



SOUTH AFRICAN NATIONAL PARKS

DRAFT

SCOPING REPORT FOR DEVELOPMENTAL ACTIVITIES IN NATIONAL PARKS

In terms of

SECTION 21 & 22 of the ENVIRONMENT CONSERVATION ACT

(Act 73 of 1989)

for the

DEVELOPMENT PROPOSALS FOR BOULDERS, IN THE CAPE PENINSULA

NATIONAL PARK

(PROJECT NO. IDC/CP1)



NOVEMBER 2001

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Compiled by

P. Britton
Cape Peninsula National Park
P.O. Box 37
Constantia
7848
Tel. (021) 701 8692
Fax. (021) 701 8773
E-mail PaulB@parks-sa.co.za

and

M. Ntene
Cape Peninsula National Park
P.O. Box 37
Constantia
7848
Tel. (021) 701 8692
Fax. (021) 701 8773
MosiliN@parks-sa.co.za

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ABBREVIATIONS

BAC	Boulders Advisory Committee
BDF	Boulders Development Framework [<i>Cape Peninsula National Park, Boulders-Simon's Town: Development Framework</i> . Piet Louw Architects, December 2000.]
CPNP	Cape Peninsula National Park
DECAS	Department of Environmental and Cultural Affairs and Sport
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
IDC	Industrial Development Corporation
IEM	Integrated Environmental Management
SANParks	South African National Parks
SAN	South African Navy
SPA/M	South Peninsula Administration/Municipality [Note that this local authority changed title from a municipality to an administration during the course of this project.]

EXECUTIVE SUMMARY

This draft scoping report deals with the development of Boulders in the Cape Peninsula National Park as set out in the Development Framework and precinct plans. The Development Framework seeks to find a balance that satisfies local requirements, and the increasing use and popularity of the Boulders area situated on the coast of Simon's Town. The specific precinct plans provide the details of the concepts outlined in the Development Framework.

Boulders accommodates a colony of African penguins which come ashore and breed on a series of beaches in the urban area of Simon's Town. The colony attracts an increasing number of tourists which if left unmanaged, may adversely affect the penguin colony, the natural environment and the surrounding urban community. The species has a high conservation priority as it is listed as *vulnerable* in the Red Data Book. Boulders is small (4ha) and sensitive to the impact of large numbers of visitors which have already impacted negatively on the penguins and the environment. The beaches are also extremely important recreational resources and the penguins cause a reduction of this experience for some of the users. The surrounding urban infrastructure also has limited carrying capacity and the lack of parking and traffic capacity during holiday peak periods causes a nuisance to local residents. Currently, Boulders is faced with conflicts between conservation - penguins -, tourism, recreation, general public and local residents. The project proposal is to separate recreation, tourism and conservation and to control and manage vehicular and pedestrian traffic in a way that reduces impacts on local residents, the environment and penguins.

This draft Scoping Report in terms of the Environment Conservation Act (Act 73 of 1989) discusses the background information, potential environmental impacts, mitigating factors, possible alternatives and public participation. The key finding of the scoping exercise is that the development will have minimal negative impacts and significant positive impacts on the local residents, penguins and the environment. The generic South African National Parks Environmental Management Plan will be amended for each specific development precinct to ensure minimal negative impacts during construction.

1. INTRODUCTION

This report deals with the Development Framework and concept proposals for the precincts that comprise the Boulders area in the Cape Peninsula National Park (CPNP). The project is sponsored by South African National Parks (SANParks) and the Industrial Development Corporation (IDC). The project team consists of P. Britton (project manager), Piet Louw (architect), Sally MacNarland (landscape architect) and Erica van den Honert (public consultation practitioner). P. Britton and M. Ntene of the CPNP compiled this report and Mandy Noffke, an independent consultant appointed by South Peninsula Administration (SPA), reviewed the report. As Erica van den Honert is no longer available, the further public consultation will be conducted by The Environmental Partnership. The planned date of completion is September 2002 at a cost of approximately R3.5 million. The proposals include boardwalks at Foxy Beach, which have already been constructed at a cost of R700 000. A penguin-proof barrier has also been erected to prevent the access of penguins into the urban areas from the areas managed by SANParks.

2. BACKGROUND

The Development Framework for Boulders is a culmination of a sequence of studies relating to the management of Boulders as listed below:

- National Parks Board. April 1997. *Boulders Coastal Park: People, penguins and the environment A conceptual proposal for the way forward*. This report, compiled after a public process, was released for public comment. The process which included a series of public workshops and a workshop with scientists and other experts on penguins, commenced in April 1996.
- Ryan, P. February 1998. *African penguins at Boulders Coastal park, Simon's Town: the scientific basis for management options*
- Cowling, R. M. March 1998. *Assessment of African Penguin (Spheniscus demersus) damage to vegetation of Boulders Coastal Park*. This report included an assessment on the effect of penguin guano on the vegetation.

