

Ulwandle

KwaZulu-Natal Coastal Working Group (CWG)
Coastal Management Newsletter

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WHAT IS BEST PRACTICE COASTAL DEVELOPMENT?

By Ken Breetzke
Urban Strategy, Durban Metro



Durban Metropolitan Council, in conjunction with the North Local Council, have embarked on a joint project that focuses on a 15km long portion of the Durban coastline from Umdloti to Tongaat.

The project was initiated in response to two main factors, these being the need to:

- translate the broad guidelines contained within the Durban Metro Coastal Tourism Development Plan to more detailed recommendations; and
- inform the review of the various coastal Town Planning Schemes within the North Local Council.

The term 'best practice' is defined as a search for ways to get the coastal environment to perform 'better' than it is currently performing. We can measure an environment's performance in terms of whether it:

- makes productive and sustainable use of resources;
- acknowledges our natural and cultural heritage more keenly;
- meets the needs of different users of coastal resources;
- integrates local and tourist needs;
- encourages, promotes and enables development;
- creates design quality and unique environments; and
- improves the relationship between the sea and the land.

A development vision is put forward for the study area which can be achieved through the application of a range of best practice principles and guidelines applicable to the various components of the natural systems in the study area. Development and economic opportunities (including tourism product development) are identified, as are problem areas and management issues that require attention.

Specifically, principles (generic) and guidelines (site specific) are developed for natural assets including sandy beaches and rocky shores, rocky reefs, the sea, estuaries, floodplains, the dune cordon, rivers and streams as well as wetlands. Similarly, this is done for land usage which incorporates residential development, recreational and tourism development and agriculture and fishing. Further principles and guidelines are formulated for transportation, infrastructure, site preparation and landscape management. An extract of the principles developed for the dune cordon are provided on the following page. These are generic principles that can be used by all coastal local authorities. ... Page 2

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Dune Cordon

The dune cordon (along the entire length of the study area) is a primary asset since it is the terrestrial component of the Littoral Active Zone and is a critical barrier protecting inland resources and property from sea erosion (storms and sea level rise), sand deposition and windblown salt spray.

Principles for the Dune Cordon

The following principles are recommended for the use and management of the dune cordon:

PRINCIPLES	DESCRIPTION
Prohibit Development in Dune Cordon	No fixed or permanent development should ever be allowed to take place within the dune cordon unless it is absolutely essential or unavoidable. Structures should be built on the landward side of the foredune ridge and no buildings should be permitted on the seaward side of the foredune ridge or on the ridge itself, since the beach may be eroded and the buildings ultimately destroyed.
Adhere to a Development Setback	A development setback line has been determined and no further developments must be permitted within the setback area. This will help to create a buffer zone which will protect developments and maintain ecological functioning.
Adopt Soft Solutions to Beach Erosion	Where possible, "soft" solutions such as hidden structures or sand nourishment should be used, rather than "hard" solutions such as revetments or seawalls.
Locate Parking Areas behind Foredune	Parking areas should not be located in front of the foredune because they destroy the beach/dune continuum and can become inundated by sand or destroyed by erosion.
Maintain Vegetated Foredune Ridge	Wherever possible, a natural self-sustaining vegetated foredune ridge should be maintained to provide a protective buffer and a supply of sand for the beach during times of erosion.
Avoid Use of Artificial Structures	The use of artificial structures, such as seawalls and groins, should be avoided as these often have negative side effects, e.g. deflecting and/or reducing sediment supply. Where the use of these structures is unavoidable, however, they should be carefully designed to minimise adverse impacts. For example, where a major obstruction to longshore sand transport is built, such as a breakwater, allowance must be made for an adequate sand-bypassing system so as not to interrupt the natural longshore sediment transport.
Permit Sand Movement	Sand movement between different parts of the dune/beach system is a natural system and should not be interrupted. Any form of sand stabilisation or destabilisation should therefore be properly investigated before being implemented.
Avoid Groundwater Abstraction	The extraction of groundwater from dune systems can cause a change in the normal position of the fresh/salt water interface by lowering the water table.

Recommendations being tabled with the North Local Council as well as the Unicity Committee include the following:



- adoption of the framework as policy to guide Council's work in the study area;
- adoption of the framework as a tool to support the review of coastal town planning schemes;
- that further work be done to translate the principles and guidelines into draft town planning scheme clauses and other land use management instruments; and
- the establishment of catchment fora in the study area.

The vision for the study area embodies the national Coastal White Paper principle of sustainable coastal development and holds tremendous benefits for coastal residents, user groups as well as the public authority. Achieving this vision will, however, require the concerted commitment and energy of both Council and local residents.

For further details contact Ken Breetzke (031-3074920 or e-mail breetzke@urbstrat.org.za) or Helene Epstein (031-5611101 or e-mail nlcplan@iafrica.com).

NATIONAL ESTUARIES WORKSHOP

By Dr Lynnath Beckley
ORI

A national workshop on estuarine management was held in Port Elizabeth from 3rd - 5th May 2000.

Convened by Marine & Coastal Management (ex-Sea Fisheries) and the University of Port Elizabeth, the meeting attracted nearly 100 delegates whose expertise covered a wide range of subjects. In addition to the usual estuarine scientists, there were numerous representatives of management agencies such the national Departments of Environmental Affairs & Tourism and Water Affairs & Forestry, provincial environmental authorities and nature conservation agencies. Adding to the mix were some town

planners, environmental lawyers, local interest groups and NGO representatives.

