



Directorate: Antarctica and Islands
Private Bag X447
PRETORIA, 0001

Telephone: (012) 310-3839
Facsimile : (012) 351-1345
E-mail : ant_ec@ozone.pwv.gov.za

Reference: A10/2/1/2/7/3

Enquiries : Mr L E Chuene

Prof V R Smith
Department of Botany
University of the Orange Free State
P O Box 339
BLOEMFONTEIN
9301

19 November 1996

Dear Prof Smith

**MINUTES OF THE PRINCE EDWARD ISLANDS MANAGEMENT
COMMITTEE (PEIMC) MEETING: 11 SEPTEMBER 1996**

1. Attached for your perusal and comments, please find the draft minutes of the above-mentioned meeting. It would be appreciated if your comments could reach this Department by no later than 31 December 1996.
2. Your assistance is much appreciated.

Kind regards



DIRECTOR-GENERAL

MINUTES OF THE SECOND MEETING OF THE
PRINCE EDWARD ISLANDS MANAGEMENT COMMITTEE (PEIMC)
HELD ON 11 SEPTEMBER 1996 AT THE
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM
(DEA&T), ROOM 813, FEDLIFE FORUM BUILDING,
315 PRETORIUS STREET, PRETORIA

PRESENT

Prof S L Chown (Chairman)	University of Pretoria
Dr R Randall (for Dr A J Hall-Martin)	National Parks Board
Dr S Jackson	University of Cape Town
Prof V R Smith	University of the Orange Free State
Mr J C Loock	National Monument's Council
Mr D J van Schalkwyk	DEA&T
Dr D G M Miller	DEA&T
Ms C A Jacobs (Secretariat)	DEA&T
Mrs M E Modjadji (Minutes Secretary)	DEA&T

APOLOGIES

Dr A J Hall-Martin	National Parks Board
Dr A Berruti	BirdLife South Africa

I. WELCOME AND OPENING

The Chairman welcomed everyone present, especially Prof Smith who had not attended the first meeting and Mrs Modjadji the minutes secretary.

The following items were added to the agenda:

- 7.12 Visit from New Zealand Environmental Officer
- 7.13 Overflight of the Prince Edward Islands (PEIs) in the near future
- 7.14 Huts
- 7.15 PEI expedition

2. MINUTES OF THE FIRST PEIMC MEETING (17-18 APRIL 1996)

There were no comments on these minutes and they were signed accordingly by the Chairman as an accurate reflection of the first PEIMC meeting.

MATTERS ARISING:

2.1 Progress on printing of Management Plan

The Chairman reported that the Management Plan was almost ready to go to press, with the indication of Zone 4 on Figure 3 being the only outstanding item and which would be forwarded to the Department by Mr J Cooper. He continued that there was a change in format into a booklet form, as it was more substantial and appealing. Also, the photos originally suggested for the cover were to be replaced by a logo - two options had been received and DEA&T would finalise this matter. The figures for the Plan, drafted by the Department's Geographical Information Systems (GIS) section, were passed around for comments, which were to be forwarded to the Chairman.

2.2 Establishment of a sub-committee to investigate the impact of tourism to Marion Island

The Chairman gave a rundown of the members of the Tourism sub-committee, under the Chairpersonship of Dr Jackson. Dr Jackson had no comments at this stage. The Chairman felt it was important to schedule the first meeting quite quickly and suggested that a provisional agenda be drawn up. It was decided to schedule the meeting for the first week in November, to allow the Chairman to report to the Antarctic Management Committee (AMC) on 14 November 1996. The matter would be discussed further informally during lunch.

2.3 Determination of Minister Z P Jordaan's policy on tourism

Mr van Schalkwyk reported that the Minister's present priority was the high crime rate among tourists.

He added that Minister Jordaan had a broader management style than Minister D J de Villiers. Prof Smith mentioned that Australia and New Zealand allowed tourism, and that if South Africa was to follow this trend, it could be financially beneficial to SANAP. Prof Chown asked whether the funds would go into the government system or into SANAP and Mr van Schalkwyk replied into the system at present, but that something could be arranged.

2.4 Tourism Workshop

The Chairman informed that the tourism workshop was on ice for the moment.

2.5 Establishment of Marion Island as an LTER site

The Chairman mentioned that Doc. 2.4 had been forwarded to the Biological Sciences Task Group (BSTG) for noting and emphasized that it was important that we establish a South African LTER site and not an American one, adding, however, that the USA was very keen on collaboration and willing to put money into it, and that US Dollar support would be good.

Dr Miller stated that we should look at our research and identify USA collaborators, and that the Gore/Mbeki accord would mean available funding if President Clinton was re-elected. He recommended two courses of action:

- * Establish formal contact with James Getes (coordinator for the LTER programme in the USA) and obtain the necessary criteria, etc. to become part of the LTER network, and
- * Get our scientists to review South Africa's information as far as it met these requirements and contact the USA for collaboration.

Mr van Schalkwyk felt that this committee should make an official recommendation to the South African Committee for Antarctic Research (SACAR) to accept this proposal. He also asked whether meteorological data could be linked to this process, and Dr Miller agreed that this was crucial. Prof Smith mentioned that as Mr P le Roux of the Weather Bureau had indicated that they were not obligated to make the data available, he was doing so at present.

Dr Miller felt that as the deficiencies had been highlighted, this framework should be used for the better utilization of data, and he was tasked to follow up on the matter and to draft a document in this regard to be presented to the USA.

2.6 SAAF enforcement flyover: 6 December 1996

Mr van Schalkwyk reported that the Director-General had had discussions with General Hechter of the South African Air Force (SAAF), and that such a flyover would cost R 48 000. This item was to be addressed under point 7.13.

2.7 Establishment of a Working Group on mice at Marion Island

The Chairman reported that more mice data was being collected as recommended at the Mice Workshop. He added that the density of mice on Marion was far greater than before, but that Prof R J van Aarde's group was looking into control measures, having sent serum overseas for virus screening, which was very expensive. In terms of establishing a Working Group on the impact of mice, he suggested that the committee wait for further information from the groups doing research on the island.

2.8 Workshop to discuss the Management Plan/SANAP

Prof Chown advised that this Workshop was pending the publication of the Management Plan, and Mr van Schalkwyk added that it was also waiting for the Antarctic Treaties Bill to be passed. He informed that the Bill had been recommended by the Full Senate and would be presented to the National Assembly on 9 October 1996. He felt that with the opening of the new SANAE IV base, they would be pressed for time, so it would be best to arrange the Workshop in 1997 on board the *S A Agulhas*.

2.9 Declaration of Marion Island as a World Heritage Site

Mr van Schalkwyk would follow up the matter and report back at the next meeting.

2.10 Waste disposal and incineration policy

2.11 Containment wall to prevent seepage on Marion Island

These items would be addressed in the Chairman's report of the past Marion Island relief voyage.

3. PRINCE EDWARD ISLANDS MANAGEMENT REPORT: APRIL-MAY 1996 RELIEF VOYAGE

3.1 Station inspection

The Chairman provided a summary of his report on the 1996 Marion Island relief voyage and the various actions undertaken. He suggested the removal of the hydrogen generator due to the problem with the aluminium chips. This was supported by the committee. With regard to the sending of poultry to Marion and the threat of Newcastle's Disease, it was decided that an irradiation policy and the costs involved were to be ascertained. Dr Jackson was to determine the policy and DEA&T's Cape Town Office the costs involved. The Chairman also felt that, in terms of the buildings, this committee should recommend to the AMC that the routine level of maintenance on Marion Island be increased in whichever way they saw fit. The committee agreed.

3.2 *Agrostis gigantea* - status and actions

The Chairman reported that the patch of *A. gigantea* that Dr N Gremmen had identified on Marion was not as large as originally thought, and that it had been sprayed during the takeover with "Sting" donated by Mr H Venter and that Mr D Nel, the Conservation Officer on the island, had subsequently reported that everything in the area was dead, but that he would keep an eye on it. The Chairman undertook to send a report to Mr Venter and to thank Mr Nel for his assistance. Mr van Schalkwyk noted that this information was also to be passed on to the Director-General.

3.3 Implementation of the Management Plan

The Chairman felt that the 1996 Marion Island relief voyage left a great deal to be desired and listed the various grievances mentioned in his report.

In terms of the rat guards, Mr van Schalkwyk informed that he had discussed new designs with Sea Fisheries and that Mr H Valentine was following up the matter.

The Chairman added that Ms C Haënel had sewed black curtains for the base, taking about 48 hours, but that the Department of Public Works (PWD) had assured that the measurements of the windows had been taken in order to make blinds.

He continued that the helicopter flights had not been undertaken in accordance with the provisions of the Management Plan and that two contraventions had occurred. Although DEA&T had addressed the matter, he suggested that it be forwarded to the AMC. It was also to be recommended to the AMC that PWD take care on what equipment, materials, etc. was taken to the island.

In general, he informed that the provisions of the Management Plan had been relatively well-accepted, but that personnel from the Weather Bureau had complained about the restrictions. Mr van Schalkwyk informed that documents containing the relevant information had been timeously circulated.

