem goods and services” report produced by INR, set out to design a system that maximizes the ecological viability of the ecosystems contained within Msunduzi to ensure the persistence of biodiversity over the long term.

A stepwise approach was followed in drafting the ESP for biodiversity persistence, and relied heavily on work previously undertaken by the INR in developing a fine-scale systematic conservation plan for the Municipality. Protected areas were identified as the first building blocks of the ESP as these areas have already been set aside for biodiversity protection. Key areas for protection of biodiversity attributes were then incorporated by including irreplaceable sites identified in the systematic conservation plan. A review of relevant literature was then undertaken to inform the identification of linkages to maintain and restore connectivity. This process highlighted the importance of riparian corridors which were therefore mapped and included in the areas required to maintain ecosystem goods and services. A review of important species and the need for additional terrestrial corridors was then undertaken and used to identify additional terrestrial corridors for inclusion. Mapping of areas required to maintain ecosystem goods and services was then combined with the existing Public Open Space (POS) system to produce the Environmental Services Plan Map of areas required to maintain ecosystem goods and services. This also helped to identify areas within the existing POS that contribute to biodiversity objectives and those areas that are of strictly social importance.

The mapping was presented at a key stakeholder workshop for discussion and approval. This was particularly useful in drafting recommendations for further refinement and implementation of the ESP at a Municipal level. These recommendations are included in the report attached at Appendix 1 and will facilitate further refinement and development of an implementation plan for the ESP in the Msunduzi Municipal area.

### **Environmental Services Plan – Identification of Social Criteria**

The Terms of Reference for the preparation of the ESP include the following: “*Classify and rate vacant land in terms of the goods and services provided at the level of ecosystem, social and cultural importance*”

To ensure that social use values were duly taken into account, SRK undertook to identify social criteria that may be used to identify areas of social importance for inclusion in the ESP and then rank areas identified by INR in terms of their social importance.

Social Criteria were identified through literature review and include the following:

- Function;
- Usage Frequency;
- Social Services
- Economic Value;
- Visual Absorption Capacity (VAC); and
- Heritage Values;

## Table of Contents

<b>1 Introduction .....</b>	<b>1</b>
1.1 The Msunduzi ESP as part of the greater environmental planning initiative (EMF) .....	2
1.2 Understanding of the Terms of Reference.....	2
1.3 Structure of the Report.....	4
<b>2 Way Forward.....</b>	<b>5</b>
<b>3 Public Involvement.....</b>	<b>7</b>
<b>Appendices .....</b>	<b>17</b>
Appendix 1: Environmental Services Plan – Areas required to maintain ecosystem goods and services.....	17
Appendix 2: Environmental Services Plan – Identification of Social Criteria.....	18

## List of Tables

Table 1.1: Outline of the INR Report identifying areas required to maintain ecosystem goods and services .....	4
Table 1.2: Outline of the SRK Report identifying social criteria .....	4
Table 3.1: Comments received in the SEA and associated Responses.....	7

## List of Figures

Figure 1.1: Phases of the Msunduzi EMF .....	2
Figure 2.1: Proposed protected areas in terms of the Ezemvelo KZN Wildlife stewardship program	6



6 May 2010

376998

## Msunduzi Final Draft Environmental Services Plan

# 1 Introduction

The Msunduzi Municipality (Msunduzi), in partnership with the national Department of Environmental Affairs (DEA), formerly the Department of Environmental Affairs and Tourism (DEAT) and the KwaZulu-Natal Department of Agriculture and Environmental Affairs and Rural Development (DAEA&RD) formerly the Department of Agriculture and Environmental Affairs (DAEA), has recognised that to support sustainable social, economic and environmental development in Msunduzi, the adoption and implementation of an appropriate policy to inform development planning and approval is required. To address these requirements, the preparation of an Environmental Management Framework (EMF) is being undertaken by SRK Consulting (SRK). The Msunduzi EMF includes a Status Quo Analysis, a Strategic Environmental Assessment (SEA), a Municipal Open Space System (MOSS), a Strategic Environmental Management Plan (SEMP) and a GIS based Spatial Decision Support Tool (SDST) for Msunduzi.

