

Sustainable Coastal Management and the Admiralty Reserve in Umdoni Municipality -
Towards an understanding of the Admiralty Reserve encroachments

David Makhosonke Duma

A dissertation submitted in partial fulfillment of the requirements for the Master of Social Science (Geography and Environmental Management) at the University of Kwazulu Natal, Durban, in the School of Life and Environmental Sciences, 2005.

DECLARATION

I, David Makhosonke Duma, declare that this is my own unaided work. It is submitted in partial fulfillment of the requirements for the degree of Master of Social Science (Geography and Environmental Sciences) at the University of Kwazulu Natal, Durban. It has never been submitted before for any degree or examination at any other university. The document is signed in Durban, on the 06th day of April 2005.

As the Candidate's supervisor, I have approved this dissertation for final submission.

Name: Professor G. Garland

Signature: _____

Date: _____

ABSTRACT

The dissertation's point of departure and contention is that the Admiralty Reserve is one of the Coastal Resources facing degradation due to the fact that it is a common property owned by the State President on behalf of all citizens of South Africa.

The environmental management function has become the unfunded mandate of local authorities therefore the administration, control and management of the Admiralty Reserve is the responsibility of local government in terms of various lease agreements. There are currently no specific tools available to local government to manage the Admiralty Reserve.

The encroachment of the Admiralty Reserve has been and still is a problem for all coastal municipalities including Umhlanga municipality. The rationale for the topic was to study the geography of the Admiralty Reserve, the causes of encroachments and the way in which the local authorities dealt (past and present) with the Admiralty Reserve encroachments; to assess the strategies employed by the municipalities in dealing with encroachments, and with the traditional and evolving functions of the Admiralty Reserve. This was done using standard research methods and techniques. The study is located in one of the small coastal municipalities of South Africa called Umhlanga, in the Province of Kwazulu-Natal.

The results of the study show that the past and present strategies of dealing with encroachments were adversarial in stance and not collaborative. The failure to administer and manage efficiently can be attributed to the following reasons: lack of capacity to deal with environmental matters and legislation, lack of political willpower, negligence on the part of both national and local government spheres, lack of stewardship, lack of proper education, training and knowledge of environmental issues and negative attitudes towards environmental matters. It was also revealed that generally people encroach into the Reserve because of greed and selfishness.

One of the conclusions drawn from the findings was that the Admiralty Reserve has become a victim of fragmented control and management by various spheres of government. The Admiralty Reserve requires an integrated management approach that incorporates civic organizations, the relevant government departments, the local authority and the interested and affected individuals. Local authorities are not given proper tools to manage the Admiralty Reserve. There are many laws but none of them are relevant to the Admiralty Reserve. In the absence of usable legislative tools relevant to the Admiralty Reserve encroachments, it is highly recommended and imperative that coastal local authorities (particularly Umhlonjane Municipality) should formulate and strengthen their bylaws.

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CHAPTER ONE

INTRODUCTION

1.1 The Coastal Zone of South Africa

South Africa is a country with a majestic landscape and a bounteous natural environment. Its landscapes have changed dramatically over the past few centuries, largely through human settlements and associated developments. Short-sighted development, inappropriate land use practices and poor land management have impacted significantly on the ecosystems that form the core of the Coast's natural capital.

Geographically, the Coastal Zone is the land between the seawater and low-lying coastlands. The Coastal Zone in South Africa stretches along the Indian Ocean (on the east coast) and the Atlantic Ocean (on the west coast). Development along the coast of South Africa is either initiated by government through its departments or by the private sector. Several government initiatives have been initiated by the state in the form of Spatial Development Initiatives (SDI's) and housing developments both excluded from the listed activities in terms of the Environment Conservation Act of 1989.

In the wake of socio-political changes stemming from the repeal of apartheid legislation, the Coastal Zone has experienced an intensification of human population pressure; the result being the efflux and influx of people from other areas to coastal towns and cities. Along the South African coast there are many examples of poorly planned and inappropriately located developments that have interrupted and interfered with the coastal ecosystems.

In order to ensure equitable utilization of the coastal resources, a policy for the control of ORVs in the coastal zone was announced by the minister of Environmental Affairs and Tourism on 29 April 1994. The policy recommends that recreational vehicles should not be allowed near bathing areas, beach areas near bathing areas, ecologically sensitive areas such as dunes and bird and turtle nestling and protected

areas. In addition, it advocates the introduction of a permit system to regulate the use of ORV in demarcated areas.

As part of the coastal zone lies a strip of land called the Admiralty Reserve. It is a piece of land that does not appear intermittently throughout the coast of South Africa but is found in patches along the coast. This study will concentrate on the violations of this strip of land as it is a land held in trust by the State President on behalf of all the South Africans.

1.2 The Admiralty Reserve situation in Kwazulu-Natal

The Kwazulu-Natal coast is one of the largest tourist destinations in South Africa. Eight beaches have qualified for the Blue Flag status in South Africa and six of them are found along the coast of Kwazulu-Natal. However, coastal municipalities are facing the challenge of some coastal resources becoming degraded. In a sense, the Admiralty Reserve, the focus of this study, is such a coastal resource. When the word Admiralty Reserve is mentioned many dimensions enter the discussion. The Admiralty Reserve is both a form of land tenure and biophysical, a site of coastal activity, thus violations may be seen as political, social and economic issues. When encroachments into the Admiralty Reserve take place it becomes tantamount to property theft.

Illegal land occupation of State Coastal Assets in Kwazulu-Natal, with specific reference to the Admiralty Reserve, have been a topical issue for many decades. The State is charged with regulating and controlling development along the coastal regions. This mandate is derived from a plethora of legislation which will be discussed later on in this study. The National, Provincial and Local government are the three spheres of government which exercise this mandate. At a national level the Department of Environmental Affairs and Tourism is the national lead agent and provides overall framework legislation, guidance and support with respect to environmental management. In the province of Kwazulu-Natal the Department of Agriculture and Environmental Affairs is the provincial lead agent, administering both national and provincial policy, laws and regulations. At a local level coastal municipalities are responsible for applying national and provincial environmental policy, laws and regulations as well as their own environmental bylaws.

The coastline is the focus of numerous economic activities and the site of many different forms of human settlements. It is therefore imperative that the provincial and municipal spheres of governance ensure sustainable coastal development management by assuring that there is equilibrium between the private desire to make money and the public right to a healthy living environment.

The Admiralty Reserve is a nebulous piece of land for a variety of reasons. Many people who are regular users of the beach are unaware of its existence. It is notoriously difficult to administer. The problem facing local authorities is administering this very unwell-defined or unwell-understood strip of land that has varied administrative history (TRPC, 1997). It is said to be a key zone of land use conflict with the desire to conserve its pristine natural beauty and natural values offset against reaping its economic potential.

Along the Kwazulu-Natal Coast, this strip was in most cases originally set at 150 feet from the high water mark. It exists along the entire beachfront within the former Pennington TLC (now Umdoni), and is managed by Council in terms of several lease agreements with the Department of Public Works. Along the coastline of Kwazulu-Natal there is no Admiralty Reserve between Tongaat and the Umvoti Rivers on the north coast the reason being that it was omitted from the deeds of grant.

In the case of the former Kwazulu-Natal tribal areas an anomaly is that land just contiguous to the Admiralty Reserve is in communal tenure and is officially owned by the state but in practice administered by the tribal clans. There has never been any control over the Admiralty Reserve in the former tribal areas and in places there has been major encroachments into the Reserve. Umgababa, just south of Kingsburgh, is a glaring example of this anomaly. The area is under the jurisdiction of a Trust set up under the auspices of the tribal authority (Mnini Trust). There has been rapid development over the past few years. The Trust has over the years controlled development on the seaward side of the railway line thus assuming full responsibility for Admiralty Reserve preservation. Currently, however, due to development pressures, houses have been built virtually on the beach. Uncontrolled and unplanned development next to the Reserve has taken advantage of this situation. Along

Umgababa beach people are extending their houses right into the coastal dunes (TRPC, 1996).

Turton, is another area on the south coast where the boundary of the tribal area reaches the shoreline. This area lies directly north of Hibberdene right up to Mtwalume. Encroachments, according to the TRPC (1996), occurred as one local resident has built right on the grassy verge next to the beach. In this province the administration of the coastline has been complicated by the previous existence of two nature conservation bodies namely the former KZN Department of Nature Conservation and the Natal Parks Board.

1.3 Defining & understanding the Admiralty Reserve

According to Oosthuizen (1985) in addition to the seashore the early colonial government reserved a narrow strip of land which lay between property granted in private ownership and high water mark. This strip of land exists along the coasts of Kwazulu-Natal and the Cape Provinces. It is interchangeably known in different places as "Government Reserve", "Beach Reserve", "Admiralty Reserve", "Coastal Forest Reserve" or "Forest Reserve". However in KwaZulu-Natal it is commonly known as the "Admiralty Reserve" (Oosthuizen, 1985). In the lower south coast it is also referred to as the "Amenity Reserve" in most town planning schemes. This strip of land varies in width from place to place for instance, in KwaZulu-Natal, the Reserve is usually 150 feet wide but north of the Tugela River this state owned land is separated from the sea by a coastal forest Reserve 250 feet wide. Most Kwazulu-Natal territory which borders the sea also has in addition to the Admiralty Reserve 150 feet wide Forest Reserve (Oosthuizen:1985).

Glazewski (1986:193) describes the Admiralty Reserve as a narrow strip of state-owned land, not more than 200 feet (70 metres) wide which is "dispersed unsystematically along the South African coastline, that runs parallel to the landward side of the high watermark". The term "high-water mark" refers to the highest point "reached by water of the sea during ordinary storms occurring during the most stormy period of the year excluding exceptional or abnormal floods" (Oosthuizen, 1985:2) It covers the area from the high-water mark inland for approximately 70 metres (TRPC: 1996). The key Act governing the administration of this portion of coastline is the State

Land Disposal Act No. 48 of 1961. There are nineteen other pieces of legislation which have some effect on the Admiralty Reserve which makes it even more "difficult" to administer and manage.

Where it exists, the degradation of the Admiralty Reserve is a cause for concern to coastal municipalities because its destruction poses risk and threatens vulnerability to human life and development. In order to declare the Admiralty Reserve as a special portion of the coastline worthy of preserving it is necessary to gain a better understanding of this valuable public space by analyzing:

- The geography of the Admiralty Reserve – where it is and how much of it still remains ;
- Attitudes toward the Admiralty Reserve;
- Its legal characteristics;
- The role it could play in Coastal Zone Management, both theoretically and practically.

Coastal municipalities in Kwazulu-Natal are often confused with regard to the Admiralty Reserve. Where the Admiralty Reserve does not exist, it is usually recorded on the original diagram of the property concerned according to the Surveyor-General. Accordingly the Admiralty Reserve only exists between a property and the beach if there is documented evidence to show that it does exist. Establishing its presence or absence therefore requires a search at the office of the Surveyor-General or the Registrar of Deeds.

According to the Surveyor-general, the Admiralty Reserve does not run continuously along the entire length of the coastline. Certain privately owned properties extend down to the high water mark of the Indian Ocean, down to the sea shore. This happens in cases where there has been private alienation of what is known as the Admiralty Reserve.

1.4 International Precedents

In addition to the sea-shore, early Colonial Governments sometimes reserved themselves narrow strips of land which lay between property granted in private ownership and the high-water mark.

The idea of reserving a piece of land for public use 150 feet from the high water mark was initiated in the United Kingdom. However, when the concept of the Admiralty Reserve began in the United Kingdom the reservation of this strip of government land was solely for the purpose of defence of the coastline (TRPC, 1997). This seems likely as the term "Admiralty" has its origin in maritime England where the naval and sea defence were all important (TRPC, 1997). Oosthuizen (1985) contends that the Admiralty Reserve was one of the "rights of the crown" universally applied in British dominions.

1.5 Reasons for its establishment

The original purpose for the establishment of the Reserve in South Africa is unknown and there is no currently documented reason. Reports state that the rationale behind the establishment of the Admiralty Reserve is somewhat obscure or unclear but the Reserve is said to have been the Reserve to the state (in those days the Crown) jurisdiction over flotsam and jetsam washed ashore from shipwrecks. However, this has since been overtaken by the Wreck and Salvage Act of 1996 (Muni-brief, 2003). Some historians suggest that its purpose was also to allow for the careening of wooden hulled sailing ships that needed caulking from time to time. Another reason may have followed the UK precedent to allow for the defence of the coastline, particularly at locations where conditions were considered favourable for beach landings (Muni-brief, 2003).

During 1911, the surveyor-general of Natal expressed his doubt over the original purpose of the Admiralty Reserve as follows: "nor is it quite clear to me why it (the Admiralty Reserve) was reserved.....(it) may have been useful for defence purposes" (Glazewski, 1986:195).

The Reserve came into existence due to a specific clause inserted into the original deeds of grant made in the latter part of the last century which reads "a strip of land

two hundred feet in width above the high-water mark is reserved for the government” (Glazewski,1986:193). Therefore the Reserve was imposed through terms in the deeds when the land adjoining the sea-shore was originally surveyed and plans of regional lots drawn up. The Admiralty Reserve was definitely introduced by the early administrators of Natal and “subsequently confirmed by law” (Oosthuizen, 1985:5). Confirmed by law refers to the legality of the title deeds rather than any act of Parliament.

Where the Admiralty Reserve exists, it is recorded as being strips of land 150 feet (45,72 metres) wide, landward of the official high water mark. The Surveyor-general, however, indicates that differing widths are recorded in some parts, ranging from a width of 120 ft (36,58m) to 200 ft (60,95), and in instances where documentation does not show the actual width of an adjoining Admiralty Reserve, this is assumed to be 150ft (45, 72m) (Muni-brief, 2003).

Environmental scientists, surveyors and planners alike have struggled with the reasons for the existence of this shoreline reservation as there are no documentary records surrounding its establishment, but the existence of the “Government Reserve” or “Admiralty Reserve” is nevertheless reflected in many of the original diagrams and general plans prepared when the farms and town lots along the Indian Ocean were surveyed and taken up by the early settlers in Natal . In many of the deeds of grant as well as in the subsequent transfers and sub-divisional transfers the Reserve is also mentioned (Oosthuizen ,1985).

1.6 **Rationale for this research**

Umdoni Municipality is a coastal municipality which comprises a large rural component that to some extent depends on the coast for its development and survival. Like other coastal municipalities, the Municipality of Umdoni has been inundated with calls and correspondence from environmentalists who want to know why the local authority is not exercising its obligation with regard to environmental compliance. Many of these point to that the failure of this municipality to deal effectively with the encroachments onto the Admiralty Reserve.

The topic has been chosen because it touches on land tenure. Access to land is a serious issue in South Africa. The new government regards land issues as sensitive and has vowed to return the land that was forcibly taken from the people during the heyday of apartheid. The state uses legislation such as the Development Facilitation Act to prevent a situation where people could occupy land just because that land is adjoining their place of residence.

The topic has also been chosen because the success of the economic goals of the Integrated Development Plan depend on sustainability of coastal resources. The Admiralty Reserve is one of the coastal assets that will be lost if nothing is done to control the speed with which property owners and other intruders invade this piece of land for their own self-interest. There must be a sound reason for the failure of all three spheres of government to take stern disciplinary action against illegal encroachment onto the state coastal asset. The research hypothesizes that the causes for non-compliance and non-enforcement are lack of political will, people's attitudes towards the environment in general, poor institutional capacity, and lack of education and awareness about the importance of the environmental issues and of the Admiralty Reserve in particular.

As one of the coastal municipalities under the Ugu District, Umdoni Municipality's vision for the next five years is to fight poverty and joblessness through tourism development. This is in line with the District Municipality's vision for 2010. Umdoni Municipality's vision is to tap in to the coastal advantage of this municipality and use it to fight coastal poverty by attracting both domestic and international tourists. In order to achieve this goal there has to be proper coastal asset management. Presently there are many environmental transgressions taking place within Umdoni which could jeopardize this regional vision.

In order to realize the vision, mission and objectives as enshrined in the IDP, Umdoni municipality will need to start controlling land adjoining the beaches. The Admiralty Reserve is owned by the State President on behalf of the people of South Africa. The lack of understanding and value (importance) of the Admiralty Reserve prompts this study. This research makes the assumption that the Admiralty Reserve is an important

coastal asset and that the little of what is still left of the Admiralty Reserve should be Reserved for the benefit of the future generations

However, this work will concentrate on those encroachments that have been reported to council in places where there is certainty that the Admiralty Reserve exists and is zoned for in terms of the Town Planning Scheme of Umdoni Municipality. For instance, there is no Admiralty Reserve in Ocean View (Umdoni Scoping Report, 2003).

The report commissioned by the Town and Regional commission (1997) identified two current goals in the management of the coastline :

- To preserve the natural integrity of the coastline and;
- To ensure that this resource is available for use by all citizens of the country.

It is important to understand how these two goals can be combined for the benefit of all citizens. This study aspires to contribute towards a better understanding of the Admiralty Reserve and to obtain some guidelines on its management.

1.7 **Statement of the Research Problem**

The main reason for choosing this topic is that the Admiralty Reserve is an open public space that is mismanaged by many local authorities, perhaps because there is no economic value attached to this environmental resource. Most municipalities are struggling to manage it as it is common property for all.

Encroachments into the Admiralty Reserve are an important issue facing coastal management. The municipality is unable to regulate the process and usually indulges in *ad hoc* 'crisis management' exercises after the damage has occurred. Transgressors remain unpunished since there is no policy on how to deal with encroachments. This is particularly felt by smaller municipalities, like Umdoni, which do not have the capacity to deal with this task. Development taking place along the Reserve is ineffectively controlled. There are no policies, no enforcement and no prosecution of transgressors, all the legislation and planning is not being implemented.

Disturbed areas in the Admiralty Reserve, as a result of encroachment (pathways, areas where natural vegetation has been removed), areas in close proximity to those

which have been developed, are a cause of alien plant invasion. This decreases species diversity and increases water use, erosion, fire risks and intensity. It detracts from the aesthetic appeal and indigenous plant effect (on tourism and ecological value).

Plants and animals need space for migration and breeding. Ecological islands that have been cut from off by land uses such as intensive development are likely to degrade over time. Important ecological linkages should be maintained and others created, through the establishment of the municipal-wide Admiralty Reserve management structure and the integrated municipal open space system. Important ecological linkages straddle the coastline and run across the landform (river system) due to transgressions. It is for this reason that the Admiralty Reserve should be conserved and systematically preserved/rehabilitated.

This topic was also chosen because of the number of complaints and the extent to which this problem is covered in media. It has been one of the topical issues in coastal municipalities for decades. This resulted in a study that was commissioned by the former Natal Town and Regional Planning commission in 1996. However, this study only highlighted issues for further research and failed to come up with practical solutions to the problem. In the case of Umdoni the issue has been driven by rate-payers and environmentalists who wanted to take legal steps against the local municipality for dereliction of duties. These environmentalists have always put pressure on council since the early days of democracy in South Africa.

1.7.1 Institutional responsibilities

Provinces and local authorities are given certain competencies but they may be taken over by the national government. Sections Four and Five of the Constitution define the delegation of legislative powers amongst National and provincial spheres of government. It is clear that there are many functional areas of joint responsibilities between national, provincial and local government levels.

A number of clauses in the Constitution provide for the respect of overlaps as far as intergovernmental relationships are concerned. The constitutional guarantee for concurrent competence in many environmentally relevant areas is to many scholars

problematic. The matter of administrative and legislative fragmentation poses a problem in the implementation of legislation and in monitoring compliance.

The Constitution does, however, provide a concept that deals with overlaps and fragmentation and that concept is co-operative governance. In the Constitution, the supreme law of the country, cooperative governance defines the National, Provincial and Local levels of government as spheres of government which are distinctive, interdependent, and interrelated. In the past, these spheres of government were referred to as tiers of government. The word "spheres" suggests equality between the three levels of government. These three spheres are expected to abide by the principles of cooperative governance. These principles embrace the need to limit their powers and functions to those conferred on them in terms of the constitution. They are to respect the status and responsibility of other spheres. They are admonished to cooperate with one another in mutual trust and in good faith. This includes informing, capacitating one another, coordinating actions and legislation, adhering to agreed procedures, and more importantly avoiding legal proceedings against one another. This is indeed problematic when one considers the issue of environmental transgressions because this means if the local authority fails to take necessary steps to ensure compliance, the national and provincial spheres are prohibited from taking any legal action against it. A good example of this problem is that in almost all local authorities there have never been any successful prosecutions of those who have transgressed laws relating to Admiralty Reserve. This is evident in all coastal municipalities.

The principles of cooperative governance are a stumbling block to effective environmental compliance and monitoring. This cooperation, respect and understanding between the three spheres is done at the expense of the coastal environment. There is no structure adjudicating environmental decision making between these spheres and it is difficult to come up with partnerships that can achieve win-win situations effecting sustainable development. There are too many processes in coastal zone management that are not communicating. There is lack of alignment of actions and lack of communication between these structures.

Local authorities are expected to be both the referee and the player at the same time in the process of development. There is inherent conflict of interest with respect to environmental responsibilities. Local authorities find themselves in a dichotomy as they have a legislative duty to conserve and protect the environment. Section 24 of the Constitution compels local authorities to protect the environmental right of every citizen of this country by ensuring that everyone has the right: “to an environment that is not harmful to their health or well-being; and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other **other measures** that prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting economic and social development” (South African Constitution, 1996: 12). The National Environmental Management Act (1998) (NEMA) principles as set out in Chapter One apply to actions of all organs of state that may significantly affect the environment and serve as a guideline by reference to which any organ of state must exercise any function when taking any decision in terms of the Act concerning the protection of the environment. Section 24 (1) of NEMA states that “in order to give effect to the general objectives of integrated environmental management , the potential impact on the environment, socio-economic conditions and the cultural heritage of activities that require authorization or permission by law and which may significantly affect the environment, must be considered, investigated and assessed prior to their implementation and reported to the organ of state charged by law with authorizing, permitting or otherwise allowing the implementation of an activity.” (p 15)

On the other hand municipalities have a legislative duty to deliver services and promote development. Sections 152 and 153 of the Constitution state that municipalities must structure their planning processes to give priority to basic needs of the community and to promote social and economic development of the community.

1.7.2 Preliminary Issues

From a brief examination of the Umdoni Admiralty Reserve, some preliminary issues have been identified which will require further exploration in this research project:

- Enforcement of law – once the role and function and management strategy has been determined, the means to enact and enforce the regulations must be in place.
- Encroachments: there are many encroachments into the Admiralty Reserve, some condoned and many are illegal. A policy is required to deal with these encroachments.
- Recognition: at the moment there is much indifference and ignorance encountered about the Admiralty Reserve. Awareness about its role and functions needs to be increased.
- The need for the Admiralty Reserve from a geomorphological, conservation and public access point of view with respect to ecological, economic and social importance. This is to say the Admiralty Reserve is part of the coastal zone which is the buffer between land and sea, and its preservation is in the interest of the public.
- The role and function of the Admiralty Reserve needs to be clarified by responsible government authorities.
- Historical legal alienation of portions of the Admiralty Reserve. It is believed that this situation cannot be reversed and needs to be investigated especially in cases where dune vegetation is destroyed on those portions of the Reserve that were legally alienated to the private firms.
- Uncertain administrative responsibility: an appropriate body to administer the Reserve needs to be identified.
- Unfunded mandate: the role, function and the administrative responsibility will help to determine the budget required. Once it has been decided that the Reserve has a clear purpose and value, then it is essential that an adequate budget is allocated to the task of management and administration.
- Legislation: it appears that there is no act that formally established the Admiralty Reserve. Although it is administered in terms of the State Land Disposal Act No 48 of 1961. An Act may be required to formalize the Reserve and clarify any conflicts within the existing legislation (TRPC, 1996).
- Conservation: the management strategy should take into account existing conservation areas near the Reserve.
- Recreation: the issue of four-wheel drive access to the beach and use on the beach needs to be examined.

Some of these issues were raised by environmentalists in the area and others are taken from the TRPC report of 1996. This research undertakes to explore these issues through addressing the research question: why has the Admiralty Reserve been poorly managed by the then Penning TLC and now by the newly formed Umdoni Municipality?

1.8 **Aims and Objectives**

The overall aim of this study is to explore the role of the Admiralty Reserve in coastal zone management in South Africa.

Precise objectives are:

- To determine the extent of and location of the Admiralty Reserve in Umdoni Municipality
- To assess the effectiveness and highlight the shortcomings of past and present control and management measures of the Admiralty Reserve. The study undertakes to compare the strategies of Umdoni Municipality and those of Hibiscus Coast Municipality since they are both coastal municipalities affected by this problem.
- To determine the importance of the Admiralty Reserve for geomorphological, economic, social and biophysical reasons.
- To propose guidelines for a clear, unambiguous and enforceable management policy for the Admiralty Reserve.
- To describe the violations of the Admiralty Reserve.
- To understand the reasons for the failure to deal effectively with the encroachments.

1.9 **Structure of dissertation**

- Chapter One is a preamble to the whole dissertation and deals with the origins of the Admiralty Reserve, rationale for topic, aims and objectives and sets the parameters of this work in terms of identifying issues, questions that the dissertation will attempt to deal with.
- Chapter Two examines literature on sustainable development and sustainable coastal management as a philosophy and theoretical context underpinning the study and coastal development.

- Chapter Three provides a description of the study.
- Chapter Four discusses the approach to the study and methods of collecting data.
- Chapter Five discusses the policy and legislative framework that exists as attempts to control the encroachments or transgressions into sensitive coastal areas.
- Chapter Six considers the results of the study with the aim of dealing with issues and questions raised in chapter one and meeting the aims and objectives.
- Chapter Seven provides the analysis and discussion of results.
- Chapter Eight provides conclusions based on findings.
- Chapter Nine provides recommendations by formulating management objectives and policies to deal practically with the issue of the encroachments.

1.10 **Conclusion**

The chapter has provided introduction, rationale for the topic, aims and objectives of the study and the research problem with a view to setting the parameters for this work. The next chapter will review the literature and theoretical context underlying the study.

CHAPTER TWO

THE THEORETICAL CONTEXT AND LITERATURE REVIEW

This chapter examines the theoretical underpinnings that underlie this research topic. It attempts to provide the context of the study by discussing sustainable development as a philosophy that informs the topic.

2.1 The significance and theoretical context of Admiralty Reserve violations in the Coastal Zone

This literature review must be seen against the broader context of the coastal zone and its importance. The coast has become the focal point for human development and settlement. The coast is valued by many people as a distinctive and significant place. Coasts are said to be productive regions that provide tremendous benefit to humanity. Glavovic (2000) mentions the following global advantages of the coast:

- Around the world the coast is valued as a distinctive and special place;
- Coastlines are productive, narrow fringes of land and sea that provide tremendous benefit to humanity;
- Coasts are home to many people and used by some as tourist destinations;
- Coastal ecosystems are rich in natural bounty;
- Coasts generate many economic good and services;
- Coasts provide intangible benefits including aesthetic, cultural, spiritual, educational, and scientific on all continents.

Coastal and marine resources provide revenue, job and tourism opportunities to make a significant contribution to providing alternative sustainable livelihoods. Coastal ecosystems are increasingly under duress from a range of anthropogenic impacts. The poor communities' struggle against poverty often gives rise to continued over-exploitation of resources in absence of immediate alternatives.

However, coasts are facing the following challenges:

- Over-exploitation;
- Loss of bio-diversity;
- Environmental degradation (erosion & pollution);
- Lack of corporate governance;

- Lack of adequate compliance;
- Low levels of investments in alternative coastal livelihood programs (Mariculture & tourism)
- Governance – unsustainable historic patterns (DEAT, 1998).

In South Africa the coast is viewed as an asset of tremendous importance for recreation and tourism. It supports a number of coast-dependent businesses and commercial ventures and is a place of cultural, educational, scientific, religious and spiritual significance. It is for the abovementioned reasons that the coasts of the world must be carefully managed if they are to realize their potential and sustain their manifold benefit (Glavovic, 2000a:4). The growth of population will result in physical development demands. These demands impact on coastal ecosystems. Careful planning will assist in curbing the over-exploitation of coastal resources. Without coastal ecosystems coastal livelihoods will suffer ailments such as coastal storms and hazards as well as coastal poverty.

2.1.1 The emergence of sustainability

The emergence of International concerns resulted in the many agreements, treaties, recommendations, policies and action plans by states with the view to saving the planet earth. For instance, in the Stockholm Conference of 1972 one point of emphasis was on the need to respond to the problem of environmental deterioration. In 1992 in Rio de Janeiro, the focus was on the protection of environmental, social and economic development which are all essential to sustainable development. A global program Agenda 21, was adopted. This program included, among other things, mention of gender, social and population development, racism, food, children, habitat, Aids, trade, financing for development and the environment. This summit was a significant milestone that set a new agenda for sustainable development.

The 2002 World Summit on Sustainable Development held in South Africa was the biggest conference ever hosted by the United Nations. More than 500 meetings and events associated with the summit took place. Three hundred partnership agreements were announced during the summit and specific agreements committed funds to particular projects. The European Union committed billions of Euros to help meet the waste sanitation needs of the continent, as identified by NEPAD. One of the

achievements of this summit was the delivery of clear targets and time frames covering areas like water, sanitation, health, agriculture and food security, energy, biodiversity, housing and trade.

The challenges and significance of our coast to South African people necessitate striking a balance between development and environment, a phenomenon known as sustainable development. In the past environmental issues and economic growth and development were considered as mutually exclusive and as conflicting needs in capitalist societies. Neo-liberal policies have led to an increasingly market based and inter-dependent global economy which is associated with rising inequalities, poverty and growing environmental degradation. Environmental degradation has occurred as a result of colonialism and neo-colonialism. According to Griggs (1999), there has been clearing of tropical rainforests for European husbandry which resulted in soil erosion, eroded environment and invasion of alien species (biological imperialism). The global geography of mismatched cultural and political boundaries foments enormous conflicts over environment and resources which is why Griggs (1999) believes that this requires a fully integrated environmental management system to take cultural impacts into account. Reconstructing damaged environments requires cultural reconstruction and therefore intercultural cooperation (Griggs, 1999).

The advent, dominance and intensification of capitalism as a mode of production within and between countries and regions have resulted in changes in the climate. This was a concern to scientists who predicted yet more environmental problems should the phenomenon be allowed to continue unabated. This, together with a number of serious environmental problems and events led to the rise in sustainability thinking in the 20th century. Global environmental problems such as global warming, sea level rise, air pollution and the depletion of the stratospheric ozone layer became topical issues in all conferences. Heads of state took it upon themselves to take precautionary measures through a balancing act. The new approach to development considers people on the ground, nature and economic prosperity in decision making, unlike the previous approach which placed emphasis on maximizing profits at the expense of nature and its people. It was only in the early 1970s that people began to

consider the relationship between development and environment as having inter-related impacts.

With respect to this study, the Admiralty Reserve is seen as an instrument for controlling development in the coastal zone, and places the study squarely within the sustainable development paradigm. However, development in coastal areas must clearly take account of the holistic nature of the coast, in other words, the ideas of Integrated Coastal Zone Management become equally important. A brief review of theories of both sustainable development and ICZM will follow. Nevertheless, due to the transient nature of coastlines and the intensity of processes, the theories of coastal geomorphology are also relevant, and are briefly outlined as part of the review.

2.1.2 Sustainable Development

Sustainable development is a term that has been defined in many different ways but the most commonly accepted definition is that given by the World Commission on Environment and Development commonly known as the Brundlandt Report (1987) where it is defined as a *development that meets the needs of the present generations without compromising the ability of future generations to meet their own needs*.

The concept of sustainable development is accepted both internationally and in South Africa in planning and development arenas (O’Riordan, et al, 2000, Sowman, 2002; Scott, et al 2001). Many people hold the view that sustainable development within the current global economic order does not exist. Rather we should think about moving toward a more sustainable global system, implementing goals and principles that can transform the world. For O’Riordan et al (2000), sustainable development implies an end point whereas the concept of sustainability is more about a pathway – a direction in which to move. It is therefore a framework that should be used in decision-making.

2.1.3 Sustainability principles

The principles of sustainability provide the key elements of the framework. Environmental management tools (eg legislation) can be used to enhance the inclusion of sustainability principles in decision-making, project implementation, monitoring and evaluation so as to balance environment and development . These

tools of environmental management should be incorporated in all phases of the planning process.

Sustainability is an approach to development based on a core set of principles namely economic (economic viability and integrity), ecological (the conservation of biodiversity and the maintenance of ecological integrity) and social sustainability (social justice and equity). In order to achieve Sustainable development, Oelofse (2000) believes that three development processes need to be integrated namely: economic development, community development and ecological development. When working towards sustainable development there are four key principles that need to be considered: futurity, ecological integrity, social justice and public participation. When development is considered people tend to choose between two world views namely: weak or strong sustainability. Ideas of weak and strong sustainability have been debated recently. 'Deep greens' or 'deep ecologists' contend that there is total incompatibility between accelerated economic growth and sustainable lifestyles as the one systematically undermines the other. There are those, on the other end of the spectrum, who would argue that nature has the ability to recover and that the ingenuity of people (science) will lead to new technologies and solutions equally able to address emerging problems (Oelofse, 2000).

Good governance and management provide an important platform in which the sustainability principles can be realized. The Brundtland report (1987) outlines seven conditions that would need to be met in order to support the principles of sustainable development. These are:

- A responsive political decision-making process
- An economic system that does not generate the same resource demands as the present system
- A responsible social system that redistributes the costs and benefits of unequal development;
- a system of production which is sensitive to the capacity of the ecological system;
- innovative developments in technology that enable better uses of resources;
- a global alliance to support sustainable development initiatives and;

- a responsive, flexible system of governance that enables public participation in decision making (Oelofse 2000:13).

2.1.4 Defining sustainability

The foregoing section allow one to move towards a definition of sustainability. O’Riordan *et al* (2000) contends that sustainability relies on social cohesion, fair treatment, empowerment, and environmental safeguards. Without these components the prospects for peaceful and secure quality of life for the majority of South Africans is bleak. These authors strongly believe in meaningful participation and not token participation. Empowerment for them means that for the few to speak for the majority there has to be networks of communication and trust as well as educational and civic consciousness raising process that provides those formerly disenfranchised and marginalized to gain the capacity and self-confidence to participate meaningfully and authentically in a manner that is true to the needs and aspirations. This challenges development planners to be sincere and listen actively to the issues raised by the people for whom development is planned. Griggs (1999) believes that local culture is more significant for environmental sustainability than written laws and distant bureaucrats. He contends that we should try and empower local people to develop cultures appropriate to where they live. Co-management schemes between local and national actors could improve environment and reduce conflicts. A policy for sustainability must be maintained by the locals. Empowering culture can become an organizing paradigm for achieving sustainable development. Decision making on environmental issues should include cultural dimensions. Griggs (1999) asserts that co-management schemes, decentralized decision making, recognition of group rights can reduce environmental conflicts and help to achieve a sustainable relationship between society and their environment. This is relevant for the study area since in the recent past the municipality has been plagued by environmental conflicts which are caused by lack of recognition and respect for local knowledge.