The Chairman advised that dissatisfaction had been expressed on the discrepancy between the areas that the team members and field assistants were allowed into, and that it was important that the team remained friendly. Prof Smith suggested that the Conservation Officer be given permission to issue permits on-the-spot, but Mr van Schalkwyk stated that according to the Management Plan permits could only be issued by the Director-General. It was decided to inform Mr Nel, the Conservation Officer, that requests for additional walks could be forwarded to DEA&T for consideration.

The Chairman indicated that the routes around the Wandering Albatross colonies must be indicated and it was decided to request Dr P G Ryan to undertake this task during the next takeover.

Finally the Department was looking into the appointment of a full-time Conservation Officer.

3.4 Management actions identified as priorities

With regard to the antennas and stay wires on Marion (see also Doc. 7.8), Mr van Schalkwyk advised that Mr J A J Hattingh had investigated the matter and that the Department was now opting for Yorgi antennas for Marion and SANAE IV, which were a single antennas, and that eventually all the cables currently used would be removed. The Chairman thanked the Department for its actions in this regard.

With regard to the containment walls, Mr van Schalkwyk reported that the Department was looking into double containment, i.e. a rubber inside wall, to prevent spillage/leakage.

With regard to rubble and building waste on Marion (see also Doc. 7.6), Mr van Schalkwyk indicated that the rubbish could be returned to South Africa with the next relief voyage, with Dr Miller adding that PWD should be tasked to remove all removable waste and to provide an inventory of the irremovable waste, as well as what to do with it. Prof Smith suggested that a summary on the sites and types of waste all over the island should be provided. He undertook to find the sites with a GPS within 3 days and to keep the PWD team busy with the removal of the rubbish during the next takeover. He was thanked for his effort. Dr Jackson felt that a formal recommendation should be addressed to the Director-General that all rubbish be removed within 5 years and all items not used were to be returned. The committee supported this recommendation, as well as the removal of 2 concrete buildings.

With regard to Zone 4, the weather buoy on PEI was to be retrieved, with the assistance of Ms E Popich for its location, and the costs for the removal thereof were to be forwarded to the Weather Bureau. This was to be recommended to the AMC.

In closing, the Chairman reported that the Management Plan was working well and that it must be taken seriously.

4. MANAGEMENT PLAN

4.1 Zoning of the Prince Edward Islands

Mr van Schalkwyk circulated the maps of the zoning of Marion and Prince Edward, as drafted by the Department's GIS section, to the committee for awareness. Zone 4, which was to be indicated by Mr Cooper, was still to be included.

4.2 Increasing Public Awareness / Education Policy

The committee's attention was drawn to Doc. 4.2 where it was indicated that the South African Navy (SAN) would like to visit the PEIs to celebrate its 75th birthday.

Dr Miller pointed out that the SAN must be informed that PEI was out of bounds, the control of which was in DEA&T's hands. He also expressed his concern that the Navy was capable of celebrating its birthday, but not conducting a marine patrol to enforce the regulation of fishing in the Exclusive Economic Zone (EEZ) around the PEI's.

Mr van Schalkwyk pointed out the advantage of utilizing the opportunity, namely that the SAN would supply the fuel and scientists could be sent down at the same time. Dr Miller felt it should be kept in mind that this was a Navy exercise, under the authority of DEA&T who were acting on the advice of the PEIMC who would determine the timing in terms of environmental impacts. It was decided that Mr van Schalkwyk and the Chairman were to handle this matter.

4.3 Visitor frequency to Prince Edward Island

The Chairman recommended that visits to PEI be restricted to every 5 years, due to the introduction of mice, rats, alien plants, etc., instead of on an *ad hoc* basis, as currently stated in the Management Plan. Mr van Schalkwyk felt that the Management Plan should be left "as is" with the visits regulated by the PEIMC, as necessary.

The Chairman informed that the BSTG had requested a dedicated voyage to PEI of about 15 people for 2-4 weeks, for an extensive census of Rockhopper Penguins, a full review of all albatrosses, a sheathbill and seal survey, habitat and vertebrate analyses, etc.

Dr Miller felt that a fully motivated, detailed, one-off formal proposal should be submitted to the PEIMC for consideration and that a small committee should be established to set up an environmental ecological baseline. Prof Smith added that experienced people were necessary, that the voyage should take place outside the Marion Island takeover and that more could be determined in one month than in several one-day visits - providing a control to the work conducted on Marion. Prof Smith was nominated to coordinate this venture.

It was also decided to submit a strong motivation to SACAR for a 3-person beach survey per helicopter during the next Marion Island relief voyage.

4.4 Environmental auditing of Marion Island / Appointment of Conservation Officer

This item was addressed in point 7.6.

4.5 Longline fishing close to Exclusive Economic Zone (EEZ)

Dr Miller gave a brief background on the illegal fishing for patagonian toothfish by at least 18 vessels in and around the EEZ of Marion Island.

He mentioned that no decision had been taken as to our own operators and that there was no national presence in or around Marion Island at this stage. He continued that there was an observer on a USA vessel in the area, but that there was no communication with him at present. Finally, he stated that longline fishing and trawling were getting out of hand and that another 4 vessels would be entering this area shortly.

Dr Miller said that the following 3 options were available:

- To get our own operators into the area,
- To get an objective assessment of the situation which required an enforcement presence, and
- To make an example of someone.

The Chairman was in full support of Dr Miller's statements and undertook to draft a letter to the Director-General in which these points would be addressed.

5. PERMIT ISSUED TO ENTER MARION ISLAND WATERS (5-6 AUGUST 1996)

5.1 *Veirasa 12* under the command of Capt. Marcelo Smith (Argentina)

The item was for noting only.

6. REQUESTS TO VISIT THE PRINCE EDWARD ISLANDS

6.1 Michael Horan

Mr van Schalkwyk suggested that a standard letter of refusal to visit the Islands be sent to Mr Horan. Dr Miller added that the letter should strongly state that private expeditions were not encouraged.

7. NEW ITEMS

- 7.1 Items removed from Marion Island to be returned/displayed at a museum in Cape Town
- 7.2 "Master Plan" on national body responsible for archiving
- 7.3 Archaeology: Policy Document
- 7.4 Archaeological and Historical Research: Proposed research and conservation

Items 7.1 - 7.4 were dealt with as one item at the request of Mr Lookk. Mr Lookk informed that Doc. 7.1-4 was a draft document compiled by the National Monument's Council (NMC) in consultation with the Cultural History Museum, and was open for amendments. He added that the document applied to Marion, as Prince Edward was considered "no go". He continued that if the policy document was accepted, a survey, research and inventory must be undertaken, including shipwrecks, and then a management plan would be drafted. The Chairman said that the contents of the draft document were acceptable and mentioned that in terms of research, the NMC must submit a proposal to do this through SACAR. Mr Lookk informed that no funding was required, only transport and accommodation.

Mr van Schalkwyk stated that a final document on what was available was needed and that Mr J Cooper should perhaps be brought on board. The Chairman summarised that Mr Cooper and the people involved should be contacted for a statement on the status and completeness of the inventory, and tasked Mr Lookk with this undertaking.

7.5 Soil erosion on Marion Island

Prof Smith enquired that as the dam was not being used, if it could not be breached to follow its old course. The committee supported this proposal and also recommended the removal of huts. Mr van Schalkwyk stated that these recommendations would be forwarded to the AMC.

7.6 Rubble and building waste in Marion Island

This item was addressed in point 3.4.

7.7 Waste disposal on the *S A Agulhas*

Prof Smith reported that in terms of Doc. 7.7, the names of the persons who had thrown items overboard were not known. Mr van Schalkwyk advised that such occurrences should be reported and logged immediately, as action could only be taken if names were provided. Dr Miller felt that strongly worded letters should be addressed to Sea Fisheries and Captain Hagan stating that such occurrences would not be tolerated and that in future action would be taken.

Mr van Schalkwyk indicated that this must be made known to the AMC, and added that a legal instrument would be available within the next month or so in order to enforce such regulations.

7.8 Antennas and stay wires on Marion Island

This item was addressed in point 3.4. However, Prof Smith reiterated that the stay wires and radio antenna cables injured and killed birds. Mr van Schalkwyk reported that the new system, developed by Mr Hattingh and Potchefstroom University for implementation at SANAE, would be implemented on Marion as well.

7.9 Request for Petrel monitoring

In terms of Dr Brooke's request, the Chairman enquired whether the *status quo* must be left "as is" or whether the request should be referred back to the BSTG to handle. Mr van Schalkwyk suggested that request be added as a key question to Dr P G Ryan's project proposal and, if recommended by this committee, placed on the agenda for the coming SACAR meeting. The Chairman undertook to take up this matter with Drs Ryan and R Crawford for assessment, and to inform SACAR accordingly.

7.10 Request for copies of Management Plan

The Chairman reported that many requests had been received, but had all been turned down as the Management Plan had not yet been published, and that this item was for noting only.