- Glazewski, J. March 1998. The penguin colony at Boulders beach, Seaforth: Opinion on certain legal aspects.
- National Parks Board 1998. *Boulders: Policy and Management Framework*. This document was produced in consultation with the Boulders Advisory Committee. The objective of this report was to provide a policy and management framework for future management of the Boulders area. This framework was informed by the above studies and is currently under review.
- Ninham Shand. 1998. *Boulders Coastal Park: Traffic Management Plan*. This plan assessed options for resolving growing traffic flow problems at Boulders and the surrounding urban areas.
- Piet Louw Architects. May 1998. *Cape Peninsula National Park, Boulders: People, penguins and the environment. A revised conceptual proposal*. This revised proposal, based on the above reports and public comment, was jointly released by SANParks and the South Peninsula Municipality (SPM) for public comment in conjunction with a scale model put on public display in May 1998. [Note that the SPM has become the South Peninsula Administration (SPA) of the City of Cape Town.]
- De Villiers Brownlie, November 1998. *Cape Peninsula National Park, Boulders Coastal Park. Proposed Boardwalk, Penguin Barrier and Visitor Centre*. This report is a synthesis of public comments received on the Draft Scoping and Environmental Assessment report for the Proposed Boardwalk, Penguin Barrier and Visitor Centre at Boulders Coastal Park which was released for public comment by DeVilliers Brownlie on behalf of SANParks.
- Ninham Shand August 1999. *Boulders National Park and Environs, Simon's Town Proposed Interim Traffic Management Plan*. Further traffic problems identified in the comments report produced by de Villiers and Brownlie Associates in December 1998, were investigated.
- Piet Louw Architects. October 1999. *Cape Peninsula National Park The Boulders – Simon's Town Development Proposals (Draft for public comment)*. These proposals were compiled on behalf of SANParks and the SPM in conjunction with the SA Navy (SAN). The report was based on the various studies and analyses of the natural and built environment, as well as on public comments. The Boulders Advisory Committee (BAC) and other organisations were consulted during the process. The release of the document and the public consultation process was conducted by an independent

consultant, Erica van Den Honert, and included a public presentation and open displays to allow the public to contribute to the proposals.

- Erica van den Honert. December 2000. *Cape Peninsula National Park. The Boulders Simon's Town: Issues report*. This report was presented to and accepted by the SPM on 8th August 2000. The Draft Development proposals were amended to respond to public comment wherever possible. A revised Draft Development Framework (October 2000) as an interim report was then presented to the BAC for final comment. After further interaction with community organisations, further amendments were made.
- Piet Louw Architects. December 2000. *Cape Peninsula National Park, Boulders-Simon's Town: Development Framework (BDF)*. December 2000. The BDF is the final Development Framework for the area and is the subject of this scoping report. It should thus be read in conjunction with this report. The BDF is the basis on which further detailed planning for the various precincts has been conducted. It is also important to note that this framework will form the basis of an agreement to be drawn up between SPA and SANParks to address the management and possible joint funding of issues such as parking and traffic control.

3. DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.1 Location and site description

Boulders is situated on the False Bay Coast, about 40 kms south of central Cape Town and 25 kms north of Cape Point (Diagramme 2a, page 4 of the BDF). It is located in urban area of Simon's Town. It is about four hectares in size. It constitutes a series of sheltered small bays, consisting of beaches almost entirely enclosed by large granite boulders. It is bounded by Seaforth beach to the north, a residential area to the west, False Bay to the east and Frank's Bay in the south (Diagram 2b, page 4 of the BDF). Boulders is managed by CPNP.

The study area in which Boulders is situated is a north-east facing, 1.5km by 0.2km strip of the False Bay Coastline lying between sea level and the 40m contour.

Situated below the Swartkopberg, it offers magnificent panoramic views of False Bay and the surrounding mountains. It is bounded by the SAN Security Area to the north, Queen's Road,

Simon's Town Cemetery, Simon's Town High School and SAN Barracks to the west and pinches out in the vicinity of Franks' Bay in the south. A variety of SAN uses (Institute of Marine Technology, commonage and fuel storage tanks) and the Simon's Town golf course occupy its northern and southern extremities, respectively. Much of the remainder is subdivided into some ninety residential erven. The main points of entry are off Queen's Road down Seaforth and Bellevue Roads (Diagram 3, page 5 of the BDF).

The coastal edge is managed by the SPA and CPNP. The areas managed by CPNP (erf 4460 Boulders and erf 4459 Froggy Farm) are separated by a portion of municipal land (erf 1514).

3.2 Climate

The climate is typically Mediterranean with cold wet winters and hot dry summers. The average annual rainfall, from 1861 to 1994, is 619.3mm, with a peak of 98.8mm in July and a low of 19.5mm in January. The precipitation is generally gentle without thunderstorms, line squalls or heavy concentrations.

The moderating influence of the sea provides for an average temperature of 16.2° C with the fluctuation between winter and summer temperature less than in the interior of the Western Cape.

The infamous Cape south-easterly wind, often reaching gale force lasting for several days, is the dominant summer wind. In the winter, the north-westerly winds bring the rain and can reach the same strength as the summer south-easterly winds.

3.3 Geology

Cape Granite

The most prominent geographical feature of the area is the Cape Granite Suite. This is the oldest formation in the Cape Peninsula. It is a coarse-grained granite which underlies the entire peninsula. Spheroid weathering of the granite formed the granite boulders which give the area its name. Pre-weathering during humid conditions in the Cretaceous and early Tertiary periods was more intense and deeper along the zone of narrowly spaced joints.

Core stones of fresh granite were preserved and subsequent erosion during the Oligocene eroded out softer material, exposing the core stones which are the typical granite boulders seen today. Thus the boulders were formed *in situ* and did not roll there.

