Contents

1. BACKGROUND

Developers and decision makers at different levels are progressively coming to a realization that the quality of the environment is the major determining factor when deciding on what types of developments are possible within a given region. Major changes have been taking place around the world and in South Africa in the approach to monitoring and management of environmental quality. While there is a perceptible shift from command and control type approaches to market-based instruments for improving and managing environmental quality, there is also a shift in defining the boundaries of locations where environmental quality needs to be measured and managed.

The different tiers of government are progressively realizing the importance of project based environmental assessments, even though monitoring following development is still lagging. However, environmental management as part of development planning, which defines regions and large areas rather than specific points and localized spots, is the more appropriate approach for the district municipalities such as Alfred Nzo. This approach recognizes environmental quality as the sum total of a complex set of actions and effects that cannot be localized and constrained geographically, enhances understanding of the total environment and planning that allows the linkages across large areas and development initiatives. District wide considerations and the logic of setting standards for environmental quality based not merely on standards limiting environmental degradation from a single point or mobile sources individually, for instance, but taking an area as a whole, such that it is defined by forces and their linkages which have a comprehensive combined effect on environmental quality. Preparation of an environmental management plan for Alfred Nzo District will go a long way in ensuring that the local government moves towards sustainability planning and practices, can lead to district wide improvement in environmental management, and community involvement in sustainable development decision making.

2. THE STUDY AREA

The study area is the Alfred Nzo District Municipality, an area of 7 870sq km with an estimated population of 480,000, within the Eastern Cape Province. The district has two Local Municipalities namely: Umzimvubu and Matatiele. Approximately 91,1% of the population are rural and 8,9% are urban, which is an indicator that there is a heavy reliance on natural resources for daily living.

Several pieces of literature, most of which guide development within Alfred Nzo District have identified some of the major environmental issues that need to be addressed in order to achieve sustainable development within the district. Among these concerns are soil erosion, destruction of indigenous forests, uncontrolled settlements on valuable agricultural land, poor water resources management, the spread of invasive alien plants, poor solid waste management, air and water pollution, inadequate application of integrated environmental management procedures and over-use of the land based resources. Although not unique to

Alfred Nzo, these issues become augmented in the district by the fact that the majority of the population are rural, have low literacy levels and rely on the productivity of the land for their livelihoods. A degraded environment therefore constitutes a loss of a means to make a living for the people of Alfred Nzo District.

3. MAJOR ISSUES TO BE ADDRESSED BY THE ENVIRONMENTAL MANAGEMENT PLAN

As indicated in the proposal, the EMP has to be utilized by Alfred Nzo District and its constituents to guide the authorities and implementing agencies in the design and implementation of sustainable development for the District. It should contribute significantly to the following key objectives:

- **Conservation of natural resources and biodiversity** in the District as it will allow for identification and implementation of alternative forms of land use, which could increase the realised value of resources, and decrease destruction through conventional land use approaches which result such practices as overgrazing, frequent burning, and erosion.
- **Stimulation of the local economy** through appropriate utilisation of the natural environment and associated resources.
- **Contribution to sustainable infrastructure development** around the district. It is important to have guidelines in place that will be used to guide developers on the best practice for developments that integrate environmental management and comply with the law of the Republic of South Africa.
- **Implementation of mitigation measures** which also identifies specific people expected to undertake specific tasks to ensure that impacts on the environment are minimized at all stages of a programme or project.
- **Capacity building at both municipal and community levels** to ensure an understanding of the environmental issues that affect day to day lives of residents and how they should be addressed for sustainable living.

4. THE INCEPTION REPORT

As stipulated and agreed with the municipal representatives, this report has to cover the following components:

1. Timeframes and cash flow projections
2. Signing of the service level agreement
3. Public participation strategy
4. Stakeholder database

In addition, most of the components associated with Task 3, that is, Assessment of Precedent Studies, were carried out during the month of December.Thus the next report submitted with

be the Staus Quo Report previously indicated as Task 2. The sequence of the tasks is now as shown below:

Previous	***Present***
Task 1: Inception Report	Task 1: Inception and Assessment of precedent studies
Task 2: Environmental Status Quo Assessment	Task 2: Status Quo Analysis and Skills Transfer
Task 3: Assessment of Precedent Studies	Task 3: EMP compilation and capacity building
Task 4: Environmental Management Plan	Task 4: Action plan and budget for EMP implementation
Task 5: Skills Transfer	

5. PUBLIC PARTICIPATION STRATEGY

5.1 Introduction

The involvement of the public in activities and decisions that directly and or indirectly affect their lives is recognised as a fundamental human right and principle. It has as such been incorporated into a number of international agreements and plans of action –The Rio principles, the Aarhus convention of June 1998, the South African Agenda 21 and the Johannesburg plan of action to mention a few. South Africa responded to these international calls as well as those from its citizens to embrace public participation and recognise it as a constitutional right. This is clearly articulated in the Constitution of South Africa, Act 108 of 1996, the Promotion of Administrative Justice Act, Act 3 of 2000 and the National Environmental Management Act, Act 107 of 1998 and several other sector policies and laws.