During the process of developing the MOSS it was recognised that the MOSS should focus on identifying areas to be set aside to maintain ecosystem goods and services. The process of identifying areas for social use value requires extensive public consultation and as such would be undertaken by Msunduzi as part of the implementation of the MOSS.

It was however acknowledged that while areas may have been identified specifically to maintain ecosystem goods and services these goods and services, these areas also provided the social use values associated with open spaces such as recreation and aesthetics. The protection of these areas therefore achieved both biophysical and social objectives. There had however been a shift to a more

G:\Proj\376998\_MSunduzi EMF EMAN\_ISO(7) Reports\ESP\376998\_Final Draft\_ESP\_May2010.docx



**Partners** AN Birtles, J.C.J Boshoff, MJ Braune, JM Brown, CD Datzliesh, JR Dixon, DM Duthe, R Gardiner, T Hart, GC Howell, WC Joughin, PR Labrum, DJ Mahlangu, RRW McNeill, HAC Meintjes, BJ Middleton, MJ Morris, GP Murray, WA Naismith, GP Nel, VS Reddy, PN Rosewarne, PE Schmidt, PJ Shepherd, VM Simposya, AA Smithen, PJ Terbrugge, KM Uderstadt, DJ Venter, HG Waldeck, ML Wertz, A Wood

**Directors** AJ Barrett, JR Dixon, DM Duthe, DJ Mahlangu, BJ Middleton, VS Reddy, PE Schmidt, PJ Terbrugge

**Associates** AH Bracken, BM Engelsman, DJD Gibson, SA McDonald, MR Ristic, JJ Slatbert, CF Steyn, D Visser, MD Wanless

**Consultants** AC Burger, BSc (Hons); IS Cameron-Clarke, PrSci Nat, MSc; JAC Cowan, PrSci Nat, BSc (Hons), JH de Beer, PrSci Nat, MSc; GA Jones, PrEng, PhD; TR Stacey, PrEng, DSc, OKH Stetten, PrEng, PhD; RJ Stuart, PrTech Eng, GDE; DW Warwick, PrSci Nat, BSc (Hons)

Cape Town +27 (0) 21 659 3060  
Durban +27 (0) 31 279 1200  
East London +27 (0) 43 748 6292  
Johannesburg +27 (0) 11 441 1111  
Kimberley +27 (0) 53 851 5798  
Pietermaritzburg +27 (0) 33 345 6311  
Port Elizabeth +27 (0) 41 509 4800  
Pretoria +27 (0) 12 361 9821  
Rustenburg +27 (0) 14 594 1280

Dar-es-Salaam +25 (5) 22 260 1881  
Harare +263 (4) 49 6182

ecosystem based approach. It was therefore decided that the product would be more aptly named the **Msunduzi Environmental Services Plan (ESP)**.

The intention of the plan is to build awareness of ecosystem goods and services, and highlight the fact that areas designated for management under this plan, need not be sterilised from other types of development but rather be managed to ensure that the ecosystem goods and services they supply are not compromised. From this point forward, therefore, the report is referred to as the Msunduzi ESP.

## 1.1 The Msunduzi ESP as part of the greater environmental planning initiative (EMF)

The Msunduzi EMF consists of three phases as indicated in Figure 1.1. The ESP forms part of Phase three of the Msunduzi EMF project.



**Figure 1.1: Phases of the Msunduzi EMF**

Phase One, the Inception Phase, required and included consultation to finalise the approach to the remainder of the study. Phase Two included the Status Quo where the current state of the environment was described and was spatially represented, based on environmental sensitivity. Finally Phase Three includes the preparation of the ESP, SEMP and EMF. The SEA consolidated the findings of the Status Quo phase and used these findings to develop a Sustainability Framework. The SEMP looked the implementation and operationalisation of recommendations from the SEA while the ESP aimed to spatially identify areas required to maintain ecosystem goods and services

This report constitutes the product of the ESP component undertaken as part of Phase Three of the greater Msunduzi EMF project.