The soils derived from granite are gritty, poorly drained and clayey, with an average depth of 800 mm. The soils are well formed, well consolidated and are generally resistant to erosion, but water flow, particularly on steep slopes, can cause erosion. Careful attention must therefore be given to controlling runoff from footpaths and other hard surfaces.

Poorly constructed, steep footpaths also lead to erosion. In some areas a layer of fine blown sand overlies the soils. These sands erode very easily if footpaths and penguin routes are not consolidated.

Calcareous sands

During the Cretaceous and Tertiary periods, the sea level was 200m higher than at present and the Fish Hoek gap was flooded, with the South Peninsula as an island. During this period, sand deposits were laid down. When the sea levels dropped, the sandy deposits were exposed and supplemented by wind blown sands and erosion material from the higher slopes.

The unconsolidated sands are low in nutrients with a high calcium carbonate content and consequently a high pH (7-9). They are very susceptible to wind erosion if trampling or storms damage the vegetation. Penguin burrowing and movement to and from nests also cause severe disturbance. It will probably be necessary to implement mitigatory measures to reduce impacts.

3.4 Flora

Boulders consists of three main types of vegetation:

Coastal Thicket: This occurs amongst the granite boulders where nutrient richer soils and protection from wind facilitates the growth of trees. A dense canopy, 2-5m high, of small trees or tall shrubs is formed by *Lycium ferocissimum* (slangbossie), *Cassine maritima* (dune saffraan), *Maurocena frangularia* (hottentot cherry), *Rhus lucida* (blink taaibos), *Rhus glauca* (blue kuni-bush) and *Olea europaea ssp africana* (wild olive). Canopy emergents are *Euclea racemosa* (sea guarie) and *Tarchonanthus camphoratus* (camphor bush).

Sideroxylon inerme (milkwood), a species typical of most coastal thickets, only occurs as a single sapling.

A typical feature of the thicket is the presence of scramblers growing from the ground into the upper canopy. The most common are *Protasparagus capensis* (katdoring), *Kedrostis nana* (ystervarkpatat), *Cissampelos capensis* = *Antizorna capensis* (davidjies) and *Cynanchum*

obtusifolium (monkey rope). In the vicinity of Boulders Beach, the Southern Cape species *Senecio tamoides* (canopy creeper) has begun to smother the canopy.

Although the penguins may be disturbing the organic litter layer on the soil surface, the very sparse ground cover is typical of coastal thickets.

The unusually large size of particularly *Maytenus heterophylla* (pendoring) and *Euclea racemosa* (an extremely slow growing species), indicate that no disturbance – such as fire – has occurred for a long time. According to local residents, there has not been a fire in living memory. The large thicket specimens are also unique, as they generally do not grow to this size in the Cape Peninsula.

In open areas, and on the edges, *Tetragonia fruticosa* (kinkelbessie) *Oxalis pes-caprae* (sorrel) and *Arctotheca calendula* (Cape weed) occur together with garden weeds such as *Avena* sp (wild oats). The presence of *Tropaeolum majus* (nasturtium) and *Pennisetium clandestinum* (kikuyu grass) also indicates disturbance in these areas. These openings may have been caused by the removal of invasive tree species. This indicates that alien removal should be carried out in such a way as to avoid creating gaps in the canopy. Alien trees should be trimmed back gradually to allow the indigenous trees and shrubs to close the gaps. Alternatively, alien trees could be poisoned standing.

The most frequent invasive trees are *Acacia cyclops* (rooikrans) and *Myoporum serratum* (manatoka). Above Willis Walk, *Tecomaria capensis* (Cape honeysuckle) and *Plumbago capensis* (plumbago), both indigenous to the Eastern Cape occur and form a dense cover which limits the growth of locally indigenous species.

Pennisetium clandestinum (kikuyu grass) appears locally, particularly along paths and in openings.

Areas adjoining gardens which are also heavily disturbed, are invaded by species such as *Convolvulus* sp (morning glory), *Foeniculum volgare* (fennel) and *Tropaeolm majus* (nasturtium). *Plectranthus fruticosus*, which has probably escaped from adjoining gardens, occurs throughout the area. Other alien species that occur in the area are *Opuntia* sp (prickly pear) and *Agave* sp (sisal).

Strandveld: This vegetation occurs on the calcareous sand away from the coastline in areas which are generally exposed to the south-easterly winds. In contrast to the thicket, there are not trees or tall shrubs. The vegetation is a low (1-1.5m), dense to open shrubland.

Typical shrubs are *Metalasia muricata* (blombos), *Passarina* spp, *Salvia africana-lutea* (bruin salie) and *Nylandtia spinosa* (skilpadbessie).

In open areas *Erharta villosa* (pipe grass), *Tetragonia decumbens* (kinkelbessie), *Pelargonium capitatum* (rose geranium) and *Carpobrotus* sp (hottentot and sour figs) occur. The area is heavily disturbed, but the presence of thicket species such as *Salvia africana-lutea* (bruin salie) and *Colpoon compressum* (Cape sumach) indicate that the vegetation could develop into coastal thicket in the absence of disturbance. The presence of small patches of low thicket in some sheltered spots is also an indication of this.