It is therefore in recognition of these mandates that public participation is seen as the spine of the current engagement. Thus, the process of public participation will seek to be as inclusive as possible through first informing the public about the project, seeking its inputs through in-depth discussions and incorporating them into the body of the Environmental Management Plan (EMP). An outline of the steps and techniques that will be followed is given below.

5.2 Major Goals of the Public Participation Strategy

The main aim of the strategy is to include a variety of input opportunities for all interested and affected persons at all the stages of the process in order to achieve the following goals:

- Provide opportunities for people to participate “as little” or “a lot” in the process while assuring that one or a few individuals or interest groups do not dominate the process.
- Recognise that ongoing public involvement is essential for creating an innovative E MP and yet one that can be implemented.

- Use existing planning committee frameworks as a foundation for the Environmental Management planning process.
- Use the local media for increasing public input opportunities and leverage the Municipalities resources.
- Inform and work with other Government Departments and Institutions that have an interest in environmental management within the Alfred Nzo District Municipality.
- Recognise that the goals expressed above must be balanced with the need to complete the planning process within the set budget and time and thus avoid being over ambitious.

5.3 Matching the strategy to the area and its people

Alfred Nzo has three very distinctive cultural practices of the Xhosa which is predominantly within the Umzimvubu area, the Sesotho which is predominantly within the Matatiele area and commercial farms within the central part of the municipality along the Mvenyane valley forming a buffer between the two other cultures that are predominately subsistent in nature.

These differences in culture and other factors such as time, finances and literacy levels has a direct impact on the public participation process that will be use in the programme. This also directly impacts on the stakeholders' identification as well as the techniques and tools of participation to be put in use.

5.4 Stakeholders

A list of stakeholders that will be consulted in this project can be aggregated into six broad areas as outlined below:

- Traditional leaders and structures
- IDP Forums and Committees
- Civic Organizations
- Development Forums
- Ward Councils and Committees
- Residents associations

The following specific stakeholders will also be consulted:

- Ongeluksnek Liaison Forum Route 56 Matatiele tourism association
- EC Parks Board
- Upper Umzimvubu Catchment Management Forum
- Community Development Workers - co-ordinators for each local municipality
- DLA / DLR&RD
- The massive food beneficiaries and implementors
- DWA Working for Water
- ANDM water development plan consulting consortium (ANZOMANZI, including Maluti Water and co)

5.5 Key Issues

Information requirements for this project cover a broad spectrum of subjects. The following key issues that will be subjected to public scrutiny:

- Cultural, socio-economic and political environment(areas under threat of squatting)
- Sensitive natural environments including red data species, wetlands and alpine ecosystems
- Areas unsuitable for human habitation
- State of degradation including waste management
- Location of archaeological sites
- Areas of geological significance
- Infrastructure and utilities
- Current land uses and approved developments
- Review applicable development and zoning regulations as they apply to the municipal area.

5.6 Participation Mechanisms and Approach to be used

We have adopted a partnership approach that acknowledges the following modes of public participation:

- Legal requirements- NEMA Act 107 (1998)
- Information giving- Mass media, posters, imbizos, local newspapers
- Information receiving- Public gatherings, focus groups,
- Shared working- Community mapping
- Shared decisions- Consensus building and round tables
- Empowerment and self motivation- Use of local initiatives /CBOs and NGOs.

The above techniques are cumulative and interdependent. Thus, information giving and receiving comprise conventional consultation while genuine participation builds on them and move progressively towards shared working and shared decision making. Our interest is to work towards consensus building and therefore, each of the above techniques shall be used to meet the different requirements of the assignment.

Table 1: Identified stakeholders for the different IMP preparation tasks

STAGE IN THE PROJECT CYCLE	***TYPE OF PUBLIC PARTICIPATION/PARTICIPANTS***					
	LEGAL	**INFORMATION GIVING**	**INFORMATION RECEIVING**	**SHARED WORKING**	**SHARED DECISION MAKING**	**EMPOWERMENT/SELF MOTIVATION**
PROJECT INCEPTION	Alfred Nzo District Municipality/Consultants	IDP Forums & Committees/Consultants	IDP Forums & Committees/Consultants	IDP Forums & Committees/Consultants	IDP Forums & Committees/Consultants	IDP Forums & Committees/Consultants
STATUS QUO ASSESSMENT		Traditional leadership/IDP/Civic Orgs/Ward councils/Residents	Consultants	IDP forums/ Consultants	IDP forums/ Consultants	
PRECEDENT STUDIES ASSESSMENT		Consultants	Consultants	Consultants	Consultants	
ENVIRONMENTAL MANAGEMENT PLAN		Consultants/IDP Forums and Communities	Consultants/IDP Forums and Communities	Consultants/IDP Forums and Communities	Consultants/IDP Forums and Communities	
SKILLS TRANSFER		Consultants	Consultants	Consultants	Consultants	CBOs/NGOs