7.11 Global Change and Terrestrial Ecosystems (GCTE) and International Geosphere-Biosphere Programme (IGBP) interest in the Prince Edward Islands

The Chairman advised that this item was for noting only and that GCTE was interested in South Africa's ecologically interactive research.

7.12 Visit from New Zealand Environmental Officer

Dr Miller reported that subsequent to his visit to New Zealand in November 1995, one of the actions of interest identified was that their Environmental Officer visit Marion Island, as it was different to Scott base. He suggested that the visit should be encouraged either this year or next year. Prof Smith mentioned that we should boast in this regard, as there was no Management Plan as good as ours. Mr van Schalkwyk supported that we were the leading country in this aspect and that Dr Miller handle all the details pertaining to the visit.

7.13 Overflight of the Prince Edward Island's in the near future

The Chairman informed that there would be an enforcement flyover from SAAF in the near future and that a request had been received from Marion Island for an airdrop. Mr van Schalkwyk stated that there were to be no airdrops, except in the event of an emergency, and that this policy needed to be stated beforehand. The committee agreed. Dr Miller emphasised that no one should be informed of when the flight was to take place, as it would defeat the purpose.

7.14 Huts

The Chairman reported that the huts were in poor condition and unsafe, but necessary for the work conducted by the BSTG. Prof Smith supported that the current huts could be written off. The Chairman requested a letter from Prof Smith as to where huts were required, including high altitude huts. Prof Smith confirmed that all the proposals were in place and hoped that DEA&T would undertake to replace one hut per year.

Mr van Schalkwyk mentioned that with the construction of SANAE IV, some construction units would be returned to South Africa, and that Prof Smith could perhaps be coopted into a small group to determine whether these units could be utilized as huts on Marion. Prof Smith agreed that a small committee should be established, including Dr M N Bester.

Mr van Schalkwyk added that the containers were already wired and ran off generators, that they had been custom-built for SANAE but could be re-used at little cost.

The Chairman supported the upgrading of the huts and would refer the matter to SACAR.

7.15 Prince Edward Island Expedition

This matter was addressed in item 4.3.

8. EXAMINATION OF PERMIT REQUESTS ON SACAR 1 FORMS AS FORWARDED BY BIOLOGICAL SCIENCES TASK GROUP MEETING, FOR FORWARDING TO SACAR MEETING

The Chairman wished to address the monitoring of Gentoo Penguins, which were to be retained for 10 minutes to be stomach pumped and weighed.

Dr Miller advised that birds were more sensitive in some areas than in others, but that this proposal was immature as it had not been submitted to the Sea Fisheries Ethics Committee, of which he was the Chairman, for approval.

The Chairman stated that, in terms of the proposal's key questions, it was not necessary to stomach pump the penguins and decided that the matter must be referred to the Ethics Committee for a decision. He continued that the project proposal was to be forwarded to SACAR for approval, pending the decision on the stomach pumping issue from Ethics Committee.

9. DATE OF NEXT MEETING

The Chairman felt that the next meeting should take place well in advance of the takeover voyage scheduled for 15 April 1997, i.e. in February 1997. It was suggested that this meeting be done *via* E-mail, and Mr van Schalkwyk undertook to coordinate the details in consultation with the Chairman.

10. CLOSING

The Chairman thanked the committee for its participation, the Department for lunch and the Secretariat. Mr Loock thanked the Chairman on behalf of the committee.

Prof S L Chown
CHAIRMAN

DATE:

AGENDA
of the
SECOND PRINCE EDWARD ISLANDS
MANAGEMENT COMMITTEE MEETING

VENUE: Department of Environmental Affairs and Tourism (DEA & T)
Directorate: Antarctica and Islands
8th Floor Conference Room (Rm 813)
Fedlife Forum Building
cnr Pretorius and van der Walt Streets
PRETORIA, 0002

DATE: 11 September 1996

TIME: 08:00

1. WELCOME AND OPENING

2. MINUTES OF THE FIRST PRINCE EDWARD ISLANDS
MANAGEMENT COMMITTEE MEETING (17 - 18 APRIL 1996) *Doc. 2*

Matters arising:

- 2.1 Progress on printing of Management Plan (par. 4.4)
- 2.2 Establishment of a sub-committee to investigate the impact of tourism to Marion Island (par.4.6(3))
- 2.3 Determination of Minister Z P Jordan's policy on tourism (par. 4.6(4))
- 2.4 Tourism Workshop (par. 4.6(5))
- 2.5 Establishment of Marion Island as a LTER site (par.4.7) *Doc. 2.4*
- 2.6 SAAF enforcement flyover: 6 December 1996 (par. 6.1/6.2)
- 2.7 Establishment of a Working Group on mice at Marion Island (par. 7)
- 2.8 Workshop to discuss the Management Plan/SANAP (par. 10.2)
- 2.9 Declaration of Marion Island as a World Heritage Site (par. 10.3)
- 2.10 Waste disposal and incineration policy (par. 12.1)
- 2.11 Containment wall to prevent seepage on Marion Island (par.12.1(5))

3. PRINCE EDWARD ISLANDS MANAGEMENT REPORT:
APRIL - MAY 1996 RELIEF VOYAGE (*Prof S L Chown*) *Doc. 3*

- 3.1 Station inspection
- 3.2 *Agrostis gigantea* - status and actions
- 3.3 Implementation of the Management Plan
- 3.4 Management actions identified as priorities
 - Zone 1 (Scientific station)
 - Zone 4 (Special entry areas)
- 3.5 Concluding remarks

4. **MANAGEMENT PLAN**

- 4.1 Zoning of the Prince Edward Islands (*Mr D J van Schalkwyk*)
- 4.2 Increasing Public Awareness / Education Policy *Doc. 4.2*
- 4.3 Visitor frequency to Prince Edward Island
- 4.4 Environmental auditing of Marion Island/Appointment of Conservation Officer
- 4.5 Longline fishing close to Exclusive Economic Zone (EEZ)

5. **PERMIT ISSUED TO ENTER MARION ISLAND WATERS (5 - 6 AUGUST 1996)**

- 5.1 *Vieirasa 12* under the command of Capt. Marcelo Smith (Árgentina) *Doc. 5.1*

6. **REQUESTS TO VISIT THE PRINCE EDWARD ISLANDS**

- 6.1 Michael Horan *Doc. 6.1*

7. **NEW ITEMS**

- 7.1 Items removed from Marion Island to be returned/displayed at a museum in Cape Town (*Mr J C Loock*)
- 7.2 "Master Plan" on national body responsible for archiving (*Mr J C Loock*)
- 7.3 Archaeology: Policy Document (*Mr J C Loock*)
- 7.4 Archaeological and Historical Research: Proposed research and conservation (*Mr J C Loock*)
- 7.5 Soil erosion on Marion Island (*Prof V R Smith*) *Doc. 7.5*
- 7.6 Rubble and building waste in Marion Island (*Prof V R Smith*) *Doc. 7.6*
- 7.7 Waste disposal on the *S A Agulhas* (*Prof V R Smith*) *Doc. 7.7*
- 7.8 Antennas and stay wires on Marion Island (*Prof V R Smith*) *Doc. 7.8*
- 7.9 Request for Petrel monitoring - Dr M Brooke (*Prof S L Chown*)
- 7.10 Request for copies on Management Plan (*Prof S L Chown*)
- 7.11 Global Change and Terrestrial Ecosystems (GCTE) and International Geosphere-Biosphere Programme (IGBP) interest in the Prince Edward Islands (*Prof S L Chown*)

8. **EXAMINATION OF PERMIT REQUESTS ON SACAR 1 FORMS AS FORWARDED BY BIOLOGICAL SCIENCES TASK GROUP MEETING, FOR FORWARDING TO SACAR MEETING (*Prof S L Chown*)**

9. **DATE OF NEXT MEETING**

10. **CLOSING**

**MINUTES OF THE FIRST MEETING OF THE PRINCE EDWARD ISLANDS
MANAGEMENT COMMITTEE (PEIMC) HELD ON
17 - 18 APRIL 1996 AT THE DEPARTMENT OF ENVIRONMENTAL AFFAIRS
AND TOURISM (DEA&T) ROOM 813, FEDLIFE FORUM BUILDING,
315 PRETORIUS STREET, PRETORIA**

PRESENT

Prof S L Chown (Chairman)	University of Pretoria
Dr R Randall (for Dr A J Hall-Martin)	National Parks Board
Dr S Jackson	University of Cape Town
Mr J C Loock	National Monument's Council
Mr D J van Schalkwyk	DEA&T
Dr D G M Miller	DEA&T
Ms C A Jacobs (Secretariat)	DEA&T
Mr L E Chuene (Minutes Secretary)	DEA&T

APOLOGIES

Dr A Berruti	BirdLife South Africa
Dr A J Hall-Martin	National Parks Board
Prof V R Smith	University of the Orange Free State

1. WELCOME AND OPENING

The Chairman welcomed everyone present, especially Dr Jackson and Mr Loock who were not previously involved in drawing up the Prince Edward Islands Management Plan (PEIMP). He offered apologies for Dr Hall-Martin, stating that Dr Randall was attending in his place, as well as for Dr Berruti and Prof Smith. He pointed out that it was important that these meetings were fully attended to see that, as a Special Nature Reserve, Marion and Prince Edward Island were managed correctly due to their pristine status. He added that there was a request to have Marion declared a World Heritage Site.