Foredunes: The foredunes are adapted to strong, salt laden winds and wind blown sands. This narrow band of vegetation is adapted to these extreme conditions. The foredunes are extremely sensitive to trampling and visitors and penguins have caused damage. The vegetation is very low with a small number of specialised species. Typical species are *Tetragonia fruitcosa* (kinkelbessie) and *Erharta villosa* (pipe grass). *Myrica cordifolia* (waxberry) and *Passarina ericoides* (christmas berry) also occur.

3.5 Fauna

The most conspicuous species within the park is the African penguin (*Spheniscus demerssu*). However, a large number of animals co-exist with the penguins and some of these are observed within and outside the park, for instance genets, and there is a wide variety of birds. Marine animals are also present including seals. Whales and dolphins can be seen from the shore on occasions

The African penguins began colonising Boulders in the early to mid 1980's. The species is generally declining and they are listed as *vulnerable* in the Red Data Book. The 3100 birds inhabiting Boulders form a significant proportion of the 180 000 surviving African penguins. The colony is the most successful in terms of breeding of the 27 colonies that still exist.

4. PROJECT DESCRIPTION

4.1 Objective

The objective of the project is to: *develop a world class facility for tourists at Foxy beach to view the penguins while still allowing for recreational use of other beaches, minimizing impacts on the environment, maximizing pedestrian access and managing the traffic and pedestrian flow whilst reducing the impact on local residents. Wherever possible, pedestrians and vehicles are separated.*

4.2 Context and constraints

- Conservation value of the penguin colony. Boulders accommodates a colony of African penguins which come ashore and breed on a series of popular bathing beaches in the urban area of Simon's Town. As the species is listed as *vulnerable* in the Red Data Book, the colony has a high conservation value. The 3100 birds inhabiting the park are a significant portion (it is one of the most successful in terms of breeding of the 27 colonies that still exist) of the 180 000 surviving African penguins worldwide.
- Long term stability of the penguin colony. Concern has been expressed that the colony could move away. While it is not possible to accurately predict if the colony could move away this would only be likely to occur if there was total collapse of the food supply. In the unlikely event of this happening, the facilities could be used for recreation and environmental education.
- Recreational beaches. Boulders and its associated beaches are extremely popular due to the safe, wind-sheltered bathing and the extremely beautiful surrounds. As the recreational use of Foxy Beach is no longer available to the public it is essential that Boulders beach and its associated beaches are accessible for recreation. Although penguins also occur on these beaches, their retention as a well-used and well-loved recreational amenity is an important aspect of the planning of the area.
- International destination. Boulders is possibly the optimum place in the world to observe mainland-based penguins. The area and in particular the penguin colony attracts an increasing number of tourists which if left unmanaged, will adversely affect the penguin colony, the natural environment and the surrounding urban community

➤ Carrying capacity. The area managed by SANParks is the most frequently visited destination for recreation and penguin tourism and is less than 4 ha in extent. It is also surrounded by urban development. The area attracts an increasing number of visitors (360 000) per year. Visitors to Seaforth Beach (no data on numbers is available) compound the congestion and place an additional load on the urban infrastructure. The natural environment cannot carry this stream of visitors which also has an impact on the penguins. The latter impacts have largely been reduced by the construction of two raised boardwalks. The surrounding urban fabric has limited carrying capacity and the lack of parking and traffic management measures has a severe impact on the surrounding communities. Both in the Boulders and Seaforth precincts, visitors' vehicles block roads and restrict access for residents as well as service and emergency vehicles. Adequate facilities did not exist to accommodate tour buses and coaches at Seaforth. This problem has been relieved by relocating the bus parking to the SAN property from where visitors walk to the degaussing building (proposed Visitor Centre) and boardwalks. This has reduced the impact of tour buses and coaches causing unacceptable noise and air pollution to the neighbouring residents.

4.3 The concept

The challenge facing SANParks is to find an acceptable and sustainable balance between the needs of conservation, tourism, recreation, penguins, the general public and local residents. It is this challenge that the BDF and the concept precinct plans strive to meet. The proposals contained in the BDF were formulated after considerable public consultation and adaptation of the original proposals first made public in April 1996. The basic principle of the concept is to concentrate penguin viewing at Foxy Beach and recreational use at Boulders Beach, linked by an open access pedestrian route along Willis Walk, thus reducing the number of access points to two. The more detailed concepts for the various precincts were compiled in consultation with the BAC, SANParks staff and various interested parties.

The concept aims to achieve the following:

- Separate tourism and recreation
- Develop tourist facilities at Foxy Beach
- Maintain Boulders and its associated beaches as recreational facilities and create a penguin-free area behind Boulders Beach

- Continue to manage Seaforth and Water's Edge as recreational beaches under the jurisdiction of the SPA
- Open Willis Walk to form a continuous free pedestrian link while still allowing for access by light emergency vehicles
- Improve parking and traffic flow
- Separate pedestrian and traffic flow
- Reduce disruptions to local residents
- Prevent penguins from accessing the urban area.

4.4 Conceptual precinct plans

In order to achieve the above, the area was divided into precincts within which more detailed planning has taken place. These plans are now presented for public comment.