6. BIODIVERSITY CONSIDERATIONS FOR THE INCEPTION REPORT

This chapter, which is mostly a summary of the observations and analysis of some of the precedent biodiversity studies, has been included with the inception report in order to alert the authorities and the key stakeholders as to what the issues are that will need to be addressed at the planning stage. Biodiversity is a good indicator of the health of the environment. Its decline should alert all interested parties to the need for an action plan that should be put in place to protect the land and make sure that it continues to produce enough food and fibre to at least maintain the population.

Alfred Nzo District has a wide range of ecosystems that reflect the underlying topographic gradients. In the north-western areas, the high-lying temperate grasslands of the Drakensberg system are generally in good condition. There is localised degradation associated with livestock movement corridors and overnight kraaling. The grasslands in the upper reaches of the district are generally protected by difficult access. However, as the topography flattens out in the valleys and towards the south and east, so the levels of human habitation increase, with an accompanying impact on the grasslands. Any areas that are in close proximity to human settlement are generally not coherently managed for grazing or burning and suffer degradation that results in vegetation and soil loss. In the upper Drakensberg catchments, control of alien invasive trees is probably the biggest environmental issue, and will be a focus in the EMP. This is particularly important considering the value of these catchments to downstream river users.

Table 1. Summary of the vegetation types found in ANDM.

Vegetation Type Name	% of Veg Type Remaining	Veg Type Conservation Status	ANDM Veg Type Area (Ha)	Total Veg Type area (Ha)	ANDM % of Veg Type
Drakensberg Foothill Moist Grassland	82.1%	Least threatened	137,293	1,289,199	10.65
East Griqualand Grassland	74.4%	Vulnerable	402,154	866,746	**46.40**
Eastern Temperate Freshwater Wetlands	85.1%	Least threatened	1,933	55,677	3.47
Eastern Valley Bushveld	84.6%	Least threatened	16,410	995,573	1.65
Lesotho Highland Basalt Grassland	91.8%	Least threatened	19,006	2,015,483	0.94
Lesotho Mires	99.7%	Least threatened	97	2,662	3.64

Vegetation Type Name	% of Veg Type Remaining	Veg Type Conservation Status	ANDM Veg Type Area (Ha)	Total Veg Type area (Ha)	ANDM % of Veg Type
Mabela Sandy Grassland	78.7%	Vulnerable	47,059	47,706	**98.64**
Southern Drakensberg Highland Grassland	94.9%	Least threatened	56,215	647,766	8.68
Southern Mistbelt Forest	94.9%	Least threatened	3,032	110,015	2.76
uKhahlamba Basalt Grassland	99.9%	Least threatened	2,693	150,327	1.79

Highlighted vegetation types are those that are significantly represented in the district, meaning that the responsibility for the majority of their conservation will rest with the district managers. This is particularly the case for Mabela Sandy Grassland, which is almost entirely located within the district (i.e. is not found outside the district). Conservation efforts for the grassland will be a focus of the EMP.