Sustainability would occur when knowledge about trees, plants, soils, planets and agriculture methods are transmitted in various ways from generation to generation. This can be linked to the concept of African Renaissance which aims at rebuilding culture which may be our best hope for proper stewardship.

Sustainability for Turner 1991 (in Oelofse 2000), is the basis for a fundamental reassessment of the way in which resource, environment, social and equity issues are considered in decision-making. These principles can help highlight unsustainable systems and resource management practice. It therefore becomes a monitoring and evaluation tool. For Redcliff 1987:33 (in Oelofse 2000), "Sustainable development requires a broader view of both economics and ecology than most practitioners in either disciplines are prepared to admit, together with a political commitment to ensure that development is 'sustainable'".

Sustainable development therefore, includes the need to create institutional mechanisms for coastal stakeholders to work together towards a shared vision for the coast and the need to give priority to coast dependent activities. Sustainable development conveys the importance of thinking ahead to the legacy we leave for future generations. "Sustainable" linked to the word "development" implies prudent use, long-term thinking and stewardship. The term "development" when understood more broadly encompasses that which is central to meeting basic needs and improving the quality of life. It involves an economic dimension, including reducing poverty and providing investment, employment and wealth creation and social dimension including education, community relations and empowerment. Sustainable coastal development is essentially concerned with complex interconnectedness between the ecological, social, cultural, economic and governance dimensions of the coastal system and their interdependence (DEAT, 1998).

According to Glavovic (2000a) pursuing sustainable development means simultaneously promoting ecological integrity, public cooperation, cultural vitality, economic prosperity and effective governance. These five dimensions are fundamental to sustainable development as elaborated upon below:

- Ecological integrity and natural capital – the healthy functioning of the earth's essential ecological processes and life-support systems is what human existence is dependent upon. These support systems provide the air we breathe, the water we drink and the food we eat. Therefore the ecological integrity of the earth's ecosystems need to be maintained, so the argument goes.

- Public cooperation and social capital- social capital denotes the norms and networks of trust and reciprocity that foster public or civic cooperation. Active participation in social institutions promotes public cooperation and is a precondition for both social and economic development. This would in turn promote democracy.
- Cultural vitality and ethical capital – the set of values, norms and beliefs that people draw from in order to behave in an acceptable manner and how they should resolve conflict is ethical capital. Like culture, ethics are dynamic, they change over time according to this view.
- Economic prosperity and human, manufactured and financial capital – these three forms of capital are interconnected and are the basis for achieving economic prosperity. Human capital is rooted in the skills, knowledge, competence, health and ability of individuals to work productively. Without a clean working environment this would not be possible to achieve. Manufactured capital includes the basic infrastructure (such as transportation, shelter, water, energy & communications) technology and other means of production. Financial capital includes financial resources available to people including savings, credit supplies and regular remittances such as pensions.
- Effective governance & political & institutional capital – there are two forms of capital that are central to building effective governance institutions according to Glavovic (2000:a). Political capital can be thought of as “political will”, the ability to pursue the common good rather than narrow or special interests. Political capital is built up by visionary leaders who are committed to promoting sustainable development. Institutional capital is said to be rooted in the organizational character that will determine the responsiveness & effectiveness of governance institutions which include government institutions, the private sector and civil society organizations. These institutions together construct the “rules of the game”.

These dimensions discussed above are a clear indication that sustainable development should not be viewed as an end product but as a means to achieve the ends. One of the principles of sustainability is precaution. This means that if there is no certainty about the long-term consequences of a particular development project, a full

Environmental Impact study is obligatory and participation of interested and affected parties is essential.

Realizing the power of politics, countries wanted to take precautionary measures against what was depicted by scientists as the end of life in the world. Sustainable development therefore became a 'precautionary' development philosophy designed to effect a meaningful balance between profit making, citizenry and mother nature. It must be pointed out that the desire to blend 'development' and 'environment' is not new. It was not taken seriously in the past because it was driven by community based organizations and non-governmental organizations and it only became a first priority in the development agenda after it managed to receive an overwhelming majority vote from politicians all over the world.

2.1.5 Policy and Legislative Framework for Sustainable Development in South Africa

South Africa is a signatory to many international treaties, agreements and conventions. Environmental concerns have enjoyed first priority in South African political agenda in the 1990s hence they have received significant attention through new policies and laws promulgated since 1994. The Constitution, the supreme law of the country, provides the point of departure for policy and law making in this country. Enshrined in the Constitution of the Republic of South Africa, is a far-reaching environmental clause which provides everyone the right to an environment that is not harmful to their health and well-being. Part (b), section 24, of the Constitution, places responsibility on government to take responsible measures to ensure that the environment is protected for the benefit of the present and future generations. Various other clauses within the Constitution have far reaching implications for greater involvement of civil society in environmental decision making processes and planning. The Constitution gives a clear mandate to local government to take on environmental management responsibilities. It also introduces the concept of cooperative governance and requires the different spheres of government to work together harmoniously to ensure effective governance. Another piece of legislation with far-reaching environmental management implications in SA is the National Environmental Management Act 107 of 1998 (NEMA). NEMA embraces the principles of sustainable development as contained in the Brundtland Report (WCED, 1987) and provides an enabling context for environmental management to take place in a more pro-active,

cooperative and peaceful manner. NEMA is largely based on strategic goals and objectives contained in the White Paper on Environmental Management Policy (1998). The 18 principles articulated in NEMA apply to all organs of state and need to be applied to all local government planning and decision making activities.

Local government is mandated to adopt sustainable approaches in performing its functions. The White Paper also provides for the inclusion of environmental considerations in the Integrated Development Planning process. To give effect to the system of developmental local government, the Municipal Systems Act 32 of 2000 was promulgated. According to Chapter Five of the Act, all municipalities are required to develop an integrated development plan (IDP) which is the principal planning instrument which will guide and inform all planning and development processes within a municipality. The Act recognizes the links between environment and development and poverty. It states that it is the general duty of the municipality to provide services that are both financially and environmentally sustainable. The Municipal Systems Act defines environmental sustainable services as those where the risk of harm to the environment and harm to human health and safety is minimized and the potential benefits maximized as far as reasonably possible.

Based on NEMA's precautionary principle, there are regulations which were promulgated in 1997 as part of the Environment Conservation Act of 1989. The precautionary principle means to proceed with caution if there is uncertainty with regard to environmental impact. In terms of the Environment Conservation Act of 1989 regulations, all listed activities in terms of this Act are subject to an Environmental Impact Assessment which forces the developer to consider a balance between ecological, economic and social sustainability. These three principles and other core principles contained in the NEMA will enable municipalities to chart development paths in a more sustainable manner since sustainable development requires the adoption of approaches which are holistic, integrated, adaptive, participatory and have a systems-orientation.

The White Paper on Spatial Planning and Land use Management, published by the department of Land Affairs in 2001 states that each municipality must compile a spatial

development framework and that one of the frameworks must be a “strategic environmental assessment”.

South Africa has recently hosted the World Summit on Sustainable Development in 2002 which reaffirmed its commitment to the central international theme of sustainable development.

2.2 Integrated Coastal Management

There are many definitions of Integrated Coastal Management (ICM). In some circles it is defined as a continuous and dynamic process that unites Government and the community, science and management, sectoral and public interests in preparing and implementing an integrated plan for the protection and development of coastal ecosystems and resources. The overall goal of ICM is to improve quality of life of human communities who depend on coastal resources while maintaining the biological diversity and productivity of coastal ecosystems. Central to the success in achieving this goal is the need for ICM to provide an equitable, transparent and dynamic governance process that is acceptable to the community (DEAT, 1998).

Glavovic (2000:b) argues that there are many dimensions to coastal management. It should not be viewed as an interface between land, sea and air but should be thought of as an ecological place, a social place, an economic place, a cultural place, and a place of governance, a meeting place and an inter-connected system.

The White Paper for Sustainable Coastal Development introduces new ways of thinking and working, an approach to coastal management that: recognizes the value of our coast; focuses on people; promotes integrated coastal management, introduces a new style of management. One could say that the coast as an interconnected system demands that there has to be collaboration and integrated planning and management given the complex nature of problems and issues to be dealt with.

Sustainable coastal development entails a pathway and not a process with a beginning and an end. It is viewed as development that takes into account long-term consequences in decision making and actions. In short, sustainable coastal development is the process through which current and future generations of coastal

stakeholders realize their potential by meeting needs and improving quality of life whilst maintaining diverse, healthy and coastal ecosystems.

When a system has to work a number of measures are put in place. Sustainable coastal development will, according to the new approach, be promoted through integrated coastal management measures. "Integration " entails sectoral integration; integration between spheres of government in order to:

- Unlock opportunities for sustainable coastal development
- Understand the interrelationship between the natural and human components of the coastal system;
- Resolve conflicting interests between coastal stakeholders and;
- Promote awareness, cooperation, co-ordination and integration of coastal activities and decision-making process.

Glavovic (2000:a) asserts that integration should be promoted across: sectors, political and international boundaries, geographic areas, time scales, disciplines, policy, management, education and research activities. Consistent with the key functions and integrated coastal management, the White Paper sets out the goals and objectives under five principal themes:

- building institutions for effective coastal governance;
- managing our national coastal asset;
- coastal planning and development facilitation;
- natural resource management;
- pollution control and waste management.

There are two essential elements of Integrated coastal zone management :Integration and coordination. The complexity of management issues of the coastal zone calls for integrated management as opposed to conventional sectoral management.

According to Cicin-Sain (1993), there are three broad categories of integration that have been identified: system, function and policy. System integration is a form of integration that takes into account the spatial and temporal dimensions of the coastal resources system in terms of physical changes of the environment, resource-use patterns and the socio-economic settings. Through this form of integration relevant

management issues arising from the physical, social and economic linkage are adequately addressed.

Functional integration relates to the linkage among a number of management actions such that programs and projects are internally consistent with goals and objectives. Functional integration reduces duplication and promotes complementarity among relevant line agencies. Projects and programs must be functionally and structurally integrated as they are developed to address specific or a combination of management issues.

Policy integration ensures complementarity and internal consistency of the ICZM program in terms of national and local government policies and management actions. Coastal policy and management strategies must respond to the challenges of change in the coastal zone and be consistent with national economic development plans.

A Coordinated mechanism is one of the key features of Integrated Coastal Zone Management (ICZM) since it brings about a better understanding and cooperation among various stakeholders in addressing a wide range of coastal development and management issues. There has to be proper institutional coordination during program planning and implementation phases. Vertical coordination between agencies of the central and local government and horizontal coordination is important. In some countries inter-agency coordination has helped to preserve the valuable mangrove wetlands.

The coastal zone is viewed as a system. A series of planning and implementation processes help in the systematic formulation and implementation of government policies, strategies and actions for coastal management. It is argued, by Cicin-Sain (1993), that the coastal management system is made up of three mutually supporting dimensions viz. processes, issues and actions. These three aspects are intertwined and ignoring one could lead to the collapse of the other.

Certain elements of the management processes are essential to efficient coastal zone management. The most important element is integrated planning. It is an essential component of the coastal management system because of the complexity and

magnitude of management issues. Planning should have steps and a multidisciplinary team comprising of coastal management expert, a regional planner, a resource economist, an ecologist, a sociologist, and environmental engineer. Relevant research is important component of planning process. Program revision and refinement is important. Implementation, monitoring and evaluation should be incorporated into the ICZM program at the planning and implementation stage (Cicin-Sain, 1993).

For some writers the important element of sustainable development is integration alone. The coastal context needs to address several dimensions:

- integration among sectors – coastal/marine sectors such as oil and gas, coastal tourism, marine mammals protection, port development), between coastal/marine sectors and land-based sectors;
- integration between the land and the watersides of the coastal zone;
- integration among levels of government national/supranational/local;
- integration between nations;
- integration among disciplines (natural sciences, social sciences and engineering).

Cicin-Sain (1993) advocates a synthesis model of integrated coastal management, which will be most useful to decision-makers considering potential adoption and implementation of integrated coastal management. The model must address the following questions: what is integrated coastal management? what are the goals of integrated coastal management? what is being managed? where is it being managed? how is it being managed? what capacity is needed for integrated coastal management? who should do the management?.

Van der Weide (1993) contends that the coastal zone should be understood as a natural resource system. Problems of the coast should be addressed by means of systems analysis: the natural subsystem and the socio-economic subsystem. The three major systems in the world are the natural system (encompassing all relevant non-human domains (atmosphere, lithosphere, hydrosphere, including dynamics and mutual interactions through abiotic, biotic and chemical processes. The domain of natural resources does not exist without the existence of man. This would then bring two entities user-functions as well as technical and organizational infrastructure.

For many decades the South African government has been grappling with issues of the encroachment onto the Admiralty Reserve both at national, provincial and local government level. The government as a sector has battled to tackle (single-handedly) the problems relating to the planning and management of coastline which has therefore necessitated a paradigm shift from sectoral to multi-sectoral approach to coastal zone management.

The problems and issues arising from the Admiralty Reserve should be understood in the context of Integrated Coastal Zone Management because this portion of the coast is dynamic. It therefore requires a multidisciplinary approach to its problems.

Integrated management in the context of coastal and ocean resources involves combining, coordinating or integrating on a number of scales, values, interest and goals, many of which are in competition. The dictionary defines integration as meaning to combine into a whole and to coordinate is to bring into a common action, regulate, or combine in harmonious action.

The World Commission on Environment and Development (1987:63) states that the pursuit of sustainable development needs, *inter alia*:

- “a political system that secures effective citizen participation in decision making;
- an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustainable basis;
- a social system that provides solutions for the tensions arising from disharmonious development;
- a productive system that respects the obligations to preserve ecological base for development;
- an administrative system that is flexible and has the capacity for self correction.”

Integrated coastal management is about coordinated decision-making systems. Coastal management dates back to the adoption of the Coastal Zone Management Act (CZMA, 1972) by the USA which provided principles and guidelines on which national and supranational governments have based their policies for coastal management. In

terms of this act integrated coastal management is an approach that is based on the principle: integrated management is instrumental for sustainable development.

According to Kenchington and Crawford (1993) the need for integrated coastal and marine management is necessitated by problems or issues identified in many studies and reports namely :

- lack of coordination among public agencies;
- insufficient planning and regulating authority;
- Resources decision made primarily on the basis of economic consideration to the exclusion of ecological considerations;
- Lack of clearly stated goals;
- Lack of state and local government funds to managed the coastal zone adequately;
- Complex, conflicting and confusing laws;
- Limited public participation decision-making.

This therefore necessitates the need to achieve integrated, multi-sector involvement in planning management. Sustainable management of ocean and coastal resources, requires substantially different approach to planning and management. The complexity and multidimensional nature of problems/ issues which should, according to Kenchington and Crawford (1993:115) be addressed are;

- Within sectors to ensure that the sectoral activities are conducted in a sustainable manner;
- Across sector to resolve or avoid conflict and to ensure that the combined and cumulative effects of human activities do not exceed the sustainable capacity of the resources;
- Within each unit and level of government;
- Between spheres of government;
- Within international community.

There are five components, which need to be addressed, according to Kenchington and Crawford (1993), in order to achieve the integrated management;

- The nature of the management system in order to take into account the interactions amongst the component parts of natural and human system and the linkage between these systems;
- Balance between economic development, protection of the environment and social values;
- Jurisdiction so that major measures may be applied to cover a single system even though it falls under several jurisdictions or property titles;
- Partnerships where individuals, non-governmental organizations and all levels of governments are able to participate in decision making and management;
- A strategic approach adaptive to changed conditions, which sets indicators against which performance can be evaluated.

Extrapolating from the analysis of development patterns, development pressures and the environmental threats along the coast experienced by Europe in its management of the coastal zone, the technical management measures used in the European context could be applied in South Africa (Ballinger, *et al*, 1994).

There are clear similarities between various approaches adopted by Cicin-Sain (1993) and Kenchington and Crawford (1993) in coastal management. They both stress the amalgamation of disparate elements into a single coastal management system.

Information management (monitoring, surveillance, information technology), assessment procedures (economic assessment, social impact assessment, technology assessment, environmental assessment, risk assessment, and the legal framework for coastal management, are techniques that could be adapted to our context. Although it is argued that technical management measures lie at the heart of coastal zone management, without integration and coordination these measures could be nullified.

There is a need for an integrated approach because this approach focuses attention on the coastal system as a whole and compels decision makers to recognize that individual actions have system-wide consequences. Integrated Coastal Zone Management approach does not mean that all sectoral management activities should

be replaced. Instead the primary function of Integrated Coastal Zone Management is to promote a shared understanding of the inter-relationships between different sectoral activities and spheres of government to ensure that decisions are made taking into account their public impact on the coast as a system.

In essence, Integrated Coastal Zone Management is an ongoing process of coastal governance. It should be founded on meaningful active and ongoing participation by all stakeholders in a collaborative endeavour to achieve sustainable coastal development. This means that actions must talk to each other. This requires an interactive, multi-sectoral and inter-disciplinary process of planning, decision making, implementation, monitoring, review and action informed by experience. Integrated coastal management provides an institutional and legal framework for consideration of implications of all decisions that affect the coast as a system.

Integrated management will help to alleviate unintended consequences of *ad hoc*, sectoral decision making. Adopting an Integrated Coastal Zone Management can, according to Glavovic (2000), help to resolve direct and indirect user conflicts. By managing the coast as system a whole, a totality, we can retain it as a national asset, optimize its manifold benefits and ensure that current decisions do not foreclose future options for development.

The White Paper for Sustainable Coastal Development in South Africa (2000) introduces a new facilitatory style of management which involves cooperation and shared responsibility amongst a range of actors from government, the private sector, and civil society. It sets out a people-centred approach, stresses the importance of recognizing the value of the coast as a cornerstone for development, promotes a holistic way of thinking by promoting coordinated and integrated coastal management which views the coast as a system.

2.3 The relationship between Sustainable Development and Integrated Coastal Management

Sustainable development and integrated coastal management are two sides of the same coin. Sustainable coastal development cannot be achieved without integrating ecological, social, economic and good governance. The White Paper for Sustainable

Coastal Development (2000) lays out ten principles of sustainable coastal development which are in turn derived from the Constitution (Act 108 of 1996). One of the principles explicitly states that the coast must be treated as a destructive and indivisible system (holism). At the heart of these principles is the theme of integration.

2.4 Coastal Geomorphology and Ecology

2.4.1 A general review

The understanding of coastal interactions is a necessary prelude to proper coastal zone management. The geomorphological processes at work on the coastal landforms are by and large influenced by a number of environmental factors such as geology, climate, biology, tidal and other oceanographic influences including salinity (Bird:1984). For instance, wind is a climatic factor of particular importance in coastal evolution, building coastal dunes and generating waves and currents.

Beaches are formed as result of accumulation of sediments deposited by waves and currents in the shore zone. Beach systems are dynamic interactions between shore processes and coastal sedimentation. The beach is made up of two zones: the backshore and the intertidal zone. The intertidal zone is that area between the low and high watermark. It is inhabited by crustaceans and molluscs. The backshore is that part of the beach which is above the mean high water mark. In this area of the beach bacteria and fungi breakdown organic debris deposited by the tide thus releasing nutrients into the sand and eventually back to the sea. This zone contains the seeds and fragments of beach plants which sprout and grow after being deposited on the backshore by high tides. These plants then become the precursors of new dunes. This means that the root system of plants will hold the loose sand particles together and make it less susceptible to erosion by wind or water.

Sandy beaches and dunes may be described as “dynamic” and “malleable” (Bird,1984) since they are constantly being built up or eroded by wind, waves, and currents. These natural processes are important for these systems to thrive and function. Beach sand is always in transit either alongshore or on off-shore. The movement of sand on or off-shore between the beach and off-shore bars tends to be a seasonal phenomenon which is related to the frequency of storm activity (Council for the Environment, 1991).

The dune area is different from the beach zone because of the presence of stabilizing rooted plants on dunes. Dunes closest to the beach are called the primary dunes and those immediately behind are called secondary dunes. Those further inland are called tertiary dunes and the three types of dunes also differ with respect to plants and animal diversity in each. Dune vegetation increases in cover, woodiness and diversity moving landwards (Bird,1984). Strong winds, high salt loads and sand movement close to the sea result in limited pioneer species. Often grasses and creeping plants are found in the fore-dune. Moving further inland dunes become more stable and a richer vegetation develops and can become thicket, scrub or coastal forest by age and if there is sufficient rainfall. This is of course due to the fact that there is less sand movement and salinity conditions inland. Vegetation changes would bring with them a richer dune animal species composition made up of insects, reptiles, mollusks, amphibians. With increased plant cover these land animals increase in abundance and diversity (Council for the Environment,1991). The food chain of the dune ecosystem comprises of the following balance: insects, birds and mammals graze the vegetation directly; decaying plant matter above the ground is consumed by insects; micro-organisms feed on decaying plant matter underground (Council for the Environment, 1991: 43).

There is a marked contrast between the topography, soils and vegetation of old and newer dunes. Older dunes have a comparatively subdued topography and have been leached of shells and iron oxide by percolating rainwater to a depth of several feet. Their vegetation consists of heath or healthy woodland. Newer dunes by contrast, forming a coastal fringe, are more continuous, with bolder outlines and accretion of sand often still continuing they are fixed by grasses and scrub or where large transgressive masses of mobile sand are advancing inland. The sand is still fresh and yellow in colour and has not yet been leached of its small shell or of the iron oxides which stain the sand grains (Bird,1984).

These coastal landforms may be modified by human activities which may be direct or indirect. The reduction of coastal vegetation by cutting, burning, overgrazing by sheep or cattle has often led to changes in patterns of erosion and deposition on the coast.

Blowouts have always developed where the vegetation cover of unconsolidated coastal dunes is destroyed or removed.

2.5 Geomorphology, Ecology and the Admiralty Reserve

Many studies have been done on the issue of the Admiralty Reserve encroachments, the importance of the dune system and other coastal resources (refer Cooper, 1995, Glazewski, 1986, Oosthuizen, 1985, TRPC, 1996/7). It was important to have an understanding of other related studies in order to avoid repetitions and contribute towards the creation of new knowledge. The literature helped to give the study a better understanding of the issues and it gave this research its scope.

A number of social, economic and ecological functions of the Admiralty Reserve have been identified in literature. They may not have been part of the original rationale behind the establishment of the Reserve but where it exists along the coastline, it has the potential to provide the functions discussed hereunder:

The “littoral active zone” coincides with the area covered by the Admiralty Reserve and the sea shore. There are four systems which make up the littoral active zone – the dunes, the beaches, sand bars and river/estuary mouths. “Disturbing the natural processes of one of these will affect all the others” (Council for the Environment, 1991) the frontal dune is the first ridge of sand behind the beach which protects beach front property and maintains the beach.

Many plants and animals are adapted to the unique biophysical conditions of coastal dunes, relying on the conservation of these habitats for their continued existence and survival. Dunes are also one of the coastlines’ most valuable scenic and aesthetic assets. Dunes provide physical protection to the environment. Fore dunes in particular protect developments and terrestrial environments from storm seas and high spring tides (Bird, 1984). Vegetated dunes protect infrastructure and developments from corrosive salt, sea spray and wind-blown sand. The dune ecosystem acts as the buffer to trap sand and recycle it to the beach thus minimizing beach erosion.

Conserving the dune vegetation is not only aesthetically and recreationally pleasing but contributes to improved eco-tourism opportunities and improved quality of life for

local residents. It has a potential to attract tourists who want to “buy” experience of pristine natural environment. The dunes carry a high recreational value for walking and hiking provided that access is well planned and managed. It has an educational value in that conservation areas provide for opportunities for learning and research. Dune aquifers can provide an underground water supply.

However, frontal dunes are often viewed as being in the way of development and are leveled to build on, or indiscriminately flattened to obtain sea views. Dunes provide public access to beaches but as more and more people visit the beach for recreation, the dune vegetation is destroyed by trampling, grazing livestock and off-road vehicles. These coastal resources bring an enormous revenue for coastal local authorities especially during summer time.

Development in the littoral active zone is problematic. “the [littoral active zone] is essentially unstable and dynamic. The presence of fixed structures that require stable, fixed foundations is therefore incompatible with the..... nature of these systems. These structures interfere with natural patterns of sediment movement both within the dune and beach systems and between these two systems. This can cause or aggravate problems such as beach erosion. [This zone] is a high risk area for development since structures such as houses are subject to the encroachment of drift sand” (Council for the Environment, 1997, 43-44).

The plant communities identified, by Crook (1990), as occurring on the Admiralty Reserve are dune pioneers and coastal forest.

➤ *Dune Pioneers*

The frontal dune is colonized by herbaceous species and creepers, such as Scaevola thunbergii, Carpobrotus dimidiatus and Impomoea species. In the harsh dune environment, dune pioneer plants perform a very important function by binding the loose sand and stabilizing it, but are sensitive to continual trampling.

➤ *Coastal forest*

Coastal forest includes dune, riverine, swamp and coast lowlands forests as proposed by Cooper (1985). Umdoni park has 21 ha of coast lowlands forest. The seaward edge

of Dune forest is often a shrub zone. Common shrub species are Chrysanthemoides monilifera and Passerina rigida.

The dune forest performs a very important function by binding the loose, highly erodible, sandy substrate and preventing erosion. Trampling on dunes reduces the angle of the slope, loosens the soil and destroys the plants. Coastal forest is becoming rare along the Natal South coast due to clearing for agriculture and township development. Dune forest is used by certain bird species that migrate from Transkei to Mozambique during Autumn. The future existence of these birds is dependent on the existence of this habitat (Cooper, 1985).

2.6 Conclusion

This chapter has reviewed literature and theory underpinning the study particularly sustainable development and sustainable coastal management. The next chapter will contextualize the study by providing a description of the study area, its physical and human geography.

CHAPTER THREE

CONTEXTUALIZING THE STUDY

This chapter contextualizes the study by providing a description of the location of the study area and the human and physical geography .

3.1 The Study Area

The study area is defined as the length and width of the coastal zone in Umdoni, from Scottburgh to Mtwalume and as far inland as Amahlongwa and Amandawe. The general study area extends from just north of the Mpambanyoni river which meets Scottburgh Main Beach to just south of Mtwalume River which passes north of Mtwalume (see Figure 3.1)

The South Coast is more tropical than temperate and there is a movement of moist air in from the north-east. Temperature, humidity and cloud increase. The combination of high temperature and high humidity creates a measure of discomfort during summer. One of the indices which measures such discomfort, the humidity index, indicates that on about three days a year conditions are considered dangerous for out-door activities. The temperature ranges between day and night and between summer and winter are less than those inland (Umdoni IDP, 2002)

3.2 Socio-Economic Background

Umdoni municipality is one of the coastal municipalities south of the Durban International Airport. It is situated in the UGU District on the Kwazulu Natal South Coast. It is geographically located some 55 kms south of the Ethekwini Municipality. The municipality is 238 km² in size and comprises 44% Urban Population and 56 % Rural Population.

It came into being on the 5th of December 2000 as a result of the amalgamation of the erstwhile Pennington, Scottburgh/Umzinto Transitional Local Councils. It abuts the Umzumbe Municipality on the south and to the west is the Vulamehlo Municipality . Its urban areas consist of the coastal towns of Scottburgh, Park Rynie, Pennington, Sezela, Bazley, Ifafa, Elysium, and Umtwalume and the inland towns of Umzinto and Umzinto north (including Shayamoya and Esperanza). Rural areas include farms and

Umzinto north (including Shayamoya and Esperanza). Rural areas include farms and Tribal Authorities of Kwacele, eZembeni and eMalangeni. The Tribal Authorities contain a number of rural settlements.

3.3 Demographics and social analysis

The HIV/AIDS pandemic is a major threat to development and is a great obstacle to reducing poverty. It has also led to the expansion of AIDS related diseases such as tuberculosis. Life expectancy is expected to decline from 60 years average to about 40 years within the next few years. This is because most people who die of AIDS are in the age group between 25 and 40 (resulting in labour market losing experienced and well trained people). Mortality rate is expected to increase because the cost of health care is to rise and affordability levels will decline. This has already resulted in children becoming household heads at a younger age (Udidi,2002).

Statistics South Africa released the 2001 Census data at Municipal level during 2003. the census data indicates that the population of Umdoni has increased from 542220 persons in 1996 to 62 293 persons in 2001.

Table 3.1 Income differentials

	2001	1996
Total Population	62 293	54 220
Male	29 833 (48 %)	25 980 (48%)
Female	32 460 (52%)	28 219 (52 %)
Number of Households	15 280	12 642
Average Household Size	4, 08	4, 29
Number of Persons employed	13 465	13 646
Number of Persons unemployed	9 809	4 784
% of persons unemployed	42 %	26 %

Source: 2001 figures Statistics SA (2003)
1996 figures Demarcation Board (1999)

Table 3.2 Umdoni Municipality: Age breakdown 2001 and 1996

	2001	1996
0 – 4	5 265 (8 %)	5 062 (9 %)
5 – 19	19 164 (31 %)	16 802 (31 %)
20 – 29	11 500 (18 %)	9 528 (18 %)
30 – 49	15 412 (15 %)	13 009 (24 %)
50 – 64	6 803 (11 %)	5 556 (10 %)
Over 65	4 149 (7 %)	3 587 (7 %)
Age unknown	-	627 (1 %)

Total	62 293 (100 %)	54 174 (100 %)
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Source: 2001 figures Statistics SA (2003)
1996 figures Demarcation board (1999)

Table 3.3: Umdoni Municipality (households) : Fuel used for lighting 2001 and 1996

	2001	1996
Electricity	10 106	8770
Gas	43	173
Paraffin	585	245
Candles	4392	3340
Solar	29	-
Other	136	114
Total	152 91	12642

Statistics SA: 2001 (2003)

Table 3.4 : Umdoni Municipality : Households Toilet Facilities

	2001	1996
Flush toilet (connected to sewerage)	5828	7113
Flush toilet (with septic tanks)	1549	-
Chemical toilet	1204	-
Pit latrine with ventilation (VIP)	1520	-
Pit latrine without ventilation	3792	4779
Bucket latrine	102	53
None	1295	697
Total	15290	12642

Statistics SA : 2001 (2003)

Table 3.5 : Umdoni Municipality: Water per household 2001 and 1996

	2001	1996
Piped water inside dwelling	5884	6843
Piped water inside yard	1498	602
Community standpipes < 200 m	1843	1117
Community standpipes > 200 m	3827	0
Borehole	153	799
Spring	173	2869
Rain water tank	39	0

Dam/pool/stagnant water	169	0
River/stream	1140	0
Water vendor	60	58
Other	506	354
Total	15292	12642

Table 3.6 : Households with no access to services 2001 and 1996

	2001	1996
Piped water	2 240 (15%)	4 033 (32 %)
Sanitation	1 295 (8 %)	652 (5 %)
Electricity	5 185 (34 %)	3 872 (31 %)
Telephone	1 343 (9 %)	1 448 (11 %)

Source: 2001 figures Statistics SA (2003)
1996 figures Demarcation Board (1999)

Table 3.7: Umdoni Municipality: Annual Household Income 2001

INCOME CATEGORY	NUMBER OF HOUSEHOLDS	PERCENTAGE
No Income	2898	18 %
R 1 – R4800	1611	10 %
R4801 – R9600	3339	19 %
R9601 – R19200	2671	16 %
R19201 – R38400	2419	15 %
R38401 – R76800	1786	11 %
R76801 – R153600	1089	7 %
R153601 – R307200	457	3 %
R307201 and More	198	1 %
Total	16468	100 %

Source: Statistics SA (2003)

In terms of the above statistics 47 % of the households in Umdoni had annual income of less than R9600 a year (R800 per month). It would be very difficult for such households to be able to pay service costs. 63 % of the people earn below R1600

which means that poverty levels are very high. The majority of the population is living below the poverty line.

Table 3.8 The distribution of population by Sub-district

Coastal Urban areas	
Mtwalume	374
Elysium	157
Ifafa Beach	240
Ifafa Marina	217
Bazley Beach	190
Sezela	1604
Pennington	1272
Kelso	1172
Park Rynie	2929
Scottburgh South	1316
Scottburgh	1396
Freeland Park	391
Total Coastal Urban Areas	11258

Inland Urban Areas	
Shayamoya	1123
Umzinto	2367
Umzinto North	7091
Hazel Wood	3614
Ghandinager	519
Total Inland Urban Areas	14714

Traditional Areas (South)	
Uswani	4383
Amangamanzi	1313
Mafithini	4266
Bhudubhudu	1138
Mhlangamkhulu	1493

Total Traditional Areas	12593
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Traditional Areas (North)	
Amandawe	7297
Nkulu North	618
Amahlongwa	6617
Umgwempisi	1008
Olwasini	625
Nkulu South	3412
Total Traditional North	19577
Rural Areas	4138
Overall Total	62280

Source: Statistics SA (2003)

(see Figure 3.2)

3.4 Natural Resources

A number of rivers flow through the municipal area, the most important being Mzinto, Sezela, Fafa, and Mtwalume which form estuaries at the shoreline where they meet the seashore. The Amahlongwa, Mpambanyoni and Mzimayi Rivers are also part of the area. There are many areas of environmental value and sensitivity. For instance, an Admiralty Reserve runs along most of the coastline down to Mtwalume. Green wedges have been identified along the coastline of this municipality and there are three green wedges in Pennington. The T.C Robertson Nature Reserve is the only nature reserve in the area and the Vernon Crookes Nature Reserve is in close proximity to the municipal area. In Pennington there are three sites of conservation significance, namely Nkomba Wetland, Makamati Dam and Mzinto Lagoon. Pennington is listed nationally as a Sensitive Coastal Area which means that dredging, dune stabilization, earthworks and disturbance of vegetation are all controlled activities.

Alien plant invasion is a noticeable problem in the area, especially disturbed sites such as road sides, pathways and areas where natural vegetation has been removed.