- Seaforth Square. The parking area will be expanded by the inclusion of portion of the old tank farm. The expanded area will be redesigned to achieve efficient visitor access to Seaforth Beach, the reconstructed restaurant, the school and the Visitors Centre as well as facilitate control over visitor impacts on the residential area. When the land becomes available, the present Seaforth parking area will be enlarged on a portion of the disused fuel tank farm. The design will create a square that is visually and physically linked to the beach and to a system of landscaped pedestrian-friendly routes. The current informal trading which was established after a public consultation exercise will be formalised in a well-designed facility. The extent of trading and allocation of spaces will be determined by the SPA. Bus parking will not be allowed and will continue to occur on SAN property as at present. The restaurant is currently being reconstructed under a concession awarded by the SPA. The restaurant will have 85 seats (including some seating on the deck) and will include a small curio outlet as required in the tender. As part of the reconstruction of the restaurant, public toilets will be provided to cater for visitors and tour groups. No solar heated pool is envisaged. The provincial Department of Environmental and Cultural Affairs and Sport (DECAS) has scrutinised the tender documentation and an exemption from an Environmental Impact Assessment (EIA) was obtained. An Environmental Management Plan (EMP) is being enforced during construction and details of the management of the area are being dealt with by the SPA. No landscape treatment of the viewing area on Queens Road is envisaged at this stage.

- Kleintuin residential precinct. The established precinct will be accessible to residents only through the implementation of traffic control measures. This will allow only local residents, services and emergency vehicles access to the Kleintuin residential area. Kleintuin Road will become a landscaped pedestrian route from Seaforth Square to the new Visitor Centre as an extension of Willis Walk.

- Visitor Centre Precinct. The former Degaussing building is to be altered to become the prime reception / destination point to gain access to the penguin colony. Other alternatives such as SAN land and the tract of land on the seaward side of the Cape Times Fresh Air Camp were suggested during the public participation process. The former Degaussing building was identified as the most suitable alternative for the reason that it is close to where most penguins are situated and it is easily accessible to tourists. It is also important to have a facility at the entry point to manage access. The centre will accommodate the needs of the different users (passers by, regular staff, short-term mass tourists, serious penguin lovers and school groups). The facilities have been designed within the confines of the existing built area as far as possible. A major constraint in the area is the need to provide the SAN with a large open area to accommodate the turning circle of the portable degaussing unit vehicle. The design of the building will improve access control, provide toilets, provide tourist information, improve cash security and provide office accommodation for staff. No vending machines or basic refreshments will be provided for visitors. However the sale of curios will be provided for. No informal traders will be accommodated on site. The boardwalks to reduce the impact of tourists on the environment and the penguin colony have already been erected. There will be no public access directly onto Foxy Beach. No further boardwalks are planned. Final plans will be submitted to the SPA for approval.

- Boulders Beach Precinct. The parking area will be improved to allow a circular flow of vehicles (including a stop and drop facility) and to separate pedestrians and vehicles. This will entail the demolition of the toilet block. A new entrance facility will provide toilet facilities closer to the beach where it will be more convenient (and less dangerous to access) for visitors to the beach. Proposals for enhancement of the parking area are that Willis Walk will be an uninterrupted link with the existing informal footpath to Fisherman's Beach. No busses or traders will be permitted. The general visual appearance of the area will be addressed and the removal of ugly concrete channels on

the rocks will be addressed. The reduction of the number of entrances to the beaches is also essential to enable management to close them off when visitor capacity is reached. This arrangement will also encourage tourist access to the penguin colony at Foxy Beach. The discontinued routes will be rehabilitated using appropriate plant material. The exception will be that of the historically important stone steps to Boulders Beach which will remain in place but will not be accessible to the general public from Willis Walk. A gate will be placed at the top of the stone steps and will be used by certain residents and as an emergency access/exit. A penguin-proof gate at the bottom of the steps will control penguin movement. Attention will be given to the storm water drainage from Willis walk. The remaining path is to be upgraded to allow wheelchair access and to prevent further erosion. In order to protect the vegetation from the penguins and also to ensure that the beach is managed primarily for recreation, a penguin-free area will be created behind Boulders Beach. A suitable barrier has been designed to achieve this. The penguin-free area will be managed for the conservation of the indigenous vegetation. Restoration and anti-erosion measures will be implemented in the penguin exclusion area and the existing retaining wall on the beach will be extended using sandstone or other suitable materials to control erosion and to act as the penguin barrier. The bathing boxes will remain in place until such time as the leases expire or until either party terminates the agreement. The potential to relocate the beach hut from on the upper level to next to the existing beach hut at the lower level will be investigated. This will allow for the construction of a paved platform to accommodate recreational use during high tides. Where required, rehabilitation plans will be carried out.

- Willis Walk precinct. Willis Walk is to become a continuous, non-payment public route and will be freely open to the public at all times. The walkway will be upgraded and visually enhanced. The upgrade will allow for access by light emergency vehicles and the surface will be improved and drainage corrected to reduce erosion. In order to improve emergency services, a water pipeline with strategically placed fire hydrants will be installed. No portions of the walkway are to be converted to boardwalks. In future it is proposed to link the walkway link to Simon's Town and southwards along the coastline. It will be screened from the residential properties by suitable indigenous vegetation. Current access points from the adjoining properties will be maintained.

However, the number of access points from the walkway to the beaches will be reduced

to two and the gates along Willis Walk will be permanently closed. This is essential to achieve control over access to the beaches particularly during peak periods. Entry onto the viewing boardwalks to Foxy Beach through the proposed Visitor Centre will provide public access to the main penguin colony. It is also required to enable the redirection of tourist traffic to the Seaforth end and to the Visitor Centre where there is more capacity for traffic control. The public toilets along Willis Walk will remain until the public toilets at Seaforth Beach are available. Thereafter the toilets will be removed.