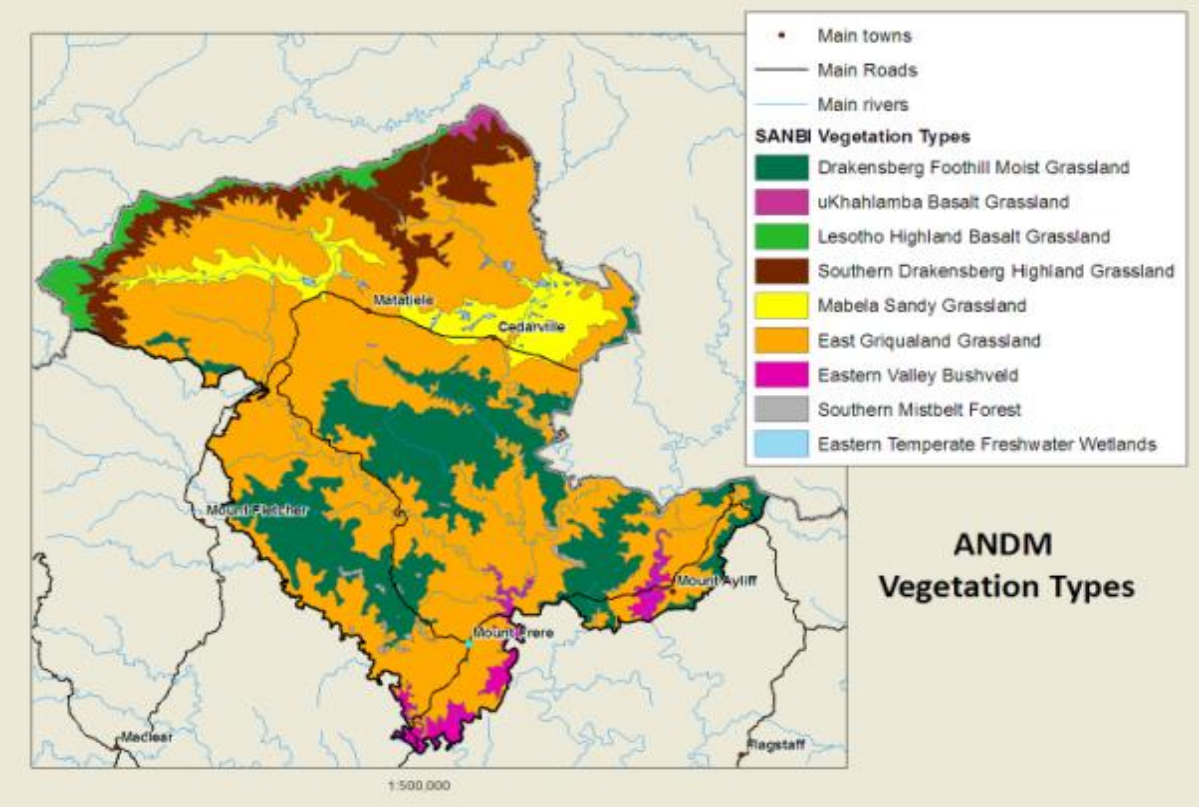


Figure 1. Map showing the distribution of vegetation types in the district.

6.1 Management of relatively intact natural systems

Other than scattered indigenous forest patches and small areas where valley bushveld comes in from the south, the district is almost entirely dominated by grassland. This means that environmental management issues will need to focus on rangeland management issues with particular focus on grazing and fire management and the protection of the soil. The EMP will have a section describing the current best practice for managing alpine and sub-alpine grasslands for grazing and conservation. The EMP will also identify focus areas where such management should be implemented through some extension service involving the department of Agriculture.

6.2 Management of peri-urban and arable systems

The district has a relatively dense rural population and most communal land that can be cultivated has been ploughed in the past, seriously diminishing the biodiversity value of the land. Indeed, it is only the steeper and rocky areas that have escaped such activities.

Field observations indicate that the southern half of the area is highly transformed – meaning that much of the natural ecosystems across much of the area have been replaced by some sort of man-made system. The primary reasons for this transformation are sprawling peri-urban areas and extensive arable fields. Alien plant infestations (primarily wattle) and severely eroded areas almost contribute to the loss of natural systems.

Table 2: Different land classed in the district

Land Classification	Area (ha)	% of ANDM
Natural	446,537	65.10
Transformed	238,696	34.80
Severely Eroded	26,284	3.83
Wattle infestation	31,275	4.56