The following items were added to the agenda:

- 4.6 Policy on Tourism
- 4.7 Establishment of Marion as a Long-Term Ecological Research (LTER) site
- 12.1 Waste Disposal (specifically Chemical Waste) at the Islands
- 12.2 Statements on accommodation at the Islands
- 12.3 Demarcation of Routes with regard to Zones

2. COMPOSITION OF THE COMMITTEE

The Chairman mentioned that external input from a non-Governmental Organization was valuable, and that in this regard Dr Berruti had knowledge of the Islands.

3. TERMS OF REFERENCE / FUNCTIONS OF THE COMMITTEE

The following amendments (indicated in bold/italics) were to be made to document 3:

- 3. '...(SACAR) *concerning their management impact*'
- 4. '...SACAR *with regard to their impact on the environment*'
- 5. '...leaders *in terms of environmental impacts*'
- 4. '...specific *management objectives*...'
- 15. '...General, *in consultation with Sea Fisheries*, on...'

4. MANAGEMENT PLAN

4.1 Zoning of the Prince Edward Islands

The Chairman reported that the zones had been identified in consultation with Prof Smith, Dr M N Bester and Mr J Cooper, and the relevant permits for the 1996 Marion Island relief voyage issued accordingly. He summarized that permits for 14 days for walking trips by overwintering expedition members were issued for Zone 3, that walks should be undertaken by groups of at least 2 persons for safety reasons and that Zone 4 included the whole of Prince Edward, as well as areas that were not geographically fixed, e.g. Gentoo Penguin, Southern Giant Petrel and Wandering Albatross colonies. He added that, according to Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) requirements, these colonies needed to be monitored and that permits would be issued accordingly, that walking routes around these colonies would be demarcated for the coming relief voyage, and that Zone 4 also included the historical sites on Marion.

DOC 7.7(a)

DEPARTEMENT VAN OMGEWINGSAKE EN TOERISME
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM

Fax.nh

Seevisserye	Sea Fisheries
Privaatsak X2	Private Bag X2
8012 ROGGEBAAI, KAAPSTAD	8012 ROGGEBAAI, CAPE TOWN
REPUBLIEK VAN SUID-AFRIKA	REPUBLIC OF SOUTH AFRICA
Telefoon (021) 4023911 Telephone	
Fax (021) 252920 Facsimile	

FAX

Lêer/File : 5/1/5/3/5/27

Datum/Date : 5 September 1996

Faks/Fax Serie no : Bladsye/Pages : 1

Faks/Fax no : 012 3511345

Aan/To : Antartica & Islands

Aandag/Attention : Mr D van Schalkwyk/ Mr L E Cheune

Van/From : **CHIEF DIRECTOR: SEA FISHERIES**

Navrae/Enquiries : N A Hagan

Handtekening/Signature :


S A AGULKAS- WASTE DISPOSAL

Your facsimile reference A10/2/1/2/7/1 dated 4 September 1996 refers.

The matter has been investigated and the following was reported to have occurred:

The food waste disposal unit had malfunctioned and after discussions between the Master at the time, Capt. van Oordt, the catering officer, Mr P Johns and Mr D Alexander from the Scientific division it was decided to dispose of the organic food waste over the side of the ship. Mr Alexander also stated that the food stuff must be dumped at night after the scientific work was completed, as the food waste would get caught in the scientific nets.

Please be advised that it is standard procedure that the ship's crew get briefed, by the Master and the catering officer at the beginning of each voyage, with respect to the waste disposal procedure. All waste onboard the ship other than organic food stuff is retained onboard for disposal ashore by Wastetech, in Cape Town.

The undersigned takes due cognizance of Professor V.R. Smith's complaint and will endeavour to ensure that appropriate steps are taken to ensure that the provisions of the said Conventions are complied with.

2.

It would be duly appreciated if Professor Smith could provide the undersigned with the names of the crew who dumped the tin and aluminium into the sea so that they could be brought to book. There is no record in the Master's Official logbook of the incident being reported to the Master of the vessel at the time or any known written complaint made at the time.

Please be assured that the Sub-Directorate: Marine Vessel Operations is committed to the prevention of pollution of the seas and will take appropriate action against any offenders when there is sufficient evidence of any such contravention.

It is respectfully requested that members of the Prince Edward Islands Management Committee or other persons seeing such incidents bring these matters timeously to my attention so that the problem can be expeditiously attended to.

Regards

CHIEF MARINE SUPERINTENDENT

Dr Miller mentioned that in Zone 4 the wording of the waste disposal policy should be amended and cross-referenced with the "Waste and Sewage Disposal Policy" on p. 45 of the Management Plan. The wording was finalised as follows (indicated in bold/italics):

p. 43, point 4.4, para. 4:

'...Director-General. *The policy in terms of Waste and Sewage Disposal should be maximally applied, and every attempt should be made to avoid the introduction of alien/foreign material or waste (see Section 6).*'

p. 45, last objective to be added to "Policy" of point 6:

' - *To ensure that the above objectives are stringently adhered to in Special Entry Areas (see Section 4.4).*'

4.2 Increasing Public Awareness / Education Policy

The Chairman stated that it was important to get the Management Plan published and available nationally and internationally as soon as possible. He enquired as to media coverage, and Mr van Schalkwyk reported that the Plan would be referred to DEA&T's media section to set up a planned programme on how to publicize the document, i.e. exposure on 50/50, etc. Dr Miller added that it was important to target the youth in a media campaign, e.g. through Eco-Vision.

Mr van Schalkwyk informed that a draft media plan would be circulated to the committee members for comment.

The Chairman requested that the committee read through the latest revision of the Management Plan, within one week, for final comments which should be passed on to Ms Jacobs for inclusion in the document.

Dr Jackson enquired as to what team training involved. The Chairman informed that expedition members were briefed on the Management Plan, with talks by the Chief Scientist and Officer-in-Charge *en route* to Marion. He added that in terms of the team members, awareness was quite high.

4.3 International Cooperation

The Chairman read aloud a letter received from Mr J Cooper enquiring as to the scheduled publication of the Plan and undertook to inform him that the committee was working towards 30 June 1996. Mr van Schalkwyk reported that Revision 10 of the Plan was available, and that he would take a copy to the coming Antarctic Treaty Consultative Meeting (ATCM). He added that the Antarctic Treaty System (ATS) did not need to address the Management Plan. Dr Miller confirmed that the ATS only needed to be informed of the document, but advised that it was necessary to get the Plan into the Antarctic information system in terms of the electronic network, i.e. the International Centre for Antarctic Information and Research (ICAIR). Mr van Schalkwyk added that this could be done *via* the Antarctic Managers Electronic Network (AMEN) system which was on the World Wide Web.

Dr Miller also suggested a personal touch, i.e. delivering the Plan, *per hānd* by the trade attachés, to New Zealand, Australia, Argentina, Britain, France and Norway, as fellow sub-Antarctic countries. Mr van Schalkwyk mentioned all managers of Antarctic Programmes should be included as well. Dr Miller advised that a few copies should also be forwarded to the Director-General, Senator S P Grové, etc. It was felt that these were very powerful signals.

4.4 Printing / Format / Cover Page

Mr van Schalkwyk suggested that as there would be changes to the Plan from time to time, that it should be printed in a ring-binder format to incorporate these changes, i.e. replacement of pages whenever necessary. The Chairman added that it must be understood that this was a working document and not a book, but with a nice cover. A plastic cover, in colour, was suggested with 4-5 pictures superimposed on a map of the Islands, e.g. scientists working, a Wandering Albatross, SA Agulhas, plants, etc. without it being too complicated. It was decided that the DEA&T's media section should be approached for assistance with the cover design.

4.5 Appointment of "Conservation Officers"

The Chairman advised that Deon Nel, a biologist on the coming relief expedition, had been appointed as an *ad hoc* Conservation Officer in support of the Team Leader for the coming expedition, but that a permanent appointment needed to be looked into.

Mr van Schalkwyk reported that the Assistant Director post of the Directorate: Antarctica and Islands had been advertised for this purpose and would be readvertised shortly. He informed the committee that, at present, the monthly progress on the implementation of the Plan would be forwarded to himself and the Chairman.

Dr Jackson enquired as to whether there were any record-keeping systems at present, i.e. number of birds killed, oil spillages, etc. Mr van Schalkwyk affirmed that there was such a system, and that reports were to be submitted to the Department within 30 days of return from the Island. The Chairman added that it was acceptable for the Conservation Officer to submit reports of the monthly major occurrences on the Island.

Dr Randall enquired whether an Environmental Management System (EMS) was in place, and whether an Environmental Audit had been conducted.

Mr van Schalkwyk informed that one was available for Antarctica, but still needed to be implemented in this case. The Chairman added that this would hopefully be soon.