## 1.2 Understanding of the Terms of Reference

The terms of reference for the MOSS component of the project originally included the following:

- Develop and refine the open space system for the study area;
- Identify and evaluate the goods and services provided by natural areas;
- Classify and rate vacant land in terms of the goods and services provided, at the level of ecosystem, social and cultural importance; and

- Identify areas that could or should be included in the open space system to promote ecological linkages and connectivity and enhance the provision of environmental goods and services.

During the preceding phases of the greater Msunduzi EMF project however the Terms of Reference for the MOSS component of the project were revised through a process of workshops and the consolidation of comments received from the DAEA&RD, Msunduzi, Ezemvelo KZN Wildlife, INR and various other stakeholders. The approach proposed therefore included the following:

- Development of design criteria
  - Review of approach to developing Durban MOSS;
  - Define design criteria for identification of priority conservation areas;
  - Review literature on corridors, island biogeography, connectivity and climate change considerations & define design criteria for biological corridor design;
    - Biological aspects (biological functionality, flood lines, sensitive features, climate change, water quality etc.)
  - Review literature on social use values for open space & define criteria for inclusion of these area for uses such as education, scenic/aesthetic considerations, recreational use, trails, buffers (i.e. between industrial and residential areas); and
  - Define design criteria for identification of priority areas in terms of their social use / values (incl. developed parks) as part of the implementation of the Msunduzi MOSS.
- Development of classification system
  - Apply a simple classification system for areas that have been included in the MOSS from a biological perspective; and
  - Protected areas and priority public open space to be identified as well.
- Mapping of priority conservation areas
  - Use conservation plan outputs to identify, map and classify priority biodiversity areas for inclusion in the MOSS (wetlands, forest, grassland, flood plain etc).
- Mapping of ecological corridors
  - Mapping of riparian corridors based on areas of flood risk identified during the status quo phase of the project; and
  - Mapping of preliminary biological corridors based on biological criteria to link priority conservation areas and priority open space areas identified by the Municipality.

INR was appointed to identify areas for inclusion in the ESP from a biological perspective, while SRK undertook to identify social criteria. The remainder of the report is therefore split into two components namely:

- Environmental Services Plan – Areas required to maintain ecosystem goods and services; and
- Environmental Services Plan – Identification of Social Criteria.

This is elaborated on in the following section that deals with the structure of the report.



### 1.3 Structure of the Report

As stated above the report is split into two components. Table 1.1 below provides an outline of the INR Report (Appendix 1) entitled “*Environmental Services Plan - Areas required to maintain ecosystem goods and services*”, and details the identification of areas for their inclusion in the ESP from an ecosystems goods and services perspective. Table 1.2 outlines the SRK Report (Appendix 2) entitled “*Environmental Services Plan – Identification of Social Criteria*“ that identifies criteria that Msunduzi may use during implementation to prioritise areas identified in the INR Report or identify additional areas for inclusion in the ESP to meet purely social needs.

**Table 1.1: Outline of the INR Report identifying areas required to maintain ecosystem goods and services**

Section	Title	Content
Section 1	Introduction	Background to the project, study area and specialist team.
Section 2	Methodology	Outlines the criteria used to identify areas for inclusion in the ESP to include areas of biodiversity significance, corridors and linkages and existing open space areas.
Section 3	Results	Identification of the areas and extent of the proposed draft ESP together with land cover classes.
Section 4	Recommendations and Way Forward	Outline of steps to be taken to refine, integrate and implement the ESP.