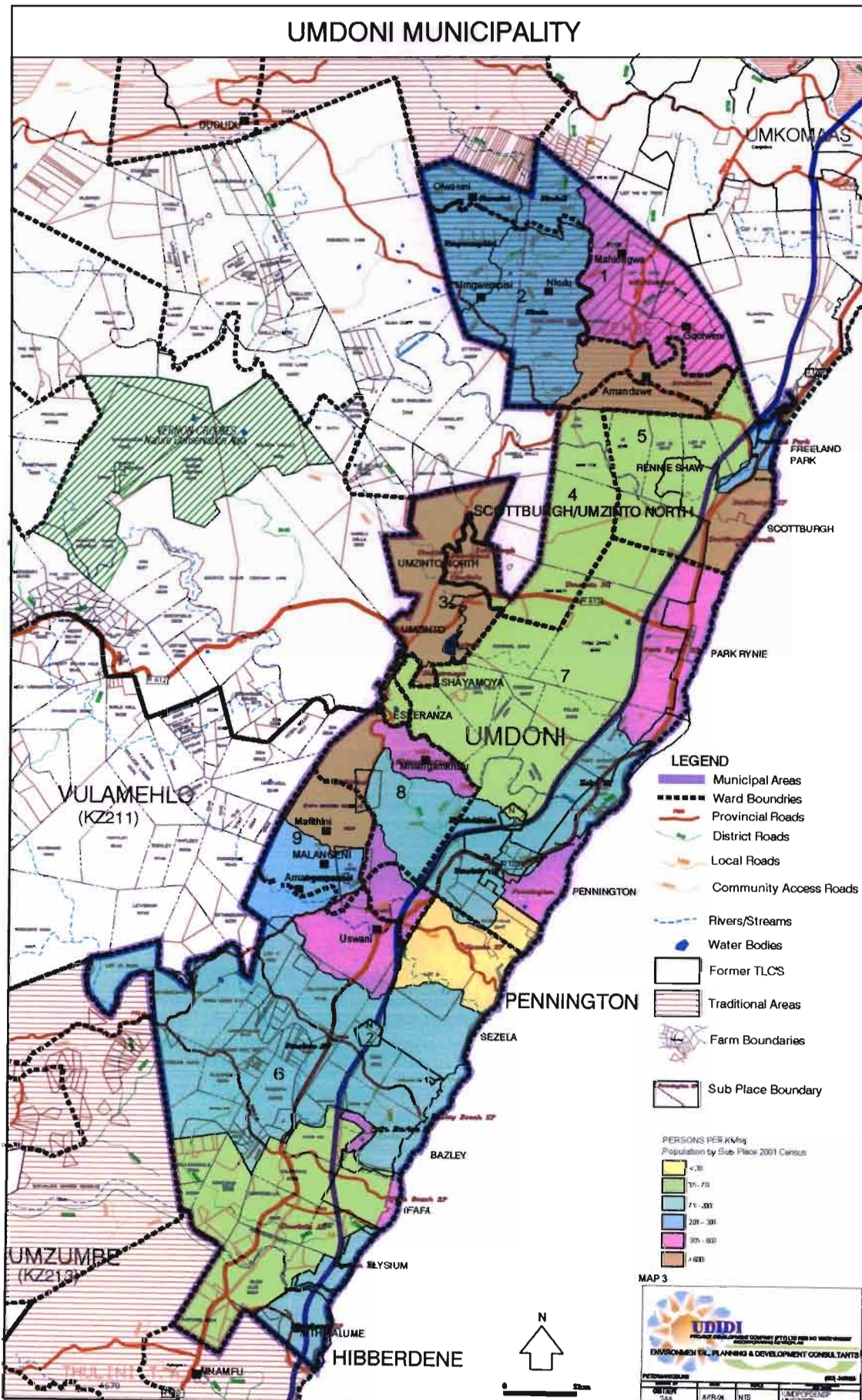


Fig 3.2 2001 Population Density by Sub-place

Source: Udidi 2004

Soil erosion occurs as result of poor planting practices and there is siltation of rivers due to poor ploughing practices.

Coastal landforms along the Umdoni shoreline include dunes, beaches, rocky shores and estuaries. Coastal currents have an impact on processed deposits above the high water mark where the Admiralty Reserve begins. Winds and climate influence the tides and current movements. Waves are influenced by many factors including wind, tides, the configuration of the coast and the topography of the sea floor. Rocky shores make up 80% of the coastline. Sandy beaches form the area above the high water mark. Coastal dunes are associated with beaches. What distinguishes between dunes from beaches is the presence of vegetation (see Figure 3.3). The importance of these land forms is discussed later on in the study.

3.5 Conclusion

This chapter has contextualized the study by describing the study area, its physical and human geography. The next chapter will discuss the research approach adopted and the methods and techniques utilized to collect data.

CHAPTER FOUR

RESEARCH APPROACH AND METHODOLOGY

4.1 Research Approach

Although the case study is Umdoni Municipality, the researcher wanted to compare the effectiveness of measures taken by Hibiscus Coast municipality in dealing with the encroachments into the Admiralty Reserve. Environment conservation officials of Umdoni and Hibiscus coast work very closely on this matter since both municipalities have a lease with the department of Public Works. The management approach that is presently used by Umdoni is the brain child of the Hibiscus Coast municipality. This therefore means that if Umdoni is on the right track so would be the Hibiscus Coast Municipality.

This research will be conducted using a case study and comparative analysis approach. The research is qualitative and both primary and secondary methods of collecting data were used. Data collection techniques discussed hereunder were chosen depending on the issue under investigation

4.2. Research Methodology and Techniques

4.2.1 Review documentary evidence from erstwhile Pennington TLC council minutes, agenda and reports.

This method is useful in studying and analyzing the tools of environmental management employed by council to deal with the encroachments. It provides historical facts about how the previous Pennington council dealt with the matter and the effectiveness of the attempts. This technique is used because Denscombe (1998) contends that the advantage of documentary research is that documents generally provide a source of data which is permanent and available in a form that can be checked by others. The data are open to public scrutiny. A vast amount of information is held in documents and it is a cost-effective method of accessing data.

4.2.2 Interpreting Admiralty Reserve Maps

Identifying the Admiralty Reserve using maps, title deeds and Surveyor-General's diagrams was done. This method was used to determine the geographic location of the Admiralty Reserve and reveals parts of the coast where the Admiralty Reserve no longer exists. Maps alone are not enough because some of them are not up to date. Information from Surveyor-General's office is reliable and valid since this is a government department.

4.2.3 Air photo analysis and physical site inspections of affected areas.

Inspections will indicate the extent and types of encroachments. Using the aerial photographs superimposed onto the cadastral map from the GIS enables the researcher to determine the encroachments. This was then ground truthed by means of site inspections on properties that are alleged to be encroaching as revealed through aerial photography. This work was conducted at the same time to determine the nature of the encroachment and photos will be taken to back up the aerial photographs. Measurements were taken using a 50 metre tape to mark the boundary from one beacon to the next with the assistance of Surveyor-General diagrams which show the boundaries. The drawings from the Surveyor-General's office were used because of their accuracy and reliability.

4.2.4 Interviews

Interviews will be used in this study as they have a number of advantages. They are particularly useful in producing data which deals with topics in depth and in detail. They allow subjects to be probed, issues pursued and lines of investigation to be followed over a lengthy period. People interviewed provide valuable insights based on the depth of information gathered and the wisdom of 'key informants'. An interview is a good method for producing data based on informants' priorities, opinions and ideas. Informants get the opportunity to expand their ideas, explain their views, and identify what they regard as the crucial points (Denscombe, 1998). The interviewees were 3 environmentalists, 3 senior council officials, and 20 people from different population groups who are regular users of the beach especially during holidays. The purpose was to ascertain what knowledge people have of the Admiralty Reserve and how it would impact on their well-being should this strip of land be further degraded. These were one-on-one interviews. These interviewees were selected at random. Some of

these interviewees were holiday makers from outside Kwazulu-Natal from whom it was interesting to gather information that could be compared to the east coasters.

4.2.5 Analyzing the relevant legislation at the national and local level

Analyzing various pieces of legislation enabled the researcher to find out whether there is any legislation that could be used efficiently to deal with the encroachments. This helped to assess the effectiveness or ineffectiveness of the methods used in the past and current management and control measures.

Reviewing the legal characteristics of the Admiralty Reserve allowed for the determination of the location, extent and ownership. This enabled the research to provide a meaningful explanation of the Admiralty Reserve for the reader to understand how it came into being.

4.2.6 Questionnaires

Open ended questions were used because they have a number of advantages. Information gathered by way of the responses is more likely to reflect full richness and complexity of the views held by the respondent. The questionnaire gives respondents an opportunity to express themselves without being scared of the researcher. This enables the researcher to find out from various sections of the population about reasons for the encroachments (politicians, environmentalists, property owners, general residents of Pennington). According to Denscombe (1998) questionnaires are useful because they supply standardized answers because all respondents are posed with exactly the same questions. The questionnaire is used to formulate a coastal resource management policy therefore there is a need for standardized answers. In administering questionnaires, copies were circulated by mail to certain representative groups and individual in order to get a variety of responses. The views of councilors, environmentalists, property owners, Estate Agents and council officials were targeted. Questionnaires were therefore administered to Umdoni Councillors, some property owners, Estate agents and council officials by mail. The questionnaire provided space for responses and was self-explanatory. These respondents were selected using the mailing list that is available in the files of the municipality. They were selected because they were involved in environmental matters before and some of them because they are interested and affected parties (complainants). The questionnaire was circulated to

5 Councillors of previously Pennington Council, 12 local estate agents, 5 active environmentalists and 15 property owners from Pennington.

4.2.7 Photographs

Social scientists maintain that the central purpose of using cameras in social research is that they allow detailed recordings of facts as well as providing a more comprehensive and holistic presentation of conditions. Cameras can catch facts and processes that are too fast or too complex for the human eye. Cameras allow the transportation of artifacts and the presentation of them as pictures. They also provide with the transgression of borders of time and space (Flick, 1998). Cameras are incorruptible in terms of their perception and documentation of the world. Photographs have a visual impact on the story and anchor the written word by augmenting it. It will help in describing the violations by showing the vegetation types, type of encroachment etc. However, the context and the interpretation by the user prevents photographs from being an entirely neutral data source.

4.2.8. Participant observation

Participant observation was used to get first hand information because the informants would not be aware of the researcher and through this method one can get people to speak, act and behave naturally. This is in keeping with the requirement of reliability and validity of research. According to Flick (1998) one of the most important advantages of observation is its directness – the researcher get to know the views, feelings, attitudes and language of the people without having to ask subjects about these. The language of the subjects and their behaviours associated with language are often of crucial interest and importance in any enquiry. For Robson (1993) observation is pre-eminently the appropriate technique for getting at 'real life' in the 'real world'. Participant observation gives attention reliability, validity and objectivity and therefore can be "good science". With participant observation it is difficult to separate out the data collection and analysis phases of inquiry. Analysis takes place in the middle of data collection and is used to help shape its development. This perhaps answers the question why so many case studies use participant observation as the primary method of collecting data. Participant observation is likely to include other methods in addition to observation, such as interviews, the use of artifacts, and documents. Its flexibility as a technique allows the researcher to conduct site

inspections, interviews, discuss documentary evidence, focus the participants onto some issues at hand (Flick, 1998). Interviews were conducted at the same time during observation because Denscombe (1998) believes that interviews are therapeutic in that they can be a rewarding experience for the informant where they get a chance to talk about their ideas. Interviewing may be in the form of casual conversations after an event with others or a more formal interview with one person. Compared to questionnaires, interviews have a high response rate (Denscombe, 1998). "Participant observation is really a combination of particular data collection strategies: limited participation, field observation, interviewing and artifact collection" (Shumacher & MacMillan, 2001:437).

During the research the researcher (in the employ of council) played the roles that varied from complete participant, the participant-as-observer, complete observer, observer-as-participant.

- complete participant – as the employee of council fully responsible for environmental branch of the municipality, the researcher had to participate with his research status overshadowed by his position in council
- participant-as-observer – some participants such as the environmentalists were aware of the research underway. A close relationship was established with coastal stakeholders where the observer could ask members to explain various aspects of what is going on. This meant having to play a dual role of participator and observer.
- complete observer – the researcher had to take a lower degree of participation, adopting a largely passive stance in council meetings, thereby taking notes during debates and discussions.
- observer-as-participant – the researcher would accompany stakeholders to site inspections, held to determine what should be done about a particular reported encroachment. Various encroachments would be compared with regards to their seriousness and steps suggested on site. In such activities the researcher would allow members to participate without interrupting whilst jotting down notes based on the views expressed. Some stakeholders would make statements and back them up with relevant legislation.

4.2.9 Focus Group Sessions

This technique was used jointly with probing questions for informants as there are so many advantages of using this technique. According to Sim (1998) they are an economical way of tapping the views of a number of people simply because respondents are interviewed in groups rather than one by one. They may encourage a greater degree of spontaneity in the expression of views. Flick (1998) maintains that focus groups are perceived as a highly effective qualitative data collection techniques (which provides) some quality controls on data collection in that participants tend to provide checks and balances on each other that weed out false or extreme views and it is fairly easy to assess the extent to which there is a relatively consistent, shared view among participants. Through focus groups the researcher is able to generate diversity and difference, either within or between groups and so reveal what has been called the dilemmatic nature of everyday arguments. The focus group technique was used together with other techniques such as site inspections conducted in the presence of interested and affected parties. It is viewed by many as the most appropriate method of determining attitudes of the respondents.

4.3 Conclusion

In this chapter, the research approach and methodology was discussed. The next chapter will look at the policy and legislative framework governing the Admiralty Reserve. These government policies discussed in the next chapter could be seen as providing an answer to the research question: with so many laws in SA why do local authorities (particularly Umdoni municipality) fail to manage and control the Admiralty Reserve encroachments? These policies and laws are tools for environmental management that could be utilized.

CHAPTER FIVE

THE POLICY & LEGISLATIVE FRAMEWORK GOVERNING THE ADMIRALTY RESERVE

This section will review policies and legislation at National, Provincial and Local government levels in an attempt to establish the legal framework for dealing with Admiralty Reserve violations. The legal framework of the Admiralty Reserve will be discussed in this chapter to enable the researcher to assess the effectiveness and highlight the shortcomings of the measures used by local authority to deal with the encroachments.

5.1 National and Provincial Initiatives

There are numerous initiatives that have been instituted jointly by national and provincial spheres of government to foster sustainable coastal management. This was because of development pressures exerted on the natural coastal resources aimed at private gains. One could speculate that these initiatives were put in place because there is not a single piece of legislation that directly protects the Admiralty Reserve.

The following summary of events aimed at closing the gaps within the legislation is based on the article entitled "Regulatory Control over activities in Sensitive Coastal Areas" (DAEA, 1994). In 1986 regulations were introduced in terms of the old Environment Conservation Act (1982) to control activities within 1 kilometer of the high water mark. These regulatory controls over activities in Sensitive Coastal Areas (SCAs) were, however, implemented as an emergency measure and they did not distinguish between sensitive and non-sensitive areas. They did not restrict control to really harmful activities.

Administrative problems were therefore encountered when the 1986 regulations were implemented. Complications arose when the 1982 Environment Conservation Act was repealed in 1989 and replaced by the present Environment Conservation Act and it was felt that the 1986 regulations were *ultra vires*. Due to these problems and the practical constraints relating to implementation, the 1986 regulations were subsequently withdrawn.

The withdrawal of the 1986 regulations left a legislative vacuum. To ensure that developments and activities in coastal areas adequately considered the natural environment, additional regulatory measures were needed. This control had to be constructive and cost-effective, and provide for accountability for decisions made and actions taken. In 1990 an interdepartmental working group was therefore established by DEAT to investigate the introduction of a suitable replacement mechanism. Initially, the Working Group considered the establishment of “limited development areas” – which could be declared under section 23 of the existing Environment Conservation Act- as a possible control measure.

When discussions were held with interested and affected parties it became apparent, that the concept “limited development areas” carried a negative connotation and would not receive substantial support from end users. DEAT conducted workshops in 1992 to discuss the principle of a new regulatory control mechanism. It became apparent from these workshops that such a mechanism should control defined activities within specific areas. Section 21 of the existing Environment Conservation Act provided for the introduction of such a measure.

DEAT therefore decided to formulate regulations to control potentially harmful activities on a permit system within demarcated sensitive coastal areas (SCAs). During May 1996 regulations were promulgated in terms of the Environment Conservation Act No 73 of 1989, in order to control four kinds of activities in “Sensitive Coastal Areas”. These activities are vegetation disturbance, earthworks, dune stabilization and dredging. Central to these measures were concerns over ground works that occur before construction activity. Sensitive Coastal Areas (SCAs) are defined through criteria set for the “sensitivity line”. These criteria are: geo-technically unstable areas including cliffs and steep slopes, water bodies, watercourses and their banks, beaches, dunes, rocky shores and important vegetation communities. The SCA is usually the area between the high water mark and the nearest inland cadastral boundary to the sensitivity line. Environmental impact reports are called for prior to the issue of permits to conduct prohibited activity in a SCA. Contravention results in fines not exceeding R100 000.00. Declared Sensitive Coastal Areas within Ugu District are sections of Pennington (see Figure 5.1) and Port Edward/Mtamvuna erstwhile TLCs.

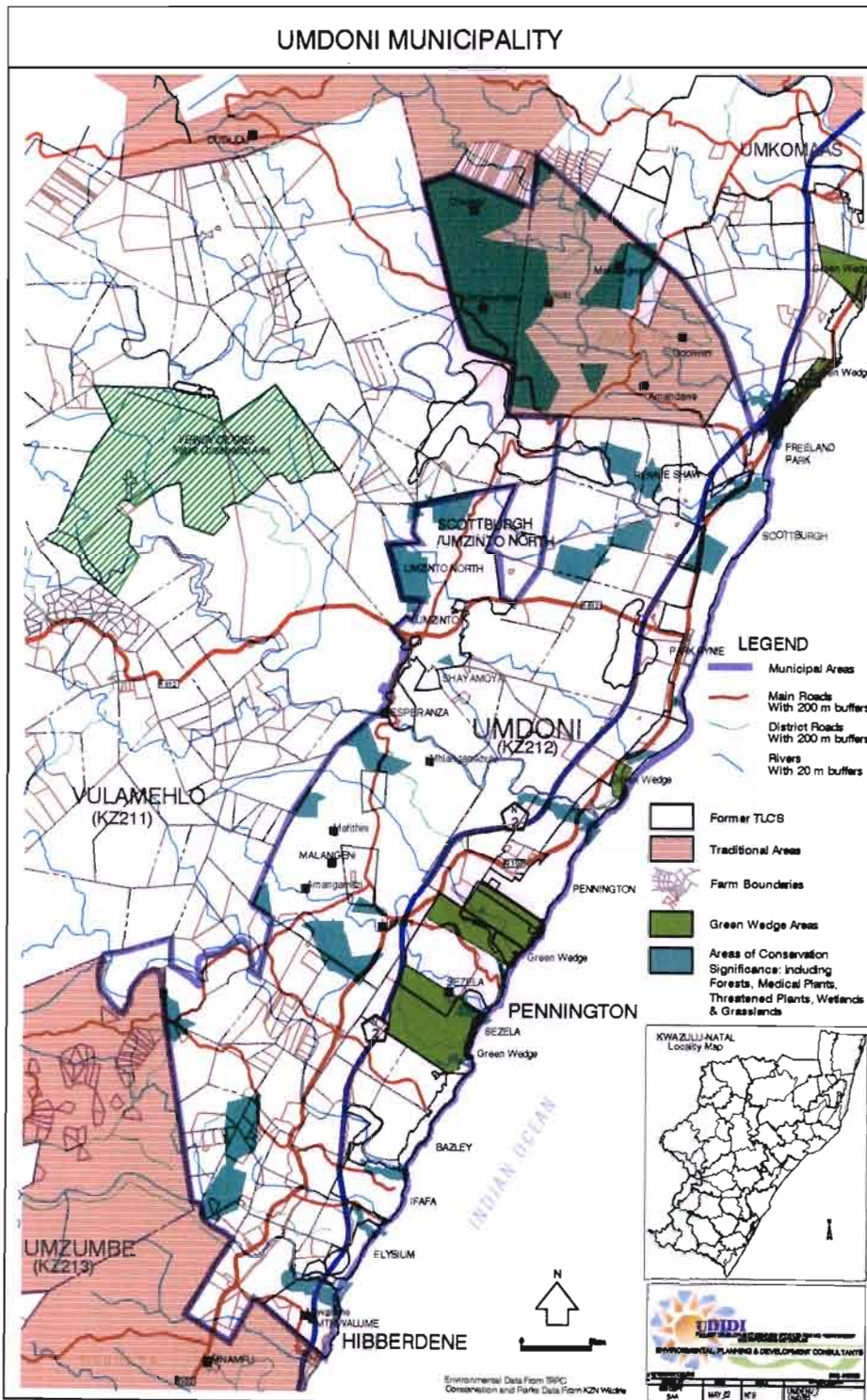


Figure 5.1 Environmentally Sensitive Areas

It must be noted that the SCA regulations were initiated to control activities not covered by other legislation. They are therefore not intended to duplicate existing legislation. These regulations must be seen as complementing, rather than overlapping with, the regulations promulgated on 5 September 1997 which require developments in general to be subject to environmental impact assessments (EIAs)

DEAT did not have the manpower to administer the SCA regulations. It is for this reason that powers in this regard were being delegated to local authorities. Local authorities initially agreed to administer these regulations, however, some local authorities foresaw that they might have difficulty in evaluating permit applications, due to shortages in their manpower, expertise and finances. Given the overall capacity constraints on local government, the DEAT is, in consultation with scientific experts and affected local authorities, finalizing guidelines to assist authorities and applicants.

It must also be noted that the SCA regulations are not only intended for private landowners and developers. A local authority or a provincial department wishing to undertake any of the controlled activities has to submit a permit application to the relevant provincial premier; a national department has to apply to the minister of Environmental Affairs and Tourism for a permit.

In 1995 DEAT initiated a process to develop a Coastal Policy for the entire South African coastline. This process has culminated in the production of the White Paper for Sustainable Coastal Development in South Africa which was officially adopted on the 1st December 1999. The White Paper (as well as the new Coastal Act) introduces a new way of thinking about and working with our coast. It aims to improve coastal governance by setting out a vision for our coast and principles, goals and objectives for coastal management. From a provincial perspective, the White Paper proposes that a provincial lead agent for coastal management be defined. Responsibilities of the lead agent include reviewing provincial legislation, monitoring the state of the coast in the province and establishing a provincial Coastal Committee (as a sub-structure of the National CEC) in non-government role players. The Department of Agriculture and Environment Affairs (DAEA) has been identified as the lead agent for KwaZulu-Natal.

DEAT and DAEA provide leadership for promoting sustainable coastal development in South Africa and KwaZulu-Natal respectively. This is primarily achieved through Coast-care, a partnership programme involving the private and public sectors. Coast-care aims for coastal economic development that makes the best use of available resources; coastal development that promotes social equity through improved livelihoods of poor coastal communities; and a healthy coastal environment for the benefit of current and future generations.

One major initiative falling within the Coast-care portfolio is the Sustainable Coastal Livelihoods Programme (SCLP). The SCLP is led by DEAT and DAEA in KZN and funded by Britain's Department for International Development. A key component of the SCLP is financial support for projects at the provincial and local levels that promote improved livelihoods for poor coastal communities. With input from stakeholders and specialist studies, key intervention areas in each coastal province that support these objectives have been identified. One such intervention in KZN is proposed to address the unsustainable and often illegal development practices that currently stifle or block more sustainable and equitable developments. This initiative aims to identify existing and future threats to the KZN coast, identify approaches to prevent further damage to KZN's coastal resources and enhance the institutional capacity to protect these resources. The Hibiscus Coast has been identified as the municipality in which this project will be piloted. The Hibiscus Coast municipality has begun a major crackdown on illegal encroachments into the Admiralty Reserve. The National Chief Directorate: Environmental Management has issued a policy statement in which it states that it fully supports the actions taken by the Hibiscus Coast municipality in respect of infringements into the Admiralty Reserve. The chief Directorate has confirmed that it fully supports any municipal activity in respect of coastal infringements and the rehabilitation of the Admiralty Reserve (DAEA Policy Statement, 13 August 2003).

5. 2 The Constitution of the Republic of South Africa (108 of 1996)

The Constitution creates the framework for the environmental governance in South Africa by :

- creating the right to an environment that is not harmful to health and well-being;
- balancing the right to have the environment protected, with an emphasis on promoting valid economic and social development;

- allocating (in all spheres) environmental functions and to a wide range of government agencies;
- establishing cooperative governance between government agencies and spheres.

5.2.1. *Locus Standi* or “right to get involved”

In terms of sections 24, 34 and 38 of the Constitution (Act 108 of 1996) any member of the public has the right to take appropriate action to prevent or minimize environmental damage. This may include taking action against:

- A responsible Authority which fails to perform its duties in preventing or minimizing environmental damage; or
- An individual or Authority who is in the process of undertaking a prohibited activity without the necessary authority. As a result of these activities, the environment is, or may be, seriously damaged, endangered, or detrimentally affected.

5.2.2 *Non-enforcement of regulations by a responsible authority*

Any member of the public can apply to the High Court for a *mandamus*, or (in terms of section 31A of the Environment Conservation Act or section 139 of the Constitution, request the Provincial Government to intervene.

5.3 **Environment Conservation Act (Act 73 of 1989)**

The purpose of the Environment Conservation Act is to provide for the effective protection of the environment by controlling activities that may have a detrimental effect on the environment. Regulations were promulgated under sections 21, 22, and 26 in September 1997 (Government Gazette No’s R1182, R1183 and R1184). The regulations list activities that may not be commenced without an environmental impact assessment, prescribe the EIA procedure, and designate the province as the competent authority.

5.3.1 *Controlling Activities to minimize or prevent Environmental Damage*

The Environment Conservation Act (Act 73 of 1989) makes provision for mechanisms to:

- Control activities by prohibiting the undertaking of those activities within demarcated Sensitive Coastal Areas without the necessary written permission.

This authorization, called a permit in the regulations, can only be obtained after an environmental impact report has been compiled and submitted together with an application a designated authority (in terms of section 21) and ;

- Stop activities in progress that may be detrimental to the environment, or likewise to ensure that certain actions are taken to prevent damage to the environment (in terms of section 31A) of the Act.

The good thing about this Act is that it does not stop at providing for control measures to be taken to prevent environmental damages or protect the environment. It goes on to give powers to the Minister, the Administrator, the Local Authority or the Government Organ and procedure for actions that can be taken where the environment is damaged, endangered or detrimentally affected.

5.3.2 Section 31A – Powers of Minister, Administrator (Premier), Local Authority or Government Institution

The power vested in the above officials and procedure to be followed is provided for by the Act. The Act states that if a person performs, or fails to perform, any activity as a result of which the environment is or may be seriously endangered, the Minister of Environmental Affairs and Tourism, Provincial Administrator (Premier) or Local Authority, or any government institution may, in terms of section 31a, instruct such person to:

- Cease this harmful activity or;
- Take the necessary steps required to prevent, reduce or eliminate the damage.

The person who undertook the harmful activity referred to above, can also be instructed to rehabilitate any damage caused by this activity. If the offender fails to make good the environmental loss or fails to comply with these instructions, then the necessary rehabilitation can be undertaken by the Local Authority on behalf of the offender.

In such a case, any costs incurred by the Local Authority during the performing rehabilitation, on behalf of the offender, can be recovered from the offender in civil proceedings. The primary objective of this section of the Act is to stop activities and to provide for the mitigation and rehabilitation of damage

of the person responsible for such a damage. Section 29 (3) makes specific provision for: a fine or imprisonment for a period not exceeding three months. Section 30 of the Act makes provision for the Court to confiscate any vehicle or object that was used in committing the offence.

The Act provides for tough measures against the perpetrators of any environmental activity that puts the environment into jeopardy. Worth noting here is the use of word "instruct" when reference is made to offenders.

5.4 The Sea-shore Act of 1935

Certain sections of the Sea-shore Act and its regulations are relevant to the management of the Admiralty Reserve. In terms of section two of the Act, the State President is declared to be "... the owner of the sea-shore and the sea, except of any portion thereof which was lawfully alienated before the commencement of this Act or may be alienated hereafter under this Act or any other law".

Section 2 (3) states that the sea-shore and the sea of which the State President is the owner ".....shall not be capable of being alienated or let except as provided by this Act or let except as provided by this Act or by any other law, and shall not be capable of being acquired by prescription".

In order to understand the extent of the ownership conferred upon the State President by section 2, it is necessary to consult the definitions set out in section 1 of the Sea-Shore Act.

There are certain powers conferred upon the responsible Minister by this Act. In terms of Section 3 of the Sea-shore Act, the Minister is empowered to let, on such conditions as he may deem expedient , any of the following purposes :

- (a) the erection of bathing boxes or tents;
- (b) the erection of beach shelters;
- (c) the erection of tea rooms and refreshments places;
- (d) the training of horses, the holding of races (including motor cycle races) and the provision of places for recreation, amusements or display;

- (e) the provision of landing sites for aircraft and the establishment of aerodromes;
- (f) the construction or improvements of wharves, piers, jetties and landing stages;
- (g) the construction of breakwaters, sea walls, promenades, embankments, esplanades, buildings or other structures ;
- (h) the construction of bathing pools and enclosures ;
- (i) the erection of whaling stations or fish-canning or other factories;
- (j) to legalize any encroachments ;
- (k) the carrying out of any work of public utility;
- (l) the laying of drainage or sewerage systems;
- (m) the laying of water pipes or cables;
- (n) the carrying out of any work which in the opinion of the Minister, serves a necessary or useful purpose.

The Proviso to the above is that it should ,in the opinion of the Minister , be in the general public interest and that it will not seriously affect the general public's enjoyment of the sea-shore and the sea (Section 3(1)).

The Minister can also delegate any of the powers vested in him by Section 3 to any local authority (Section 3(3), and he may withdraw any such delegation. Section three of the act also contains the following additional provisions with regard to any lease or permit referred to in the section:

“whenever any portion of the sea-shore or the sea in respect of which it is proposed to enter into any lease under sub-section (1) or to grant any permit under sub-section (2) is situated within or adjoins the area of jurisdiction of a local authority, the minister shall first consult that local authority.” – section 3 (4).

5. 5 State Land Disposal Act No. 48 of 1961

This Act “provides for the disposal of certain State Land and for matters incidental thereto, and prohibits the acquisition of State land by prescription”. The Act empowers the President “on such terms and conditions as he may deem fit, to sell, exchange, donate or lease any State land on behalf of the State. This is relevant to the Admiralty Reserve because the Admiralty Reserve is described as unregistered, unsurveyed State land or government Reserve. The State land disposal Act is an “administrative”

Act, however, does not separate out different parcels of state land in terms of their environmental values (TRPC, 1997).

5.6 Town Planning Ordinance No. 27 of 1949

The purpose of this act is to “consolidate and amend the law relating to the establishment of private townships, the sub-division and lay-out of land for building purposes or urban settlement and the preparation and carrying out of town planning schemes; and to provide for the other incidental matters”. This Act is of relevance to the Admiralty Reserve since it governs the preparation of the town planning schemes where clauses pertaining to the planning and development controls for certain areas (including the Admiralty Reserve) are contained.

5.7 Land Survey Act of 1998

Although this act is technical in nature, it has some bearing on the Admiralty Reserve since it decides on the way boundaries should be defined. One of the characteristics of the Admiralty Reserve is that it is “ill-defined” which makes it even more difficult for courts to make a ruling. There are natural factors that can cause the boundary of the Admiralty Reserve to “disappear”. The Act states that should a curvilinear boundary need to be replaced by another type of boundary, then notice must be given to the Surveyor-General at least 20 days before commencement of the survey. In addition to this, where curvilinear boundaries are ambiguous, the owner may lodge an application with the Surveyor-General to have this ambiguity removed and every other owner along that boundary must be informed.

5.8 National Forests Act of 1998

This Act provides for the protection of dune vegetation, natural forests and certain indigenous trees some of which are found in the Admiralty Reserve. The purpose of the Act “ to promote the sustainable management and development of forests for the benefit of all; to promote the sustainable use of forests for environmental, economic, educational, recreational, cultural, health, and spiritual purposes”.

The Act refers to “natural forest” as a group of indigenous trees: whose crowns are largely contiguous. The Minister is given power to set criteria, indicators and standards for assessing and enforcing sustainable forest management. The criteria and

indicators may include, inter alia, the level of maintenance and development of : forest resources; biological diversity in forests; the health and vitality of forests; the productive functions of forests; the protective and environmental functions of forests and social functions of forests.

Section 7 of the Act reads “no person may cut, disturb, damage, or destroy any indigenous, living trees in, or remove or receive any such tree from, a natural forest except in terms of: a license issued under subsection (4) or section 23; or an exemption from the provisions of this subsection published by the minister in the Gazette on the advice of the council. The removal of indigenous vegetation is regarded as “development”. If done without the authority from council it is “illegal”. Clause 9.6 (ii) of the Pennington Town Planning Scheme could be used to call upon the person to replace the tree or other indigenous vegetation, where it is considered appropriate.

In terms of the principles to guide decisions affecting forests the act states that:

(a) natural forests must not be destroyed save in exceptional circumstances where, in the opinion of the Minister, a proposed new land use is preferable in terms of economic, social and environmental benefits.

(b) a minimum area of each woodland type should be conserved and:

(c) forests must be developed and managed so as to –

(i) conserve biological diversity, ecosystems and habitats;

(ii) sustain the potential yield of their economic, social and environmental benefits;

(iii) promote the fair distribution of their economic, social, health, and environmental benefits;

(iv) promote their health and vitality;

(v) conserve natural resources especially soil and water;

(vi) conserve heritage resources and promote aesthetic, cultural and spiritual values; and

(vii) advance persons or categories of persons disadvantaged by unfair discrimination.

5.9 **National Environmental Management Act (Act 107 of 1998)**

The National Environmental Management Act (NEMA) is the first step in giving legal effect to the environmental right and ensuring environmental quality and protection, in terms of section 24 of the Constitution.

The National Environmental Management Act (NEMA) has some relevance to the Admiralty Reserve in that the act establishes principles to guide the decisions and actions of all organs of state and establishes institutions to coordinate and harmonize the environmental functions of the organs of state. One such principle states that development must be socially, environmentally, and ecologically sustainable. Sustainable development requires the consideration of the following factors: environmental justice, equitable access to environmental resources, benefits and services. More importantly the principles of the act state that the cost of remedying pollution, environmental degradation and consequence adverse health effects, and preventing damage must be paid for by those responsible for harming the environment.

In terms of section 28 (1) of the act all persons in the country are charged with duty of care and remediation of environmental damage. Section 31 provides for the protection of whistle blowers. Section 32 entrenches the legal standing to enforce environmental bylaws. The Act gives individuals who act in their own interests or in the interest of a group of people the right to get involved. A whistle blower could be any interested and affected party. All organs of the State are charged with duty of care including individuals who interact with the environment. The Act wants to ensure enforcement and compliance by everyone.

The Act establishes principles to guide the decisions and actions of all organs of state (NEMA principles). It promotes integrated environmental management by establishing minimum procedures for environmental impact assessments and enabling any national or provincial permitting authority to prescribe environmental impact assessment regulations.

5.10 Minerals Act (Act 50 of 1991)

This Minerals Act provides for the administration of minerals and mineral development in the country. The Act is administered by the Department of Minerals and Energy. The

Act requires that Environmental Management Programme Reports (EMPRs) must be compiled for all mining operations. EMPRs are a statutory requirement to ensure that the environmental impacts of all mining operations are managed and that post-closure rehabilitation of mined areas is ensured. Mining here refers to both large scale and small scale. The mining and disturbance of dunes is an ongoing problem along the coastal belt. Some mining activities take place within the area referred to as the Admiralty Reserve.

5.11 White paper on Environmental Management Policy (April 1999)

The White Paper on Environmental Management Policy provides the overall policy framework that sets out vision, policy principles and strategic goals for environmental management and sustainable use of natural resources in South Africa. Sectoral policies are to subscribe to this policy framework. The White paper projects a vision that embraces an integrated and holistic management system for the environment aimed at achieving sustainable development for the present and future generations.

The seven strategic goals include:

- promotion of sustainable resource use and impact management;
- development of mechanisms to ensure that environmental considerations are effectively integrated into existing and new government policies, legislation and programmes;
- establishment of an effective institutional and legislative framework;
- establishment of mechanisms and processes for effective public participation in environmental governance;
- promotion of environmental literacy, education and empowerment;
- development and maintenance of an information management system to provide accessible information that will support effective environmental management;
- development of mechanisms to deal effectively, and in the national interest, with international issues and obligations in respect of environmental management.