Handwritten notes:
 The... to...
 by...
 the management plan

4.6 Policy on Tourism

The Chairman informed that in accordance with the Environment Conservation Act, no tourists were permitted at present. Dr Miller added that a loophole had been created in the Management Plan in terms of the "Educational Policy", as an educational aspect had been essential, and that it was not constitutional not to allow visitors to Marion Island as it was South African property.

Dr Randall emphasized that this was a sensitive issue, but that as the policy appeared in the Plan and was approved by the Director-General, no visits should be approved at present. The Chairman added that in terms of specifics, visits could be turned down as 40 people ashore at a time, as requested in point 6, could not be accommodated in the case of an emergency.

Mr van Schalkwyk pointed out that Minister D J de Villiers of DEA&T was pro-tourism and the legal aspects in this regard needed to be determined. He felt that potentially awkward situations, which could occur in the future in terms of this policy, should be pre-empted by this committee soliciting an independent Environmental Impact Assessment (EIA) of the impact of limited tourism to the Island, the determination of the quota of visitors permitted and the effects of such impact, in order to formulate a policy in this regard. A sub-committee was to be established for this purpose, comprising Dr Jackson as the Chairperson and the following members: Mr P E Gildenhuys (Environmental Officer), Mr R N Skinner (DEA&T), Prof Hattingh (University of Pretoria's Eco-Tourism Group), Prof Smith and Prof Chown.

On a practical level, he indicated that the facilities on Marion and access to the Island also needed to be investigated, and that tour operators should be requested to submit an impact assessment of their own, including number of persons, time ashore, etc., as well as providing an indication of their financial responsibilities, contributions, etc. Dr Randall felt that the Minister's policy should be determined first, and if he was pro-tourism, then conduct an EIA. The committee agreed that this only applied to Zone 2 on Marion, and that no tourist visits would be permitted to Prince Edward. Mr van Schalkwyk enquired as to whether the provisions of the Territorial Waters Act would have an effect. Dr Miller informed that this was not a problem and that ships could come in really close to the shore.

Dr Miller suggested a Tourism Workshop for scientists and tour operators be held in the interests of transparency, and that as Mr Cooper had visited many sub-Antarctic islands, he was ideal to consult in this regard.

4.7 Establishing Marion Island as an LTER site

Dr Miller felt that someone should be appointed to look into this matter and develop a comprehensive proposal. On an enquiry as to the time-frames, he informed that this process would take 1-1½ years, as a South African and not a United States of America LTER site was required.

Mr van Schalkwyk mentioned that once the committee had been identified, he would obtain Dr F Hanekom's approval, as South African Committee for Antarctic Research (SACAR) Chairman.

The Chairman informed that Prof Smith was the only one with LTER data and requested Dr Miller to provide a list of names, including himself, to serve on the committee to investigate the establishing of Marion as an LTER site. He was also requested to draw up the "terms of reference" in this regard, and undertook to do so.

5. **PERMITS ISSUED FOR MARION ISLAND RELIEF VOYAGE:
APRIL/MAY 1996**

A breakdown of the permits issued for the above-mentioned voyage was provided in the agenda. Mr van Schalkwyk reported that all the SACAR 3 forms received had been addressed in consultation with the Chairman, and the permits were amended, where necessary, and issued accordingly. Copies were available on request. The Management Plan included one example of each permit, but the Chairman pointed out that certain regulations were not covered by these permits and would therefore have to be amended from time to time. The following amendments were suggested:

- p. 60, 63 and 64 "...and/or *the* Prince Edward Islands during..." (delete "the" and "s" indicated in bold/italics)
- p. 61 "Island *and/or* Prince" (add "and" indicated in bold/italics)

Dr Miller emphasized that ethics also played a role and that any pain or adverse effects on animals was not acceptable. Mr van Schalkwyk agreed that a paragraph was to be added to the SACAR 1 project proposal form stating that all project leaders were connected to universities which had ethic policies which must be adhered to on the Islands as well. SACAR was to address this issue, in terms of it being each university's responsibility, and that each project leader should adhere to the ethics of his/her affiliated university. Dr Miller added that in terms of permitting, exemption was required from the Sea Fisheries Act, and that this could be arranged on an annual basis.

At this time the committee broke for lunch after which the Chairman thanked the Department for the lunch and congratulated Dr Miller on receiving the 1995 B P Antarctic Award.

6. **REQUESTS TO VISIT THE PRINCE EDWARD ISLANDS**

- 6.1 **Zegrahm Expeditions**
6.2 **Starlight Cruises**

The Chairman summarized that the facilities to bring people ashore were not available at Ships' Cove, as suggested by Starlight Cruises; that the impact of tourists was not known; that there was no way to provide support in case of an emergency and that in the response to the tour operators it should be mentioned that we are not opposed to tourism and are investigating this avenue.

I think a small budget should be drawn up and a committee paid to draw up a data base. Suggest VPS see JC + maybe Dr

Dr Miller suggested that at some stage an observation system would have to be installed to monitor activities, as the committee was also responsible for the Exclusive Economic Zone (EEZ) around Marion, but could not monitor ships beyond the horizon, i.e. on the high seas. Mr van Schalkwyk added that the South African Air Force (SAAF) could possibly assist in this regard and that this avenue should be explored. Dr Miller agreed that an aircraft flying over Marion on the date that Starlight Cruises was scheduled to go ashore (6 December 1996) would be effective.

The Chairman requested that Mr van Schalkwyk follow up the SAAF enforcement flyover on 6 December 1996. It was decided to inform both tour operators that, within the provisions of the Management Plan, they were not permitted to land on Marion, with no extended explanation. The Director-General (DEA&T) was to be informed of this, with the appropriate letters for his signature.

① *Tourist visits should be regulated, channelled and care taken that foreign organisms NOT be brought ashore - eg seal on clothing, fruit, eggs, packing crates, well prince stuff etc*

7. **FINAL REPORT: MOUSE WORKSHOP**

The Chairman reported that, as an introduced species, house mice were arguably having an impact on the terrestrial ecosystem at Marion Island. There were, however, two opposing views, with Prof Smith maintaining that the impact was significant, and Prof Van Aarde suggesting that the impact was not readily identifiable. The Chairman read aloud the Executive Summary on p. 2 of Document 7 in which it was suggested that the PEIMC look into establishing a working group on mice at Marion (reiterated in point 5 on p. 14 of this document).

Dr Miller emphasized that "the nature of mouse population fluctuations and the impact of mice on the system", last paragraph of p. 13, should be established to allow us to look into eradication elsewhere. The Chairman reported that the Australians were developing efficient rodent viruses and that Prof van Aarde was researching this at present. Mr van Schalkwyk enquired regarding control measures, and the Chairman informed that it was not desirable to drop bait, but that Prof van Aarde could look into other options.

Mr van Schalkwyk requested that the Chairman take up the matter with Prof van Aarde and that he would inform Prof Nel, the Biological Sciences Task Group (BSTG) Chairman, that Prof van Aarde's group was looking into these measures, at the request of the PEIMC Chairman. The Chairman added that it was important that two areas were covered, i.e. the mice (van Aarde) and their impact (Smith), and that he would contact Prof Smith in this regard.

8. **ERADICATION OF *AGROSTIS GIGANTEA* ON MARION ISLAND**

The Chairman summarized an extract from a paper on the introduced *Agrostis* species on Marion Island by Dr N J M Gremmen, the authority on these species at the Prince Edward Islands. He added that Mr Gremmen had discovered *A. gigantea* on Marion and that it had only recently been established - early 1990's. He informed that the grass only covered a small area at present and was reproducing vegetatively, with no seeds at the moment.

To eradicate the grass the area would have to be covered with a dark tarpaulin for one year, but that everything underneath it would die as well, or alternatively sprayed with a non-residual herbicide. The Chairman stressed that this matter was urgent and that he would handle it in consultation with Prof Smith during the coming relief voyage, if this was acceptable to the committee. The committee supported this proposal, with the herbicide option, as according to Mr Cooper the grass had spread too much to cover with black plastic. Mr van Schalkwyk added that a formal response was to be drafted to Mr Cooper. The remaining herbicide was to be left on Marion in case more *A. gigantea* was discovered, under the care of Deon Nel. The Chairman undertook to teach Mr Nel to identify and eradicate *A. gigantea* during the takeover.

9. MATTERS ARISING FROM THE BIOLOGICAL SCIENCES TASK GROUP MEETING OF 15 AUGUST 1995

9.1 Monitoring of Experiments (Demography, climate change and life history styles of surface nesting of sea birds at Marion Island)

The Chairman reported that serious problems had been experienced last year with stomach logger experiments being conducted on penguins, and that it must be made clear in the statement explaining the regulations of interim and final reports that such information must be included in these reports. Dr Miller undertook to take this matter up with the Sea Fisheries Ethics Committee.

The Chairman added that problems were experienced in Dr Bester's seal project as well. Mr van Schalkwyk felt that the power should be invested in this committee, in consultation of course, to make on-the-spot decisions in such instances, as in the penguin case no-one could be traced. The committee decided that the Marion team could contact the Chairman for urgent decisions.