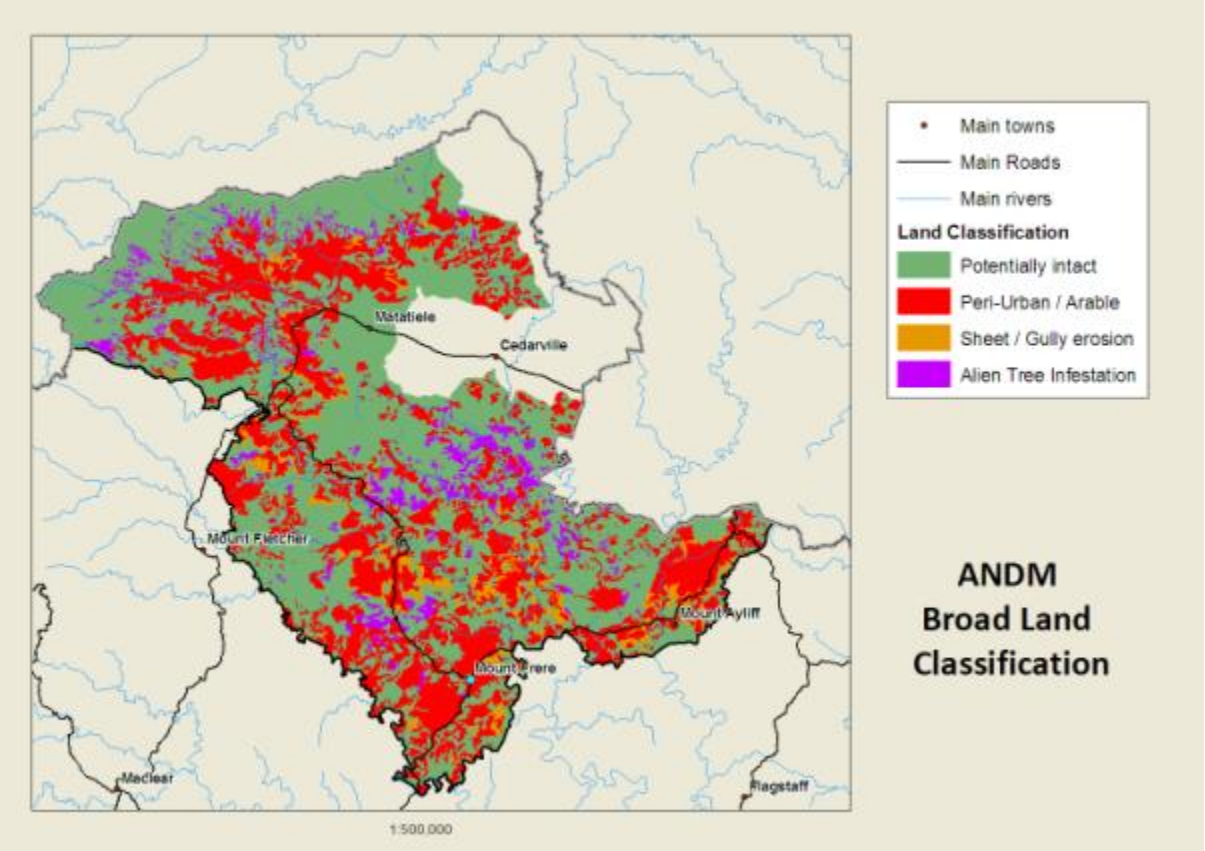


Figure 2. Map showing the broad land classification of the district

In terms of patterns of land transformation, the majority of transformed areas fall into the communal land tenure system, with the exception of the high-lying ground in the Drakensberg and east of Mount Fletcher. Importantly, much the key vegetation types, such as East Griqualand Grassland, are very highly transformed, implying the few remaining patches will require particular attention in the EMP to ensure their persistence in the long-term.

Considering that most of the extensive erosion occurs within the arable fields, the EMP will need to focus on sound farm management practice to prevent the expansion of such erosion, which threatens food security in the area.

6.3 Upper catchment and wetland management

One of the most important aspects of environmental management for the district is going to be protecting the upper catchments of the many tributaries of the Umzimvubu River. The natural grasslands have a great many springs, seeps and wetlands, many of which are too small to be mapped, but which are contributing towards the provision of sustained flows of potable water to the many communities downstream that rely on them. This will be a focus of the EMP.

6.4 Alien trees

In terms of balancing sustainable development and conservation, the biggest opportunity that presents itself to the district is the conversion of large alien plant infestations (or jungle wattle) into correctly spaced productive plantations. The biodiversity under jungle wattle has already been lost and the cost of completely clearing and rehabilitating jungle wattle is so high that it is not feasible to consider except along riparian zones. However, DWAF and private forestry companies are currently investigating the feasibility of converting such jungles into plantations that are well managed to prevent unplanned expansion (escape). This will be examined in detail during the EMP.

However, there are some valleys where alien tree infestation is limited to a few old kraal sites and some riparian zones. These areas, if left alone, will soon become very densely infested and will become a very expensive problem in 10-15 years time. Such areas will be identified using aerial photographs and will be become a focus in the EMP for containment and clearing over five years, especially where they coincide with priority biodiversity or important catchments.

6.5 Erosion management and rehabilitation

Large areas across the district, particularly in old fields, have become terribly eroded and there is extensive sheet erosion accompanied by great networks of gullies (dongas). The scale of erosion in the district is very concerning and the EMP will focus on mechanisms to prevent further damage of the natural systems. There may be a few instances where rehabilitation should be considered. These will be identified by prioritising the biodiversity and human livelihoods across the district and determining whether erosion will impinge on these values. District-wide rehabilitation is unlikely to be feasible and a focused approach will be more likely to be successful.

7. SUMMARY OF KEY ENVIRONMENTAL ISSUES IN ALFRED NZO DISTRICT

The table below is a summary of observation made during field visits, combined with existing knowledge of the pertinent environmental issues that exist in the district that need to be addressed through the implementation of the EMP. The issues as reflected do not as yet represent the sum total of all the issues, but rather those that were picked up during the inception period.