5.12 National Water Act (36 of 1998)

The purpose of the Act is to regulate the protection, use, development, conservation, management and control of water resources through inter-alia:

- The development of a national water resource strategy.

- The establishment of Catchment Management Agencies and Water User Associations and Catchment Management Strategies;
- The classification of water resources and resource quality objectives;
- Pollution prevention and emergency incidents;
- Controlling and authorizing water use activities;
- Financial provision for water use.

5.13 **Conservation of Agricultural Resources Act (Act 43 of 1983)**

The Conservation of Agricultural resources Act was passed in 1983 to protect soil, water and vegetation. This included measures to combat weeds and invader plants. The enforcement of regulations pertaining to invasive alien plants was promulgated in terms of this Act and it is the responsibility of the National department of Agriculture. In addition to it being a criminal offence for a landowner to allow certain species of invasive alien plants to grow on a property, the National Department of Agriculture may take steps against the property owner. The National department of Agriculture, may for instance, issue a directive setting a date by which an infested property must be cleared. The directive is binding on a successor-in-title. Non-compliance with a directive is a criminal offence. Some local authorities are now looking to introduce rates surcharge for properties that are infested with alien plants. Some species of invasive alien plants are a problem because they increase the intensity and frequency of wild fires. They consume vast amounts of water thus lowering the water table and causing streams and wetlands to dry out. As a result they reduce water security. This affects the functioning of natural systems. In terms of the National Water Act, No 36 of 1998, it is unlawful to do anything that is likely to detrimentally affect a water course. An insurance company may reject claims by landowners for damages arising from a fire if the landowner allowed the surrounding land to be unlawfully infested with invasive alien plants that contributed to the spread or the intensity of the fire. The Admiralty Reserve is infested with invasive alien plants which are a fire hazard and it is owned by the State. This legislation is applicable to the Admiralty Reserve management.

5.14 **Alienation through Leases and Title Deeds**

The Admiralty Reserve is treated as an inalienable to private individuals. In some cases and in some places, the administration of the Reserve has been handed over to

local authorities on certain conditions and terms. Private individuals may also apply to become caretakers of the portion of the Reserve contiguous/adjoining to their properties, and if their applications are successful, they become responsible for the prevention of abuses such as:

- (a) the cutting down, burning or damaging of trees, bush or other vegetation that has environmental significance;
- (b) the removal of wood, stone or sand; and
- (c) the erection of any structures, temporary or otherwise, on the Reserve.

There are certain special conditions which the Department of Public Works normally imposes on a caretaker namely that s/he shall not prevent, deny access, or obstruct the public from enjoying free access to the Government Reserve and the sea-shore, and that s/he may not, under any circumstances, erect any fences on the Reserve.

Like most other coastal local authorities, the Admiralty Reserve in Pennington (now Umdoni Municipality) is controlled in terms of the Town Planning Scheme through a public reservation (the Amenity Reserve). Specific controls are set out in the Town Planning Scheme Clauses and the Environmental Management Plan (2000) of former Pennington TLC.

Private alienation through title deeds and public alienation through leases have made it more complex to control the encroachments. With private alienation the owner enjoys tenure rights and some properties within Umdoni are built right up to the highest water mark, the argument being that the property is privately owned.

As far as public alienation is concerned, the Department of Public Works has entered into lease agreements with local councils given the length of the Admiralty Reserve and difficulties in managing it. The Department saw it wise to delegate authority to control development in the government Reserve by leasing those portions of the Reserve adjoining municipal boundaries. Unfortunately, for local authorities, this mandate is unfunded as there are no funds allocated for new posts. In order to determine what is allowed or not allowed on private property and/or lease property within the Admiralty Reserve, the clauses within each deed or lease need to be scrutinized. The summary below (Table 5) provides some of the clauses that appear in most of the title deeds and leases for the Admiralty Reserve. This gives an idea of a

range of conditions that are contained in these documents. The question of whether the lessees adhere to these conditions or not is a subject of another debate.

5.15 Private Alienation

The use and control of privately owned land adjacent to the sea-shore, the Admiralty Reserve, or tidal water is, of course, largely in the hands of the owners themselves. There are certain portions of the Admiralty Reserve that have been historically alienated legally to individuals. The exercise of their rights of ownership is, however, according to Oosthuizen (1985), subject to such bylaws and regulations of local authorities and the provisions of the Town Planning Ordinance No 27 of 1949, as may be applicable in the area concerned. The council should use the Town Planning Scheme and the Town Planning Ordinance to charge the property owners concerned.

According to the records of the Department of Public Works (Appendix C), the department has a lease with Umdoni municipality on the following properties:

- Lot 572 Park Rynie (previously Scottburgh Town)
- The area South of Ifafa river mouth (Pennington Town)
- The area South of Ikalasinga river mouth (Pennington Town)
- Lot 10 of Pennington;
- Umzinto north;
- The portion of Admiralty Reserve was leased to Pennington;
- Portion of the Admiralty Reserve was leased to the Scottburgh/Umzinto TLC.

Within Umdoni there are some individual leases (Appendix H) entered into between the department of Public works and private property owners:

- Kirnoy Estate in Umzinto – portion of farm mendosa 1611
- J.E. Callaghan in Ifafa Beach sub A of 1 of B and sub 30 of C farm Pierre D'orr.

Table 5 **Summary of Principle Acts and ordinances Relevant to the Management and Control of The Coastal Zone in KwaZulu-Natal** (from Oosthuizen, 1985: 56 – 57)

ACT/ORDINANCE	DATE	FUNCTION
Sea-Shore Act	No 21 of 1935	Controls all development below the high-watermark
Sea-shore Amendment Act	No 21 of 1984	
State Land Disposal Act	No 48 of 1961	Controls activities in the Admiralty Reserve
Territorial Waters Act	No 87 of 1963	Controls over territorial waters
Water Act	No 54 of 1956	Controls water pollution
Forest Act	No 72 of 1968	Controls of declared Forest Reserves adjacent to estuaries and the sea-shore
Nature Conservation Ordinance	No 15 of 1974	Defines nature conservation regulations, including those for the coastal areas
Prevention and Combating of Pollution by the Sea by Oil Act	No 67 of 1971	Provides for regulations to combat oil pollution
National Roads Act	No 54 of 1971	Defines regulations regarding national roads & bridges; should be referred to for those areas where such structures encroach onto the Admiralty Reserve
Health Act	No 63 of 1977	Provides for regulation for promoting public health (pothagens); this includes the coastal environmental health issues
Mines and Works Act	No 27 of 1956	Generates regulations on sand and gravel extraction, including beaches
Mining Rights Acts	No 20 of 1967	Sand and gravel extraction (as above)
Precious Stones Act	No 73 of 1964	Generates regulations governing sand and gravel extraction/precious stones reclamation
Delegated powers in terms of Physical Planning Act	No 88 of 1967	Relevant clauses relate to sand and gravel extraction
Soil Conservation Act	No 76 of 1969	Attempts to minimize soil erosion – this act has a particular effect on the estuaries and prograding sections of the coastal line (eg Tugela Mouth)
Physical Planning Act	No 88 of 1967	Land use planning and control adjacent to the estuaries and coastline
Ordinance No. 15 of 1974	No 15 of 1974	Control over all living resources in tidal waters along the Natal Coast
Town Planning Ordinance	No 27 of 1949	Land use control adjacent to the sea-shore and estuaries in Natal
Delegated powers in terms of the Water Act	No 54 of 1956	Water sport control regulations
Sea Fishery Act	No 12 of 1988	Conservation of the marine ecology and the orderly exploitation and protection of marine resources
Land Areas Development Act	No 39 of 1975	Prevention of marine pollution in Proclaimed Lake Areas
Environmental Conservation Act	No 73 of 1989	Control of pollution stemming from littering, waste disposal, noise and various other activities.
Land Survey Act	No 9 of 1927	Sub-division of land

The above table lists legislation which directly effect or contain clauses effecting aspects of the coastline. Oosthuizen (1985) provides more detail on the legal aspects of the sea-shore, including the effect various court cases have had on defining the extent of the Admiralty Reserve.

5.17 The Environmental Management Plan (2000)

This plan was compiled by Metroplan for the former Pennington Local Council incorporating Kelso, Ifafa, Pennington, Sezela, Bazley and Elysium.

A report entitled: "Pennington: Guidelines pertaining to the natural environment" was also incorporated as part of this study that aimed at making recommendations on the issues that need to be taken into account when assessing development applications.

The Environmental Management Plan (EMP) provides some general guidelines for priority one, two and three. Vegetation communities and properties in priority one group have high functional and/or biological importance and the indigenous vegetation must be conserved. Where development is inevitable, it shall be harmonious, low-key and environmentally sensitive. The vegetation in priority one lots shall not be cleared until a "botanical assessment" has been approved by a specialist in the field.

The EMP provides for guidelines and it states that where the land is already zoned as Public Open Space or Amenity Reserve or is considered 'sensitive' any suggested development shall be reconsidered or must be sensitive and appropriate. Any development activity must be checked against the Environmental Impact Assessment regulations as stipulated in the Environment Conservation Act (1989). Pennington, Kelso, Sezela, Bazley, Ifafa Beach and Ifafa Lagoon and Elysium all have lots that are zoned as Public Open Space or Amenity Reserve. These areas are considered environmentally sensitive.

The EMP provides guidelines for development in dune pioneers, wetlands, estuaries, rivers and streams, coastal forests as well as properties contiguous to the Admiralty Reserve or to the seashore. Properties contiguous to the Admiralty Reserve have been included in Priority One because of their proximity to the highly sensitive and

important Admiralty Reserve, according to the Environmental Management Plan (2000).

5.18 The Town Planning Scheme

Chapter 8 of the Town Planning Scheme of Pennington (in the course of preparation) contains clauses that are designed to control land use in environmentally sensitive areas of the town.

In clause 9.6 it reads:

“no lot or subdivision shall be cleared of any vegetation without the authority of the Local authority. No indigenous vegetation shall be disturbed or removed from any lot without the authority of the Local Authority. In considering any application for the development in terms of Section 67 of the Ordinance, it shall be the duty of the Local Authority to ensure wherever it is considered appropriate, that adequate provision be made for the conservation of indigenous flora, the planting or replacement of trees and the protection of water-courses, by means of conditions qualifying the approval of such development” (p 54).

In terms of the Town Planning Scheme of the erstwhile Pennington, listed below are Priority One vegetation communities:

- dune pioneers
- coastal forests
- wetlands
- estuaries, streams and rivers and all vegetation within 10m of the banks of the Umzinto river, and within 3m of the banks of streams.
- Those properties seaward of roads parallel to and nearest to the coast (indicated on the Pennington Town Planning Scheme Map) and /or contiguous to the Admiralty Reserve. It was decided to include these properties within priority One because of the proximity to the highly valued Admiralty Reserve strip. Harmonious development of these properties is essential to maintain the Functional and Conservation value of the Admiralty Reserve;
- The Admiralty Reserve and Lot 1166

Where the area is rated as Priority One in the Town Planning Scheme, the vegetation communities and properties in this priority group have high Functional and/or Biological importance and the indigenous vegetation should be conserved. Where development is inevitable it should be harmonious, low-key and environmentally sensitive (see Figure 5.2).

The Admiralty Reserve includes areas that need special protection from damage, due to the fragile nature of the vegetation and the extremely high value of beach as a recreation resource (Crook, 1990). Damage may result from trampling, felling and firewood-gathering, vehicles and children sliding down the dune sand. There are paths in Pennington leading from nearly all developed properties to the seashore and in most cases severe erosion has developed. In order to protect the indigenous vegetation of the Admiralty Reserve and to prevent soil erosion, a limited number of controlled access points to the beach is imperative.

5.19 **Conclusion**

Taking cognizance of the above attempts at 'saving' the Admiralty Reserve from degradation, the question remains: with so many instruments/tools to control the actions why are these attempts not bearing any fruit? Is it perhaps because of lack of enforcement and compliance? If so, what is the national and provincial government doing to put pressure on local authorities to see to it that such measures are not just pie in the sky? The next section will attempt to answer questions raised in chapter one with the assistance of the research methods and techniques aimed at getting to the bottom of the research problem.

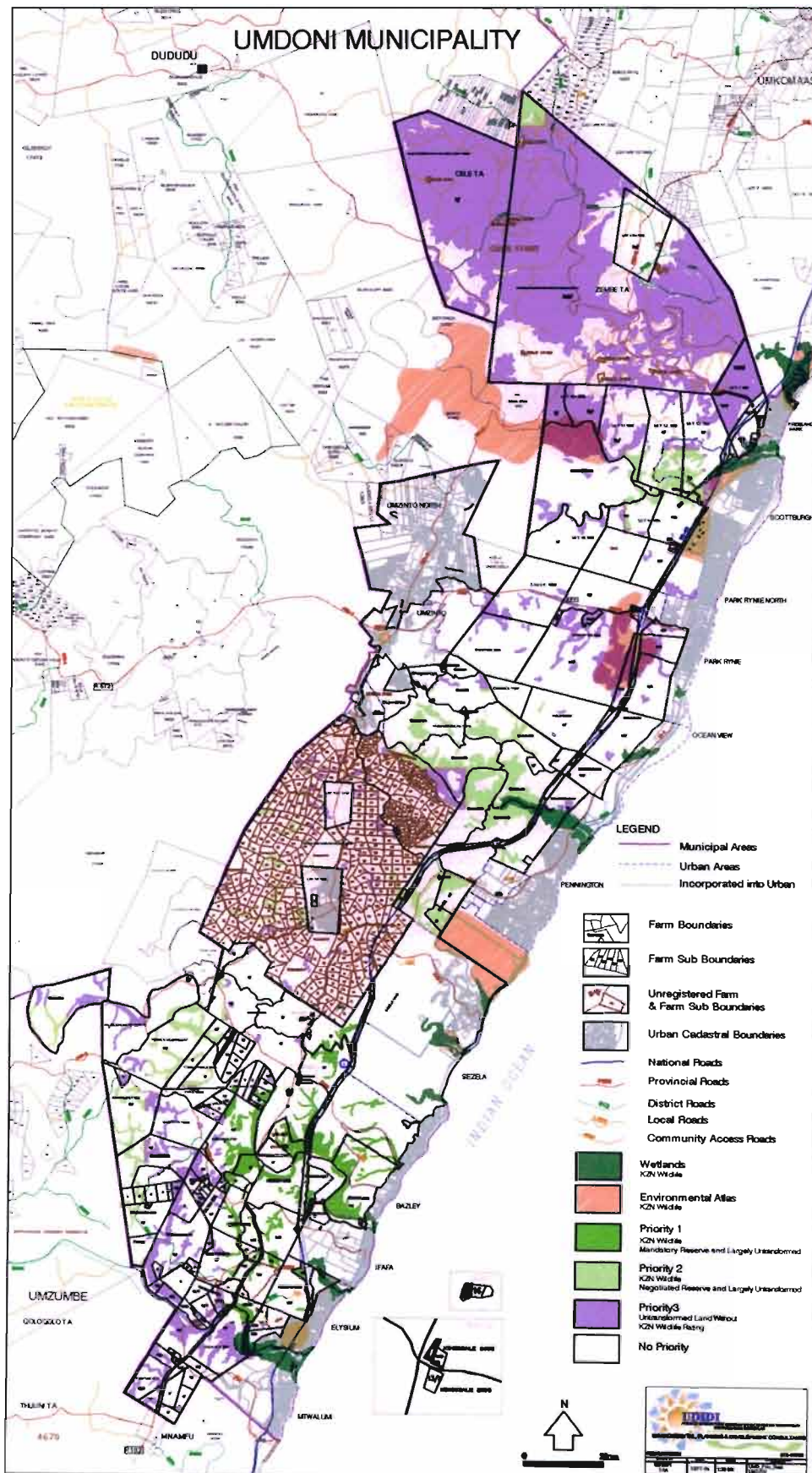


Figure 5.2 Priority Areas Map

Source: Udidi 2004

CHAPTER SIX

RESULTS

In this chapter results based on methods described in chapter four will be discussed in relation to the aims and objectives of the research.

6.1 Analytical Approach

This study used a number of methods and techniques to obtain qualitative information on a complex and emotive situation. Presenting the findings in a rational and comprehensible way has proven difficult. Since the results from methods used are most valuable when integrated across specific Admiralty Reserve issues, a presentation procedure has been adopted which shows the summary of the results from each method or technique. This is followed by a more detailed discussion of the results within the framework of critical Admiralty Reserve issues (in Chapter Seven).

6.2 Review of documentary evidence

In order to understand the strategy employed in the past to deal with the Admiralty Reserve encroachments documents such as minutes, council reports, agenda and property files (1997) were scrutinized.

6.2.1 Past Approach (from 1996-2000)

The review showed that the municipality used to receive numerous complaints about Admiralty Reserve encroachments from the public. Upon receipt of complaints the municipal officials sent letters to property owners.

When the property files of the erstwhile Pennington TLC were scrutinized, it was evident that in the past (1997) the council used the following measure in dealing with the Admiralty Reserve. On the 30th of June 1997, a letter was sent to beachfront property owners informing them about the encroachments and the effect that they have on dune stability. The letter demanded that they point out the boundary beacons on their properties (**see Appendix H**). The letter goes on to quote the National Building Regulations and Building Standards Act (Act 103 of 1977), Regulation A11 (1). The letter demands that they comply and warns that failure to comply will result in

Pennington TLC engaging a professional land surveyor to carry out the necessary work, the cost of which will be born by the owners. The tone of the letter is threatening.

In that same letter the council official noted that the Seashore Act requires the council to take this action. Mention was also made of the fact that the Pennington TLC leases the Admiralty Reserve from the Department of Public Works. The letter explains that “the lease requires that Pennington Council maintain the Admiralty Reserve in a natural state and that no unauthorized encroachment into the Admiralty Reserve takes place. In the event of encroachment occurring without authority the offender is required to remove the encroachment including all fences, structures, walls or gates. Areas where natural vegetation has been removed will require rehabilitation by the person/landowner whose property encroaches into the Admiralty Reserve. The landowner shall rehabilitate the area to its original state failing which council will undertake rehabilitation. Any person who having been instructed by Pennington Council to remove any encroachment and rehabilitate such encroachment fails to comply with the written notice will be liable for prosecution in terms of Section 12A of the Sea-shore Act, which states...” (Council Notice, 1997).

When this strategy failed to produce desired results, the council decided to use a more communicative strategy. The matter was discussed in a council meeting and council resolved to hold a meeting with property owners. At a Public meeting held on the 16 July 1999 it was unanimously agreed that:

- The pegs abutting the Admiralty Reserve be exposed by the owners by no later than 2 January 2000. Due to constant movement of vegetation, permanently visible markers would be required;
- The Environmental Health Officer and a representative from the department of Nature Conservation Services, carry out a physical inspection of each property to establish the extent of the encroachment (if any) of each individual property;
- A report on each individual property be prepared with regard to the extent and nature of the encroachment;
- A management plan be produced as a guideline, with input from the residents;
- Letters be forwarded to the residents advising them of the pending inspections and requesting them to cooperate.

A notice dated 14 December 1999 was dispatched to all owners of property adjoining the Admiralty Reserve referring to a public meeting in which the decision to write to them was taken. The second paragraph of the notice spells out the lease agreement (between council and the department of Public Works) and the clause that compels council to take this action.

Page 2 of the notice quotes “offences and penalties” (section 12 of Seashore Act) which are consequences of non-compliance. Paragraph three specifies the procedure to be followed upon receiving the notice:

- “Provide Pennington Transitional Local Council with a copy of the Surveyor-General diagram for your property;
- Expose and visibly mark all boundary beacons abutting the Admiralty Reserve (beach);
- Take steps to rectify the encroachment into the Admiralty Reserve by removing structures and rehabilitating the area encroached into”.

The notice demands that all boardwalks must meet the requirements of the TLC. They are given the period within which they are to reply to the notice and are urged to cooperate. Each property owner is requested to contact the writer of the letter to arrange for a site visit.

6.2.2 Current Approach (2000 to 2004)

The current approach by council to manage and control the encroachments into the Admiralty Reserve is such that a notice is dispatched to all Umdoni properties abutting the Admiralty Reserve quoting ‘relevant’ legislation and demanding the owner to end the encroachment and expose the seaward boundary pegs. The resident is also instructed to rehabilitate the damage, if any. The notice threatens legal action by council against the offenders who do not cooperate. The notice is then followed by a site inspection conducted jointly between the officials and advisers of council on environmental matters. In the letter council commits itself to appointing a professional land surveyor to establish the pegs at the cost to the resident should a property owner fail to do so. Property files show that the difference between the previous notice and the current one is that there are additional pieces of legislation that have been included in the contents of the letter which are assumed by the officials to be relevant

to the matter. There is no legal action taken against those who decide not to respond to the notice.

In addition to the above strategy council appointed Metroplan (environmental consultants) to compile an Environmental Management Plan for Pennington incorporating Kelso, Bazley, Ifafa, Ellysium, Mtwalume in 2000. In terms of this plan the Admiralty Reserve is rated as a Priority One Area due to its environmental sensitivity. Every 'development' undertaken has to comply with the requirements of this rating as well as environmental requirements as stipulated in chapter 8 of the Town Planning Scheme clauses.

6.2.3 Comparison with Hibiscus Coast Municipality

The notice used by Hibiscus Coast Municipality was scrutinized in order to compare the strategy by Umdoni and that of Hibiscus Coast. During a visit to Hibiscus Coast Municipality, the researcher requested a sample notice that is used by the municipality.

It emerged that Hibiscus Coast Municipality have used three different notices with the same message. The first notice used was prepared and sent by a private firm of attorneys (John Louw, McGarr & Associates) acting on behalf council. The notice is dispatched through registered mail and it quotes certain legislation. It is very strongly worded and the last three paragraphs threaten legal consequences should the owner fail to comply. The second type of notice is similar in that it is a strongly worded notice issued by the Conservation Officer to all property owners who, after site inspections, have encroached into the Admiralty Reserve. The notice states the lease obligations that council has with the state. Paragraph three mentions two laws which the property owner is contravening: Environment Conservation Act (198) and Town Planning Ordinance of 1949. The next paragraph expects the property owner to establish beacons defining the boundary of his/her property and demands them (in terms of section 31A of ECA) "to end the encroachment of the Admiralty Reserve forthwith; and rehabilitate, at your own expense, the portion of the Admiralty Reserve on which the activity has been undertaken, to the satisfaction of the municipality acting on the advice of a professionally qualified Environmental consultant approved by council, within 21 days of this notice".

Paragraphs 4,5 and 6 stipulate the consequences of non-compliance (**Appendix H**)

All property owners who do not respond within 21 days are referred to a private firm of lawyers who would prepare necessary documentation for prosecution. The whole matter is then handled by the attorney who is appointed (depending on council resolution and availability of funds)

Another type of notice is used by this council (**Appendix H**) but it differs from the above notice in that it does not quote any legislation and the tone of the letter is more accommodating than threatening. This shows a shift in stance from adversarial to collaborative.

The strategy used by Umdoni Municipality to deal with encroachments is similar to the approach by Hibiscus Coast. The only difference between the two strategies is that in Hibiscus Coast Municipality, site inspections are held first and when the notice is sent out there is at least evidence of encroachment, unlike Umdoni Municipality's notice. The result from the study shows that it is the brainchild of the Hibiscus Coast Municipality. This means that if their approach fails Umdoni's could equally be problematic. Interesting to note is that the department of Public Works has adopted the same notice in summoning the owner of 48 Cherry Lane to end the encroachment and rehabilitate at her own expense.

The three notices by Hibiscus Coast show that when the council first dealt with the matter they adopted a robust stance. The second notice is still strongly worded but is signed by the head of department. The third notice is less threatening which could be caused by a realization from council that the robust stance is counterproductive. Of course, each method has its merits and demerits the important thing is to combine the command and control with a self-regulation stance to achieve cooperative governance.

6.2.4 Assessment of approaches used

In order to assess the effectiveness (or lack of it) and highlight shortcomings of the past and present control and management measures, minutes, reports, agenda and property files of the erstwhile Pennington council were scrutinized. Informal

discussions were held with environmentalists and councilors who were at the time officials of Pennington council. The results of these techniques were as follows:

In the past council relied on an officer whose knowledge of environmental matters was questioned by rate-payers who received notices. This was revealed in the letter from Mr Edmunds (lot 568). The problem with this is that the notice was too prescriptive and lacked a social component, namely getting the residents to understand why they are in the wrong and why they have to correct their wrong-doing. The notice quoted pieces of legislation and the style of writing takes the imperative form "you shall not do this". The tone of the notice is threatening with legal jargon being employed. Council relied on an official who is not qualified and experienced on environmental matters because of staff shortages. This exercise requires a person with a strong personality because it is a sensitive matter. Such an official must have a good background in Environmental Sciences and must be *au fait* with botany and ecology. The previous approach was based on 'trial and error' with different notices used to write to the residents.

The present approach is flawed because there were no staff to undertake this task within the municipality and there was no capacity within the municipality to handle and guide the rehabilitation process. This makes a mockery of the whole exercise because residents expect that if council accuses them of having illegally stolen land there has to be an official within the ranks of council who should be able to prove to them why they are wrong. This was evident the letter of response by Pennington residents where they demanded that the Environmental Health Officer should " get out of the office, come and visit each property with an experienced and qualified officer from the Department of Nature Conservation and discuss this matter with each property owner individually, as each property is unique in itself" (Edmunds,2002). Residents were asking a question: what qualifies you (officer) to accuse us of these encroachments? They were challenging his knowledge and experience. The approach is also flawed because it tends to over-generalize thus treating all properties as the same. Each property is unique and therefore each case should be treated in its merit. Residents picked this up and demanded a one-on-one meeting on site with the officials. There is no obligation for the owner to respond because the notice is too generic and only law-abiding property owners responded. Unfortunately, those who responded were the ones with less serious encroachments. The notice quotes a number of laws of which

none is directly relevant to the control and management of the Admiralty Reserve. There is no certainty from officials that the legislation quoted and the contents of the letter to the owners will be able to stand in court. That is why Hibiscus Coast Municipality is struggling in their attempt to control encroachments. There was no need to quote the National Buildings Regulations (A11) because this legislation is not relevant to the exposing of pegs for this purpose. This mistake was picked up by one attorney acting on behalf of a property owner.

The biggest loophole in the previous and current approach is that the notice to property owners is too open-ended, thus allowing the culprits to get away. The notice does not demand a site meeting with the officials and the property owner or their representatives. The proof of encroachment should be determined in a satisfactory manner to both the council and the property owners. This is a legal matter therefore offenders have to be proved wrong by a suitably qualified person. In the past the process was not taken to the end which is why property owners are now questioning council's competence in the matter. Council needed to get at least one high profile case to set a favourable precedent. In Mtunzi Park people were waiting to hear the outcome of the prosecutions and when they knew council failed to prosecute they started hacking down the vegetation (Anderson, pers com, 2003). Institutional incapacity is the cause of lack of compliance.

It must be pointed out that the current strategy by council is reactive and not proactive. Council does not have an official who deals with environmental matters on daily basis. They rely on environmentalists to advise council but these are the same people who would write to council demanding that something be done about the encroachments. There is presently no capacity within the municipality to deal with encroachments on daily basis and to monitor the rehabilitation process. This makes a mockery of the notice that council sends to property owners. There is no budget for this exercise in the current financial year which makes it even worse because the notice threatens to take people to court. Although the decision to undertake this exercise was a resolution by council, it was driven by white councillors who were angry at officials for having taken action against the owner of lot 561 Pennington. This fact is elaborated upon under discussion of the results of the participant observation technique. In other words, this council resolution was not taken because council cares about the

environment. It is one of those resolutions that are passed without the blessing of council in terms of financial support. This puts officials in a difficult position because they are instructed to undertake such a sensitive issue but there is no political support. There are some similarities between the current approach and the previous one. The frustrations that are experienced by the Hibiscus Coast Environmental Officer in dealing with this issue using this approach are similar to those of Umdoni officials. There is absolutely no political will.

Both the previous and current approach are flawed in that there is no *in-loco* site inspection once property owners have been informed by means of notice of council's intention to crack down on encroachments. There has to be a meeting on site with building inspectors, environmental officer, council land surveyor or property owner's and perhaps the property owners themselves. At the moment property owners believe that once they have submitted their Surveyor-General diagrams to the municipality they have complied with the whole exercise. The type of encroachment and extent should be measured physically in the presence of all officials and the property owner otherwise property owners will find a loophole in the approach.

The approach does not afford property owners an opportunity to make representations in terms of the Promotion of Administrative Justice Act, Act N0 3 of 2000. The notice is not based on a clear statement of proposed administrative action. The notice makes an assumption that all property owners are irresponsible and that they are encroaching because they are arrogant. The approach does not allow council to get to the bottom of the problem, the root cause of the encroachments. When one peruses correspondence between the council at the time and the property owners it becomes clear that property owners have genuine reasons for encroaching therefore they requested a platform to discuss the issues they have on the matter. For instance, one property owner responded telephonically stating the reason for encroaching, that reason being that he is new in the area (from Johannesburg) and that right in front of his house there is a group of vagrants who now leave there.

6.2.5 Transgressions by State Organs

When one reads correspondence between the Provincial officials, council officials and property owners (dating back to 1998) what becomes clear is that the most

problematic parts of Pennington were (and still are) Cherry Lane and Salmon Drive properties abutting the Admiralty Reserve. Salmon drive lies south of the Umzinto Lagoon. This is part of Pennington that suffered flooding during heavy rains of Cyclone Demoina in 1987/88. The report by Lee (2002) highlights the risk and danger which cost council and central government millions of rand in an attempt to save the beach properties. The report puts blame squarely on the municipality, property owners and the South African Railway Line Services. In terms of the report by Town and Regional Planning Commission (1997) the railway reserve encroaches into the Admiralty Reserve in a number of places particularly along the South Coast.

Council is accused by Lee's (2002) report of poor environmental decision making. Council took a decision in the public interest which had unintended consequences that actually reduced public benefit. Council decided in its wisdom to build a car park and ablutions facility right next to the beach to serve the needs of the visitors. The Pennington beach is narrow, steep in parts thus subject to a net erosion situation during exceptional or astronomical tides. This type of beach is prone to slumping or undercutting (Tinley, 1985). When viewing Pennington and the adjoining beach to the north, it is soon realized that it is in a "small dune and dune-less sector of the monocline coast" (Tinley, 1985: 37) and the fore-dunes are highly susceptible to erosion and under-cutting. These structures were located too close to the high water mark. They were prone to normal coastal processes including storm-water events which could wash such structures away or these structures could alter the normal pattern of sediment movements giving rise to accelerated erosion downstream. The end result was a significant cost to the municipality which could not be financed by council thus monies had to be donated for the construction of the bridge to hold water from the river. The property owners are said to have contributed to their predicament by creating paths to the beach from their properties and removing the natural bush that protects the fragile dune system. This, according to Lee (2002), is unfair because other property owners in Pennington do not have the luxury of direct access and private access to the beach. They have to walk to the public access points to get access. One leg of sustainability is violated, namely social equity.

The South African Railways are said to have contributed to the disaster because of the infrastructure development which had a major impact on the stability of the fore-dunes

on the car park area. The construction of the railway line that runs through Pennington is a major infringement onto the Admiralty Reserve and it interferes with the natural systems. The railway bridge that was created on the river mouth is a good example and all the excavation works that were conducted during construction had an impact on the ecology of the area. The result is that the shrubs and dune thicket seem to commence on this part of the dune and immediately below the first row of houses next to the car park (**Appendix E, plates 1-5**). The Pennington Environmental Group has put up signs prohibiting tramping on the dune area.

Physical inspection held during fieldwork revealed the risk that the beach front property owners still face since the 1987 flooding event. To stabilize and rehabilitate the sand dune a gabion was installed underneath the sand dune because of the erosiveness of the beach. Property owners next to the car park are experiencing sand blowouts because of lack of natural vegetation. The combination of an excessive high water tide coupled with an extremely strong north easterly wind presently erode the fore-dune and damage some of the houses. All these houses are facing eastwards towards the beach.

6.3 Interviews

The Admiralty Reserve is notoriously difficult to manage. It has become a topical issue of late among coastal stakeholders who are using trial and error method of managing the Admiralty Reserve. This therefore necessitated a visit by the researcher to Hibiscus Coast Municipality where various issues were discussed.

6.3.1 Management approach adopted

An informal interview was conducted with a view to understanding the rationale behind the robust approach to this problem and to determine if there is any progress made by this local authority given that they have received funding from the state. According to the Hibiscus Coast Municipality's Conservation Officer, the council itself is not sure if the procedures they follow in tackling the encroachment is the correct one. He stated that they seem to be going round the circles in this matter. Even the Phelamanga (a project funded by National government to assist coastal municipalities to deal with coastal livelihood issues) project cannot offer definite answers. The Conservation Officer stated that the Hibiscus Coast municipality is in the process of reviewing the

manner in which they handle this issue. The conservation officer confirmed that as a municipality they take a very hard-line approach – letters are written to property owners instructing them to end the encroachment and rehabilitate to the satisfaction of council. The notice also quotes 'relevant' legislation. There is no public participation in the process, no meetings or workshops aimed at getting the offenders to buy-in or cooperate. The approach seems to be approved by the Department of Public Works since they employed it in dealing with Lot 561 Pennington.

The only positive achievement by the Phelamanga project, according to the Conservation Officer, is that more and more people are coming on board, which will probably make it possible to come with a practical sustainable management strategy.

The Hibiscus Coast municipality is now working with the senior public prosecutor with the aim of getting the local magistrates courts involved right from the beginning to save on legal costs. The municipality is reviewing its notice to the property owners to ascertain that the notice reads correctly – will the notice stand up in court of law?, What steps do we follow to make it legally binding? The municipality wants to make it 100% correct but everybody has different idea about what is correct.

The challenge facing the coastal municipalities is the interpretation of legislation that pertains to the environment. In terms of the Environment Conservation Act (1989) the offender should rehabilitate the damage but they must be given a chance to discuss the matter with the municipality. However, there are no specifics: it is unclear to what extent do they have to repair the damage. If they cooperate or repair the damage they remain unpunished yet the vegetation might take very long to regenerate. The transgressor will, all this time, have the view to sea or have the view forever.

During the discussion with Hibiscus Coast Municipality's conservation officer, he was asked to explain the rationale behind the use of the hard-line, robust approach in the management of the Admiralty Reserve by the municipality. He stated that these encroachments are by rich people. It would be unfair to let the rich steal the land that is held in trust by the state President on behalf of all South Africans (even the poor)(De La Porte, pers com, 2003). The infringements are according to him motivated by greed and arrogance. The rich property owners want to incorporate the land that is not theirs.

The estate agents are fully aware of the existence of the Admiralty Reserve but they allow this to happen. People want to make sea views so that when the property is sold they make inflated profits. This is viewed by many as theft.