10. MATTERS ARISING FROM THE ANTARCTIC MANAGEMENT COMMITTEE MEETING OF 20 FEBRUARY 1996

10.1 Antarctic Treaty Consultative Meeting Information Paper: "Prince Edward Islands Management Plan"

This matter was dealt with under point 4.3 (International Cooperation). Dr Miller added that he would submit a copy of the PEIMP to CCAMLR, and that by publishing this Management Plan, clarity regarding the dumping of waste, etc. would be achieved.

10.2 Workshop to discuss the Management Plan

Mr van Schalkwyk reported that the proposal of a workshop had originated from the Department of Foreign Affairs, who were not directly involved in the South African National Antarctic Programme (SANAP). The Chairman felt that this was a good idea which was to be followed up by DEA&T.

Mr van Schalkwyk added that discussions had been held with Senator Grové to make SANAP more visible in Parliament, and that DEA&T was to arrange for a number of experts from the Department to brief Parliament on SANAP in late August 1996. The committee felt that it was a good idea to hold such a briefing on the *SA Agulhas*. Mr van Schalkwyk informed that this briefing would include some background, the Management Plan and the then Antarctic Conventions Bill (now Antarctic Treaties Bill), which he hoped would be passed by 30 July 1996.

10.3 Declaration of Marion Island as a World Heritage Site

Just PE for letter!
The Chairman suggested that a small working group be established to handle the declaration of Marion as a World Heritage Site. Mr van Schalkwyk undertook to set up this committee in conjunction with the Chairman and Geoff Cowen of DEA&T's Chief Directorate: Environmental Management.

Mr Looock enquired as to what was being done in terms of archaeological research. The Chairman responded that nothing much could be done if project proposals in this regard were not submitted, and Mr van Schalkwyk stated that the necessary SACAR 1 forms could be forwarded to him should he wish to submit a proposal.

Mr Looock continued that certain items that were removed from Marion should be returned to the Island, and the remaining items displayed at a museum in Cape Town. Mr van Schalkwyk added that this item was to be placed on the agenda for the next meeting, and enquired as to which national body was responsible for archiving. Mr Looock replied none at present, but that the Cultural History Museum, by agreement with DEA&T, had been allowed to conduct the original survey and that some material was housed there. The committee requested Mr Looock to draw up a "master plan" on what to do and who to approach in this regard, and to submit it to Mr van Schalkwyk. He undertook to do so.

The meeting adjourned until 8:00 the following day.

11. UPGRADING OF BUILDINGS ON MARION ISLAND

Mr van Schalkwyk informed that Mr L Holtzhausen from the Department of Public Works (PWD) was the architect for the base on Marion, that all new buildings require the approval of the PEIMC prior to construction and that during the coming takeover an assessment of such requirements was to be undertaken, i.e. as there were a number of scattered buildings, it was to be determined which could be removed. The Chairman reported that during the coming takeover Mr J A Dreyer (Officer-in-Charge) and himself would, in terms of the concept master plan for Marion Island, determine which buildings were structurally unsound now and which would need attention within 5 years.

Mr van Schalkwyk continued that the Weather Bureau had requested the backup hydrogen generator be placed in the upper-air building. This request was not approved for structural and safety reasons. Placement in a container was proposed and Mr Dreyer stated that it would be decided during the takeover where it would be placed, and should this not be possible, enough spare cylinders would be taken along.

The Chairman requested that Mr Dreyer consult with the Weather Bureau and finalise the matter. He added that in terms of the concept master plan, he and Mr Dreyer would look at what was required and decide on which outer buildings, aerals, etc. may be removed. Dr Jackson enquired whether the removal of antennas could receive priority, due to the bird fatalities caused by them. The Chairman affirmed that it would. Dr Miller asked whether the field huts would be checked. The Chairman replied that they would and that they would be removed if they were not required. Mr van Schalkwyk requested Mr Purnell from the PWD supply DEA&T with the original copy of the concept master plan to include in the PEIMP by 22 April 1996.

Mr Looock advised that, from an archaeological point of view, an opinion on the removal of buildings should be obtained from the Cultural History Museum in Cape Town. The Chairman requested Mr Looock to see to it that such a proposal was submitted to Mr van Schalkwyk. He undertook to do so.

12. GENERAL

12.1 Waste Disposal (specifically Chemical Waste) at the Prince Edward Islands

The Chairman reported that polystyrene was to be avoided and the use of plastic reduced, as well as being returned to South Africa. He added that paper and kitchen waste were to be incinerated, and that this was to receive priority, as the current incinerator could not handle all the waste. All poultry waste was to be packaged and returned to South Africa.

A document on how waste was handled in Antarctica was distributed to the committee, with Mr van Schalkwyk mentioning that everything was colour-coded and that the Department had a contract with Waste-Tech to handle all the waste returned to South Africa. He continued that all the details were contained in the Code of Conduct for SANAE which was handed to all expedition members and that if the regulations were not adhered to, bonuses were not paid out, and those persons contravening the regulations would not be considered for future expeditions.

Mr Dreyer informed the committee that all waste was separated on Marion for return to South Africa and that additional empty containers would be left on the Island for further separation of additional waste. The Chairman informed that classification of chemical types needed to be done to inform the expedition members which containers (metal/plastic) could be utilised for used photographic chemical storage and return. He continued that in terms of radioactive material, none was going down during the coming takeover, except by Dr E A Pakhomov for use on the *S A Agulhas*. He confirmed that the Antarctic Waste Management Plan dealt with most waste aspects well, except for the classification of research laboratory chemicals.

NO - No poultry waste should be taken - it is impossible to see that everything is packaged - what about washwater used for eggs, dishes, cooking, wiping up surfaces. Practically impossible

act: get the company supplying the poultry products certify that there is no problem with their product has been tested OK - to be a way of making the take up verification

Make the point that radioactive isotopes use in the smallest amounts possible. People are concerned about the project being at fault. Far greater in treating products, antibiotics etc.

Dr Jackson enquired regarding radioactive material handling on Marion, and the drawing up of a laboratory use protocol. The Chairman replied that when an application was received to use radioactive material, the protocol would be requested from the user. Dr Randall enquired as to whether an oil spill contingency plan existed. Mr van Schalkwyk replied that one was being finalised, with the biggest problem being a spill on the Island during the year and not during the transfer of fuel during takeovers.

He added that the ship would ensure that proper training was given to its staff to handle oil spills onboard. It was decided that a containment wall was necessary around the tanks on the Island to prevent seepage/spreading of potential leaks. The Chairman informed that at present grey water and human sewage went untreated directly into the sea. Mr van Schalkwyk advised that a macerator to break up and treat waste water should be considered and that to this end PWD would be requested to determine the flow rate for the size/capacity required. The Chairman added that if such a new sewage system was considered, the sewage could freeze in winter, and this factor should be considered.

12.2 Statements on accommodation at the Islands

The Chairman informed that as there were 32 rooms, the maximum persons that could be accommodated was 64. In the Management Plan it was originally decided to limit access to 50 persons, but with the number of approved projects it would be difficult to keep to this restriction. The Chairman continued that 64 persons could be easily accommodated, and Dr Miller added that access would be regulated by permit procedure. He also undertook to provide Ms Jacobs with the details for the revision of the Management Plan accordingly.

12.3 Demarcation of Routes with respect to Zones

The Chairman advised that, together with Mr D C Nel, a standard route on Marion would be demarcated during the coming takeover, and that people would be advised not to walk through Elephant Seal areas, etc.

*No No No
I think one major visit per 5 yrs and one reconnaissance for alien species way between 1/2*

Mr van Schalkwyk pointed out that the policy on access to Prince Edward Island needed to be determined, i.e. frequency and duration of visits. The Chairman added that there were no alien species on Prince Edward at present, but that the risk increased with every visit, and that originally it had been decided on one visit every five years with 2-3 persons for two days. Dr Miller felt that with more regular visits, but not more than one visit per annum pending the approval of a scientific project, something could be picked up before it spread, which would not be possible with one visit every five years. He emphasized that all mitigating measures were nevertheless to be stringently applied and verified, as Prince Edward was to be kept pristine in order to compare its processes to those of Marion.

The committee agreed that visits for scientific purposes could be allowed, with the provision that applications were to be directed *via* the relevant Task Group to this committee for approval. It was finally decided on no more than one visit per year by 6 persons for 4 days. Mr van Schalkwyk mentioned that the guidelines for these visits needed to be updated for strict adherence to the measures and the Chairman concluded that everything must be checked thoroughly prior to landing at Prince Edward, that these measures must be applied stringently and that this must be made clear to the scientific parties and Officer-in-Charge. The Management Plan was to be amended accordingly.

This was not done

With regard to the request in point 4.7 of these minutes, the LTER "terms of reference" Dr Miller had drawn up was acceptable to the committee and was to be forwarded to the Biological Sciences Task Group (BSTG) via the SACAR Chairman, Dr Hanekom. It was decided that the Chairman, Dr Miller and Prof Smith were to coordinate the establishment of Marion as an LTER-site.