It is therefore important that the Project Steering Committee provide additional information that can be added to the list so that when the EMP preparation stage comes around, all of the issue are incorporated and analysed.

Table 3: Summary of environmental issues and their present status in Alfred Nzo District

SUSTAINABILITY ISSUES	STATUS QUO	ENVIRONMENTAL RESULT
Fresh water	The Umzimvubu, Kinira, Mvenyane and Mkhemane rivers run through the Alfred Nzo district. The water is clean in the upper catchments but the status changes rapidly as the rivers pass through the highly settled areas. The rivers and streams passing through the settled areas are polluted and are showing signs of eutrification.	Siltation and the incidence of impurities in the water of dams, streams and rivers reduces water quality, increases the cost of water purification. Impact of aquatic organisms throws the ecosystem out of balance. Fresh water resources, especially in localities where rivers pass through the densely populated areas are polluted by different types of solid waste deposited directly and indirectly into the water. This leads to poor water quality and reduces the number of uses the water can be put to. It also the incidence of waterborne diseases
Water – quality and quantity	There is a general lack of clean water in especially in Umzimvubu. Some areas have no water at all, resulting in long travel distances to water sources not meeting drinking water standards. Very little water harvesting exists even with families that have corrugated iron roofs.	Water resources are abundant and perennial streams traverse the municipal area. Streams passing through settled areas receive some untreated waste from the urban centres such as Matatiele and Mt Frere, thus negatively affecting water quality and reducing the number of uses the water can be put to. Household water quality is mostly not of the desired standard and quantities do not meet household needs especially in the rural areas. The high sediment load in the rivers and streams reduce biological diversity as it affects the cycles of organisms that are dependent on clean water to survive. Long travel distance to get water by residents diminishes their desire to engage in environmental projects as they use up a lot of time travelling to clean water sources.

Soil	Serious erosion is taking place due to construction activities preceded by land clearing methods in urban areas and informal areas. Soil erosion is also caused by unsustainable farming practices in the rural and agricultural areas of especially in the Umzimvubu municipal area.	Physical soil loss and loss of fertility affects productive potential food security and affects water quality. If also negatively affects the aesthetic value of landscapes. The informal settlements lead to informal allocation of garden land on open lots. There is nobody responsible for maintenance. This leads to overexploitation, loss of fertility and structure and loss of soil mantle itself. Soil erosion is negligible on the undisturbed landscapes of the rural areas and minimal where grass cover is good. The shape of the landscape and the well developed soil structure contributes to the stability. Erosion potential is increased in places where the vegetation cover is removed by overgrazing. The erosion leads to the physical loss of soil mantle, loss of fertility and reduced productive potential of the soil resource, It also contributes to water erosion. In the agricultural areas soil erosion leads to loss of productive potential.
Air – quality and ventilation	Air quality is likely to better in the well vegetated rural areas during the summer months and deteriorates due to wild fires in the winter months. Air quality improves with distance from the pollution sources and availability of open spaces. Some informal dwellings lack light, ventilation and basic services.	Poor visibility, contribution to the acid rain conditions. Poor air quality affects plants, animals and the ecosystems in which they live. It also affects the soil. Deposition in the form of gases can be dissolved in raindrops or be in the form of dust particles. There are no major industrial areas in ANDM that are a cause for concern regarding air quality.

		The small size of housing units in informal areas and the RDP housing, poor ventilation, use of fuels such as paraffin and high occupancy rates per unit of housing can lead to increase in the incidence of respiratory illnesses and poor sight. The rural areas are not a major source of pollution but due to atmosphere circulation it is likely to receive some pollution from sources nearby and from other places. There is a lot of open spaces and low traffic and ventilation is relatively good.
Noise	Noise results from street traffic, construction machinery and loud music in the towns, and from construction machinery in the rural areas. The noise is not monitored in most areas and does not appear to be a problem.	Health complications and increased incidence of road traffic incidences. Decreased fauna gene pool due to scatter and population isolation of both flora and fauna. Effects on the human environment due to the increase in noise pollution includes poor sleep and damage to hearing. It drives wildlife out and impacts on the quality of domestic animals.
Sanitation	The majority of households in Matatiele, Maluti, Cedarville, Mt Ayliff and Mt Frere have either a flush toilet or a pit latrine, though most of the facilities are not in good working order. Many of the rural areas and informal settlements have no access to sanitation. Overcrowding is a problem especially in the Mt Frere urban centre.	Impacts of soil and water resources on human health. Possible soil and water contamination can take place depending on how well-placed and managed the toilets are.
Housing	Housing developments since 1994 have resulted in construction of RDP houses in the major commercial centres. There are visible problems with size and quality of housing resulting from lack of owner maintenance as well including: - Windows not allowing adequate cross ventilation	Some housing developments are on steep terrain not properly landscaped with possibilities of soil scarp collapse. Lack of water harvesting facilities from roofs results in excessive runoff. Building materials used are not energy efficient and overall sustainable building technologies have not been applied