**Table 1.2: Outline of the SRK Report identifying social criteria**

Section	Title	Content
Section 1	Introduction	An introduction to this report, outlining the differences between a MOSS, ESP and Public Open Space. This section explains the role of a MOSS within the Msunduzi EMF.
Section 2	Methodology	Outlines the methodology used in this report.
Section 3	Literature Review	Review of other relevant MOSSes and studies to include: the eThekweni Environmental Services Management Plan 2001 and 2003; Gauteng Open Space Project: Phase 3 and the uMhlathuze Crime Prevention Study.
Section 4	Design criteria for identification of priority social use / values	Details social criteria that could be used in the Msunduzi Municipality to prioritise or include areas in the ESP
Section 5	Conclusions and Way forward	Outlines recommended actions for implementation of the ESP.
Appendix	INR Draft MOSS for the Msunduzi Municipality	Detailed further in Table 1.1 below.

## 2 Way Forward

The draft ESP was prepared using the biodiversity value of untransformed land as the basis, with no consideration being given to land ownership, current use, and zoning other than in respect of those areas already formally proclaimed as conservation areas or nature reserves. The terms of reference included the preparation of a draft ESP that would 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. To assist this process Social criteria were identified that Msunduzi may use during implementation to prioritise areas identified in the INR Report or identify additional areas for inclusion in the ESP to meet purely social needs. The Report is included at Appendix 1.

Neither Conservancies nor proposed protected areas in terms of the Ezemvelo KZN Wildlife 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 could 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, is included in the SEMP and outlines how this will be achieved. Conservancies and land stewardship status clearly needs to be acknowledged and addressed during this process and it certainly is not and never was the intention to ignore or downplay the importance of these areas.

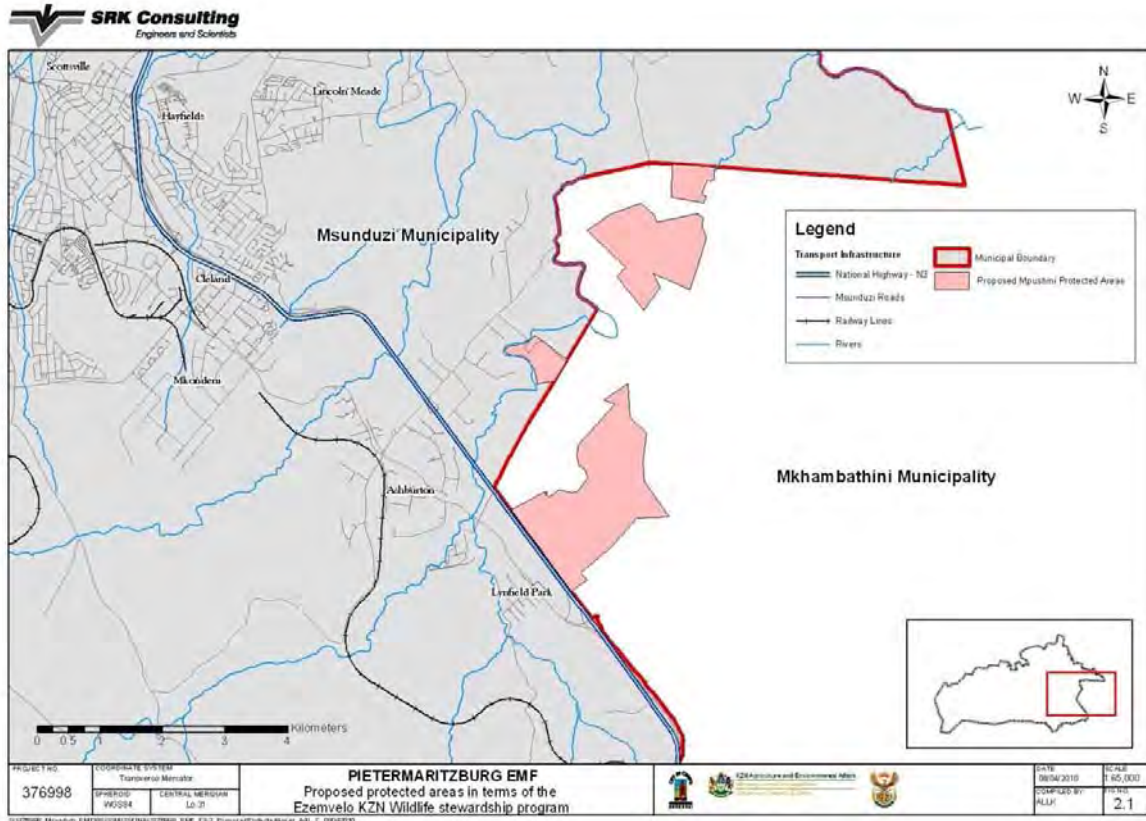
Tasks proposed in terms of Action Plan E4- Implementation of the ESP with associated land ownership models are as follows:

- Undertake a public involvement process to identify additional areas for inclusion in the ESP. The public involvement process should include all land owners of areas currently identified for inclusion in the ESP, all conservancies, and all IAP's identified during the greater Msunduzi EMF process. Areas that should be given careful consideration during the public consultation process include the following:
  - Ezemvelo KZN Wildlife Stewardship program proposed protected areas;
  - Conservancies to include:
    - Upper Mpushini
    - Lower Mpushini
    - Cleland, Mkondeni
    - Wembly, Clarendon
    - Ferncliff Catchment

- Use the social criteria identified in Annexure 2 of the ESP to rate and prioritise the areas of environmental value to the municipality.
- Develop a rates rebate policy to include identification of alternative land use and land ownership options and associated rebates.
- Amend the Town Planning scheme to incorporate priority open space areas and areas subject to rebates
- Notify all property owners (particularly those in areas of high environmental value) through the rates system of potential rebates and the rates rebate policy.

For further information regarding timing, responsibility and budgets, please refer to the Action Plan included in Section 4.1.3 of the SEMP.

To ensure that these areas are considered in the next step towards adopting the ESP the proposed protected areas in terms of the Ezemvelo KZN Wildlife stewardship program, Figure 2.1 provides a map of the location of these areas.



**Figure 2.1: Proposed protected areas in terms of the Ezemvelo KZN Wildlife stewardship program**

It is notable that only one small area of 36.44 Ha falls within Msunduzi the remainder of the areas fall within the neighbouring Mkhambathini Municipality.

### 3 Public Involvement

A public consultation process was undertaken to support the preparation of the draft ESP. This included an initial planning workshop with key stakeholders, two public meetings to discuss the desired state of environment and the Draft ESP Report, notices to IAP’s and newspaper advertisements.

SRK in partnership with Msunduzi Municipality Environmental Branch made every effort to ensure that the Draft ESP was informed by public input and that a wide range of public sectors gained access to the documentation and participated in the process.

It is however acknowledged that further public consultation will be required to identify areas to identify areas of social significance, aesthetic appeal, landscape quality and critical for the maintenance of sense of place. Land ownership and use models still need to be developed and will be presented to landowners when the public process of formally adopting the ESP begins.

A detailed account of the public consultation process undertaken, together with all notices, representations received, notices issued and a copy of the IAP database, is included in the Public Consultation Record which has been produced as a separate document as it relates to all the products produced in terms of the Greater Msunduzi EMF project. In addition the Final Draft ESP will be presented to council for adoption as a Final Draft. The document will remain as a final draft until the extensive public consultation process as discussed above has been undertaken.

Table 3.1 includes all comments received on the Draft ESP Report during the public consultation and associated resultant responses.

**Table 3.1: Comments received in the SEA and associated Responses**

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
<b>ESP</b>				
18 March 2010 Public Meeting	Mr. D. Johnson	Private	How were the limits for the C-Plan exercise determined? Thornveld habitat in the Mpushini area warrants greater conservation.	Provincial limits were used to inform the setting of limits for specific to Msunduzi in consultation with a number of experts and Ezemvelo KZN Wildlife (EKZNW).