6.3.2 The Geography of the Admiralty Reserve

In Happy Wanderers Resort (Kelso Bay) an exclusive interview with Mr Chris Crystal (5/12/03) revealed that the ownership of the estate of the Abrams extends right into the Indian Ocean. In terms of the deed of grant the land extends into the low water mark. According to Mr Crystal, the administrator of the estate, there has never been any expropriation by the government neither has there been any compensation for the land through legislative process. In that way the Admiralty Reserve does not exist in Kelso Bay because the land is privately owned. The inspection on site showed that the chalets and the restaurant is situated on the sensitive dune. The southern border of this property starts in the middle of Umzinto River, north of Pennington, and runs up to Mzimayi river. Private fishing is not allowed in terms of this situation and the resort can permit the four by four vehicles on the beach. Mr Crystal also stated that the estate was subdivided and there are various properties within the estate. The administrator lives in a big house that is situated on the sand dunes and is 50 year old (pers comm.). Mr Crystal is of the view that it is too late to do something about the old encroachments especially where there are structures that are used for tourism purposes. He did acknowledge that the beach area should not have been entrusted in the hands of individual private ownership. He believes that we should prevent future encroachments but be careful with the manner in which we deal with old ones.

6.3.3 Knowledge and understanding about the Admiralty Reserve

Informal interviews were held with six environmentalists, members of the public and users of the beach during holiday season. The purpose was to determine people's awareness of the Admiralty Reserve which could have a bearing on why people encroach. In addition, five people from each population group were interviewed on the beaches as part of determining the reasons for the encroachments.

Of the twenty five people who were interviewed, eight responded by stating that they were not aware of its existence. Others who reside near the coast showed awareness of the existence of the Admiralty Reserve, which proved the point made by

environmentalists that they are encroaching because of greed and selfishness since although they know about its existence, encroachments still occurred. Interviews showed that ignorance, negligence and lawlessness in our society could be the cause of the encroachments. This was emphasized by Hibiscus Coast Municipality's conservation officer when he was interviewed. He mentioned greed, negligence, fragmented control and incompetence on the part of municipalities for being unable to handle the matter successfully thus setting a precedent.

The result showed that one's knowledge and awareness about the existence of the Admiralty Reserve has got nothing to do with encroachments. The bottom line is that people who reside next to the beach are aware that the land on the seaward boundary of their properties is not theirs.

6.4 Interpretation of the Admiralty Reserve Maps

Pennington is recognized through the Environment Conservation Act (1989) section 26 regulations as the Sensitive Coastal Area (SCA) together with Umtavuna. In terms of schedule one of the regulations certain activities were identified as having a detrimental effect on the environment. For instance, disturbance of vegetation, earthworks, dune stabilization and dredging. Development planned for these areas required an Environmental Impact Report from an authorized and competent organ of state. Schedule three of the regulations lists properties in Pennington where such regulations apply. These properties are in the main Beach Front ie. Salmon Drive and Cherry Lane abutting the Admiralty Reserve (**see Appendix F**). A map (scale:15000) was produced by Metroplan (1997) which identified all properties on the sensitive coastal areas and are marked in green on the map. This is proof enough that these areas are very sensitive.

The mapping technique was used to determine the geography of the Admiralty Reserve and how much of it is still left within Umdoni Municipal boundaries. The technique used to map was based on the CAD system of GIS whereby the cadastral maps were superimposed onto the aerial photographs. This was only useful as a starting point. The environmental sensitivity map obtainable from the Department of Agriculture & Environmental Affairs was used to study where in Pennington Admiralty Reserve exists. The Town Planning Scheme map based on the Surveyor-General's General Plan was used to identify properties that were abutting the Reserve (Figure

12). The Land Use map from the GIS was also used to identify spots where there is no Admiralty Reserve. The oblique aerial map revealed that in Ocean View there is no Admiralty Reserve since the eastern boundary of the property is the high water mark. **(Appendix I)**

6.5 Focus Group Sessions

A site visit was conducted in the presence of representatives from Department of Agriculture and Environmental Affairs, Department of Public Works, six representatives of PEG, one municipal official, a land surveyor representing the owner of the property and 12 members of the public. The purpose was to discuss and debate the matter on site with the view to advising the local council on a way forward. The second matter on the table was to define an encroachment and thirdly to discuss the reasons for non-compliance. The sites that were visited were Lot 561 Pennington since it was a controversial site as per the Minister's instructions.

6.5.1 Practical steps to deal with the matter

Advantages and disadvantages of both approaches (robust and collaborative) were discussed and debated with the view to taking a decision on how to deal with the encroachment at hand and many others. The participants resolved that stern action should be taken by the local authority because of the history of these encroachments. The Department of Public Works was in favour of taking action against the offender. The meeting resolved that the action against this property owner will set a favourable precedent and that it could be used as a test case to show that council is serious about law enforcement. The radical environmentalists argued that this council should learn from the experiences of Hibiscus Coast Municipality where they are taking strong measures against encroachments. This view was opposed on the grounds that it was described by councilors present as unfair to single out one property owner. Local residents were of the view that this should be used as a test case to show the public that council is serious about the matter. Those who were in favour of stern action against the owner stated that this encroachment is the latest and that it could be used by council to set a precedent. It was unanimously resolved that council should take action against the owner of lot 561 Pennington. Councilors and other members of Pennington Environmental Group (PEG) were totally opposed to what they called

discrimination against the owner and wanted the action to be taken to all property owners by council, which council did.

When the matter was discussed in full council it was resolved that the responsible Manager must send notices to all property owners abutting the Reserve. The irony is that property owners responded in their numbers but to date neither the council nor the Department of Public Works have taken any further steps on the matter. The reason cited by both spheres is the lack of staff to take the process forward.

6.5.2 Material used to make boardwalks

Another hotly debated matter was whether or not boardwalks are an encroachment into the Reserve; whether they have a negative impact on the dune system or they are there to save the system from destruction through trampling and sliding. It was unanimously agreed that the officials should regard them as another form of encroachment but those that are constructed to the requirements of the local council should be allowed to stay.

6.5.3 Defining encroachment

It was unanimously agreed that the broad definition of the encroachment should be an unauthorized development activity that is undertaken by an individual or groups inside the public land for private interest/ gain/ benefit.

6.5.4 Reasons for non-compliance

It was agreed that the reasons for non-compliance are: peer pressure (need to belong), poor examples (seeing others do it), invisible policing (failure to police effectively), ignorance about the consequences of such actions, attention seeking, selfishness (wanting to take advantage of a societal asset). It was agreed that the right approach to this problem should be a compliance tool that will combine both "command & control plus self-regulation = cooperative governance".

6.6 Physical Site Inspections (Pennington Beach Properties)

In order to be able to describe the various types of encroachments into the Admiralty Reserve site inspections and site meetings with owners (or their representatives) were held and measurement tape was used to determine the extent of the encroachments.

The Surveyor-General diagrams were relied upon to identify boundary pegs of properties abutting the Admiralty Reserve. Three areas were used as case studies, namely Scottburgh, Pennington and Ifafa Beach. In order to determine the type of encroachment photographs were taken to serve as proof of the encroachment. Sites that were inspected were mainly the ones that were reported to the Municipal Manager by ratepayers. Complainants were also included in the site inspections particularly the environmentalists. The inspections were done during the month of November and December when the property owners were on holiday. These sites were chosen as case studies because the encroachments have a history and because Environmentalists had been asking: when would the municipality exercise its responsibility on environmental matters. Ifafa, Pennington and Scottburgh South happened to be the three areas within the municipality where there is evidence of the existence of the Admiralty Reserve. The purpose of the inspections was to prove or disprove the encroachment claim made by the complainant. All parties had to be satisfied that there is/there is no encroachment and photographs came to the rescue of the officials.

6.6.1 Reported case 1 (48 Cherry Lane (Lot 561 Pennington)

With respect to the 48 Cherry Lane situation many square metres of indigenous vegetation had been destroyed, a concrete wall had been erected on the dune, a double storey house had been built on what appears to be public land and a board walk had been built through the sensitive dune to allow for private beach access. This encroachment was confirmed by the professional land surveyor who was appointed to expose the beacons. The Survey as undertaken by a registered land surveyor clearly indicates encroachment into the Admiralty Reserve (**see Appendix F**).

In a site inspection (06/12/03) held to look at all properties in Cherry Lane, it was found out that almost all property owners have encroached (**see Appendix H**). The common infringement is the construction of the private pathways from the eastern gates to the high water mark. There is evidence of vegetation clearance to extend lawns and create sea-views. Most of the properties have two gates facing the beach front: the first gate is the official boundary gate where it is inscribed "private property" and the second gate is right at the end of the walkway. In some instances these gates extend right up to the high water mark and are kept closed from public use. These private

pathways are constructed using different building material ranging from boards, planks, concrete, stones and steel. Retaining walls are constructed into the Admiralty Reserve thus extending the size of the property. Another common form of encroachment in Cherry Lane are the sundecks constructed by means of expensive wood. The material used for the construction of these walkways is not suitable for the sensitive dune system. By comparison Salmon Drive property owners have caused less damage to the dunes. It is debatable, however, whether or not boardwalks protect or worsen the destruction of sensitive dune.

During the site inspection of Salmon Drive Properties, it was revealed that almost all 15 properties abutting the Admiralty Reserve are encroaching and the most common encroachment is the construction of the boardwalk and private pathways from their houses to the beach. The clearing of the vegetation to enlarge the lawn and create a sea view and braai places is also common. The vegetation is first cleared and then a fence is erected to claim that area as belonging to the property owner. When they were asked to expose the pegs it was discovered by the council that they have encroached. There are light-stands next to the cleared areas leading to the sea. There is encroachment by the vagrants who now sleep under the thick bush which leads from the private paths (**see Appendix E**).

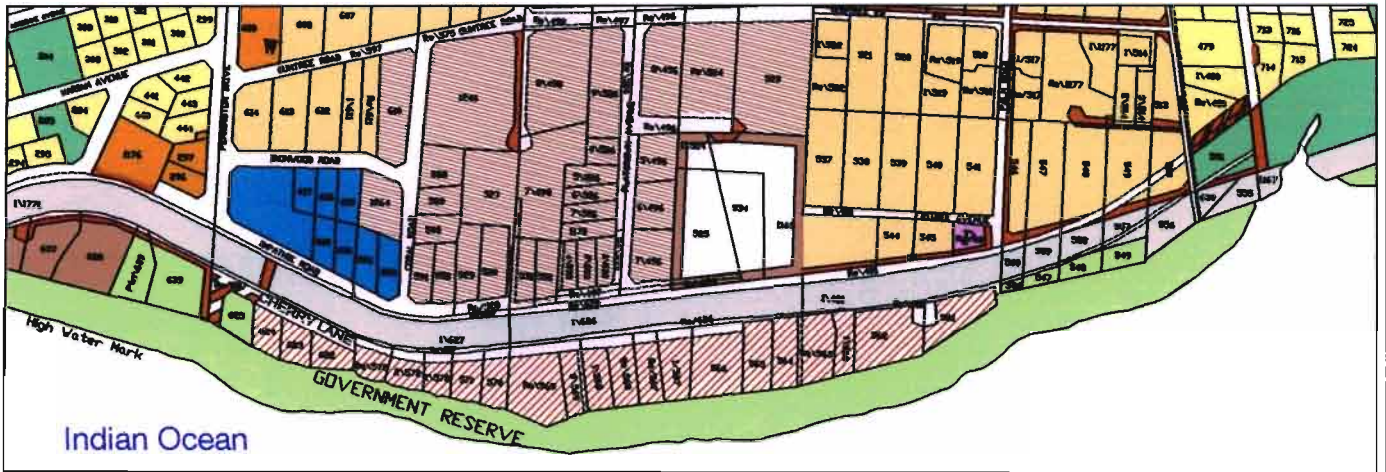
Table: 6.1 Other Types of encroachments within the study boundary (refer to appendix C)

Property Description	Encroachment	Extent (Area in m ²)	Period / Age
Ifafa River Mouth (on the cliff overlooking the sea)	1.Solid waste Disposal	55 metres	Recent
Lot 568 A Pennington	2. Extending the lawn, creating sea view, clearing vegetation and overgrowth	30 m length 22 m wide	50 – 70 year
Lot 567/1 Pennington	3. Vegetation destroyed to create seaview, parklands created by planting grass	38 m	Old
Lot 571/2 Pennington	4. Asbestos chair to view sea, grass planted, two pine trees planted into the secondary dune	23 m wide	Old
28 Cherry Lane Marine Lodge, Pennington	5. Retaining wall made of concrete material and gate on sand dune, garden created, parkland formed, Pine trees planted into the primary dune, electric pole	34 m	Since 1922
Lot 568 B Pennington	6. Construction of a fixed table with strong concrete chairs to sit on and view the sea – vegetation destroyed and grassland planted	18 m in length 19 m wide	50 yrs
20 Cherry Lane Pennington	7. Four metres high sundeck, grassland created, concrete floors with tiles into the Reserve	12 m length 18 m wide	Old
12 Cherry Lane Pennington	8. Garden created with grassland, undergrowth destroyed, coastal forest destroyed to make way for a view, the lawn extended into the secondary dune	40 m seawards 20 metres across	Old
Ifafa River Mouth, Ifafa Beach	9.Estuary Breaching	100 metres	New

16 Cherry Lane Pennington	10. Parklands created for sea-view, undergrowth destroyed, coastal forest destroyed, extension of lawn into secondary dune	40 m into the beach 20 m across	Old
12 Cherry Lane Pennington	11. Fireplace created with concrete blocks, sundeck, vegetation cleared for a view, grassland garden	Sundeck 4 metres high 50 m seawards; 28 m wide	Old
18a Cherry Lane Pennington	12. Concrete tables and benches, standing shower built on concrete slab, vegetation cleared to create a view.	18 metres	Old
18b Cherry Lane Pennington	13. Steel chairs, the veranda of the house encroaches, vegetation cleared, water taps for irrigation, one metre high sundeck 10 square metre in diameter, private pathway into the Reserve	28 metres	Old
Lot 638 Pennington	14. Extending the lawn and boundary by planting grassland	28 metres into the Reserve	50
Lot 571 (22 Cherry Lane)	15. Concrete table with chairs, grassland created, private pathway with concrete steps, gate on dune	15 m into the Reserve	26
Lot 565 Pennington	16. Diamond mesh fence	50 m	Recent
Lot 563 Pennington	17. Sundeck	4 metres high	Recent
Pennington Ski-boat club	18. Physical structure	56 square metres	1960s

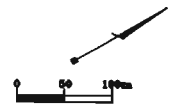
(see Figures 6.1 and 6.2)

EXTRACT FROM PENNINGTON PLANNING SCHEME SHOWING:
CHERRY LANE



LEGEND

- Low Density Residential 1 (SR1)
- Medium Density Residential 3 (GEN RES)
- General Commercial
- Medium Density Residential 8
- Railway
- Medium Density Residential 1 (IR1)
- Administration & Public Buildings
- Amenity Reserve



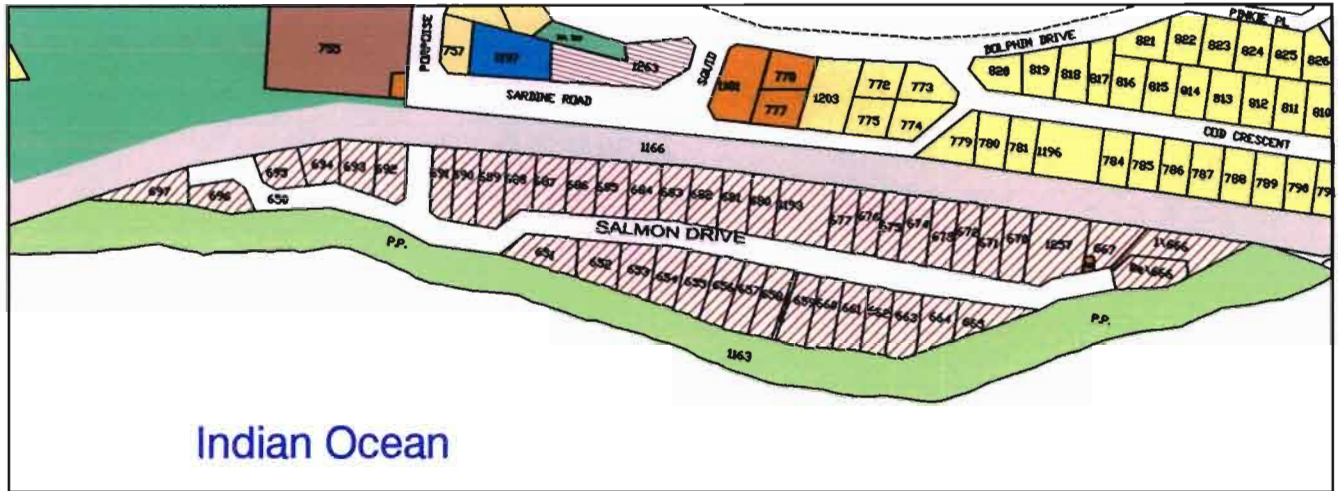
UDIDI
PROJECT DEVELOPMENT COMPANY (PTY) LTD REG NO 1882014/0847
INCORPORATED IN SOUTH AFRICA
ENVIRONMENTAL PLANNING & DEVELOPMENT CONSULTANTS

PETERMUTZIGILING		(021) 2469025	
ISSUED BY	DATE	SCALE	PROJECT
GIS DEPT SAA	APR 2004	NTS	CHERRY LANE 1P12

Source: Udidi 2004

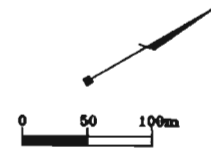
Figure 6.1 The Admiralty Reserve - Pennington Beach, Cherry Lane

EXTRACT FROM PENNINGTON PLANNING SCHEME SHOWING: SALMON DRIVE



LEGEND

- Low Density Residential 1 (SR1)
- Medium Density Residential 3 (GEN RES)
- General Commercial
- Medium Density Residential 8
- Medium Density Residential 1 (IR1)
- Amenity Reserve
- Railway
- Administration & Public Buildings





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INCORPORATED IN SOUTH AFRICA

ENVIRONMENTAL, PLANNING & DEVELOPMENT CONSULTANTS

NETHERWATZBURG (Pty) Limited

DRAWN BY SAA	DATE APR. 2004	SCALE NTS	PROJECT NO. SALMON DRIVE 1022
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Figure 6.2 The Admiralty Reserve in Pennington Beach, Salmon Drive Source: Udidi 2004

6.6 2 Reported case 2 Scottburgh South – Mtunzi Park

Mtunzi Park is situated South of Scottburgh and was not incorporated as part of the crown grant which means that the Admiralty Reserve exists next to this private property. On the 7th August 2003, a physical inspection was conducted jointly between council officials, chairperson of Pennington Environmental Group and members of trustees of the above body corporate which revealed that the encroachment into the Admiralty Reserve in this property takes the form of unauthorized removal of vegetation (**see Appendix D**). When the creation of Mtunzi Park was agreed upon, the booklet states: “no vegetation should be removed from the Reserve with the intention of creating sea views or additional paths to the beaches” (Mtunzi Park booklet, 1997: 28). This clause places a very onerous responsibility on the body corporate, especially as it has no powers in terms of the sectional titles act to take action against transgressors and can merely report transgressions to the relevant authorities hoping that they will take appropriate action. These transgressors can be prosecuted in terms of Section 7 of the National Forests Act 1998, the Environment Conservation Act of 1989, section 28 of the National Environmental Management Act, Town Planning Ordinance and Sensitive Coastal Areas regulations.

From the inception of the complex in 1986, up until about 1996, there were no major incidents of owners trying to create sea views or cutting additional pathways to the beach. However, since then, there have been a number of transgressions. The history of these transgressions is as follows:

1. *Cabana 13 (William – since sold)*

The fence on the north side of his exclusive use area was moved into the Reserve and the area grassed. After a letter from the Trustees, supported by the Local council, the fence has been removed to its correct position and the grass is in the process of being cut out and used in other parts of the complex, thus allowing the indigenous vegetation to re-establish itself.

2. *Cabana 12 (Lindsay – since sold)*

Established a garden in the Marine Reserve. After a letter from the Trustees that was removed and indigenous vegetation allowed to re-generate.

3. *Cabana 52 (Geerts – since sold)*

he became a Trustee and soon thereafter started to try and cut a sea view. After a severe written reprimand from the Trustees he resigned as a Trustee and soon thereafter sold.

4. *Cabana 15 (Erasmus – a joint owner who has since sold his share)*

He was caught in the act of trying to cut a sea view by one of the Trustees and was verbally admonished. Fortunately little damage was done and no further attempts have been made to remove vegetation. All the above transgressions were stopped by the Trustees before major damage was done, however, since then, there have been more serious transgressions.

5. *Cabana 40 Josi (who has since sold) and Reinertsen (the new owner)*

In June 1999 Mr Josi started to cut the vegetation in front of his cabana. He was asked to stop immediately but continued and in July he was visited by the Trustees and Ms Adrienne Edgson, a local environmentalist and was verbally admonished and told to stop removing vegetation from the Reserve. This had the desired effect for a few years. However, in early 2002, he once again started to remove vegetation on a massive scale and a letter was written to him in March 2002. Soon thereafter he sold. Unfortunately the new owner, who has owned Cabana 57 for a number of years, and should have been aware of the restrictions continued where Josi left off. Despite numerous requests by the Site Controller to stop cutting the indigenous vegetation from the Reserve, he continued and has grassed the cleared area to create parkland. In the process he has removed 32 loads of cuttings, consisting of a Bakkie and trailer full per load. His contention is that the area is not part of the Admiralty Reserve and that the Body Corporate should set funds aside to carry out similar removals of the bush or enhance sea views for the rest of the complex. The extent of the encroachment is 38 m across and 33 m deep towards the sea.

5. *Cabanas 4 & 5 (Mitchell recently sold) and Cabana 3 (Price)*

The biggest clearance took place in this area of the complex despite being told by the Site Controller to stop. The local environmentalist Ms Edgson, one Trustee and a member of the Parks Board admonished them and they were told to replant the Reserve or face prosecution. The replanting of the Reserve has been done but the plants used do not appear to be dune plants although they maintain that they planted what they were told to. According to Mr McLuckie, the acting chairperson of

the Trustees, this property was sold to the present owner for R190 000 but after clearing the vegetation thus creating a sea view the owner managed to sell it for R495 000.

6. *Cabana 1 (Van Der Walt)*

A new owner, who immediately started cutting the bush in front of his cabana despite having been given the Mtunzi Park Booklet, continued to remove vegetation after he was sent a letter from the Trustees. The Parks Board and the local authority were informed and apparently charges have been laid. Fifty two loads of cut vegetation were removed from the Reserve. Trustees are not sure what charges have been laid and in terms of what legislation. The extent of the encroachment in this cabana is 30 m across and 33 m deep towards the sea.

The difficulty with this destruction of vegetation is that once the original vegetation has been removed, the removal creates space for alien invasive plants to start growing, competing with the remaining indigenous plants.

6.6.3 Reported case 3 (Ifafa Beach Caravan Park)

The initial site visit was conducted on the 25th August with the assistance of the local person who provided background to this problem. A special site meeting was held on the 4th November to verify the statements by the local person. Present in the site meeting was the owner, Umdoni municipality's building inspector and the researcher. In both inspections there is proof of an encroachment into the Admiralty Reserve. Findings from interviews with the owner and the regional head of Public Works proves that the encroachment is legal and the owner has a lease agreement with the Department of Public Works dated 23 June 1999 (see appendix). He pays R1200 per annum for the lease. The main encroachment is the ablutions facility. There are other types of encroachment other than the ablutions facility namely the volley ball playing field and the dune vegetation which has been cleared. A private pathway has been constructed which leads to the beach, there is also a braai area and the destruction of the dune vegetation gives the owner of the property a view to the sea. This is the latest lease agreement between the department of Public Works and the individual but what is surprising is that the rental is still cheap yet the owner uses this caravan park to make a large sum of money.

A recent inspection of Ifafa River mouth conducted on the 24 December 2003 has revealed another form of encroachment namely a careless dumping of solid waste by the residents. This dumping ground is located on a cliff which leads to the river mouth that opens into the sea. Unless quick measures are taken by the local authority to stop this dumping the sea will soon be full of waste from the dump site. The situation has been exacerbated by Estuary breaching. Presently the river runs straight into the sea after dredging of the sand dune. This is detrimental to the plant and animal life that was inhabiting the flood plain because the river is now drying out and these fauna and flora were dependent on the estuary prior to this environmental catastrophe.

6.7 Questionnaires

As part of the investigation a questionnaire was circulated (**Appendix A**). Four ward councillors, 12 members of Pennington Environmental Group, three independent environmentalists, two Estate Agents and 4 ordinary rate payers responded to questions concerning: the reasons for encroachments, the importance of the Admiralty Reserve, reasons for the failure of coastal municipalities to effectively deal with the encroachments. Finally, they were asked to suggest a clear unambiguous policy guidelines to control and manage the Admiralty Reserve. These subjects were selected because they represented certain important role players (stakeholders) in the municipality. The questionnaires were administered by mail. The responses to the questionnaires were then content-analyzed.

6.7.1 Reasons for encroachments and for non-compliance/enforcement

The estate agents responded by stating that the reason for encroaching is that people want to capitalize on sea views and increase their property size. It was interesting to note that the reasons mentioned which cause failure in dealing with the encroachments (according to estate agent) is that councillors are either bribed or ill-educated as to the importance of the Admiralty Reserve. Councillors have other more important priorities where they want all monies to be channeled thus ignoring the Admiralty Reserve. One would agree to a certain extent with the views expressed by the Estate agents because some councilors are running small businesses and are against this exercise because the rich property owners abutting

the Admiralty Reserve are their customers (for instance, 48 Cherry Lane encroachments). Environmentalists responded by stating that reason for encroaching is greed and arrogance on the part of property owners, negligence on all spheres of government for failing to adequately protect the Reserve. One highly respected environmentalist responded by stating that the municipality has failed and is failing to deal with this problem because of the attitude of rich property owners towards council and Umdoni council's general negative attitude towards environmental issues. For him conservation issues in almost all instances have been a low priority and the attitude is still that of "I do not care" despite the good legislation that South Africa has. One of the councilors who was brave enough to respond to the questionnaire stated that, in his opinion, encroachments are caused by the fact that "people think of the Admiralty Reserve as a benefit which does not adversely affect the public interest. They say to themselves it is a benefit to live next to the sea therefore enjoy it to the fullest" . Worth noting is the fact that Estate agents are pointing fingers at councilors yet they are the ones who do not inform their clients about the ownership of the land next to the property that is being sold.

In order to "save" the Admiralty Reserve from 'extinction' respondents were requested to provide a clear policy for dealing with encroachments. The result showed that all 12 respondents perceived fragmentation as cause of failure in dealing with the matter and that the most practical solution to the debacle is to take cognizance of local circumstances, namely that there has to be communication, coordination and all citizens of the area must commit themselves to act as the eyes and ears of council.

6.8 Deeds Search – title deeds and lease agreements

6.8.1 Location of Admiralty Reserve

In order to determine the location, extent and nature of Admiralty Reserve a combination of methods were used. Discussions with senior citizens of the area who have been involved in environmental matters were conducted as well as searches from documents. Documents contain reliable information. Title deeds (appendix 2) were searched as well as lease agreements between the council and the department of Public Works.

Through informal interviews and documentary evidence, it was confirmed that in some areas of the Umdoni coast the Admiralty Reserve does not exist, for instance, according to Udidi's Ski-boat Launch-sites Report (2003) there is no Admiralty Reserve in Ocean view because the area falls outside of the town planning scheme. It is therefore a contributing factor toward the difficulty faced by authorities in dealing with the encroachments. According to the Crown Grant (Grant 28 of 1952) a resolution by parliament relating to Land Grants adopted and approved the handing over of the township of Scottburgh and portion of the Admiralty Reserve to the town board of the township of Scottburgh. Clause six of the grant confirms that there once was an Admiralty Reserve but it was ceded to the borough of Scottburgh to develop right up to the high watermark.

There is evidence of encroachments into the Admiralty Reserve but these encroachments are permissible in terms of the Crown Grant of 1952. The Town Board of the Scottburgh Township was given the Townlands of Scottburgh and portions of the Admiralty Reserve within its area of jurisdiction. The Crown Grant is a legal document and in terms of this grant "the grantee should not permit soil erosion to take place on that portion of the land hereby granted which was formerly the Admiralty Reserve nor drift-sand to spread thereon, nor shall he permit the destruction of any natural vegetation thereon except when such is incidental to the effecting of improvements." (Crown Grant, 1952: 2). The Grant further states that "no portion of the land granted which was formerly Admiralty Reserve shall be alienated, hypothecated or leased without the consent of the minister". In this case concerns for economic growth supercedes the environmental concerns. The natural environment has been traded off with the desire of council to improve the area for business to thrive. In some areas of the coast where the Admiralty Reserve was leased to council it has been developed into commercial and light industrial area.

When the title deed of Sub 2 of the Farm Ocean View No. 6234 and the surveyor-general drawings (SG No.2180/1969) were scrutinized it was revealed that the ownership of this property runs into the high water mark (**see Appendix D**). when this finding is compared to the title deed of Farm Abrahams there is an interesting anomaly since the title deed of Farm Abrahams grants the ownership of land right into the Indian Ocean (beyond the high and low water mark).

6.8.2 Negligence

On closer scrutiny of the lease agreement between the department of Public Works and the owner of the Caravan Park in Ifafa Beach, it appears that the lessee is in contravention of many clauses of the lease. Clause Nine of the lease reads: “the lessee shall take all reasonable steps for the preservation of natural vegetation, the prevention of soil erosion....” Clause Ten reads: “ no trees on the site..... shall be cut, or destroyed in any way.....” . Clause Eleven states: “..... the lessee shall not disturb or permit the disturbance of the surface.....or the natural vegetation thereon”. The lessee has breached the conditions of the lease because of the encroachment that relates to clearing the vegetation.

The cancellation of the lease has far reaching consequences since clause seven states: “ the lessee expressly waives any right to claim and hereby undertakes not to claim from the Lessor compensation for any improvements.....”. This is a proof of negligence on the part of the national government for their failure to manage the lease and monitor the situation. Unfortunately Umdoni municipality cannot take any action against the Lessee because of the principles of cooperative governance.

The study has revealed that there is no Admiralty Reserve in Scottburgh Town, Ocean View and in Kelso Bay. The deeds search also revealed three scenarios:

- Legal alienation (through deeds of grant)
- Legal encroachments (usually these are allowed by or later rectified through lease agreement eg Ifafa Beach Caravan Park)
- Illegal encroachments (use of the Admiralty Reserve which is not indicated through any title deeds or lease agreements)

6.8.3 Nature of encroachments

The following list of developments that encroach onto the Admiralty Reserve was derived from the conditions contained in title deeds and leases and from aerial scan. These were subsequently followed-up by means of physical site inspections. They include:

- Building retaining walls (Cherry Lane properties)
- Erection of private property signs (Cherry Lane)

- Parking areas;
- Restaurants (leased by council)
- Ablution blocks;
- Pedestrian pathways;
- Railway line/Reserves;
- Ski-boat launch club houses;
- Water pipes;
- Factory effluent outfalls (Park Rynie);
- Recreational (caravan parks);
- Clearance of vegetation for “views”;
- Afforestation (Casuarinas on the dune – Cherry Lane);
- Shower and braai facilities (by private property owners)
- Extension of lawns into the Reserve (beachfront properties)
- Refuse dumping (Ifafa Beach);
- Sewerage treatment plant (Scottburgh)
- Sewer lines and outfall pipes;
- Storm water pipe outfalls (Park Rynie beach);
- Sleeping areas for vagrants in the bush (areas in front of Salmon Drive Beach)
- Littering/pollution (Ifafa beach and Sezela beach)

Three categories of encroachers were identified, namely: the local authority, South African Railway Line, private property owners.

6.8.4 Historical ‘disappearance’ or ‘loss’

Documentary search shows that sections of the Admiralty Reserve have been ceded through Crown Grants, Deeds of grants, deeds of transfer, and government grants to local authorities and private individuals and /or companies eg Scottburgh Crown Grant and Farm Abrams on Ocean View. These grants were free of charge given in the form of donation of the land. In addition to ceding the ownership of sections of the Admiralty Reserve, the State (through its organs), has also leased sections of it to local authorities and private individuals. The leases were often based on a nominal fee that was payable annually to the responsible government department. The leases are in perpetuity or based on the set of period of notice from either party. In both the case of title deeds or leases the government reserves the right to take

back the Reserve with no compensation except where there had been substantial improvements. The lease contains the conditions that could lead to cancellation should the lessee be found guilty of breach. There are instances where both the local authorities and private individuals are in breach of lease but the government has not done anything. These cases have been mentioned in this study.

6.9 Legislation analysis

According to the Town and Regional Commission report (1997) and the study done by Oosthuizen (1985) many pieces of legislation are relevant to the administration, control and management of the Admiralty Reserve. They are therefore discussed in full by the same studies. They were obviously included in this study (see chapter five) because the legislation is one of the tools for environmental management. Another subtle reason for the inclusion of legislation in the study is to find out why it is so difficult to control the encroachments with so many pieces of legislation.

6.9.1 Photographs

Photographs were used in this study to validate results and prove that the study was indeed conducted. Three areas were photographed: Mtunzi Park, Pennington and Ifafa particularly because there is documentary evidence that the Admiralty Reserve does exist next to these areas of the coastline.

In the case of Mtunzi Park the photographs (**see Appendix D**) showed the vegetation prior to the destruction and after the destruction. Mtunzi Park was chosen because many owners of cabanas, particularly the owner of unit 40, think that they can destroy the vegetation on the seaward boundary of their properties because there is no Admiralty Reserve. Pennington was chosen because of its sensitivity and many complaints received in the past and currently. The lessee is in contravention of many clauses of the lease. Photographs in all three areas prove that because of negligence people do what they like with the public land. The aerial photograph superimposed onto the cadastral map showed some major encroachments such as pathways, physical structures and vegetation clearance. However, this was not sufficient. A more detailed analysis was necessary which is beyond the scope of this study.

6.10.1 Concrete Evidence

The photographs taken on site show that the owners of respective properties have encroached in a number of ways. For instance, the owners of unit 1 and 40 in Mtunzi Park removed all indigenous vegetation on the Admiralty Reserve in front of their respective properties and created parklands for themselves (**see Appendix D**). Unit 40 then flattened the area, planted Kikuyi grass and built a sundeck. Unit 1 did much the same thing but to a greater extent – he removed 52 loads of indigenous vegetation. He has not erected a sundeck yet. Whilst the owners of unit 40 removed 32 loads. Each load comprised a bakkie and trailer. This was all done to create a sea-view. A private pathway has also been created which gives the owners access to the sea.

6.11 Participant Observation

Through this method of research, the following was possible to uncover:

6.11.1 Attitudes

In Umdoni Municipality there are laws, regulations, title deeds, leases, bylaws particularly town planning scheme but attitudes have proved to have a considerable effect on whether or not these laws are going to be effective. Through participant observation technique, attitudes towards natural environment in general and the Admiralty Reserve in particular were considered using themes extrapolated from the TRPC (1996) report. The attitude of the following categories were noted during the study:

➤ *Local Authority Commitment*

The likelihood of monitoring enforcement and controlling the encroachments into the Admiralty Reserve are slim if there is no real commitment or support to officials, on the side of the local authority in order to maintain the Admiralty Reserve in its pristine condition. There is a clear illustration of this along the coast where (in Umdoni) councilors wished to prevent municipal official from enforcing national legislation. In this case a short-term economic gain has obscured the very real long term dangers of allowing development within the Admiralty Reserve. The actions of the official were reprimanded in full council meetings.