	- No ceilings - Lack of proper insulation - Houses located on unsuitable terrain Informal houses are built from whatever people can find.	The use of small size and density of informal dwellings and the use of materials such as plastic contributes to poor air flow. The lack of permanency prevents occupants from investing in materials and labour for permanent improvements such as landscaping, planting of home gardens or water harvesting. Damp, thermal inefficiency, poor ventilation, overcrowding and the poor siting of houses contributes to the incidence of acute respiratory infections which are a major health consequence of some of these environmental factors.
Waste management	Waste management systems are in place in most of the urban centres although they are very poorly maintained. Regular collections occur but fires at the dump sites, scavenging and scatter by the garbage trucks are a problem. Some of the receptacles on the streets are overflowing. The informal settlements have garbage receptacles that are not well distributed throughout the district. However, substantial amounts of waste are found on the streets especially in Mt Frere. Rural areas do not have formal waste management systems but are relatively clean due to the tendency of residents to reuse materials and containers.	Waste collection facilities do not allow for separation of the different types of waste and the recovery of re-usable items. A substantial number are overflowing onto the streets and drainage-ways, thus contaminating land and water, and reducing the aesthetic value of the surroundings. Recycling facilities are not locally available. Low density of garbage receptacles, the overflow of garbage and lack of recycling facilities. Children play in the garbage and it also enter run-off and storm drains, and has the ability to cause sickness.
Drainage	Roads in the main centres have drainage systems in place but are badly maintained, and so are blocked and overflowing in places.	Materials found in the drainage system are not water-soluble and mostly block the drainage systems. The effluent from roadside drains flows directly into the

	Drainage in the informal areas is problematic as unsuitable materials are thrown into the drains which causes clogging. A significant amount of overflow occurs especially during heavy rains.	rivers and streams, thus negatively affecting the water quality. Blocked storm drainage and lack of side drains on access roads has also led to increased overland flow on the streets, contributing to the deterioration of living conditions (aesthetics and health).
Energy	Most households around the towns have electricity. There is still a high dependency in the rural areas on fuel sources such as wood. Housing construction methods and materials are mostly not energy efficient There is no evidence of enhancement of renewable energy sources in the areas surveyed.	Housing presently available is not energy efficient due to the construction methods and materials especially in the informal settlements and the new RDP houses. Renewable and clean energy sources should be considered for cooking and cooling to optimise efficiency and minimise the incidence of diseases associated with unclean air. Lack of recycling (only Matatiele has one) facilities means energy is not brought back into the cycle. Agricultural practices are not energy efficient as people expend resources on land management and maintenance. The lack of efficiency of utilisation of different energy sources results from poor building techniques. Open fires and broken down electrical appliances are commonly used. This contributes to the poor air quality, high energy consumption and overall inefficiency in energy utilisation. There is also poor use of natural light due to the congestion and for security reasons. There is a lack of functional relationship between activities, resulting in waste of energy.
Transport	Most people travel by public transport while travelling on foot is very common in the rural areas. There is a high proliferation of gravel access roads in the rural	Improvement of efficiency of the transportation system means additional road infrastructure, increased numbers and diversification in the types of vehicles and less

	areas, which are mostly used by visitors and few vehicle owners.	encumbered movement of people, goods and services. A mismatch between the development, monitoring and maintenance can result in more accidents, more pollution and more energy inefficiency.
Agriculture	There is a lot of abandoned agricultural land in Alfred Nzo which is being grazed by goats with no management. Maize monocultures are common in the traditional rural areas and the rest of the agricultural land is degraded due to previous poor agricultural practices that do not incorporate conservation. Gullying is common where thick soil accumulations exist. Some degradation is also taking place on the commercial farm, albeit at a lower rate than the traditional areas due to conservation practices that take place on those lands.	Due to land claims hence lack of permanency and security of produce, investment in permanent improvements and maintenance is negatively affected, thus land will mostly be exploited and depleted of natural fertility. Cultivation results in provision of seasonal cover for the soil mantle. Monocultures result in the depletion of soil fertility and crusting, thus leading to inability of soil to continue to produce. The utilisation of unallocated land means lack of proper preparation of the land, exclusion of agricultural inputs and no implementation of conservation measures. This leads to soil depletion and erosion.
Indigenous natural resources	Medicinal plants grow naturally and are being harvested and sold.	Uncontrolled harvesting can lead to the depletion of the resource and degradation of the habitat. Lack of awareness on sustainable resource use can result in extinction of the plants. The informal areas have a high population density which implies increased use of resources per unit land area. The lack of structured conservation and the unsustainable utilisation can result in decimation of the resources and habitat. Healthy stands of vegetation are few and far between especially in the Umzimvubu municipal area. Presence of