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
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 the Msunduzi municipal area. 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 Spruits). 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.	<p>During the public meeting it was agreed that if a spatial representation of these areas could be provided within the time frame for comments their inclusion in the ESP would be considered.</p> <p>The draft ESP was prepared using the biodiversity value of untransformed land as the basis, with no consideration being 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.</p> <p>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 having biodiversity value.</p> <p>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.</p>
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

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
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.	Msunduzi has agreed to work together with EKZNW in order to achieve this. A six month review period has been proposed but will be assessed based on capacity during implementation.
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.
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 Development 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.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
25 March 2010 Written Comments	Ms. S. Schutte Mr. N. Durow	Upper Mpushini Conservancy Lower Mpushini Conservancy	<p>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.</p> <p>According to Dr Bonkewitz, a butterfly expert that studied the Mkhondeni valley, the Mpushini area is data deficient when it comes to butterflies, but certainly warrants more studies.</p> <p>We certainly see the need to a more detailed study at ground level that will proof that the area is not replaceable.</p>	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 EKZMW 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.
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 <u>elsewhere</u> in KZN. It is not well conserved <u>within</u> 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 that was taken into account considered / targeted habitat conservation for the Msunduzi Area.



Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
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 when 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	<p>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.</p> <p>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.</p> <p>WESSA also believes that the inclusion of informally and formally conserved areas should be in place in the EMF from the outset regardless whether this was in the terms of reference or not. This is simply common sense.</p> <p>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.</p>	<p>The draft ESP was prepared using the biodiversity value of untransformed land as the basis, with no consideration being 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.</p> <p>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.</p> <p>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</p> <p>Implementation of the ESP with associated land ownership models outlines how this will be achieved. 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. Action Plan E4 has been amended to ensure that these areas are included in the next step towards finalising the ESP.</p>

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 eThekweni 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.
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 include-; 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 Integrates 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.

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
30 March 2010	Ms. M. Ngotho	GREEN	<p>Public participation is fundamental to the production and implementation of the EMF. Concerns have been expressed by some Civil Sector organizations (CSO's on whom and how the public have been engaged in the process. Low participation in meetings may attest 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?'</p> <p>For example, Section 1.1 paragraph one on page 2 of the Environmental Services Plan (ESP) reads, '<i>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</i>' (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 which enhance ownership and commitment during implementation.</p>	<p>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.</p> <p>Given the number of products that were 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.</p> <p>Action Plan E4 has been amended to include more specific recommendations as to how this process will be undertaken.</p>
30 March 2010	Ms. M. Ngotho	GREEN	<p>The EMF processes has been promoted through various media- newspapers, internet, public meetings and access to outputs (documents). Whereas this media has reached residents, why then is there low participation of the public? Given the low participation, strategies should be thought through to tackle this challenge and possibly 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.</p>	<p>Great effort was made to ensure that the public, councillors and municipal officials were made aware of the EMF process and its implications.</p>
30 March 2010	Ms. M. Ngotho	GREEN	<p>Civil sector organizations (CSO's) 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 CSO's 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 CSO's in implementation, updating and the review process of the EMF.</p>	<p>The report has been amended and Action Plan G2 looks at increasing participation of the public and organisations in municipal decision making.</p>

Date	Individual	Company / Organisation	Comment / Issue / Concern	Response
30 March 2010	Ms. M. Ngotho	GREEN	<p>The Msunduzi municipality will be the lead implementing body of EMF. However, experience reveals 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.</p> <p>Complements 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 it to engage actively in implementation and review of the EMF.</p> <p>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 the implementation, monitoring and evaluation process.</p>	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.

---

# Appendices

## **Appendix 1: Environmental Services Plan – Areas required to maintain ecosystem goods and services**