➤ *Community Values*

The dominant attitude of the time among general public is a key factor. The encroachments in Pennington have a history and in the past the community's attitude resulted in failure to enforce the legislation. If the need to protect the environment is shared by the public at large it makes it easy for the officials to enforce the laws. If the majority of the community hold a negative view about the environment it would be difficult to carry out the laws. The community needs to perceive of the Admiralty Reserve as a public good. Visible policing can effectively be provided by the communities themselves through conservancies and they need to understand that they have a stake in the public land.

➤ *Individual responsibility*

The issue of self-regulation where each individual takes full responsibility in the implementation of rules and laws is paramount in the management of this coastal resource. Peer pressure (need to belong), poor examples (seeing others do it), attention seeking were the causes of non-compliance in Mtunzi Park for instance. When individuals feel that there is no enforcement they take advantage and carry the attitude that says: what are they going to do. More and more people would then want to do the same.

➤ *Livelihoods*

In this part of the country there are too many unfulfilled basic needs and an issue such as the preservation of a strip of land along the coast has proved not to be high in the general and political agenda of the South Coast. "the economic effects of interfering with the natural coastal zone processes are too long-term and the costs too distant for politicians to take into account during their short term of office" (TRPC, 1997:61). Poor people from inland lying areas want to exploit the natural resources on the coastline in order to fulfill the unfulfilled basic needs such as access to wood for energy. The issue of the Admiralty Reserve is too remote an issue for the majority who only see something else as the immediate need.

➤ *Knowledge of the law*

There were clear cases where environment has been compromised by the very officials who are supposed to protect it using legislation. In most cases the reason is

incapacity and lack of legal knowledge. Since this is a new thing to some officials the attitude is that they will not be held responsible for implementing something they were not trained to do. The council should employ a dedicated environmental specialist to carry out the duties. Building inspectors in Umdoni have refused to carry this as an additional responsibility on their job description the argument being that they are not *au fait* with environmental legislation. The attitude is: somebody else must do it and not them.

➤ *Respect for law*

There is generally disrespect for law in South Africa especially after the new political dispensation with many people thinking of themselves as above the law. The law is there but compromised by the officials because of fear of losing face with rate payers. Another reason for the disrespect for law by local authorities is the principles of cooperative government amongst which all spheres of government must cooperate with one another in mutual trust and good faith by avoiding legal proceedings against one another. There are many irregularities and transgressions by Umdoni municipality. This shows negligence and negative attitude towards the law. The issue of the environment is not a priority for this municipality hence there is no plan to appoint an environmental officer who would be responsible for all environmental legislations.

➤ *Stewardship*

There is a lack of stewardship and most people are concerned about making the most for themselves. This is a selfish thinking. People do not want to think about the long-term effects of their actions or the impact their actions will have on the future generations' livelihoods.

➤ *Attitudes within the legal profession*

The laws of South Africa place very low ceilings on fines. The public and particularly the developers will not take the matter seriously. The fines are so low and affordable that they do not act as a deterrent. Some rich property owners abutting the Reserve have on several occasions said to council: 'we will meet you in court' (Jerman, pers com, 2003). This is because they know that the maximum fine in terms of the Environment Conservation Act (1989) is only R100 000. The legal fraternity is

struggling with placing an economic value on the environmental resource. Their ignorance of the environmental legislation is the cause for failure to prosecute successfully. Their attitude towards bio-physical matters has compromised the environment.

➤ *Awareness, education and training*

Throughout this study it has become clear that there is a plethora of legislation protecting the Admiralty Reserve from degradation. These laws are not enforced because some officials including the magistrate offices and private attorneys are not *au fait* with the procedures. Cases are lost in courts as a result. The above attitudes are perhaps the main cause of failure to enforce. Throughout the study it was clear that politicians, officials and the public at large need to be capacitated on environmental matters. Some of the debates between councillors that ensued in one council meeting would not have happened if officials and councillors were equally knowledgeable on these matters. The lawyers should be educated on these matters and that may change their attitudes.

6.12 **Conclusion**

What has been discussed in this chapter are the results of the study based on the standard research methods and techniques used. The next chapter analyses these results and relate them to the theory on sustainable coastal management and sustainable development philosophy.

CHAPTER SEVEN

ANALYSIS AND DISCUSSION

7.1 The Admiralty Reserve and Sustainable Development

Many writers note that with the growing coastal population comes increasing demands for food, shelter, water and space. These demands impact on the coastal ecosystems that provide the benefit attracting people to the coast. Overexploitation of coastal resources negatively affects coastal ecosystems, reducing their productivity and harming marine living plants and mammals. Overexploitation of coastal resources can result in reduced income, standard of living, quality of life, and job losses. It may also negatively affect recreational and tourism opportunities and can also reduce aesthetic and spiritual value of these areas. There is therefore a need to strike a balance between social, cultural, economic and ecological needs of the coast. The Admiralty Reserve is a common property. It requires a good management control so that through this resource all needs are met.

Development is sustainable if it satisfies four elements, namely: economic vitality; ecological integrity; social equity and effective governance. Development is about trade-offs. Some elements are negotiable yet some are non-negotiable. For instance, the maintenance of life-supporting systems and biological diversity are non-negotiable. The concept of environment is broadly defined in the legislation, but it should also be understood from a poverty perspective. People's livelihoods often depend on the sea. For people who have nothing the sea is a vital economic source. A sustainable management of an important coastal resource like the Admiralty Reserve requires a management system that will incorporate all stakeholders to ensure that ecological, social and economic justice is upheld.

The study therefore lends itself to the sustainable development paradigm when one considers its results. The results have shown that there is lack of public participation in environmental decision-making and complete lack of stewardship on the part of perpetrators. Non-compliance with legislation relating to coastal management is caused by the following motivating factors: peer pressure, poor examples, convenience, invisible policing and self-interest. The results highlight the importance of applying the sustainability principles to the problem. The Admiralty Reserve is a

National Asset, a common property, and a powerful motivator for encroaching is that self-interest became more important than the interest of the community. This resulted in the degradation of this public resource. The results of this study have shown that in Umdoni Municipality there are unsustainable resource management practices. Sustainability principles as contained in the Brundtland Report (1987), the Constitution of SA, NEMA, and many other relevant pieces of legislation should be used to manage Admiralty Reserve if the Constitutional mandate is to be met: to promote and manage development in such a way that it accounts for the interests of the present and future generations. These sustainability principles can help to highlight the unsustainable systems and environmental practices which could, if unabated, lead to complete destruction of what is still left of the Admiralty Reserve. Environmental conflicts which resulted in the destruction of this environmental resource were caused by lack of equity, which refers to meeting the needs of the present and future generations through wise planning and development initiatives, the emphasis being on the poor and marginalized. Futurity embodies the spirit of stewardship in which the present generation preserves the earth's life support system to the extent that future generations could meet their own needs or have access to a reasonable quality of life (Oelofse, 2000). This principle of sustainable development was lacking in the practices uncovered. There is no active participation of interested and affected parties in environmental decision-making. Environmentalists were banned by council for threatening to sue council for dereliction of duties.

7.2 The Admiralty Reserve and Integrated coastal management

The study lends itself to an Integrated Coastal Management (model) solution when one scrutinizes the results. The results highlighted lack of institutional capacity, lack of communication and integration between government organs and civic society (corporate governance), and fragmented control. All these could be tackled through a more coordinated effort (a co-management structure) between coastal stakeholders if sustainable development is to be achieved in the region.

The coast is an unusually complex system with interconnected biophysical, social, cultural, economic and governance aspects of the land-sea interface. Integrated coastal management involves various dimensions of integration. In the coastal

context the challenge is that these different types of integration need to be addressed namely: geographic integration, integration across scales, integration across sectors, political and institutional integration, integration across disciplines, integrating policy, management, education and research (DAEA, 2004). It was clear in the results from this study that this integration can only be effectively facilitated through providing mechanisms for dialogue, cooperation and co-ordination. This means a move from treating others as adversaries to regarding them as colleagues, a shift from hostile and command-and control style of management towards cooperative governance and co-management.

The collaborative approach (synonymous with cooperative governance) is a combination of self-regulation and command-and-control. If the group feels that a member does not want to comply with the regulations and laws a more robust stance is taken against the stakeholder in the coastal zone.

In order for cooperative governance to work there are a number of conditions. Stakeholders should avoid vetoes and strive for consensus; keep the doors open for everyone even opponents; ensure meaningful participation, not token participation or representation; include all organs of state and civil society that have a stake in the process and ensure direct accountability to a broad constituency. Umdoni Municipality failed to meet these conditionalities in the manner in which they dealt with the issue of encroachments.

The Department of Public Works, according to TRPC (1996), admits that it simply cannot cope with managing the Reserve and would like to hand it over to a provincial authority as suggested in the previous Cabinet resolution. However, owing to staff shortages and budgetary constraints, it is very unlikely that the Province (or its conservation agencies) will take on the jurisdiction of the Reserve unless:

- A budget is committed to administer the Reserve;
- Additional staff posts are allocated;
- There is a clear policy;
- There is rationalization of the various acts, currently resulting in numerous authorities being responsible for the coastline, and confusion over control and management.

It must be pointed out that in terms of Section 4 and 5 of the Constitution, certain powers and competencies are given to the three spheres of the government, for instance, the enforcement of the Sea-Shores Act is the competence of the National sphere of government. Local authorities have no powers over environmental matters. The Constitution therefore promotes fragmented control. Extreme budget cuts and staff shortages makes effective administration impossible. The only solution is to utilize the environmental expertise that Umdoni has through its environmentalists and the public at large who would be eyes and ears of council. This could be achieved by recognizing local knowledge and integrating such expertise in environmental planning and development initiatives.

7.3 The Benefits of creating sea views

Obviously Cabanas with sea views fetch a better price when they are sold. The previous owner of cabanas 4 & 5 (Mtunzi Park) is proof of this as record prices were achieved recently when these two cabanas were sold in the market. Unfortunately once one person achieves this, there is a great temptation for others to follow suit in order to enhance the values of their properties. The rich are becoming richer at the expense of the natural environment. Body Corporates have no power to prosecute offenders and can merely tell the offender to stop and report instances of transgression to the relevant authorities. This is evidence of lack of integration in coastal zone management because the local authority, together with the Department of Public Works, should be supporting the efforts of Body Corporates. Unless action is taken in the form of prosecution, with a heavy fine, the vegetation on the eastern border of Mtunzi Park will eventually be decimated. According to the recent report by the Trustees of Mtunzi Park, this area (Admiralty Reserve) is home to numerous bird species and animals such as grey Duiker and Mongoose, all of which will be endangered by the removal of their natural habitat.

The failure by Umdoni Municipality to prosecute successfully has resulted in other owners destroying vegetation to create sea-views. The owner of cabana 1 & 2 has encroached 30 metres laterally and 33 metres towards the sea. There was no real need for exposing the pegs since there is a clear boundary erected by the body corporate which shows where properties end. The owner of cabana 40 & 41 has

gone on with the destruction of undergrowth thus leaving the trees to create a shade. Indigenous undergrowth has been damaged. Strelitzia trees have been destroyed to make way for the 'parkland' that has now been created through planting the green grass into the Reserve. There is now dumping of rubble. The lawn serves as a walkway to the sea yet there is a public walkway right next to this one. The owner has now encroached 38m across and 40m deep towards the sea. It is clear that when he was warned in the first instance he stopped and waited for the outcome of the court case of Cabana number 1. He decided to proceed when he realised that no legal action would be taken. The meeting revealed that about 20 to 40 property owners are waiting for the outcome of the case against those who have been reported to council as having committed this crime. This put additional pressure on council officials to get their facts straight about each case (Anderson, pers com, 2003).

Another aspect of the encroachments that was investigated here is the whole question of the duration of the infringement ie. how long (in years) has the infringement been in existence. Lee (2002) is of the view that if the infringement has occurred for thirty years or longer, it is possible that "acquisitive prescription" could apply, that is, you acquire the right of way or access to land if it has been continuously used for thirty years. This view was strongly opposed by Professor Jeremy Ridl (pers com, 2003) who argued that the prescriptive right does not apply to government land. The State Land Disposal Act does not allow this to happen.

In a regular discussion with the Conservation Officer of Hibiscus Coast Municipality (December 2003) the situation as it stands now in as far as the encroachments are concerned in Hibiscus Coast, was summarized by him as "no one seem to have answers to the problem". He noted that even the Coastal Livelihoods Project does not seem to have answers to the problem faced by the municipality of Hibiscus Coast. He went on to state that in his council they have tried many routes but none is successful because the department of Public works is not supportive. He said that they have tried the direct route of writing letters demanding that people expose pegs but it has not worked because of lack knowledge by the magistrates. Council does not want to spend any more money on prosecutions. He stated that they have also tried the private prosecution route but it does not work because these cases are not

won in court. They have tried the state prosecution route which is free but it has failed because attorneys and magistrates have no capacity to deal with environmental legislation that relates to the Admiralty Reserve. There has been no reply from the department of Public works when they were asked for support by Umdoni and Hibiscus Coast municipalities respectively. The complexity of the Admiralty Reserve issue is such that without the support from Public Works department officials dealing with the matter at local authority level "all doors are closed, we keep climbing the wall trying to find a window to get out". This was the analogy used by Hibiscus Coast Conservation Officer.

The research has confirmed that the local council and the Railways are the two main Admiralty Reserve encroachers. Encroachments by individuals are not as serious as the ones committed by these state organs. The Borough of Scottburgh thought it wise to locate the sewerage treatment plant right on the prime sensitive sand dunes. From this treatment plant there are footpaths that give the public access to the sea and this trampling causes destruction of the sensitive dunes. In Pennington, both the local council and the Railways has been negligent and insensitive in their pursuit of development along the coastline, especially where the railway line runs on the sensitive dunes. Although this cannot be regarded as encroachment *per se* because these two are the organs of the state, they have violated many national environmental laws. This view is supported in the Scoping Report on small ski boat launch site where it is stated that: "the Admiralty Reserve has in many places been developed for railways and public use with large scale clearing of indigenous vegetation at Scottburgh, Umzinto/Tricheria, Rocky Bay (Park Rynie), Sezela, Ifafa and Mtwalume" (Scoping Report, 2003: 4). The lack of vegetation and 'soft' landscape cover creates a harsh, hot microclimate with little protection from the heat and glare of the sand, sea, buildings, parked cars and paving (Scoping Report, 2003).

The current strategy by council in dealing with encroachments is quite an acceptable approach because it takes into account the views of the people on the ground, it is educational, it recognizes the paradigm shift to a developmental local government; it is in line with legislations such as NEMA, Environment Conservation Act of 1989, and the philosophy of Integrated Environmental Management. It is the responsibility

of each local authority to use tools such as Local Agenda 21 to educate and empower its citizens about the importance of environmental issues. The important thing is to communicate with the residents and get them to understand why they are wrong, then tell them about the consequences of wrong doing. This must preferably be done in a meeting because a letter is not an appropriate tool to communicate such sensitive matters. The hard line stance can then be adopted if they do not comply.

The council used legislation as a tool for environmental management. The Sea-shores Act was quoted in every letter to the property owners but what the officials did not notice was that the enforcement of the Sea-shores Act is not the competence of the local authority but that of the Provincial Department of Public Works. Pennington Environmental Group (PEG) had a number of meetings with Province and Public Works to ask these two authorities to take stern action against the Pennington TLC for its failure to honour its environmental obligation (Edgson, pers com, 2003). Clearly, because of the principles of cooperative governance, the National sphere could not prosecute the Pennington TLC. This is a classical example of the problem with dual or fragmented control over the Admiralty Reserve.

The council should have quoted its own Town Planning Scheme (environmental bylaws) instead of using legislation which it does not have any authority to enforce. The council in its attempts to find a resolution to the problem decided to exclude an important stakeholder namely the Department of Public Works (see Council Minutes 1998). The wording of the letter shows that the council did not have capacity within its ranks to undertake environmental management hence the council used its Environmental Health Officer. This was evidenced by the complete reliance of this officer on the attorneys Shepstone and Wylie to proof-read the notice before it goes out to the residents. The Sea-shore Act is quoted in the letter but the council officials fail to do the follow-up in terms of charging the offenders. The problem of lack of staffing and budget to undertake the responsibility passed on to the local authority by the Department of Public Works is evidenced by the appointment of the consultants to put together a Environmental Management Plan to act as a policy guide.

The adversarial approach adopted by council showed that the council had no teeth in environmental matters, which set a wrong precedent since not even a single offender was taken to court as a result of the Admiralty Reserve transgressions. The methods used by council were not sustainable and there were no integrated and coordinated efforts in matters pertaining to Coastal Zone Management. The adversarial approach led to a lose-lose outcome.

For sustainability to prosper there has to be the fourth leg namely 'governance and management' in addition to ecological, economic and social aspects. There was clearly no support for council officials by politicians. It appears that there is a real need for a coordinated system of management and control for coastal zone of the Republic of South Africa from Umdloti to San Lameer and beyond. There are no stringent measures, currently and previously, that are used by this council to curb the encroachments into the government Reserve.

The only way to ensure public access to the beaches and to spare the coastline the ravages of exploitation for private or commercial gains, is by instituting stringent controls over the Admiralty Reserve encroachments. Private property owners who encroach into the Admiralty Reserve do so at the expense of the public, conservation initiatives, the council because when these properties are sold, they are sold at the market price which includes portions that were not initially part of the title deed.

7.4 The Admiralty Reserve and Coastal Planning

In the past the Reserve was put aside for military purposes but that role has now changed. It is an important coastal resource that could be used in planning for socio-economic development. It plays an important environmental function in that it is a repository of bio-diversity. It contributes to the aesthetics of the area since it is an eco-tourism resource. It provides opportunities for recreation. From a planning point of view the Admiralty Reserve can play an important role in Umdoni's Open Space System to be able to contribute toward the area's 'sense of place'. The Admiralty Reserve acts as a protective cover, a buffer strip that protects adjoining properties from blowouts. The Admiralty Reserve should be integrated into the municipal planning processes and be zoned throughout the coast. The Admiralty Reserve is

therefore a public good and any encroachment of the Admiralty Reserve erodes the uses described above and creates a private benefit at the expense of a public good. It is the land that is held in trust by the State president on behalf of the people of South Africa therefore belongs to all South Africans. The Admiralty Reserve is a public amenity and all encroachments are intrusions to people's right to this amenity. An amenity is by definition a pleasurable advantage of living in an area. When people visit the seashore and the land adjoining it they do so to escape the busy city life which is associated with noise pollution and to avoid the monotony that comes with high rise buildings of the inner city. It can be regarded as the area where people visit to commune with mother nature and recreate. People want to visit the coast in order to buy the experience of being on the beach, near the sea where they enjoy walking, breathing fresh air, swimming and fishing. Encroachments impede the enjoyment of the above advantages of being on the coast. It could be used by educational institutions for research and education purposes. The local authority loses the economic advantage of collecting revenue from tourists. It is for the above reasons that we should Reserve the Admiralty Reserve as a coastal resource for the benefit of the present and future generations. That requires some good integrated planning. The littoral active zone, which is made of the primary, secondary and tertiary dune, is part of this strip of land. Coastal dunes are almost continuous across the entire coast line and provide a largely un-interrupted corridor for fauna and flora dispersal across a wide range of spectrum and geographic regions.

7.4.1 Zoning

It is the most commonly used tool in coastal planning and is based on the concept of spatially separating and controlling incompatible uses and can be used in a range of situations. The Admiralty Reserve can be zoned using a criteria which the planning team has developed in consultation with the community (collaborative planning). The criteria can include a whole range of economic, social and economic values including: conservation and the presence of natural and endangered species, access, recreation, traditional use and proximity urban areas. This could be linked to the town planning scheme clauses and maps whereby an activity may be 'allowed' as free entry, 'permitted' by special consent, or 'restricted use' a no-go zone.

7.5 **A noticeable trend**

During the site inspections of all properties abutting the Reserve, it was clear that there is a trend developing with these encroachments especially amongst Cherry Lane properties. The most common encroachment in Cherry Lane is the extension of lawns and fencing them off. The trend is that the fenced off area is incorporated as belonging to the property by means of the inscription that reads: "private property, trespassers will be prosecuted" or "beware of dogs". In some properties the situation is such that the area that belongs to the Admiralty Reserve is incorporated into the property by means of a thick brick wall boundary structure erected in the secondary dune. This is noticeable with encroachments that have been in existence for decades. The land has become theirs. In some cases one property would have two boundaries, each with its own gate on the seaward side, one legal and the other one being the one into the Admiralty Reserve.

In Mtunzi Park an encroachment pattern can be observed where in 1986 there were no encroachments at all but when the first encroachment happened it was followed by many others. The reason for this is that they all waited to hear the outcome of the case. When the outcome of the magistrate court case against the perpetrators was lost, another group of encroachments were reported.

7.5.1 Anomalies

There is an anomaly with Admiralty Reserve in Umdoni because on the seaward side of Lot 515 (abutting Mtunzi Park) there is no designated Admiralty Reserve on the Town Planning Scheme Map. It is only reflected as Townlands and this loophole is used by property owners to make a case for encroaching. The land was given by the State as a Grant to the Borough of Scottburgh. Nonetheless the land belongs to the local municipality and can be used for the public benefit.

In a telephone conversation with one of the rate payers (Salmon Drive, Pennington) she responded to the notice from council by stating that she has not encroached but instead the Admiralty Reserve has encroached by two metres into her property and that of her neighbour Mrs George. The question she asked was how will the land owner (Public Works) compensate her for the land that now belongs to the Admiralty Reserve. Will the Department of Public Works expropriate this portion of her

property? This then shows that there are more questions than answers in this matter and that the Admiralty Reserve is a nebulous thing.

7.5.2 Invisible policing and enforcement

The situation at the moment is that property owners who are accused of encroaching have a tendency to sell their property when they realize that they are in trouble with the law. For instance, in Mtunzi Park one owner sold his property and escaped prosecution because the authorities took too long. In Pennington one property owner (lot 561) has sold her property but the Head of Department has been advised not to release the rates clearance certificate.

Although it was clear that residents have an attitude towards being told about their wrong doing in the Reserve most of the property owners showed that they are law-abiding citizens. They replied to the notice sent by council officials and gave permission to their maids to allow council officials to inspect their properties. The encroachments were admitted to by property owners themselves after receiving a notice to expose the pegs as it was confirmed through site visits by the Umdoni Building Inspectorate. There is no control of vagrants sleeping in the Admiralty Reserve which constitutes a fire/health/crime risk. This is due to the negligence of all three spheres of government particularly the local authority. Citizens are prepared to abide by the laws of the country but local authorities are not using their powers to enforce the law hence there is now an increase in lawlessness relating to encroachments.

7.5.3 Management approaches

When one critically analyses the past and present approaches to the control and management of the Admiralty Reserve (using the participation principles and strategy outlined by Bulman (2004) Umdoni Municipality (as well as Hibiscus Coast Municipality) have adopted an adversarial approach as opposed to a collaborative one. Politicians kept the doors closed for certain environmentalists which resulted in a lose-lose situation. The National Minister of Public Works had to intervene as the custodian of the Admiralty Reserve. The underlying intent by certain councillors was to hurt and frustrate vocal environmentalists by using their power as politicians. One environmentalist reacted by going to the press to report the municipality and

reporting the council to the National Minister. The result of this strategy was negative. Although the officials were attempting to include everybody from the start and employ a more collaborative stance, they were countermanded by political power.

7.5.4 Effectiveness of legislation

Analysis of the notice demanding that property owners end the encroachment shows that the amount of national legislation that exists but none of those laws are specific and directly relevant to the Admiralty Reserve. The letter threatens legal action should the property owner fail to comply with the requirements and that there is a fine of R100 00 payable after conviction. The above is dependent on a number of factors. Firstly, the council's preparedness to prosecute (political will); secondly, competence of the local magistrate or the public prosecutor should council decide to save on costs and go the state prosecution route. Thirdly, the availability of funds to appoint the private firm of attorneys should council decide to go the private prosecution route. The point is that the council should be able to enforce the statements made in the notice, failing which it becomes a mere threat. An enormous amount of time has to be spent by the relevant council official investigating each encroachment since each case has to be considered on its merits. The notice also gives the property owner an option to rehabilitate should it be found that there is a destruction of dune vegetation. Should the property owner choose the option of rehabilitating, who, in the council employ, has the expertise to put up a rehabilitation plan for each form of encroachment? Such a rehabilitation process must be conducted under the watchful eye of an expert who is suitably qualified and experienced in ecology otherwise the process becomes meaningless. The process must be monitored and the plants that are used to replace the destroyed vegetation should be able to adapt to the new environment. An even bigger challenge is that while these plants are struggling to grow the property owner will continue to enjoy the sea view and if he decides to sell the house at that time he would make a lot of money at the expense of the environment. Rehabilitation takes time. Council should also remember that there is indeed gross negligence and dereliction of duties on its part because there is no clearing of alien vegetation along the dunes which in the past was done by the Natal Parks Board. The owners of properties adjoining the

beach may argue that they are hacking the vegetation because it poses a security risk should vagrants set the dry plants on fire.

The Admiralty Reserve is a notoriously difficult resource to administer. The more one digs into it, the greater the confusion. There are more questions than answers about this coastal resource.

7.6 Power Relations

The issue of the Admiralty Reserve is contentious largely due to the manner in which Umdoni Council dealt with the matter. Power struggles became imminent during council meetings. Councillors used their legitimate power to dictate terms to officials on how the matter should be dealt with. Political power became stronger than administrative power because of differing frames of reference. In a normal give-and-take situation one would have expected politicians to give professionals the opportunity to advise council. The knowledge of environmental legislation procedures was not enough to give officials power to judge in favour of what was environmentally justified. Asymmetrical power relations led to environmental conflict between council and environmentalists. The National sphere of government had to intervene at the request of the environmentalists who acted as whistle blowers.

Power play was also observed between officials and residents when one reads the letters of response to the official who was dealing with the matter prior to year 2000. Residents demanded that the official should come on site with a suitably qualified and experienced official from the Department of Nature Conservation. Their claim is that council officials are not knowledgeable enough to convince them of their transgression. Mr Edmunds, in particular, claimed to have a much better environmental knowledge than council in one site meeting (5 December 2003) which prompted him to make statements such as the council must get its facts straight before accusing them of wrong-doing.

The economic power that rich property owners possess has resulted in their attitude of indifference and arrogance. They refused to comply with the council's demand to expose pegs which is expressed in the notice to all property owners abutting the Admiralty Reserve. They know that council does not have money to prosecute all

non-compliant property owners and that there is no relevant law that gives council such powers.

An important consideration in dealing with the Admiralty Reserve is: how do we strike a balance between the social, economic and environmental factors in this matter? Umdoni needs to learn from the experiences of Hibiscus Coast Municipality in this regard. The municipality has lost a multi-millionaire who wanted to invest millions of rand into the area. Before he started his business, he bought a house and built into the Admiralty Reserve. When he got a letter from the municipality threatening legal action against him, he decided to take his project elsewhere. The project could have had some positive spin-offs for the unemployed.

7.7 Interpretation of legislation

The notice from Council to all property owners demanding them to end the encroachment quotes the Seashore Act of 1935. As far as it can be ascertained, the Seashore Act only applies from the low water mark to the sea water. This excludes the Admiralty Reserve which is by definition a strip of land from the high water mark. The notice also quotes the National Building Regulations Act as conferring powers to council to demand the property owners to expose pegs and bear the costs of the exercise. According to one attorney who responded on behalf of the property owners, there is misinterpretation of legislation in this notice which is perhaps why these prosecutions have never been successful in Hibiscus Coast where this notice is duplicated from. This misinterpretation of laws could lead to serious legal battles that could cost council thousands of rand as has happened in Hibiscus Coast Municipality. The National Building Regulations Act can never be used to force property owners to expose their seaward boundary pegs as stated in the notice.

In fact, upon close analysis, the notice to all property owners demanding them to expose pegs contravenes the Promotion of Administrative Justice Act, Act 3 of 2000. In terms of this Act all administrative action by organs of the State must be procedurally fair, lawful and reasonable. Section 33 (1) and (2) of the Constitution provides that everyone has the right to administrative action that is lawful, reasonable and procedurally fair and that everyone whose right have been adversely affected by administrative action has the right to be given written reasons.

In order to give effect to the right to procedurally fair administrative action, an administrator must give a person:

- Adequate notice of the nature and purpose of the proposed administrative action;
- A reasonable opportunity to make representations;
- A clear statement of the administrative Action;
- Adequate notice of any right of review or internal appeal, where applicable.

In this Act, 'administrative action' means any decision taken by the organ of state or juristic person which adversely affects the right of any person and which has a direct, external legal effect. The state also states that the administrative action must be based on a clear delegated authority. In the case of Umdoni the council has no delegated authority to take such legal action against the property owners which is perhaps why Hibiscus Coast municipality has never successfully prosecuted any offender (De la Porte, pers com, 2003).

Extrapolating from this Act it is apparent that Umdoni Council's notices are based on administrative action that is unlawful, unreasonable and procedurally unfair because owners were not given adequate notice of the proposed administrative action. Owners were not given a reasonable opportunity to make representations. The letter of reply from owners of Lot 636 and 637 Pennington state that "the period of three months for the removal of all encroachments could be insufficient – a period of one year might be more appropriate" (28/9/2000). This response shows that the owners were not given adequate notice of proposed administrative action. They were not given reasonable opportunity to make representations. Paragraph 2 and 3 of the response letter contains representation/suggestions but the notice is not flexible to give owners time to negotiate with council. The Act also proposes that the proposed administrative action by the organ of state must be based on a properly motivated delegation of authority. Council was not delegated by the Department of Public Works to take any legal action against the owners. This is an assumed delegation which might give council some problems in court.

7.8 Conclusion

This chapter has provided the discussion and analysis of results which was done in conjunction with the relevant sustainable development philosophy and coastal management theory. The next chapter will attempt to draw conclusions based on the results.

CHAPTER EIGHT

CONCLUSIONS

From the results and analysis, it has been possible to offer a number of provisional concluding statements which can ultimately be reduced to five substantial conclusions. For clarity, the provisional statements are shown in Figure 8.1 and elaborated upon in Table 8.1 below:

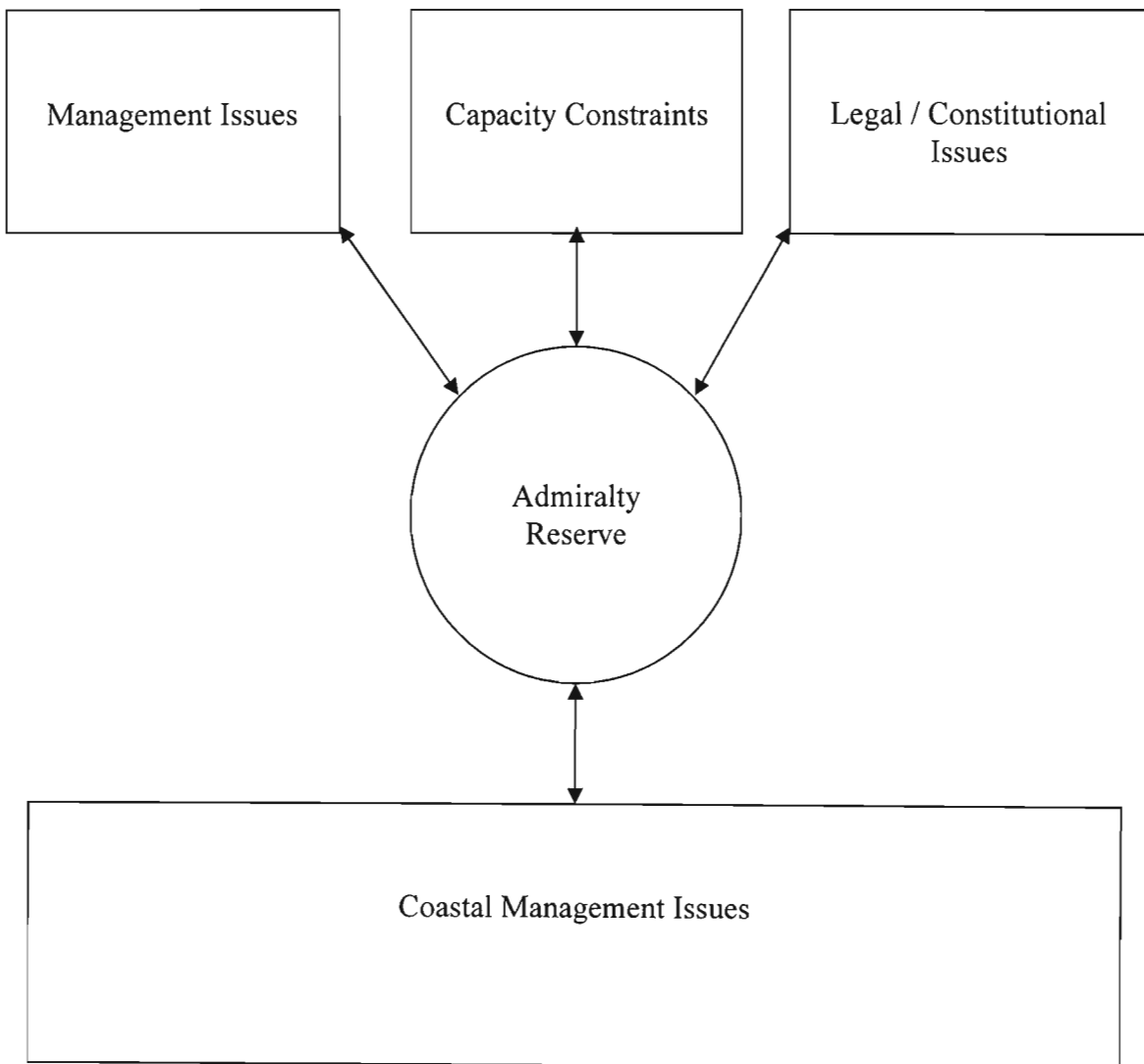


Figure 8.1 'Conclusions'

Table 8.1

Management Issues	Capacity Constraints	Legal / Constitutional Issues	Coastal Management Issues
There is fragmented control over the Admiralty Reserve between state organs and this leads to duplication and non-enforcement.	There are many reasons for encroachments and for the failure to deal with encroachments.	Local authorities have no legal standing on environmental matters. Section 4 and 5 of the Constitution gives such powers to National and Provincial spheres.	Generally environmental issues do not enjoy priority one rating in the agenda of politicians both local, provincial and national spheres..
The Admiralty Reserve is poorly defined and understood.	Officials who deal with this issue are not supported by politicians and by the State Departments due to inadequate understanding.	Organs of State are transgressors but no action can be taken against them since they are protected and prevented from prosecuting each other by Law.	There is definite lack of stewardship among the citizens of the coast and the interests of the future generations are not catered for.
The original non-environmental purpose has since changed, the Admiralty Reserve now plays a more biophysical role because of the sensitiveness of the areas that surround it.	It was obvious that it is very important to set a favorable precedent otherwise people will take the law into their hands and the environment becomes a loser. However, such a precedent should be driven by competent and well-trained people.	Through cooperative government the Constitution allows government departments to endorse each other's weaknesses.	The issue of the Admiralty Reserve and coastal planning requires both individual and social commitment. There is lack of public awareness on environmental matters.
There is lack of coordination and integration between government institutions.	It was important to ascertain that the notice to property owners abutting the Reserve should be structured and worded in such a way that it will be able to stand in court. It should state things that council is committed to do otherwise officials look foolish when council now refuses to foot the bill for legal costs.	There is no law directly responsible for controlling and administering the Admiralty Reserve. Local authorities have no jurisdiction over environmental matters in terms of the Constitution.	In dealing with the encroachments (and accusing people of wrong-doing) there is a definite need to get one's facts straight because ratepayers are knowledgeable in these matters. They need to be convinced that the official has the know-how and is suitably qualified otherwise they start questioning the validity of claims made.
There is gross negligence on the part of the Department of Public Works as the custodian of the Admiralty Reserve.	Responsible government departments are failing to keep this State property safe from alien invasive plants that carry a fire hazard.	Non-implementation, non-enforcement of environmental law is overwhelming norm in Umdoni and Hibiscus Coast municipalities. The local authority is the transgressor.	The local authority approach to the problem lacks the most important ingredient namely partnership (common vision and goals, respect, trust, understanding (facts and issues, commitment to common vision and goals. Local authorities instead adopt

			an adversarial stance in dealing with the matter.
There is lack of communication between stakeholders and poor intergovernmental relations.		There is gross negligence on the part of the state organs responsible for the Admiralty Reserve. There is presently no champion designated to deal with the environmental transgressions along the coast.	It emerged from the study that there is a definite need to review legislation and leases because there is inability to place economic value on the environmental resource, the law will need to impose stiffer sentences if it is to be a deterrent and lease agreements are too cheap.
The control of the Admiralty Reserve is an un-funded mandate to local authorities.		Most property owners showed beyond any shadow of doubt that they are prepared to abide by the law. They responded positively and stated that they look forward to meeting council officials to discuss the encroachments but officials have to know the law.	Council has failed to make cooperative governance work.
There is lack of political will and financial constraints – no budget for dealing with encroachments and no staff.			The study proved that the whistle blowers are important role players in coastal management. They have successfully challenged the council about what they term gross negligence and dereliction of duties.
There are negative attitudes of politicians, community at large and individuals as well as authorities.			There is a definite lack of understanding about what is an Admiralty Reserve encroachment.
There is an important role that could be played by the environmentalists and environmental NGOs if the institutional arrangements were to be improved.			There are severe staff shortages at all levels of government which have responsibility for the Reserve and unless this is rectified it will be difficult to cope with management and control function connected to the Reserve.
The robust adversarial approach management and control of the Reserve has negative results.			It was clear from the study that knowledge of law, societal and individual attitudes towards natural environment and the tendency for

			short-term rather than long-term thinking play a large part in the success or failure of policy implementation.
Institutional incapacity, public education, awareness and training on these matters is lacking.			