		healthy indigenous forests normally indicates presence of other indigenous resources including fauna. Overall vegetation cover and species diversity diminish moving from the well vegetated mountain and indigenous forest areas, to the densely settled and overgrazed areas with mainly subsistence farming. Diversity is also limited on the commercial farms due to selective cultivation and propagation of the preferred productive species. Soil degradation is widespread. Lack of control of domestic livestock in the subsistence rural areas leads to uncontrolled grazing and overgrazing of certain palatable species, leading to imbalances of ecosystems.
Aesthetics	The ANDM areas including the towns that have maintained their rural character are still quite attractive, especially if the adjacent open spaces are well vegetated. Most though consist of scattered households with poorly maintained surroundings. ANDM has forests and water bodies that add to attractiveness of the areas such as Ongeluksnek, Ntsizwa and Ndakeni. Urban areas are congested and lack cleanliness. Live animals are common throughout and they cause a lot of nuisance.	Well-maintained biophysical environment, well maintained productive land, eradication of informal settlements and associated activities. This can result in more nature based tourism and a cleaner and healthy environment.
Recreation facilities	Very limited formal facilities. Lack of public parks overall. Limited formal green spaces especially in the main centres. Green spaces are not a major issue in the rural areas as there is ample open space. Matatiele, Maluti, Cedarville, Mt Ayliff and Mt Frere need such spaces. There is a definite need for the development of	Unattractive towns, lack of facilities for training on resource management.

	more recreational facilities. No botanical gardens.	
Cultural practices	Traditional practices are especially evident in the informal settlements and rural areas where slaughtering of animals, the keeping of livestock, the sale of medicinal plants and remedies is evident.	The tourism and agriculture can be combined for eco-tourism to expose people to the rich diversity and cultural significance of the area. Conservation of biodiversity will contribute to the maintenance of such practices as traditional healing and collection of indigenous food products from well maintained natural areas.
Governance: policies	All national policies governing environmental management are in place. Provincial and local policies are lagging behind.	Bi-laws necessary to improve local environmental management and capacity building within the municipality.
Rural-urban migration	The migration has led to congestion and the infrastructure and services are not coping with the influx. People move closer to the towns seeking employment and some do not return to the rural areas. Unprecedented growth of informal settlements results	Increased waste overloading the system, more demand for water and food, more demand for housing, transport and energy. Increase in diseases associated with poor sanitation and ventilation. Waste of energy, poor air quality. Urban sprawl and reduction in natural areas. Properly zoned and serviced residential areas and green zones to be created.

8. ISSUES TO BE COVERED IN THE NEXT REPORTING PERIOD

A lot of ground has been covered relating to the site analysis. The next task, the status quo assessment and analysis, will therefore have the following main components:

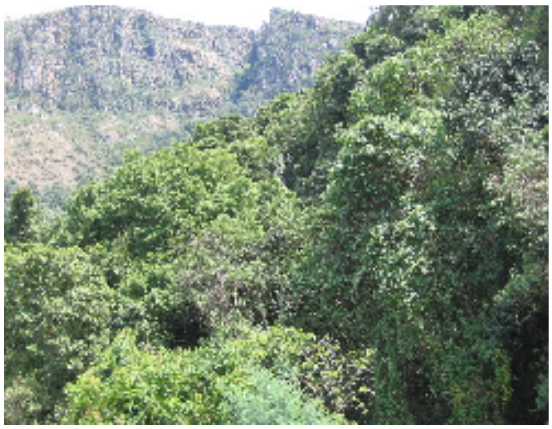
- Field data analysis
- Social consultation
- Compilation of legislation
- GIS and mapping
- Capacity building

This will be the time and place to identify physical and subject areas requiring urgent attention, and to start making concrete make recommendations so that an EMP that is appropriate, simple and cost effective will be prepared at the following stage. Most of the integration of the social, economic and biophysical issues will be indicated, and the necessary mitigation measures identified.

This will be the place where the responsiveness of the targeted stakeholders will be gauged and necessary measure taken to ensure buy-in and informed participation by these stakeholders.

The reality that with economic growth there is an exponential growth in the utilization of environmental resource should be understood by all. But if there is more degradation than usage, the necessary growth may never be achieved and Alfred Nzo could face the reality of a mass exodus out of the district and a potential economic and social collapse.

9. Alfred Nzo District in pictures



10. PROJECTED TIMEFRAME AND CASHFLOW