With reference to point 8, the Chairman informed the committee that he had consulted with Prof Smith who had agreed with the herbicide-method of eradicating *A. gigantea* and that this would be done during the coming takeover.

?

Mr van Schalkwyk mentioned that this committee should meet after the Marion takeover, in order to report back to the Director-General before 31 December 1996, and again before the Marion takeover next year. He added that any SACAR 3 project proposals not received in time would not be considered for permits. He suggested that the Management Plan should be revised to include the delegation of the power to issue permits for the Prince Edward Islands from the Director-General to the Director: Antarctica and Islands in order to expedite matters. The committee agreed with this proposal.

Dr Randall advised that it was customary to include a list of names of people involved in the compilation of the Management Plan in the document. This was also accepted.

Dr Miller felt that the *ad hoc* co-opting of specialists onto this committee be left open for legal advice, etc.

12. CLOSING

It was decided to hold the next meeting on 25 or 26 September 1996, and next year's meeting during February 1997.

The Chairman thanked everyone for their participation and input and Mr van Schalkwyk for the lunch. He added that all comments on the Management Plan were to be forwarded to Ms Jacobs by 26 April 1996.

CHAIRMAN

DATE:

FRAMEWORK FOR ESTABLISHING MARION ISLAND AS A LONG-TERM ECOLOGICAL RESEARCH (LTER) SITE

Accepting that effective implementation of the Prince Edward Islands Management Plan (PEIMP) requires the collection of baseline data, the Prince Edward Islands Management Committee (PEIMC) recommends that a small task group be set up to study ways in which such data may be obtained. Noting that the collection of similar data on a global basis is the primary function of the US LTER programme, the task group's terms of reference shall be:

1. To investigate the potential of Marion Island as an LTER site,
2. Subject to the suitability of (1), develop an outline proposal whereby relevant research at Marion Island may be incorporated into the global LTER site network, and
3. Advise both the PEIMC and the South African Committee for Antarctic Research (SACAR) on (1) and (2) above.

PRINCE EDWARD ISLANDS MANAGEMENT REPORT: APRIL-MAY 1996 RELIEF VOYAGE

S.L. CHOWN

Department of Zoology & Entomology, University of Pretoria, Pretoria 0002, South Africa

STATION INSPECTION

The station appeared to be in a reasonable condition with regard to environmental impact. A minor diesel fuel spill had taken place over the 1995/1996 season due to a leak in the fuel tanks at the main generator shed. The spill was small and visible contamination was restricted to the area immediately below the tanks. According to the Team Leader no other spills took place over the year, but there were signs of spillage at the diesel tank supplying the hot water cylinder between the shower and new accommodation blocks.

On arrival, it was found that the packaging of the aluminium chips and KOH for use with the standby hydrogen generator had deteriorated considerably. This problem was rectified by Mr. King and his personnel, but packaging in plastic in steel containers remains a less than ideal solution. This problem is discussed below. In addition, considerable waste from the old standby hydrogen generators remains in the vicinity of the Upper Air building and this should be removed.

Waste disposal over the 1995/6 season took place according to the specifications of the Management Plan with the following exceptions: poultry waste was incinerated rather than packaged for return to South Africa; sewage was not macerated (no macerator installed as yet). Over the relief period, all poultry waste was frozen and returned to the ship for disposal in South Africa. It is recommended that in future only chicken fillets (and eggs) be sent to the island. Although the fillets are more costly, they do reduce the problems of waste in the form of chicken bones.

All buildings still appear structurally sound, although the level of routine maintenance could be increased. No buildings appear to be a threat to the environment in Zone 1 due to collapse etc.

AGROSTIS GIGANTEA - STATUS AND ACTIONS

According to Dr. N.J.M. Gremmen, the patch size of *Agrostis gigantea* has increased considerably since its discovery by him in April 1993. However, this exotic grass has not spread to other areas and remains restricted to small patches in a larger area of about 20 X 100 m in the immediate vicinity of the old fuel tanks above Gentoo Lake, and the slope down to Gentoo Lake below the tanks. The report that the grass had spread, made by Mr. J. Cooper, based on information provided by Mr. D. Keith, was not accurate due to misidentification of other introduced *Agrostis* species which have been established at the station for some time.

The *Agrostis gigantea* patches were inspected by Prof. V.R. Smith, Dr. Gremmen and myself and a decision was taken to attempt eradication of this species. Dr. Gremmen is of the opinion that the plant is a vigorous competitor, could spread reasonably quickly and could disrupt natural plant communities on the island. Therefore, Dr. Gremmen, myself and the environmental officer for 1996/7 Mr. D. Nel, sprayed the *A. gigantea* patches with a 3% solution of Sting® (Glyphosphate) donated by Monsanto for this purpose. According to Mr. H. Venter of Monsanto Johannesburg, Sting has no residual action and breaks down within 4-5 days of application. It also has little lateral movement in the soil. A total of 30 litres of mixed solution (900 ml of Sting, the remainder

DRAFT POLICY DOCUMENT FOR THE CONSERVATION MANAGEMENT OF CULTURAL SITES AND ARTIFACTS (HERITAGE RESOURCES), ON PRINCE EDWARD AND MARION ISLANDS

FOR THE PURPOSE OF THIS REPORT IT HAS BEEN ASSUMED THAT PRINCE EDWARD ISLAND WILL REMAIN ISOLATED AND WILL THEREFORE NOT BE UNDER THREAT IN TERMS OF LOSS OF CULTURAL MATERIAL. THE RECOMMENDATIONS ARE THEREFORE SPECIFICALLY APPLICABLE FOR MARION ISLAND. SUCH RECOMMENDATIONS MAY, OF COURSE BE RELEVANT TO WORK DONE ON PRINCE EDWARD ISLAND IN THE FUTURE -THE BASIC CONSERVATION PRINCIPLES REMAIN THE SAME.

The National Monuments Council is the statutory body charged with the protection of the country's cultural and historical heritage. This heritage consists of those buildings, places and objects which have particular connections with persons or events in our history and pre-history which were of particular significance. In the case of the Prince Edward Islands these heritage resources comprise places and sites of significance, buildings or structures, archaeological deposits and the shipwrecks surrounding the coastlines of the Islands.

This document has been compiled with the aim of establishing a policy to protect the heritage resources existing on and around the Prince Edward Islands.

The National Monuments Council's Policy Document for Cultural Conservation defines the fundamental principles for heritage conservation in South Africa. It is these principles that have informed this document setting out a policy for the cultural conservation and management of heritage resources on the Prince Edward Islands.

These principles are set out below:

1. The heritage is a finite, valuable, non-renewable resource, which must be carefully managed to ensure its survival.
2. Every generation has a moral responsibility to act as trustee of the natural and cultural heritage for succeeding generations.
3. South Africa has a rich heritage, both natural and man-made, which is unique and worthy of conservation.
4. Numerous cultures, both past and present, have contributed to that heritage and all have a right to be protected. Conservation of that heritage is in the interest of all South Africans.
5. Every person, community and institution has an obligation to ensure that significant elements of the natural and cultural heritage are not damaged or destroyed.

The following specific conservation principles have been extracted from the NMC Policy Document as they are particularly relevant to the establishment of a conservation policy for

the Prince Edward Islands.

1. The aim of conservation is to preserve, retain or recover the cultural interest of a place, and must include provision for its maintenance and future. (i.e. sustainability).
2. Education of the inhabitants and visitors regarding the value of the natural and cultural heritage and the purpose of its conservation should be promoted.
3. Conservation should be preceded by an investigation by an interdisciplinary team into the history and physical condition of the place to establish its age, previous phases of construction and its archaeological significance. There should be precise, durable documentation in the form of reports, drawings and photographs, and the existing fabric should be recorded before there is any disturbance of the place.
4. Cultural significance should be determined by analysis of the evidence gathered - ideally in consultation with a range of parties including cultural bodies and accredited experts on conservation and related issues.
5. Before conservation is undertaken, a written statement of conservation policy must be professionally prepared, setting out the cultural significance, physical condition and proposed conservation processes, together with the motivation and supporting evidence including photographs, drawings and analysis of all appropriate samples.
6. The conservation policy will determine what uses are compatible.
7. All records should be placed in a permanent archive.
8. Appropriate professional supervision and monitoring must be maintained at all stages of the work.
9. Conservation of a place should take into consideration all aspects of its cultural significance without unwarranted emphasis on any one at the expense of another.
10. All buildings and their environments should be recognised as products of their own time and as evidence of a continuous historical development.
11. Conservation of historically valuable places requires the maintenance of appropriate visual settings and contexts.
12. Conservation is based on respect for the existing fabric and should involve the least possible intervention. It should not distort the evidence revealed in the fabric.
13. Elements that have deteriorated should be repaired rather than replaced. The replaced articles should be recognised as new work but should match the original in composition, design and other visual qualities. Decisions regarding the replacement of missing parts of a building should be based on historical evidence.
14. Conservation should make use of all the disciplines contributing to the study. Every effort should be made to keep building techniques traditional.