8.2 Discussion of conclusions

Numerous tools for coastal environmental management have been initiated by both national and provincial government. One such a tool has been a plethora of national legislation which could be used to control the infringements. Much legislation is, however, not directly relevant to the Admiralty Reserve as a piece of land. The difficulty is that competence in such legislation is the prerogative of the national and in some cases provincial government. Local authorities can only enforce their own bylaws ie. prosecute in terms of the Town Planning Scheme, the Environment Conservation Act no 73 of 1989 and Sensitive Coastal Areas regulations. The question with so many laws and environmental policies at one's disposal is: why would one fail to use to the benefit of both the environment and development? There must be a sound reason as to why this is the case. Using one's inference or reasoning skill one could deduce that what is lacking in all the initiatives is coordination and integration.

Coordination and integration is lacking in the efforts between local authority and provincial and national government. Functional integration is lacking between spheres of government. Functional integration entails the linkage among a number of management actions such that programs and projects are internally consistent with goals and objectives. In Umdoni municipality some encroachments are committed by the local authority through its departments, for instance, illegal destruction of vegetation. These departments are supposed to be promoting sustainable development together with the department of management services which is charged with this task. Instead the Manager has to respond to calls from whistle blowers who are curious to know when this local authority is going to be responsible for the environment.

Functional integration reduces duplication and promotes complementarity among relevant line agencies. For instance, the management actions that were undertaken by the Manager of Management Services in the case of lot 561 Pennington. When the official received threats from interested and affected parties about why nothing has been done, the manager requested assistance from the Department of Public Works as the Government Department in charge of the Admiralty Reserve. There was no coordination and integration of efforts between the local authority and the

Department of Public Works. The National Minister has recently instructed the Head of Public Works to revisit the issue of lot 561 Pennington after one of the whistle blowers decided to take it up with Minister Public Works. What we see here is a good example of the duplication of management actions between the Department of Public Works and the local authority on the issue of lot 561 Pennington. Vertical and horizontal coordination is lacking. The department of Public works is presently duplicating the work that had already been started by the Local council on this issue which is a waste of time, financial and human resources. The Department of Public Works has sent out a notice to owner of Lot 561 to end the encroachment, expose pegs at her cost, rehabilitate or face prosecution by the state.

Secondly, there is absolutely no cooperation, integration, communication and coordination between the State department responsible for the Admiralty Reserve and the municipality on the issue of Ifafa Beach Caravan Park Lease Agreement. The local authority has detected a breach of the lease agreement but they do not have the powers to over-rule the National sphere of government because of cooperative governance principles which stipulate that all spheres of government and all organs of state within each sphere must "cooperate with one another in mutual trust and good faith by fostering friendly relations..... avoiding legal proceedings against one another (Constitution, s40 (1). In the lease agreement itself there is no mention of the local authority as the local agent responsible for monitoring the agreement which, makes it very difficult for the municipality to take any action against the owner of the Caravan Park.

Thirdly, the Mtunzi Park encroachments are another good example of this lack of communication and integration between local environmental groups and individuals, the municipality, the Department of Agriculture and Environmental Affairs, the National Department of Public Works and other interested and affected parties namely Ezemvelo KZN Wild Life. There is significant good work that has been done to date by the Mtunzi Park Body Corporate by firstly, incorporating clauses in the information booklet (1997) that is aimed at protecting the fauna and flora and ensuring that all property owners are pre-warned.

They have introduced additional controls that were included in the conditions of establishment document . Secondly, they have taken it upon themselves to report to council and environmentalists all the encroachments and bringing the perpetrators to book. A number of meetings have been called and the issue of the Admiralty Reserve has always been a priority in the agenda of monthly and Annual General Meetings of the Trustees. Thirdly, strongly worded letters have been sent to those property owners who are encroaching and the trustees have been instrumental in getting the local authority to prosecute the perpetrators. The Board of Trustees have been working on this problem since the establishment of this resort but neither the municipality nor the Department of Public Works has offered any assistance. The Department of Agriculture and Environmental Affairs has now established a section that deals with compliance and enforcement of environmental legislation but they are yet to be involved. Ezemvelo KZN Wildlife has always been of assistance in getting the alien weeds removed from the government reserve and in undertaking controlled burning of dead wood which is a fire hazard. It is for this reason then that the head of department decided not to prosecute the Body Corporate since they have been cooperating all along.

The complexity and the multidisciplinary nature of coastal issues in the coastal zone calls for integrated management as opposed to the conventional sectoral management. Chia Thia-Eng (1993) notes that interdependence of environment and development necessitates integration. Communication is a problem between various levels of government which makes management actions ground to a halt. The one hand of the government does not know what the other hand is doing.

The fact that the three spheres of government are, in terms of the Constitution, equal and should therefore respect one another has been identified in this research as a problem. There are many instances along the coast where the principles of cooperative governance are practiced at the expense of the environment. These spheres of government are not supposed to prosecute one another. Some local authorities are so negligent that there should be a punishment for their failure to protect the environment while they embark on development projects. Umdoni municipality is one such a culprit.

8.2.1 The role of whistle blowers

It must be pointed out that pressure from the conservationist groups has had a tremendous effect on the issue of the Admiralty Reserve. Coastal stakeholders have come to a realization that the only practical way of tackling complex issues is by speaking in one voice. Stakeholders are sometimes called interested and affected parties but NEMA prefers to call them whistle blowers. They use their knowledge of the environmental law, knowledge of ecology, botany, and environmental science to expose the atrocities committed by people on the environment. These whistle blowers are protected in terms of NEMA and have been given powers to lay criminal charges against environmental transgressors. Cathy Kay, former regional coastal ecologist for KZN Wildlife, now conservation Director of the Wildlife and Environmental Society of Southern Africa, has since 1996 been fighting the battle against what she calls “middle-class squatters”. Her illustrated dossier of numerous illegal encroachments was presented to the Hibiscus Coast council earlier this year. It has been shown to the department of Public Works which administers the Admiralty Reserve. Her report has shocked the Hibiscus Coast municipality into action but she believes this is too little too late. She has exposed these transgressions on national television and has played a significant role in conscientizing coastal municipalities about their duties. Today the crackdown on the Admiralty Reserve enjoys the support of the Coastal Management Unit of the KZN Department of Agriculture and Environmental Affairs. In addition, the unit has ploughed R1 million of overseas funding for a project in Hibiscus Coast. The project is called Protecting Coastal Resources to Secure Sustainable Livelihoods. It is funded by UK government and aims to develop mechanisms and institutional capacity to deal with unsustainable and often illegal development practices – like the Admiralty Reserve infringements – that currently stifle or block more sustainable and equitable development. This illustrates the importance of coordinated efforts and integration between the whistle blowers, international donor agencies, national, provincial and local government .

In the case of Umdoni Municipality, environmentalists have put pressure on the local authority to fulfill its constitutional obligation and environmental mandate. They have threatened to take council to court for dereliction of duties. Conservationists have phoned in, written strongly worded letters to the Municipal Manager. Through their

persistence council has taken some steps to remedy the situation though not enough. With just one call to the National Minister of Public Works, an official was instructed to investigate the matter of Lot 561 Pennington to its completion and take the necessary actions. When the matter was tabled to council it was resolved that a survey of the whole coastline will be done when monies become available. The Head of Public Works in Durban has offered to help the local municipality by using the available budget to do the survey of the whole area. This once again illustrates that unity is strength. Collaboration between whistle blowers, the provincial government and Umdoni Municipality is likely to result in the preservation of the little that is still left of the Admiralty Reserve. This illustrates the importance of coordination and integration in environmental matters. Umdoni and Hibiscus Coast municipalities are working together on the issues of Admiralty Reserve and it is starting to bear fruit. This proves the assertion that the most important elements of sustainable coastal development are integration and coordination.

8.2.2 Main Offenders

It was obvious from the findings that there are two broad categories of encroachers into the Reserve, namely, Spoornet, the local municipality and the property owners. Those encroachments that are committed by the local authority are “difficult” to deal with given that in terms of the Constitution these spheres of government are not to prosecute one another. They are to adhere to the principles of cooperative governance. This makes it difficult for a local authority to prosecute an individual when in fact they themselves are the offenders.

Mention must also be made of the fact that another category of encroacher is the South African Railways. Although they own the land on which their lines pass, the concern is that their development practices are not sustainable. As an example, infrastructure development that has taken place in the south of Pennington near the Umzinto Lagoon may be cited.

The position taken by this dissertation is similar to the principles of the Local Agenda for the 21st Century. At the LA21 conference held in Durban in 1997, it was decided that “the real strength of LA21 lies in the personal conviction and commitment of people and not through the application of rules and regulations. The latest

environmental planning and development legislation at national and provincial levels make ample provision for the management and control of LA21 principles” (Umdoni IDP; 2002: 17). Local Agenda 21 principles emphasize the need for a coordinated or integrated approach to management of the environment and implementation of various forms of development to meet the economic and social needs. It also emphasizes the importance of citizen power and the need for complete public involvement.

8.3 Final Conclusions

One can deduce (from the results and analysis) the following reasons for the failure to deal with the illegal encroachments into the Admiralty Reserve:

- Political interference into administration and incompetence on the part of officials to investigate the encroachments for successful prosecution.
- Institutional incapacity and negligence.
- The fact that the local authority has no legal standing on environmental matters. Cases are lost because local authority cannot prosecute using the national legislation.
- Attitudes of politicians, government officials and authorities, communities and individuals;
- Council adopted a robust approach that has failed in Hibiscus Coast municipality which lacks public participation. The result was a negative one. Negligence on the part of state organs was also the cause.

8.4 Concluding Remarks

This chapter has looked at the findings in relation to the theory on sustainable development and attempted to draw conclusion as to why Umdoni is failing in its attempt to clamp down on Admiralty Reserve encroachments. The next chapter acknowledges that the management and control of the Admiralty Reserve is flawed. This chapter will therefore attempt to recommend strategies and measures that could be employed in preserving the little that is still left of the Admiralty Reserve and protect the interests of the people of South Africa.

CHAPTER NINE

RECOMMENDATION

The erstwhile Pennington TLC should have enforced its own Town Planning Scheme clauses that pertain to development taking place in priority one, two and three. These are the environmental requirements with laid down procedures for development in Priority one, two and three. The Admiralty Reserve is a priority one area in terms of the scheme and in terms of the Environmental Management Plan compiled by Metroplan (2000). The Reserve is declared a priority one area because of its sensitivity but there is no compliance on the part of the municipality. Environmentalists have written many letters to this council in the past requesting and sometimes demanding this council to take its responsibility of protecting nature (Schwegman, pers com, 2003). There is indeed lack of proper environmental planning and management and good governance in Umdoni municipality inherited from the previous establishment. Council should not use staff shortage as the reason for non-compliance since there are so many retired people with expertise in this are who could be used to advise council officials and capacitate them. Once again its a matter of institutional transformation that stifles creativity in these matters. There is a real need for a coordinated system of management and control for the coastal zone of the Republic of South Africa from Umdloti in the north to San Lameer down in the south and beyond.

One of the difficulties that has been revealed by this study is that cases are lost in court because they were not properly investigated by council officials. What the court did in the case of Mtunzi Park prosecutions was to toss the matter out on legal technicalities. This is proof enough that officials should be capacitated on these matters. It is important to get facts straight before council can take people to court. Knowledge is power and it would assist council in gaining respect from transgressors if they know that the officials know what they are talking about. Property owners have made it clear that they will only respond positively if council recommendations are made by a suitably qualified and experienced environmental practitioner.

To deal with old encroachments, coastal municipalities must conduct a survey of all properties abutting the Admiralty Reserve with the view to physically determining the extent and nature of the encroachments. Once there is evidence of an encroachment, the municipality should calculate with the help of the Department of Public Works, the extent of the encroachment (in square metres). A lease should be drawn up and signed with the property owner whose encroachment dates back to the 1940s. The lease should give the owner options either to pay for the encroachment now or pay on the day when the property is sold to the next owner. Another option would be enter into a lease agreement with the encroacher and pay a monthly rent of R1 500 depending on a number of square metres. This should be discussed and agreed upon in the presence of all local real estate agents. This money should then be used by the department of Public Works to rehabilitate other areas or to make the coastal strip worth visiting.

The challenge facing local authorities in controlling and managing the Admiralty Reserve is the fact that it has a moving boundary. Properties which, according to the initial calculations, may have not been infringing into the amenity Reserve could after ten years from now be said to be encroaching because of the nature of the sand dunes. This could result in government expropriating some portions of the land adjoining the Reserve without any compensation. This could happen as a result of the high water mark moving inland because of geomorphological processes.

As a solution, this research advocates a re-definition of the Admiralty Reserve and a re-determination (re-survey) of its boundaries. The calculation of the Admiralty Reserve should start from the seaward side of all properties adjoining the Admiralty Reserve. This would give a fixed boundary. All land on the seaward side of the properties would belong to the Admiralty Reserve. This would accommodate all areas without having to determine the width of the Admiralty Reserve. At the moment the distance from the high water mark of the Admiralty Reserve is different from one area to the next. This amenity would also be extended as a result of this position. The lease agreements that were signed between the national government and individuals/municipalities contain different prescriptions and the rental is too cheap. There is a need to update the lease and modernize them to make them in line with commercial values of properties. Environmental economists should be

consulted to help place a commercial value on the natural resource and get the lessees to pay a commercially based rental that takes into account present market values.

Another alternative is to allow the permanent structures to remain inside the Admiralty Reserve instead of demanding people to remove and rehabilitate. The state must consider getting owners of offending structures to pay rent on their encroachments per square metre. In this way the owner has a choice to knock down the structure and rehabilitate or to pay a rental. The rental per square metre would need to be based on the size of the structure, the commercial value of the structure and this money would need to be used to manage the Reserve and improve the quality of environmental research. Instead of prosecuting the people and spending money in court this could be used. At the moment there is no legislation that could be used to prosecute the offenders because none of them are specific to the Admiralty Reserve. The Department of Public works would need to keep a register of all the encroachments and communicate constantly with local authority.

At the moment officials who deal with the Admiralty Reserve in Umdoni and Hibiscus Coast Municipalities respectively, are not getting any support/protection from the national government. It is a known fact that politicians are not in support of the actions taken against their constituents. These officials are viewed as harassing the residents. It is the duty of the Department of Environmental Affairs and Tourism (DEAT) to provide support since this is an unfunded mandate and they are the owners of the property. DEAT should provide local authorities with a clear policy directive on how to deal with the encroachments. This would assist officials who deal with this issue to have a reference document that could be made available even to politicians. It must be a top-down policy directive and funds should be made available for encroachment since councils are not prepared to spend on prosecutions. If the National Minister fails to support local municipalities the result will be legal action taken against the minister by environmental NGOs for dereliction of duties. It is the duty of the three spheres of government to ensure that the integrity of the Admiralty Reserve is upheld. Without a budget this is not possible.

Umdoni municipality is in breach of the lease agreement with the Department of Public Works. Local authorities must ensure compliance with the requirements of the lease. It is in the interest of council to manage the lease properly because the lease will be cancelled. If the department cancels the lease with council that would mean council would have to spend millions of rand purchasing the physical structures such as restaurants, swimming pools that are in the Admiralty Reserve. The lease states that if the lease is cancelled the lessee will forfeit all the improvements. The Blue Flag Status application by these municipalities will be affected since services would now have to be provided by the national government on the beaches.

9.1 Guidelines for dealing with Admiralty Reserve encroachment.

In this section, objectives, policies and guidelines are discussed in a sequence. An objective is an ideal scenario which the environmental planning process wants to achieve thereby providing the framework for more specific policies. Policies are purposeful courses of action which in turn provide a framework to guide development. Policies are in themselves vague to implement and where this is the case guidelines are provided to facilitate their implementation. Guidelines provide actions for implementing a given policy. In other words, guidelines are performance requirements which specify those human actions necessary to maintain a resource at an acceptable level so that its value to the nation remains undiminished. The policies discussed hereunder are designed to augment other tools for environmental management namely environmental legislations, provincial policies and municipal bylaws.

Management objective: to discourage unauthorized "development" (encroachment) into the Admiralty Reserve.

Policy 1: implement a "user-pay" principle of the government

Guidelines: development refers to activities defined in schedule 1 to the Coastal Regulations promulgated in terms of the Environment Conservation Act (no. 100 of 1982) which define the following activities as 'development':

- clearing of land & the removal of vegetation;
- the development of mobile home parks, picnic areas, caravan parks;
- the erection of any building;
- the construction of power-lines or fencing;

- the construction of roads, including local or private roads and permanent footpaths.

In a one-on-one interview (30/12/03) with Mr Edmunds it was revealed that most residents in Pennington are objecting to expose their pegs because 'clearing of land removal of dune vegetation to create sea views' is not regarded by them as "development" (encroachment). He even stated that in his case there are no solid structures that he has built in the Reserve and insisted that there is no way this council should expect him to allow the vegetation to grow and interfere with his view to the sea.

- Each case should be treated on its merit because each property site encroachment is unique;
- Encroachments dating to 50 years should be given an option to either knock down and rehabilitate or pay a commercially based rental per square metre;
- Residents with solid structures into the Reserve (swimming pools, portions of houses, or retaining walls) should be made to pay for them especially where the structure is used for entertainment by the family;
- Where the vegetation has been hacked down to create a parkland of their own by planting grass, and where it enhances the value of the property, the owner should be made to pay a rental – when the house is sold to the next property owner rates clearance certificate will not be issued without a proof of payment.

Management objective: to encourage cooperative environmental governance

Policy 2: promote participative resource management

Guidelines: establishing an autonomous body where there is no "big brother" watching over its operation (conservancy) formally constituted and existing to pursue its own aims and objectives as defined in its constitution.

A conservancy is by definition a voluntary cooperative environmental management of an area, by its owners, community & users, and in respect of which registration has been granted by the relevant provincial nature conservation authority. It would be known as Marine Reserve Conservancy.

- The larger area of Umdoni would come under some form of environmental management and the broader public becomes involved in the Admiralty Reserve conservation efforts and members of the public will become stakeholders.

- To control and create awareness about invasive alien plant, improve soil, vegetation, and water management and utilization;
- Umdoni municipality would utilize the expertise of local people who are renowned in environmental matters to advise. At the moment there is a tendency to expect everything to be done by Pennington Environmental Group and the results revealed lack of institutional capacity.
- The conservancy should lobby the government to renew and update all the lease agreements. The local authority should sublease the land to individuals who are encroaching .The aim is to avoid the fragmented control or dual authority over the Admiralty Reserve

Management objective: to encourage rehabilitation

Policy 3: promoting the rehabilitation of disturbed areas

Guidelines: most damage to the dunes occurred during construction of the structures when building activities destroyed soil profiles, vegetation cover, and wildlife habitats of that particular site.

- Conduct a botanical assessment of each site before rehabilitation to identify the plant species which were present. This should be done to avoid rehabilitating using plant material that is not suitable for that plant community. The Town Planning Scheme's environmental requirements should be adhered to since the Admiralty Reserve is a priority 1 area. Sensitive coastal areas regulations should be consulted too with the help of the provincial nature conservation authority.
- Rehabilitation should be done under strict supervision of an expert in the field paid for by the owner;
- Appropriate rehabilitation steps should be incorporated pre-construction and post-construction phases;
- Disturbed areas should be stabilized before re-vegetating these areas;
- Re-vegetate and re-plant exposed areas with methods such as re-seeding, mulching, planting and sodding to minimize soil erosion, dust, siltation and wind-blown sand.
- As far as possible indigenous vegetation of the region should be used.

A vegetated buffer zone should be identified between the littoral active zone and proposed development. The provincial conservation authority should be consulted to determine erosion set-back lines and buffer zone widths. There needs to be a 100

metre buffer strip from the high water mark which should be uniform throughout the coastline.

Management objective: to re-determine the boundary

Policy 12: implement the Admiralty Reserve boundary re-determination by re-surveying the government Reserve

Guidelines: the coastline is frequently faced with what is called irregular or curvilinear boundaries. The boundary of the coastal areas are ill-defined, non-static, frequently difficult to determine.

- In order to prevent the frequent movement of the boundary, it has to be lawfully established (Malan:1984). This can be done in terms of the provisions section 9 of the Sea Shore Act (1935) whereby the non-static boundary is replaced/substituted with a boundary of another kind such as fixed straight lines defined using the beacons (Oosthuizen: 1985) The new boundary must be surveyed and an agreement negotiated and signed by the owners of all properties abutting the sea, rivers, the wetlands and estuaries. This is in line with public participation in decision making. The decision can then be recorded by the surveyor-general as a lawful boundary in terms of the Land Survey Act.
- The problem with the present boundary determination is that let us say we start measuring/defining the Admiralty Reserve 150 ft from the high water mark and before we reach the boundary of the adjacent property owner we now reach the 150 ft mark. What will happen to the strip of land from the 150ft to the adjacent property? The property owner would surely claim this remainder as his/hers which would make the problem worse. The best solution to the debacle is to start defining/measuring the Admiralty Reserve from the seaward boundary of every property abutting the Reserve. The rationale is to substitute the ill-defined, non-static boundary with a fixed straight line boundary defined using the beacons. In other words, we are simplifying the situation by saying: the land on the seaward side of the property boundary belongs to the department of Public Works and the nation at large. This would extend the Admiralty Reserve to make it more spacious for the holiday makers and residents alike.

Management objective: to build environmental capacity in the region

Policy 12: training and educating human resources on environmental matters

Guidelines: environmental education targeting schools, municipal officials through Local Agenda 21 programs;

- Training of magistrates and senior public prosecutors on environmental prosecutions;
- Capacitating politicians through workshops;
- Community empowerment and participation on environmental issues;
- Lobbying the state to fund the establishment of environmental courts and the employment of green scorpions and funding the mandate by employing university graduates on such matters
- DEAT should establish a hotline where people could report environmental transgressions without having to divulge their names.

Lines of communication between the three spheres of government and other agencies should be improved to avoid duplication and fragmentation. Public education campaigns would be ideal as part of Integrated Environmental Management philosophy. At the moment there is inadequate communication channels between the organs of the state and no cooperation. The Admiralty Reserve is a phenomenon with many questions than answers therefore the state should recognize the contribution that can be made by community groupings. They can become the eyes and ears of the state and are in fact protected in terms of NEMA as whistle blowers. It must be noted that there are many other environmental transgressions that are taking place, for instance, some cars and industries are emitting pollution into the atmosphere at an alarming rate and this requires cooperative governance empowering people to take these matters up with government.

The stress should be on creating good environmental governance and making all citizens responsible and critical of people who are damaging the environment and take it upon themselves to report such incidents to local authorities.

Management objective: Compliance with and enforcement of environmental laws

Objective: to protect adjacent properties from a fire hazard

Policy: promote regular invasive plants removal in the Reserve

In terms of Conservation of Agricultural Resources Act No 43 of 1983, passed to protect soil, water resources and vegetation, it is a criminal for land users (whether

they are owners or lessees) to allow certain species to grow, whether in urban or rural areas. This Act includes measures to combat weeds and invader plants.

According to the Act, invasive alien plants are a problem because they increase the intensity and frequency of wild fires; they consume vast amount of water; they lower the water table and cause stream and wetlands to dry out thus reducing water security. They impact on the functioning of the natural ecosystems, displace indigenous plant species and reduce biological diversity; they reduce the agricultural potential of the land, they increase the speed of water run-off and congestion of water courses. As a result they can increase the risk of flooding. The Act states that any person in control of land who fails to remove certain species of invasive alien plants growing there is acting unlawfully. The penalties for failing to remove invasive alien plants may range from fines to imprisonment. Allowing invasive alien plants to grow on a property may lead to substantial civil claims. The value of property infested with alien weeds may be reduced. An insurance company may reject claims by landowners for damages arising from a fire if the landowner allowed the surrounding land to become unlawfully infested with invasive alien plants that contributed to the spread or the intensity of the fire.

The local authority of Umdoni (the lessee) is bound by legislation to remove alien weeds from the Admiralty Reserve to avoid a fire hazard that normally comes with vagrants who use the Reserve to sleep in.

It was noted that the reason for clearing the vegetation east of the beachfront properties is not always greed and negative attitude towards the environment. In some cases there are valid reasons, for instance, in Salmon Drive there was proof that residents have opted to clear the vegetation because of the vagrants who now live in the coastal forest. The state should consider this in its steps against the offenders.

9.2 Towards a sustainable coastal resources management approach

It was clear from the results that Umdoni's strategy of dealing with encroachments (adapted from Hibiscus Coast) is flawed. Extrapolating from the workshop presentation by Bulman (2004) it is possible to deduce that Umdoni uses both the self-regulation (*laissez-faire*) and command-and-control approaches to deal with

the encroachments. Council uses the self-regulation approach because those being governed (residents) or regulated take responsibility for setting the rules for themselves and enforcing them. Over and above certain legally stipulated minimum requirements, people concerned see to the enforcement themselves. Secondly, council uses command and control because the series of laws, rules or regulations are enforced by a specially designated and empowered group (three spheres of government). The law is in place and people who break the law are arrested without any discussion or argument. They may be given an opportunity to prove their innocence in a court but there is no discussion about how the law is applied or why they are wrong. The council notice to residents bears evidence.

The participation principles and strategies were such that there is no involvement of the civic society. When council decided to shut doors to dialogue it was a clear adversarial stance as opposed to collaborative approach. The strategy was to plot to attack (certain environmentalists who were subsequently banned from council offices) ; the tactic being to attack the other and or ideas; the underlying intent being to hurt or punish the other; the outcome was lose-lose. There was no cooperative governance in the control and management of the Admiralty Reserve encroachments. In this form of governance the regulated and the regulating authority work hand-in-hand to set rules and put monitoring and enforcement mechanisms in place. This approach is the combination of both the self-regulation and command-and-control mechanisms. The forum is inclusive of all stakeholders and role players. The advantage here is that there is agreement upfront on how the law will be applied. All stakeholders know its purpose and how it will be applied for the benefit of the group as whole (DAEA, 2004).

In order to deal with non-compliance with the laws, rules and regulations a collaborative strategy based on cooperative governance principles becomes a necessity. Cooperative governance is collaborative resulting in win-win outcomes. However, cooperative governance depends on the following ingredients for a successful partnership namely common goals and vision, genuine respect for one's value system, trust, understanding (issues and facts), contribution by individuals and commitment to the vision and goals. In order for this council to make cooperative governance work, it would have to avoid vetoes and strive for

consensus, take local knowledge seriously, keep doors open (no bannings), ensure meaningful participation not token participation or representation, include all those organs of state and civil society that have a stake in the process, ensure direct accountability to a broad constituency (Bulman, 2004).

This participatory style of management should be strengthened by means of appropriate institutions namely the conservancy. The management structure would need to include all stakeholders including all those organs of state and civil society that have a stake in process. In this structure a forum will be created where contribution from all stakeholders is welcomed and open dialogue where group interests are negotiated and protected by all concerned rather than just being represented by the government authorities. However, the regulating authority does not relinquish its roles and responsibilities but rather it allows those who are to be governed to come alongside and co-manage. The term co-management denotes a situation where or all stakeholders are involved in a substantial way in management. Co-management means collaborative management, participatory management, joint management, shared management, multi-stakeholder management or round-table agreement (DAEA, 2004).

The Green Scorpions is the newest addition to South Africa's law enforcement capacity which emerged from the Department of Environmental Affairs and Tourism's restructuring process to fulfill specific functions and enforce compliance regulations (Business Day, 2004). These scorpions could work with the people on the ground by getting people to phone in and report (anonymously) all environmental transgressions. They could be incorporated as part of the management structure to deal with all matters such as pollution and degradation of natural resources and risks to the environment. These scorpions have, according to the Business Day, made its first sting when they arrested the East London farm owner Mr Daryl Tucker.

Education, training and awareness would be the main function of the relevant stakeholders mainly the government. The structure would need to deal with causes of lack of compliance and enforcement. Umdoni municipality should embark on public education campaigns with the help of other government spheres. Training

initiatives should target government officials such as magistrates, public prosecutors and managers.

The important thing is to build enforcement systems and build capacity for enforcement for all spheres of government including other state agencies and parastatals. Government should deal with lawlessness and the plan should be to crack at least one high profile case. This should be bad news for individuals carrying out illegal activities but good news for firms/individuals with good environmental practices. People who do not comply should be prosecuted and officials who are negligent charged. There has to be a balance between the fair procedures and stringent measures. A strict environmental monitoring system is important for all transgressions that are detrimental to the natural environment. The important objective is to set a precedent around environmental compliance for the whole coast. Environmental offenders have far too long escaped prosecution because SA did not have the necessary relevant legislation (for Admiralty Reserve) or enforcement mechanisms to bring perpetrators to book.

9.3 Coastal Management & Planning

There is a need to come up with common property management plan to eliminate factors causing degradation of ecosystems, to carry out research and surveys on biodiversity and maintain optimal habitats for wildlife. Recognition of indigenous environmental knowledge is essential to the management of the biodiversity. Coastal management and planning will require both strategic and operational planning. Strategic planning sets out broad objectives as it is the highest order of planning. It also outlines the approaches required to achieve them. Operational planning, by contrast, sets the directions and steps to achieve localized operations and management actions.

9.4 Collaboration and community-based management

It is a known saying that unity is strength and the same saying applies to coastal problems. Problems in the coastal strip can best be addressed at a local level through communication, collaboration and community based co-management initiatives. By actively involving the local people in management, government would strengthen the bond between people and nature. This would instill in the heart of the

people a sense of stewardship and responsibility for managing resources sustainably. Regulation supported by enforcement could be used along other mechanisms such as education, awareness campaigns and monitoring. Regulations would assist with implementation mechanisms by specifying what actions are accepted under the Act and the penalties for breaking the law. Regulations only become effective when they are implemented in conjunction with education and communication programs.

The study therefore wants to contribute towards a just environmental management system that upholds the laws of the country.

9.5 Partnerships

The administration of the Admiralty Reserve cuts across the mandates of government departments and spheres of government as well as requiring committed involvement from civil society and landowners. In the spirit of cooperative governance, a policy on Admiralty Reserve management should jointly be devised between Council and the Department of Public Works. The Department of Public Works should, as part of this policy, delegate powers and authority to council as the lessee, to take legal action against the offenders. At the moment there is no delegation of power from National to Local sphere. In terms of the Promotion of Administrative Justice Act (2000) no organ of state has the right to take action against anyone unless there is a written delegation of such authority.

It is highly recommended by this study that owing to the absence of legislative tools to control the encroachments by Coastal Municipalities, Umdoni Municipality should formulate and strengthen its bylaws.

BIBLIOGRAPHY

Primary Sources

1. Deed of lease – signed in 1970 between Scottburgh council and the Department of Agricultural Credit and Land Tenure (GL – 00048), indicating a nominal fee of R2.00, increased to R5.00 and R10 in a space of three months
2. A document containing a list of all coastal municipalities (including Umdoni) holding lease agreements with Department of Public Works – published by the Department of Public Works
3. A document containing a list of all Admiralty Reserve individual leases within the coastal municipalities – published by the Department of Public Works
4. Admiralty Reserve lease agreement between the Pennington Health Committee (lessee) and the Department of Agricultural Credit and Land Tenure (1968)
5. A lease agreement (Ref No. Y6308/5012/0) between Department of Public Works (lessor) and Mr J.E. Callaghan (lessee) Erf 142 Ifafa Beach Caravan park, signed in 1999
6. Crown Grant No 28/52 (1946) awarding the Townlands of Scottburgh and portion of Admiralty Reserve within its jurisdiction in favour of the Town board of the Township of Scottburgh
7. Pennington Council Minutes dated 2000 to 2002 and Umdoni Council's Minutes 2003
8. Pennington Council Minutes dated :
 - 28 May 1998
 - 30 January 1998
 - 24 June 1999
 - 29 July 1998
 - 26 August 1999
 - 27 January 2000
 - 25 April 2000
 - 25 May 2000
 - 27 July 2000
 - 31 August 2000
9. Recommendation for a policy regarding the Admiralty Reserve (July 2000 annexure 1 dated 31/08/2000)
10. Pennington Council 's notice to all property owners abutting the Admiralty Reserve dated 30 June 1997

11. Pennington TLC's revised notice to all property owners abutting the Reserve dated 14 December 1999
12. Umdoni Municipality's revised version of the notice to all property owners dated March 2003
13. Aerial photography of 10th and 11th June 1966 showing Freeland Park, Scottburgh Central, Scottburgh South, Umzinto Coastal Section and portion of Park Rynie (DSB)
14. Aerial photograph of Scottburgh Beach of 6th April 1957
15. A letter from Mr John Jerman (environmentalist) dated 27 May 2003 which provided the history of encroachments and approach used by the Pennington Council to deal with them.