The workshop placed relatively little emphasis on scientific research requirements, concentrating rather on the human use of estuaries and how, using the resources available, we could better manage this. Topics that received particular attention were the environmental legislation pertaining to estuaries, ensuring an ecological reserve of fresh water to estuaries, correct management of estuary mouths, pollution, carrying capacity of estuaries and limits of acceptable change. Conservation of estuarine biodiversity, harvesting of living resources, non-consumptive use of resources from estuaries and access to estuarine space were also discussed at length.

Various plans of action were formulated to link with the structures proposed in the recently launched White Paper on Sustainable Coastal Development. Recognising the differences between the 250 estuaries along the South African coast, a proposal was made to foster a co-management strategy whereby, for each estuary, a local estuarine management forum comprising local authorities and interested parties (e.g. residents, developers, tourism operators, etc.) be initiated. National government was requested to develop a national estuarine management protocol to guide these fora in the wise management of their estuaries.

Blue Flag Campaign



Seven South African beaches, situated between Durban and Plettenberg Bay, have been selected to take part in a pilot project that will test the criteria for the introduction of a Blue Flag Campaign in South Africa.

The establishment of a Blue Flag Campaign in South Africa may be launched as a project of national priority once the pilot phase is complete.

The international Blue Flag Campaign is an incentive scheme that encourages local authorities along the coast to manage their beaches in an environmentally friendly manner. Beaches that meet specified criteria on safety, cleanliness, services, water quality, amenities, environmental education and monitoring of beach profiles

are annually awarded a blue flag which can be flown as part of the local authorities' tourism marketing strategy.

In Europe, Blue Flag beaches have been shown to attract greater numbers of tourists and it is hoped that if the project is introduced in South Africa, not only will it have spinoffs for tourism, but it will also promote the incorporation of environmental issues in the decision-making processes of local authorities and their partners.

In South Africa, Blue Flag is currently being implemented on a small scale, for a limited period, in order to finalise the South African criteria and their specifications. A number of local authorities have volunteered to participate in this initiative. Beaches that are currently involved in the Blue Flag project are:

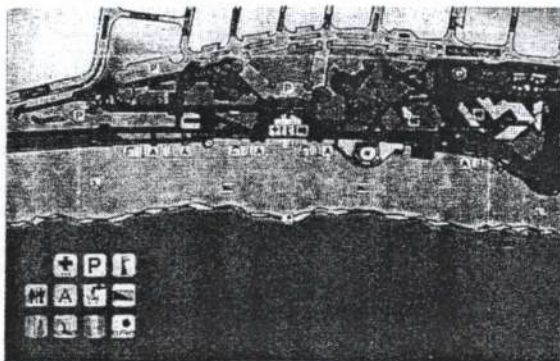
- South Beach, Durban

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- Margate Main Beach
- Orient Beach, East London
- Kelly's Beach, Port Alfred
- Humewood Beach, Port Elizabeth
- Jeffrey's Bay Main Beach
- Lookout Beach, Plettenberg Bay

The pilot phase for Blue Flag South Africa is managed and coordinated by CoastCARE, a programme of DEAT.

For further details contact Kobie Brand at 021-4023208 or czm@sfri.wcape.gov.za



South Beach, Durban

PENNINGTON ENVIRONMENTAL INVENTORY

By Madoda Magagula
DTLGA, Coastal Office

Pennington TLC has embarked on the abovementioned initiative. They have appointed consultants to undertake the research and prepare a draft.

The consultants have drawn a prioritized list of all environmental features, from coastal vegetation to wetlands and estuaries. The next stage will be to prepare the actual documents.

The TLC has indicated the importance of consulting with other environmental groups such as the KZN Coastal Working Group, and will be taking into account other national and provincial environmental initiatives.

This TLC has taken the lead and hopefully others will follow. "Phambili Pennington Phambili".

ENVIRONMENTAL AND TOURISM BOOST TO LAKE ST LUCIA WORLD HERITAGE SITE

On 14 September 2000, the Minister of Public Enterprises, Jeff Radebe and the Minister of Water Affairs and Forestry, Ronnie Kasrils announced:

That as part of the restructuring of the state's forest assets, 12 000 hectares of land currently under commercial forestry on the western and eastern shores of St Lucia is to be transferred to the Greater St Lucia Wetland Park Authority (GSWLPA) under the World Heritage Act. The land will be incorporated into the conservation area under the World Heritage site and restored to its natural state.

COASTAL TRIVIA

- ❖ Air pressure at sea level is roughly equal to the weight of an elephant spread over a small coffee table.
- ❖ The sound heard by a listener when holding a seashell to his earlobes does NOT come from the shell itself. It is the echo of the blood pulsing in the listener's own ear.
- ❖ There is approximately 120g of salt in every 5 litres of seawater.
- ❖ The Agulhas current is the fastest ocean current in the world. Even so, its speed is only 10km per hour.
- ❖ The whale has the slowest metabolism of all animals. Despite its great size, it feeds on one of the smallest of all creatures, the microscopic plankton found throughout the sea.



"Ulwandle", which means "sea" in Zulu, is the Coastal Management Newsletter produced by the KwaZulu-Natal Coastal Working Group (CWG).

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