- **Traffic Proposals.** The traffic proposals have been compiled in close co-operation with the SPA and are in line with the Traffic Management Plan for Simon's Town. The growing public interest shown in the penguin colony has contributed to the increased vehicular intrusion and pedestrian circulation and this superimposed over a road network not designed for such activities. The aim of the proposal is to improve facilities within the urban area to make it possible to manage visitors' vehicles. The improvements to the various precincts as set out in the previous sections will enhance the visitor experience and contribute to increased pedestrian and vehicular traffic movements, while being managed within environmental constraints. The built environment which has a limited absorption capacity is viewed as a concern. The overall objective is to encourage the bulk of visitors to enter through the Visitor Centre at the Seaforth end. With this in mind, access management is interpreted through three definable vehicular access levels. Vehicular access from Queen's Road onto the joining street system and properties will be in accordance with generally accepted access standards.

Access Level One

–Seaforth. Recreational private vehicular access is to be provided by way of Seaforth Road to the Seaforth parking area. Tour coach access is to be provided by way of Martello Road to the SAN parking area which could also to be used for overspill private vehicle parking during peak periods. The proposed layout of the Seaforth parking area will increase the number of bays. A further option exists to accommodate some 150 – 160 vehicles on the Simon's Town High School property under the "special event" conditions. The details of this require further negotiations.

From the SAN parking area, visitors will walk along the access pathway flanking the Seaforth Beach and Kleintuin Road to the Visitor Centre. Visitor access to the Seaforth parking will be managed in such a way that access to adjoining residential areas is

restricted. During peak periods, access will be controlled as per the capacity of the parking area. Variable message signing on Queen's Road has been installed to inform the public of the availability of parking.

-Boulders. The parking situation in the Boulders area should be marginally relieved but not resolved through the main focus being placed at the Seaforth end. It is proposed to rearrange the Boulders area in a way which will facilitate vehicular entry and circulation by linking the upper and lower parking areas. In addition it is proposed to increase the area available for pedestrian circulation and viewing and reduce the conflict between pedestrians and vehicles. The loss of some parking spaces will be compensated for by the formalisation of parking bays in Bellevue and Links Roads. In order to compensate for the supply shortfall, the possibility of establishing an off-street parking facility between the SAN Upper Degaussing Station and the SAN Barracks will be investigated. This should be a shared parking facility with free entry to the public during peak periods only, with rental due to the SAN for the use thereof by the authorities. Access to this facility is to be available when access to Bellevue Road is restricted. Pedestrian access to the Boulders precinct from the parking areas would be by way of Bellevue and Secluse Roads.

Access level Two – Access to the Kleintuin residential area is to be via the existing Miller Road. Access is to be restricted by way of road traffic signing and by creating a physical divide in the existing Seaforth and Gay Road intersection and possibly by providing access controls at the entrance to Miller Road so as to only allow residential and emergency traffic and to discourage general vehicle entry. Access is to be controlled by modifications to road elements such as road traffic signage and gate controls. Various options for the latter and the possibility of access permits for visitors to local residents are to be investigated.

Access level three – Kleintuin Road is to be a predominant pedestrian facility with restricted resident, authorised person and emergency vehicle access only. Pedestrians will be able to move throughout the road network and Willis Walkway free of charge. A network of pedestrian footpaths is to be provided to connect the various parking facilities.

5. EVALUATION OF ALTERNATIVES

During the protracted consultation process a number of alternatives to aspects of the BDF were suggested. All comments and the SPA and SANParks responses thereto are contained in the Issues report compiled by Erica van den Honert. The most dominant issue raised by the public is for the penguins to be removed to an alternate colony in the Cape of Good Hope section of the CPNP where tourists could view them without disturbing the local community. This option was reported on by Ryan (1998) and his conclusion was that adult birds could not be relocated to establish a new colony or to an established colony. The feasibility of relocating fledglings to an established colony is currently being investigated on the east coast. This is a long-term project and results will only be available within the next 3-4 years. It should be emphasised in view of the *vulnerable* status of the species that SANParks could only consider relocation of fledglings if it were seen to be in the interests of the conservation of the species. Such a measure would have no impact on the extent and distribution of the adult birds. It is also important to note that at this stage it is unlikely that fledglings could be relocated to establish a new colony. Thus the establishment of a new colony cannot be considered as an immediate viable alternative. Another alternative is the “no go” option. Maintaining the situation as it is would lead to major negative impacts. The current proposals are aimed at managing the stream of tourists. Without such management measures the impacts on the penguin colony, the natural environment and particularly the surrounding urban community will increase.

6. POLICY AND LEGAL REQUIREMENTS

In accordance with the National Parks Act (Act 57 of 1976), the National Parks Board and its employees are mandated to create, protect and manage national parks to the benefit and enjoyment of the nation. This involves the construction and maintenance of rest-camps to cater for the needs of the visitors. This Scoping Report on the development of the Boulders area has been undertaken to satisfy the requirements of the following:

- (i) environmental regulations promulgated on 5 September 1997, in terms of the Environment Conservation Act (Act 73 of 1989),
- (ii) the National Environmental Management Act (Act 107 of 1998) and

(iii) the Integrated Environmental Management (IEM) procedures as defined by the Department of Environmental Affairs (1992).