Maps

1. Scottburgh Town Planning Scheme Map and cadastral maps
2. Surveyor-General's diagrams (S.G. No. 2180/1969) of Sub 2 of the Farm Ocean View No. 6234 showing property boundary right up to high water mark of Indian Ocean
3. Pennington Town Planning Scheme Map and cadastral maps
4. Aerial map showing Scottburgh Central, Scottburgh South, former Umzinto North coastal section (now Park Rynie North)

Inspections

1. Site inspection with the assistance of former councillor of Pennington Mrs Rachel Tomlinson to discuss the history of the Ifafa Beach Caravan Park encroachments (25/8/03)
2. Site meeting with John Callaghan (owner), Mr Roy Cole (Umdoni Building Inspector), the researcher to verify the statements made by Mrs Tomlinson (04/11/03)
3. Site visit and interview with Mr Chris Crystal, the Administrator of Farm Abrams (05/11/03)
4. Field visit of all Pennington Beach Properties to verify the encroachments (5/11/03)

5. Joint field visit between Umdoni official, Ms Adrienne Edgson (former chairperson of PEG), Members of Pennington Environmental Group (PEG) to debate the issue of 48 Cherry Lane encroachment on site (focus group session held) (17/06/03)
6. Site visit by the Department of Public Works, Umdoni municipal official, PEG chairman and the interested and affected parties (whistle blowers) in 48 Cherry Lane.
7. Site meeting with Mr Edmunds of Pennington, one of the property owners affected.
8. Interview (telephonic and personal respectively) with Pierre de la Porte, Hibiscus Coast Municipality's Conservation Officer.
9. Attendance in all council meetings when the Admiralty Reserve issue is discussed and debated including 48 Cherry Lane (minutes of council meetings 2003)
10. Site inspection conducted jointly between Chairman of PEG, Umdoni official, Mtunzi Park Body Corporate Trustees (Mr Ian Anderson and Mr James McLuckie (7 August 2003)
11. Follow-up site inspection and field work between the researcher and the trustees (17 December 2003)
12. Interview with Holiday Makers on the Pennington Beach (2003)

Personal communication

1. Mrs Sally-Anne Roux (2003) 42 Salmon Drive, Pennington property owner abutting the Reserve (who revealed that the Admiralty Reserve is encroaching her property by two metres).
2. Professor Jeremy Ridl (2003) Environmental Lawyer, University of KwaZulu-Natal, Durban.
3. Mr Rory Conway (2003) Professional land Surveyor appointed to expose beacons for Lot 561 Pennington.
4. Lee, E (2003) Chief Executive Officer of Bukindalo Consulting and his short article on Admiralty Reserve.

Legislation

The Land Survey Act of 1998, Republic of South Africa

The State land Disposal Act No. 48 of 1961, Republic of South Africa

The Seashore Act of 1935, Republic of South Africa

The Constitution of the Republic of South Africa, Act No. 108 of 1996, Republic of South Africa

The Environment Conservation Act of 1989, amended in 1997, Republic of South Africa

The National Forest Act of 1998, Republic of South Africa

The Conservation of Agricultural Resources Act No. 43 of 1983, Republic of South Africa

The Promotion of Administrative Justice Act, Act 3 of 2000.

Government Publications

White Paper on Environmental Management Policy for South Africa (1998) Republic of South Africa

White Paper on Spatial Planning and Land Use Management (2001). Ministry of Agriculture and Land Affairs, Republic of South Africa.

White Paper for Sustainable Development (1999) Department of Environmental Affairs and Tourism (1998) Republic of South Africa, Pretoria

White Paper on Local Government (1998) Republic of South Africa

Literature cited

Anonymous author (undated) "Regulatory control over activities in Sensitive Coastal areas.", made available by DAEA, 2003.

Ballinger, R.C., H.D. Smith & L.M. Warren (1993) "The Management of the coastal zone in Europe" *Ocean & Coastal Management* (21) 109-127.

Bird, E.C.F. (1984) *Coasts : An introduction to coastal geomorphology*. England : Basil Blackwell

Cicin-sain, B. (1993) Sustainable Development & Integrated Coastal Zone Management. *Ocean & Coastal Management* (21) 11 – 43.

Chua Thia-Eng (1993) Essential elements of Integrated Coastal Zone Management: *Ocean & Coastal Management* (21) 81 – 108.

Council for the Environment (1988) Guidelines for coastal land use (seventh draft) Government Printer Pretoria

Council for the Environment (1991) "A Policy for Coastal Zone Management in the Republic of South Africa – guidelines for coastal land-use (part two), Government Printer, Pretoria.

Cooper, J.A.G. (1995) Sea-level rise and its potential physical impacts on the shoreline of KwaZulu. *Natal Town and Regional Planning Commission Report*, Volume 80, Pietermaritzburg.

Crook, B.J.S. (1990) Pennington: Guidelines pertaining to the Natural Environment, 1 – 43, Unpublished Report: Pennington TLC.

Denscombe, M. (1998) *The Good Research Guide – Methods of Social Research*. Open University Press: Buckingham

Department of Environmental Affairs and Tourism (1998) Environmental Impact Management. EIA Regulations, Implementation of sections 21, 22 and 26 of the Environmental Conservation Act, Guideline Document

Department of Agriculture & Environmental Affairs workshop Coastcare Induction Programme Ugu Region (2004) prepared by Common Ground and Institute of Natural Resources (Pty) Ltd

Department of Agriculture and Environmental Affairs Policy statement (2003) 13 August.

Glavovic, B (2000a) Our Coast, Our Future : A new approach to Coastal Management in South Africa. Department of Environmental Affairs and Tourism. Common Ground Consulting.

Glavovic, B (2000b) Our Coast for Life : From Policy to Local Action. Department of Environmental Affairs and Tourism: Common Ground Consulting.

Glazewski, I.J. (1986) The Admiralty Reserve – an historical anachronism or bonus for conversation in the Coastal Zone, 193 – 201

Griggs, R. (1999) IPT – Report “Cultural dimensions of environmental decision-making” File: //C:\My Documents\arculture.htm 1- 5

Flick, U (1998) *An introduction to qualitative research*. London: SAGE

Kenchington, R. & Crawford, D. (1993) On Meaning of Integration in Coastal Zone Management, *Ocean and Coastal Management* (21) 109 – 127

Lee, E. (2002) Unpublished Report on Coastal Zone Management, Bukindalo Consulting.

McMillan, J.H. & Schumacker, S. (2001) *Research in Education – a conceptual Introduction*. Longman: New York

Mtunzi Park Information Booklet (1997) Lot 1289 Bermuda Way, Scottburgh South. P.O. Box 36 Scottburgh, 4180 pp 1-36

Metroplan (2001) Umdoni IDP Report– ‘Municipal-wide analysis Priority Issues’, Pietermaritzburg.

Metroplan (2000) Environmental Management Plan for Pennington TLC – incorporating Pennington, Bazley, Ifafa, Elysium

Muni-brief: keeping municipalities informed – Brief Note (2003) 43
<http://www.munibrief.co.za/archive/brief43.html> 26/03/03

Naidoo, S (2004) “Green Scorpions to take on polluters”, an article on the Business Day, 21/01/04

Natal Town and Regional Planning (1984) “Coastal Zone Management” – Proceedings of a seminar organised by Town and Regional Planning Commission, Pietermaritzburg.

O’Riordan, T. Preston-White, R., Hamann, R. and Manqele, M (2000). The transition to sustainability: A South African Perspective, *South African Geographical Journal*, 82 (2), 1 – 10

Oelofse, C. (2000) Sustainable Development, LA 21 Training Manual EEU, UCT

Oosthuizen, A.J. (1985) The application of the Sea-Shore Act and related legislation on the Natal Coast, Department of Private Law, University of Durban-Westville, Natal Town and Regional Planning Supplementary Report, Volume 6

Population census (1996) Community profiles databases first release 1998 upgraded 1999

Pennington TLC’s Environmental management Plan (200) incorporating Kelso, Ifafa, Bazley, Pennington, Sezela, Bazley and Elysium, Metroplan: Pietermaritzburg

Pennington Town Planning Scheme in the course of preparation (1999), Metroplan, Pietermaritzburg.

Robson, C. (1993) *Real world research*. Open University Press: Buckingham. Philadelphia

Scott, D., Oelofse, C. and Weaver (2001). The institutionalization of Social Assessment in South Africa: The post-apartheid window of opportunity, in Dale, A. Taylor, N. Lane, M. and Crisp, R. (eds) *Integrating Social Assessment in Resource Management Institutions*, CSIRO Publishing, Australia.

Sowman, M. (2002). Integrating sustainability Issues into Local Government Planning and Decision-Making Process. In Parnell, S., Pieterse, E., Swilling, M. and Woodridge, D. (eds). *Democratising Local Government: The South African Experiment*, University of Cape Town Press: Cape Town

Sim, J. (1998) Methodological issues in Nursing research. *Journal of Advanced Nursing* Blackwell Science Ltd 28 (2) 345-352

Statistics South Africa (2003) Census 2001 data

Statistical South Africa (2003) Population Figures, published by the Demarcation Board.

Tinley, K.L. (1985) *Coastal Dunes of South Africa*. South African National Scientific Programmes Report No. 109

Town and Regional Planning Commission (1996) The location and extent of the Admiralty Reserve and legislation pertaining to the Reserve – Phase one report, compiled by Integrated Planning Services. Pietermaritzburg, 01 August 1996.

Town and Regional Planning Commission (1996) The Admiralty Reserve in KwaZulu-Natal – Phase Two Report (KwaZulu-Natal), Integrating Planning Services September 1997

Town and Regional Planning Commission (1996) The Admiralty Reserve in KwaZulu-Natal – an investigation into the history, extent and current status of the Reserve, Integrating Planning Services, Pietermaritzburg

Udidi Consultants – 'Umdoni Boat Launching Sites Scoping Report' (2003), Pietermaritzburg.

Van der Weide, J. (1993) "A systems view of Integrated Coastal Management". *Ocean & Coastal Management* (21), 129 – 148.

World Commission on Environment and Development (1987). *Our Common Future*. Oxford University Press, Oxford

QUESTIONNAIRE ON THE ADMIRALTY RESERVE

Kindly return the completed questionnaire to P.O. Box 19, Scottburgh or deliver to municipal offices, corner of Williamson and Airth Streets, Scottburgh

Name of Municipality : Umdoni

Name of Respondent (optional) : _____

1. What are the causes of the encroachments into the Admiralty Reserve (why, in your opinion, do people encroach)?

2. What is the importance of the Admiralty Reserve from a social, economic, geomorphological and biophysical point of view?

3. Why do coastal municipalities (particularly Umdoni) ineffectually deal with the issue of the Admiralty Reserve in the past and present? Please provide reasons.

4. What would you propose as the clear unambiguous measures/guidelines for a policy to manage and control the encroachments.

Appendix B: Interview Questions

1. Have you ever heard of about the strip of land called Admiralty Reserve (where is it located) (holiday Makers), are you aware of the existence of the Admiralty Reserve or not, if so, who owns this piece of land?
2. Is it true that you (Farm Abrahams and Ocean view) have land ownership that extend right into the ocean?.
3. Generally, what would you say prompt people to encroach?
4. What are the reasons for the encroachments?
5. Why do we need to preserve the Admiralty Reserve?
6. Why has the past administration (Pennington TLC) failed to deal with the problem of encroachments?
7. What is the history of these encroachments in the former Pennington TLC?
8. How did the former Pennington officials deal with the encroachments?
9. Tell me about the encroachments in Hibiscus Coast Municipality which is part of your daily duties?
10. How do you deal with encroachments in Hibiscus Coast Municipality (what are your frustrations as the official?)
11. What is your assessment (as a ratepayer) of the strategy (past and present) employed by this council for dealing with the encroachments eg tone of the notice, demands made by council on the notice etc.) (question for property owners abutting the Admiralty Reserve)

Appendix C: Focus Group Discussion Contents

1. What is an encroachment/development
2. What do we do as stakeholders about the encroachment on Lot 571 Pennington (practical solution)
3. Why do we fail as coastal managers and planners to deal with this issue.
4. What advice can we give to Umdoni Council on these encroachments.
5. Promoting compliance with coastal policies and laws;
6. Reasons for non-compliance;
7. Compliance tools
8. Corporate governance – government versus governance
9. Participation principles and strategies
10. Measures/tools to address non-compliance;
11. Making corporate governance work;
12. A facilitatory style of coastal management;
13. Institutional reform;
14. The need for awareness, education and training;
15. How do we deal with overlapping responsibilities;
16. Rehabilitation of the dunes – how do we go about – structures that are on the reserve that constitutes encroachments eg boards
17. Which legislation is the most appropriate for this problem and how do we get the Department of Public Works actively involved as the owner of the land.

Appendix D: Photographs showing Mtunzi Park violations (Scottburgh)

MTUNZI PARK



Plate 1

Destruction of dune vegetation in the area being encroached upon



Plate 2

Advanced destruction of dune vegetation due to encroachment area being cleared.



Plate 3

Evidence of extensive growth clearance in order to enhance sea views.



Plate 4

A close-up of area showing clearing of vegetation in the Admiralty Reserve



Plate 5

Damage to undergrowth within the Admiralty Reserve is clear, obviously the clearing was done to enhance sea views.



Plate 6

Looking towards the unit, the owners of which caused the destruction of vegetation within the Admiralty Reserve.



Plate 7

The same site viewed from another angle.



Plate 8

A “new” area of expansion of a private yard, encroaching onto Admiralty Reserve.



Plate 9

Established laws on area within the Admiralty Reserve which has been encroached upon. It is clear that these encroachments have been planned as extensions to privately owned gardens.



Plate 10

Landscaped gardens now adorn the Admiralty Reserve, with a wooden deck for extended entertainment area.



Plate 11

What used to be coastal dune vegetation has made way for gardens. All this is within the Admiralty Reserve.



Plate 12

Another view of the garden and deck shown in Plate 10. Disturbed coastal forest, where natural forest undergrowth has been cleared to make way for a private garden / grassland / parkland and seaview.



Plate 13

The sea view has been completed with the removal of most of the vegetation in the Admiralty Reserve directly in front of the wooden deck.



Plate 14

Lawns stretch to almost on the beach – the result of the encroachment onto Admiralty Reserve and the near annihilation of the natural vegetation in this area.



Plate 15

A private access leads through the garden, across Admiralty Reserve to the beach. Vegetation has been cleared to enhance sea views.

Appendix E: Photographs showing Salmon Drive violations (Pennington)

Salmon Drive



Plate 1

Where vagrants sleep.



Plate 2

The dune forest is deteriorating because of human impact.



Plate 3

Vegetation destroyed to create a view.



Plate 4

Trampling in the vicinity of the “path” has caused this dune erosion.



Plate 5

Private gate on public land.



Plate 6

Illegal boardwalk into the primary dune.



Plate 7

Impact of bad planning on the dune - 1987 floods – the dune is supported.



Plate 8

Badly positioned car park thus damaging the dune. Destruction of vegetation behind the car park has caused the formation of a blowout.



Plate 9

Dune pioneer vegetation struggling due to a natural disaster and bad planning.



Plate 10

Ablution facility right on the dune.



Plate 11

Trampling causes damage to dynamic dune environment.



Plate 12

Attempts to prevent sliding on the dune.



Plate 13

The Admiralty Reserve vegetation is gradually disappearing due to lawlessness.



Plate 14

Garden full of green grass created. What appears to be the Admiralty Reserve has been illegally cleared by a private landowner. In the background a private garden has already been established where the Admiralty Reserve existed.

Appendix F: Photographs showing Cherry Lane violations (Pennington)

CHERRY LANE



Plate 1

Damage to dune (removal of sand and vegetation) to allow direct access to the beach through the Admiralty Reserve.



Plate 2

A view of the private access (on left) from the beach showing the damage caused by the building of this private access. This was totally unnecessary, as there is an existing public access close-by (see right of picture).



Plate 3

Destruction of dune vegetation adjacent to the public access



Plate 4

Walling in of what appears to be Admiralty Reserve. This encroachment was confirmed by a professional land surveyor.



Plate 5

A viewing platform on the seaward side of the property, allowing the property owners a sea view. Natural vegetation has been removed and a garden / grassland established on the Admiralty Reserve.



Plate 6

A private access to the beach, with a lock-up gate within the Admiralty Reserve



Plate 7

A pathway from private property through the Admiralty Reserve to the beach.



Plate 8

Private pathway from private property through the Admiralty Reserve to the beach, with a gate on the primary dune. This particular gate is some 200 metres from the property boundary.



Plate 9

Another gate within the Admiralty Reserve, with a second gate (just out of view approximately 25 metres from the gate shown) on the property boundary.



Plate 10

A garden has been created within the Admiralty Reserve where natural vegetation has been removed and grass planted. This also assisted in the creation of a sea view.



Plate 11

A roughly constructed pathway across the Admiralty Reserve. The materials used in the construction of this pathway is inconsistent with materials normally used for construction of pathways.



Plate 12

A padlocked steel gate restricting access to a private residence, the gate being on Admiralty Reserve. Several more gates such as the one shown are in existence.



Plate 13

The area has been cleared of natural vegetation to extend the garden, all within the Admiralty Reserve.



Plate 14

The pathway constructed with old sleepers across the Admiralty Reserve, leading from the gate (shown in Plate 15) to the beach.



Plate 15

A wall constructed with bricks / blocks and plastered over, built within the Admiralty Reserve, effectively claiming the portion of the Admiralty Reserve as private property.



Plate 16

Inside the gate is a garden and the gate and concrete wall appears to be in the Admiralty Reserve.



Plate 17

Private property sign on the gate located on the reserve. Inside is the grassland.



Plate 19

Structure constructed by the Local Authority on the sensitive dune environment



Plate 20

Private gate on the Admiralty Reserve.



Plate 21

Dune pioneer vegetation and Coastal Forest struggling due to trampling.

CHERRY LANE



Plate 1

Structure constructed by the Local Authority on the sensitive dune environment



Plate 2

Private gate on the Admiralty Reserve.



Plate 3

Vegetation hacked to create an illegal access to the beach.



Plate 4

Dune pioneer vegetation and Coastal Forest struggling due to trampling.



Plate 5

The lawn has been extended.

Appendix G: Photographs showing Ifafa Beach violations

IFAFA BEACH



Plate 1

Sundeck into the Admiralty Reserve.



Plate 2

Effluent from the sewerage plant discharged into the Admiralty Reserve dune system



Plate 3

Shower located on the sensitive dune by the local authority.



Plate 4

Ablution facility standing with no proper water pipes – now used as toilet by vagrants.



Plate 5

Sundeck extending into the Admiralty Reserve.

Appendix H: Various notices to property owners abutting the Admiralty Reserve and some responses

PENNINGTON

TRANSITIONAL LOCAL COUNCIL
PLAASLIKE OORGANGSRAAD
UMKHANDLU WOGUQUKO WENDAWO



Lot 572/2

Our Ref / Your Ref.

30 June 1997

K D ROBERTS
162 GOLF ROAD
PIETERMARITZBURG
3201

Tel.: 0323 - 975-1100
0323 - 975-1392
Fax: 0323 - 975-1102
Private Bag / Privaat Sak: 101
Pennington 4184
42 Dolphin Drive / Rylaan

Dear Sir/Madam

POINTING OUT OF BOUNDARY BEACONS

It has been noted that a number of beachfront properties in Pennington are encroaching onto the dune area. This is having a detrimental effect on the stability of the dunes. It is therefore necessary that all beachfront property owners point out the boundary beacons on their property. If you are able to point out your boundary beacons, please contact the Building Control Officer in order that they may be identified. If you are unable to, you are requested to comply with the following:

In terms of the National Building Regulations and Building Standards Act (Act 103 of 1977), Regulation A11 (1) *where, in the opinion of the local authority, the location of any boundary of a site has not been accurately determined such local authority may, before granting approval in respect of any application, require the owner, at his cost, to engage a professional land surveyor and to submit to the local authority a certificate, in an approved form and signed by such professional land surveyor -*

- (a) *identifying the boundary pegs or beacons of such site; and*
 - (b) *stating the name of the nearest cross street and the approximate distance of the nearest boundary of the site from such street.*
- (2) *Where such owner fails to engage a professional land surveyor as contemplated in sub-regulation (1) the local authority may engage a professional land surveyor to establish and point out the location of such pegs or beacons, and the local authority may recover the costs of such establishing and pointing out from such owner.*

The above must be carried out and the certificate submitted to the Pennington Transitional Local Council by 16 August 1997.

Failure to comply will result in Pennington TLC engaging a professional land surveyor to carry out the necessary work.

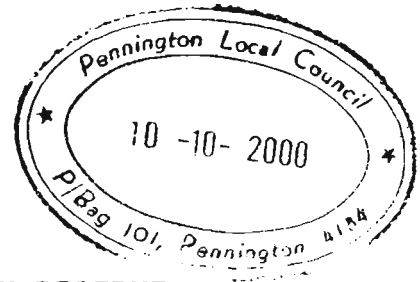
Your co-operation will be appreciated.

Yours faithfully

B C ACUTT
BUILDING CONTROL OFFICER

2 Bridmore
57 Cordwales Road
Pietermaritzburg
3201
28 September 2000

The Environmental Health Officer
Pennington Transitional Local Council
Private Bag 101
Pennington
4184



Dear Sir

ENCROACHMENT INTO ADMIRALTY RESERVE

Your letter dated 15 September 2000 refers.

1. The period of three months for the removal of all encroachments could be insufficient. A period of one year might be more appropriate. Each case should be considered on its merits as encroachments may in certain cases be beneficial and less damaging to the environment than if left uncontrolled, which could lead to invasive plants, littering and harbouring of vagrants. The erection of fences or walls could also have an adverse effect as the tendency is to throw everything over the fence/wall and access for control would be difficult.
2. Would it not be preferable, where the encroachment is not causing serious damage to the natural environment, to allow the adjoining owner to continue controlling the area, with input from the controlling authority in regard to such control and planting of suitable vegetation. The boundary pegs to be clearly established and marked without any fences or walls.
3. Boardwalks if permitted, must be properly maintained if they are not to become unsightly and dangerous. Regular inspection by the local authority must be carried out.

Yours faithfully

The owners of Lot 636 and 637

BL Hatton, LE Stephens, HM Collinge and MK van Rooyen

*Reply to Blair
for his company
and Reply to
members
C. T. G.
15/10/2000.*



PENNINGTON

Transitional Local Council
Plaaslike Oorgangraad
Umkhandlu Woguquko Wendawo

Private Bag / Privaatsak: 101
Pennington, 4184

42 Dolphin Drive / Rylaan

Tel : 039 - 975 1100
: 039 - 975 1392

Fax : 039 - 975 1102

14 DECEMBER 1999

CHERRY LANE PROPERTIES
P.O. Box 564
GAWERVVIEW
2060

Dear Sir/Madam LOT 1/568

ENCROACHMENT INTO ADMIRALTY RESERVE

At the public meeting held on 16 July 1999 the following was **UNANIMOUSLY AGREED**:

that:

1. the pegs abutting the Admiralty Reserve be exposed by the owners by no later than 2 January 2000. Due to constant movement of vegetation, permanently visible markers would be required.
2. the Environmental Health Officer and a representative from the Department of Nature Conservation Services, do a physical inspection of each property to establish the exact extent of encroachment (if any) of each individual property. The process to be completed in two months.
3. a report on each individual property with regard to the extent and nature of the encroachment be prepared.
4. a management plan be produced as a guideline, with input from the residents.
5. letters be forwarded to the residents advising them of the pending inspections and requesting their co-operation.

Pennington Council has been unable to obtain the co-operation of the Department of Nature Conservation Services to establish the extent of the encroachment.

The following legalities have been found:

1. In terms of section 4 (1) of the Sea-Shore Act, Act No 21 of 1935, the Pennington TLC leases the Admiralty Reserve from the Department of Public Works.

The lease requires that Pennington Council maintains this Admiralty Reserve in a natural state and that no unauthorized encroachment into the Admiralty Reserve takes place. In the event of encroachment occurring without authority the offender is required to remove the encroachment including all fences, structures, walls or gates. Areas where natural vegetation has been removed will require rehabilitation by the person/landowner whose property encroaches into the Admiralty Reserve. The landowner shall rehabilitate the area to its original state failing which Council will undertake rehabilitation.

2. Any person who having been instructed by Pennington Council to remove any encroachment and rehabilitation such encroachment fails to comply with the written notice will be liable for prosecution in terms of Section 12 of the Sea-Shore Act, which states:

PAGE 2
"Offences and Penalties

- 12A.** (1) Any person who-
- (a) uses any portion of the sea-shore or sea of which the State President is by Section 2 declared to be the owner, for any of the purposes mentioned in section 3 (1), without that portion having been leased to him for that purpose;
 - (b) removes any material contemplated in section 3 (2) from the seashore or sea of which the State President is by section 2 declared to be the owner, without a permit granted under section 3 (2); or
 - (c) contravenes or fails to comply with a condition imposed by or under section 3(1) or (2),
- shall be guilty of an offence and liable on conviction to a fine or to imprisonment for a period not exceeding two years.
- (2) If a person who erected a structure in contravention of subsection (1) is convicted in respect thereof under that subsection, the court may order that person to remove that structure at his own cost and within such time as the court may determine.
- (3) In the event of a conviction mentioned in subsection (1) the court may, in addition to imposing a sentence in respect of the offence and making an order under subsection (2), order the person convicted to repair any damage caused to the sea-shore by the act constituting the offence, to the satisfaction of the Minister."

[Sub-s. (3) amended by Proclamation R27 of 7 April 1995.]
[S. 12A inserted by s. 2 of Act 190 of 1993.]

Please note that the Provisions of the Sea Shore Act above applies to Lot 1163 on the eastern side of Salmon Drive as well.

In terms of the above, you are therefore required to comply with the following:

1. Provide Pennington Transitional Local Council with a copy of the S.G. diagram for your property.
2. Expose and visibly mark all boundary beacons abutting the Admiralty Reserve (beach).
3. Take steps to rectify the encroachment into the Admiralty Reserve by removing structures and rehabilitating the area encroached into. If a boardwalk is in place it must meet the requirements of the Pennington Transitional Local Council. Information is available at the TLC offices.

Your written reply to this requirement is expected by 2 January 2000. It will be necessary that you state how you intend complying with the requirements.

Please note, your co-operation with the above will be appreciated, if you have any comments or items to discuss please contact the undersigned, in order that a meeting can be arranged.

Yours faithfully

B C ACUTT
ENVIRONMENTAL HEALTH OFFICER

JOHN LOUW, MCGARR AND ASSOCIATES

ATTORNEYS / CONVEYANCERS / ADMINISTRATORS OF ESTATES
PROKUREURS / AKTEVERVAARDIGERS / BOEDELBEREDDERAARS

TEL: 039 3173373/4/5
FAX/FAKS: 039 3173453
Email/EPos: lorraine@jlm.co.za

P O BOX / POSBUS 408 / DX 7
MARGATE, 4275
CORNER H/V. HOMESTEAD &
ERASMUS ROADS / STRAATE
MARGATE

OUR REF/ONS VERW: PAUL PRESTON/LORRAINE/30PP H686 001

YOUR REF/U VERW

26 June 2002

LE SOLEIL BODY CORPORATE
P O BOX 1568
BROCKLIN SQUARE
0075

- REGISTERED POST -

Dear Sir,

NOTICE OF ILLEGAL ENCROACHMENT ONTO ADMIRALTY RESERVE

IN TERMS OF:

1. SECTION 31A OF THE ENVIRONMENTAL CONSERVATION ACT, NO. 73 OF 1989
2. THE HIBISCUS COAST LOCAL GOVERNMENT CONSERVATION BYLAWS
3. THE TOWN PLANNING ORDINANCE 27 OF 1949

We have been instructed by the Hibiscus Coast Municipality to institute prosecution arising out of encroachment into Admiralty Reserve or in respect of any other offence which may be committed in the precinct of an Admiralty Reserve.

You are the Body Corporate of the property described as Erf 1103, Shelly Beach.

A recent inspection and survey of the said property has revealed that you have a section of the Admiralty Reserve. The Admiralty Reserve is owned by the State and leased to the Hibiscus Coast Municipality who now as custodian of the land, and has a duty to protect such reserve.

The clearing or encroachment of the Admiralty Reserve is a contravention of one or more or all of aspects of the following legislation:

1. Environment Conservation Act 73 of 1989;
2. Local Government Environment Conservation Bylaws; and
3. Town Planning Ordinance 27 of 1949.

PARTNERS / VENNOTE: JOHN ROWAN LOUW / HYLTON JOHN MCGARR
PROFESSIONALLY ASSISTED BY: PAUL CHRISTIAN PRESTON

You are hereby formally given notice in terms of Section 31A of the Environmental Conservation Act.

1. You are to end the encroachment of the Admiralty Reserve forthwith; and
2. Rehabilitate, at your own expense, the portion of the Admiralty Reserve on which the activity has been undertaken, to the satisfaction of the Municipality acting on the advice of a professionally qualified Environmental Consultant approved by the Council within 21 days of this notice.

Should you fail to respond, the Municipality will direct and authorise the rehabilitation and restoration of the Admiralty Reserve to its original condition be done by an independent person or body of their own choice and the expenditure of such rehabilitation and restoration will be recovered from yourself.

We further draw your attention that should you fail to respond to this demand that criminal charges will be instituted against you or the trustees individually and that should you be found guilty, the penalties for the offence make you liable on conviction to a fine of R100 000.00 or imprisonment not exceeding 10 years or to both a fine and such imprisonment. A criminal record will then exist against your name. You will further be liable for a fine not exceeding three times the commercial value of anything in respect of which the offence was committed.

In addition we reserve the right to proceed to a criminal prosecution in terms of Section 77 of the Town Planning Ordinance 27 of 1949. Accordingly and in addition notice is given to you in terms of such legislation.

In closing we wish to state unequivocally that the Hibiscus Municipality, which is the local authority in question, has made a decision in respect of the environmental damage to the Admiralty Reserve in question and it is of the opinion that your activity is seriously damaging, endangering and detrimentally affecting the admiralty reserve and accordingly having applied its mind, has directed us to institute these proceedings. Consequent thereto no further correspondence will be entered into this matter and should the rehabilitation not have been undertaken to the Municipality's satisfaction within 21 (TWENTY ONE) days of date of this letter the appropriate criminal charges and processes will be instituted.

Yours faithfully
JOHN LOUW, McGARR AND ASSOCIATES



PAUL PRESTON

COPY TO: MR HJ GRIMBEEK
P O BOX 293, COSMOS, 0261
BY FAX: (012) 362 3312

PARTNERS / VENNOTE : JOHN ROWAN LOUW / HYLTON JOHN McGARR
PROFESSIONALLY ASSISTED BY : PAUL CHRISTIAN PRESTON

Letter AR1

Mr N.A.Ughty
P.O.Box 123
Town
4200

Dear Sirs,

ENCROACHMENT ONTO ADMIRALTY RESERVE

The Council is responsible for the control and maintenance of the Admiralty Reserve in terms of a lease agreement with the National Department of Public Works. The Admiralty Reserve is state owned land administered by that Department.

The primary functions of the Admiralty Reserve are:

- The preservation of the natural vegetation
- The maintenance of beaches through the perpetual maintenance of sediment sources and sand.
- The provision of control in terms of health aspects of the sea shore
- The provision of controlled public access to the beachfront

The Council is aware that there are many cases where adjoining property owners have encroached over their boundary onto the Admiralty Reserve, and are using it for a variety of private purposes.

These encroachments include the clearing of vegetation, the enclosure with fences of portions of the Admiralty Reserve, and the construction of permanent and semi-permanent structures such as swimming pools, gazebos and the like. All of these activities are illegal.

The Council will shortly, in a phased operation, be contacting property owners whom they believe are encroaching onto the Admiralty Reserve and seeking their cooperation in removing all such illegal encroachments.

The purpose of this letter is to point out the illegality of encroaching onto the Admiralty Reserve and to seek your co-operation in protecting this irreplaceable national asset.

Yours faithfully

Ms T.Mnyaka
Director Economic Development and Planning



record will then exist against your name. You will further be liable for a fine not exceeding three times the commercial value of anything in respect of which the offence was committed.

In addition we reserve the right to proceed to a criminal prosecution in terms of Section 77 of the Town Planning Ordinance 27 of 1949. Accordingly and in addition notice is given to you in terms of such legislation.

In closing we wish to state unequivocally that the Hibiscus Coast Municipality has made a decision in respect of environmental damage and it is of the opinion that your activity is seriously damaging, endangering and detrimentally affecting the environment.

Should you require any further information, kindly contact Pierre de la Porte from this office.

Yours faithfully

MS T. Z. MNYAKA
DIRECTOR: ECONOMIC DEVELOPMENT AND PLANNING

DEPARTMENT: ECONOMIC DEVELOPMENT AND PLANNING

•Telephone: 039-3159200
•Fax: 039-3156236

•Enquiries: P. de la Porte
•E-Mail: letitia@hcm.gov.za

Our Ref:
Your Ref:

Dear Sir/Madam

ILLEGAL CLEARING OF VEGETATION – PORTION OF ERF

You are the registered owner of the property described as Erf

A recent inspection of the abovementioned property revealed that you have cleared vegetation on the Admiralty Reserve. The Admiralty Reserve is owned by the State and leased to the Hibiscus Coast Municipality who now, as custodian of the land, has a duty to protect such reserve.

Clearing or encroachment of the Admiralty Reserve is a contravention of one or more of legislation:

1. Environment Conservation Act 73 of 1989;
2. Town Planning Ordinance 27 of 1949, Section 77.(1).

Notice is given to establish the beacons defining the boundary of your property adjoining the Admiralty Reserve.

Further, you are hereby formally given notice in terms of Section 31A of the Environmental Conservation Act.

1. You are to end the encroachment of the Admiralty Reserve forthwith; and
2. Rehabilitate, at your own expense, the portion of the Admiralty Reserve on which the activity has been undertaken, to the satisfaction of the Municipality acting on the advice of a professionally qualified Environmental Consultant approved by the Council, within 21 days of this notice.

Should you fail to respond, the Municipality will direct and authorise that rehabilitation and restoration of the Admiralty Reserve to its original condition be carried out by an independent person or body of their own choice and the expenditure of such rehabilitation and restoration will be recovered from yourself.

We further draw your attention that should you fail to respond to this demand that criminal charges will be instituted against you or the trustees individually and that should you be found guilty, the penalties for the offence make you liable on conviction to a fine of R100 000-00 or imprisonment not exceeding 10 years or to both a fine and such imprisonment. A criminal

Appendix I: A map (produced by Udidi, 2004) showing land ownership right on the high water mark in Ocean View)