Some of the basic principles underpinning IEM include consultation with interested and affected parties, due consideration of alternative options, and an attempt to prevent, minimize or mitigate impacts and enhance positive aspects of proposals.

7. ASSESSMENT METHODS

An environment assessment must consider the impact of an activity on all environmental parameters, as well as factors and alternatives which could mitigate these impacts. A checklist and Leopold matrices were used.

7.1 Checklists

The checklist of environmental characteristics (Department of Environment Affair, 1992) was used as a guideline to identify potential threats associated with the project.

7.2 Matrices

Modified Leopold matrices were used to evaluate the impact of the BDF on the environment. Each potential impact was evaluated in terms of five parameters (extent, duration, intensity, probability and likely significance). Proposed mitigatory measures are also provided.

7.3 Professional Experience

P. Britton: BSc (Forestry Conservation), M Landscape Architecture.

M. Ntene: BSc. (Applied Environmental Science), MSc. in Environmental Studies in progress,
Environmental Assessment and Management Course – 2000.

J. Jackleman: BSc (Hons), MSc

The draft scoping report was reviewed by an independent consultant, Mandy Nofke. The Environmental Partnership will compile the comments report and will submit the final scoping report for the necessary approvals.

8. PUBLIC PARTICIPATION

There has been extensive public participation throughout the process of producing the BDF. . In view of the complex nature of the management of the area and in line with SANParks policies, the BAC was established. This is an advisory committee comprising representatives of interest groups and relevant authorities. This committee advises SANParks on planning, management and policy issues. It is also an important forum for the discussion of all issues relating to Boulders. When the SPA approved the BDF it was recommended that the BAC be formally constituted to also advise the municipality on issues relating to Boulders. The BAC has played an important role in the past in the consultation process and will continue to do so in the future.

9. ENVIRONMENTAL ISSUES AND EVALUATION

9.1 Evaluation of Potential Impacts

The potential impacts of the BDF and the detailed precinct plans are evaluated in Table 1. . It will be seen that the significance of the negative impacts is generally low and the significance of the positive impacts is high. Positive impacts are also more numerous than negative impacts and the significance of the negative impacts will be considerably reduced by the application of the mitigation measures described in the table. In summary, the BDF significantly improves the situation at Boulders.

Table 1. Potential impacts of the proposed development

Key:

= low (short) negative impact

= medium negative impact,

= large (long) negative impact

* = low (short) positive impact

** = medium positive impact

**** = large (long) positive impact

<i>Proj. Phase</i>	<i>Nature</i>	<i>Extent</i>	<i>Duration</i>	<i>Intensity</i>	<i>Probability</i>	<i>Significance & mitigation</i>
A1 Impacts on Soil						
Existing	Drainage from Willis Walk causes erosion at Boulders beach	####		####		#### Correct drainage in relevant sections.
Operational	Alleviation of soil erosion: boardwalks have reduced soil erosion; rehabilitation measures will be taken in penguin exclusion area; artificial nesting boxes will be provided to reduce erosion; a seawall will be construction to reduce erosion of Boulders Beach.	****	****	****	****	****
A2 Impacts on Hydrology						
Construction	Alteration of surface runoff: enlargement of Seaforth parking area on a portion of the disused fuel tank farm will affect surface runoff.	#	####	#	####	# Runoff collection point will be created to inhibit potentially polluted water flowing into the sea.
Construction	Alteration of surface runoff: upgrading of the former degaussing building into a visitor centre will alter runoff.	#	####	#	####	# Runoff collection point will be created to inhibit potentially polluted water flowing into the sea.
Construction	Alteration of surface runoff: construction of access point at Boulders Beach will affect surface runoff.	#	####	#	####	# Correction of drainage will mitigate impacts.
Construction	Alteration of surface runoff: removal of tarmac foot path at Boulders Beach will affect surface runoff.	#	####	#	####	# Surface runoff has been reduced.
B1 Flora Disturbance						
Construction	Removal of vegetation: reconstruction of Boulders parking area will result in the removal of a small portion of vegetation.	#	####	#	####	# Other areas currently under tar will be

<i>Proj. Phase</i>	<i>Nature</i>	<i>Extent</i>	<i>Duration</i>	<i>Intensity</i>	<i>Probability</i>	<i>Significance & mitigation</i>
						rehabilitated
Construction	Construction of the penguin barrier will disturb the vegetation.	#	#	##	#####	## The position and construction will be conducted as to ensure minimal disturbance.
Operational	Reduction of impact on flora: creation of a penguin-free area behind Boulders Beach with a penguin proof barrier will reduce the impacts of penguins on vegetation.	****	****	****	****	****
Operational	Reduction of impacts on vegetation: boardwalks have reduced impacts on vegetation.	****	****	****	****	****
Operational	Penguin proof barrier.	**	****	***	****	*** Disturbance of the vegetation will be reduced.
B2 Faunal Disturbance						
Construction	Disturbance of fauna: construction of the facilities at Boulders Beach will impact on the nesting of penguins.	#	#####	#	#####	# Construction will take place during low point of breeding season, if possible ie. Dec – Jan.
Operational	Creation of penguin nesting sites: penguins tend to nest under boardwalks.	****	****	****	****	****
Operational	Reduction of impacts on penguins: boardwalks has reduced impacts on penguins.	****	****	****	****	****
Operational	Reduction of nesting area: penguin free area will cause 12% of the breeding population to relocate.	###	#####	##	###	### Artificial nests will be provided to increase nesting density in other prime nesting areas.

<i>Proj. Phase</i>	<i>Nature</i>	<i>Extent</i>	<i>Duration</i>	<i>Intensity</i>	<i>Probability</i>	<i>Significance & mitigation</i>
C Cultural and Social Implications						
Construction	Traffic noise: construction of Tank farm parking area will increase traffic noise.	#	####	#	####	#
Construction	Noise & disruption of neighbouring residents: reconstruction of the Boulders parking area will disrupt the lives of local residents and beach goers.	#	####	#	####	# EMP will stipulate working hours.
Operational	Emergency access on Willis Walk: some residences are inaccessible to emergency vehicles.	#	####	#	#	# Willis Walk will be designed to allow access for light emergency vehicles. A water pipeline with strategically placed fire hydrants will be installed along Willis Walk.
Operational	Reduction of traffic problems: partial closure of Seaforth Road & conversion of Kleintuin Road into a pedestrian route will reduce traffic problems for local residents, services and access for emergency vehicles.	****	****	****	****	****
Operational	Reduction of traffic noise: prohibiting busses at Seaforth parking area will reduce impacts of noise on neighbouring residents	****	****	****	****	****
Operational	Creation of a penguin-free zone behind Boulders Beach will intensify impacts on other areas because of the reduction of nesting sites.	#	####	#	####	# Intensity of nesting will be increased in other areas by the provision of artificial nests.
Operational	Uninhibited access to Willis Walk: opening of Willis Walk to public will remove existing constraints.	****	****	****	****	****
Operational	Improvement of CPNP's	****	****	****	****	****

<i>Proj. Phase</i>	<i>Nature</i>	<i>Extent</i>	<i>Duration</i>	<i>Intensity</i>	<i>Probability</i>	<i>Significance & mitigation</i>
	services to visitors: upgrading of the Visitor Centre will improve CPNP'S service to visitors.					
Operational	Reduction of conflicts: demarcation of coastal edge for recreation, tourism, combined recreation/nesting, swimming and non-nesting for penguins will reduce conflicts.	****	****	****	****	****
Operational	Improvement of management: reduction of access points to Boulders Beach will enable management to close off the beaches when carrying capacity is reached; disruption of beach users by tourists can be better managed.	****	****	****	****	****
Operational	Inhibition of access to the beaches for neighbouring residents: reduction of access points to Boulders Beach will inhibit access to Boulders Beach for neighbouring residents.	#	#####	#	#####	# Arrangements will be made with certain residents to access the beach.
Operational	Reduction of traffic problems: conversion of SAN land into bus park will reduce traffic problems at Seaforth Square.	****	****	****	****	****
Operational	Reduction of traffic problems: rearranging of Boulders Beach parking area will improve the situation.	****	****	****	****	****
Operational	Reduction in property values.					Due the legal implications, SANParks and SPM cannot comment on this issue.
D Visual Intrusion						
Construction	Reduction of visual impact: removal of the tarmac foot paths at Boulders Beach will enhance the beauty of the area and reinstate vegetation.	****	****	****	****	****
Operational	Improvement of the quality of the existing degaussing building: upgrading of the Visitor Centre.	****	****	***	***	***
Operational	Reduction of the visual impact: landscaping of Seaforth & tank farm parking area will reduce the	****	****	****	****	****

<i>Proj. Phase</i>	<i>Nature</i>	<i>Extent</i>	<i>Duration</i>	<i>Intensity</i>	<i>Probability</i>	<i>Significance & mitigation</i>
	visual impact of increased cars.					
Operational	Enhancement of the beauty of Boulders: reducing the extent of the intrusion of the carpark into the landscape will reduce visual impacts.	****	****	****	****	****
E. Air Pollution						
Construction	Dust: construction of tank farm and Boulders parking area will produce dust.	#	##	#	##	# EMP will stipulate measures.

10 OPERATIONAL MANAGEMENT PLAN.

A comprehensive Policy and Management Framework compiled in 1998 sets out policies and management strategies for aspects such as law enforcement, traffic control penguin management etc. This plan is currently under revision in close co-operation with the BAC and the local authority. In order to achieve better co-ordination of activities and responsibilities between SANParks and the SPA, a Boulder Technical Team has been established. This team, made up of officials from SANParks and the relevant Departments of the SPA, meets on a regular basis to ensure closer co-operation between the two organisations.

11 CONCLUSIONS AND RECOMMENDATIONS

Currently, Boulders is faced with conflicts between conservation (largely related to the penguins), tourism, recreation, the general public and local residents. The BDF and precinct plans propose solutions to manage the current flow of visitors to the area in order to manage the consequent impacts on the environment, the urban infrastructure and the local community. Unless these measures are implemented, increasing use and popularity of the Boulders area will lead to an increasingly unmanageable situation. The proposals will have minimal negative impacts and significant positive impacts on the local residents, penguins and the environment. The EMP which will be compiled and applied for each development precinct will reduce impacts during construction. It is recommended that the proposals not be subjected to a full EIA, but that a detailed construction EMP for each component be compiled. An experienced Environmental Site Manager will ensure that the specifications of the EMPs are carried out.