15. Whenever possible, additions and alterations should be done in such a way that, if they were to be removed in the future, the original fabric would be visible.
16. Contemporary design for new buildings in an historical setting and alterations and additions to existing buildings and structures is encouraged if this does not disfigure valuable architectural or historical fabric, and is compatible with the character and scale of the environs.
17. The contents of historical places forming part of their historical significance should not be removed unless this is the sole means of ensuring their survival. If removed, such contents must be returned when changed circumstances make this possible.
18. A building or structure should remain in its historical location. Translocation of all or part of a building or structure is unacceptable unless this is the sole means of ensuring its survival.
19. Culturally valuable buildings should be occupied and used at all times.

SPECIFIC ASPECTS THAT REQUIRE ADDRESSING IN THE POLICY

1. The identification and protection of historical buildings, structures and sites on the Islands.

This falls under the jurisdiction of the National Monuments Council, the statutory body charged with the protection and preservation of the cultural heritage of the nation.

To manage this effectively a survey should be done of all the sites and structures of historic and cultural importance and a management plan set in place to facilitate any future plans for development on the Island. With the possibility of an increase in tourism in the future these sites should be clearly identified afforded measures of protection and/or included in specific tourist routes to be developed on Marion Island.

2. The establishment of a master plan to address the curation and management of items removed from Marion Island in the past.

Primarily archaeological in nature this process will involve the further identification and excavation of sites such as middens on Marion Island and secondly the formulation of a policy for the curation of any artifacts that are uncovered during this process.

The South African Cultural History Museum has prior involvement with the curation of some artifacts from Marion Island and is in the position to access such skills as may be required in terms of archaeological research. Additional specialist knowledge should also be sought.

3. Shipwrecks.

At least eight vessels of various nationalities are known to have foundered around the Prince Edward Islands between the early 19th century and c. 1922. With the exception of the immigrant ship Richard Dart (1849), these vessels were almost all involved in sealing. The archaeological potential of these shipwrecks is great, since they represent a microcosm of global cultural and economic activities in the South Atlantic, and can therefore provide a wealth of historical information.

Details about sealing as a global economic activity, about how the vessels were built, the daily lives of the crews, cargo composition and stowage, navigation instruments, crockery, tools, clothing and even foods and medicines used aboard these ships can all provide new historical insights. These clues to the past are only accessible if a wreck is carefully investigated and, and this resource therefore requires careful and sustainable management through a strict conservation policy.

All wrecks older than fifty years lying in South African territorial waters are protected in terms of Section 12 (2B) and (2C) of the National Monuments Act (Act 28 of 1969 as amended) which states that:

"No person shall destroy, damage, alter, disturb or export from the Republic ...any wreck or portion of a wreck, known or generally believed to have been in South African territorial waters longer than 50 years ... without a permit from the National Monuments Council."

The proper management of historical shipwrecks will ensure this valuable heritage resource will survive for the benefit, education and cultural enrichment of all South Africans.

SUGGESTED PROCEDURE FOR ADDRESSING THE THREE ASPECTS IDENTIFIED AS BEING OF SIGNIFICANCE IN THE CULTURAL CONSERVATION OF THE PRINCE EDWARD ISLANDS

1. THE IDENTIFICATION AND PROTECTION OF SITES, STRUCTURES AND BUILDINGS OF CULTURAL SIGNIFICANCE ON MARION ISLAND.

In order to make a thorough inventory of these sites it will be necessary to initiate a survey or catalogue of such sites on the entire Island.¹ In our experience once a catalogue of this nature has been compiled a management plan can be established with guidelines and regulations pertaining to the conservation of such sites which will facilitate any proposals made affecting the cultural resources of the Island.

Sites and structures can be graded according to conservation-worthiness in the catalogue and each category will be afforded certain measures of protection ranging from those that should receive some form of recognition, be it declaration or listing or simply recording or marking with a badge or plaque.

Using the work done in the Cooper and Avery publication to establish a base from which to work it will be necessary for a small group of specialists in this field, i.e. persons from the National Monuments Council who have experience in surveying conservation-worthy sites, to spend some time on Marion Island documenting the sites, structures and buildings.

2. ARTIFACTS - INVENTORY OF HISTORICAL ARTIFACTS REMOVED FROM MARION ISLAND

An inventory of historical artifacts from occupied sites of the Islands should be prepared. A concerted effort should be made to trace such artifacts and ensure their return either to a suitable place on Marion Island, or a photographic record of those artifacts that cannot be returned should be made. Recommendations should be made for the removal of fragile and deteriorating artifacts for safe-keeping and preservation.

Curation of artifacts

A decision should be taken as to the curation of historical artifacts. Several alternatives should be considered: these being,

1. Artifacts to remain undisturbed in situ.
2. Removal of certain fragile artifacts to an appropriate institution to ensure their preservation.
3. Certain artifacts to be left in situ, and others to be placed in a display on Marion Island with suitable interpretation. This would enhance the visitor experience and would sensitise both visitors and residents of the Island to the importance of its past history.

In his dissertation the "Cultural Resource Management of the Prince Edward Islands"² Tom Graham suggests that not all cultural material should be removed from its *in situ* position. He continues "In some instances, however, it may be necessary to remove artifacts to ensure their continual preservation. At both Macquarie and Heard Islands artifacts were removed for conservation treatment or for safekeeping (Lowrow 1987 and Ledingham 1986)."

Graham continues with a recommendation that a similar method of action is initiated on Marion Island. He suggests that certain artifacts may be subject to deterioration due to weathering or damage by either man or fauna. These artifacts should only be removed under strictly controlled archaeological conditions (supervision) and should be registered according to contemporary museological procedures.

The South African Cultural History Museum in Cape Town has already demonstrated its interest in the cultural resources of the Islands, Tom Graham being the past curator of one of the satellite museums, the Maritime Museum situated at the Victoria

and Alfred Waterfront at the time of his research. Some of the artifacts removed from Marion Island are situated in the Maritime Museum.

3. Shipwrecks

In line with the proposals for the terrestrial archaeological and historical sites, it is recommended that an underwater and terrestrial survey of the wrecks on and around the Prince Edward Islands be carried out by a suitably qualified maritime archaeologist, and that an inventory of this heritage resource be compiled.

The management of the shipwreck resource should form part of the general policy with regards to the management of the cultural and natural resources of the Islands.

It is recommended that in terms of the present management policy for Prince Edward Island no diving on or exploitation of any wreck around this island should be allowed.

Any diving or disturbance of the wrecks around Marion Island should be strictly limited to underwater archaeological research by suitably qualified professionals.

All material removed from any wreck during the course of such work must be displayed either in a museum on the Island, or at the South African Cultural History Museum's Maritime Museum in Cape Town.

Applications for permission to work on any wreck must be made to both the Department of Environmental Affairs and Tourism Advisory Committee for the Prince Edward Islands and the National Monuments Council.

Archaeological work on wreck sites around the islands may only be undertaken in terms of a permit issued by the National Monuments Council and according to the conditions of such a permit.

Detailed recommendations for the conservation management of the sites and structures, and the archaeological deposits will naturally only be forthcoming on completion of the initial studies and surveys to be undertaken as mentioned above. It is therefore recommended that permission be granted for a number of specialists to visit Marion Island in 1997 in order to carry out the survey and archaeological work as soon as possible.

It is estimated that teams of two to three persons each would be necessary for the survey and archaeological work; if the maritime archaeology is to be considered an additional three people would be required.

Draft Policy compiled by:

Laura Robinson: Regional Manager: Western Cape office of the NMC and,

John Gribble: Maritime Archaeologist, NMC

September 1996

1. process that was started in July 1986 when a workshop was held on the subject of historical sites on the Prince Edward Islands. Undertaken by the CSIR the proceedings were edited by Mr J Cooper and Prof G Avery under the title "Historical Sites at the Prince Edward Islands". S A National Scientific Programmes No 128, July 1986.

2. Cultural Resource Management of the Prince Edward Islands, A B A (Hons) dissertation, Department of Archaeology, University of Cape Town 1989.

3. Dissertation, pg 96.

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WESTERN CAPE REGIONAL OFFICE



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FAKS - 021 462 4509 FAKS - 021 462 4509

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All in reeds see Edward Islands
TO: Johan Looen Committee FAX NO. (051) 447-8501
FROM: Laura Robinson NO. OF PAGES: 8

052-4502 Fax 462-4509

DRAFT POLICY PLAN
PRINCE EDWARD ISLANDS

Johan - I suggest that this document is tabled for discussion at your meeting - we can then include any comments etc from the Committee + develop it further.
regards, Laura

DRAFT POLICY DOCUMENT FOR THE CONSERVATION MANAGEMENT OF CULTURAL SITES AND ARTIFACTS (HERITAGE RESOURCES), ON PRINCE EDWARD AND MARION ISLANDS

FOR THE PURPOSE OF THIS REPORT IT HAS BEEN ASSUMED THAT PRINCE EDWARD ISLAND WILL REMAIN ISOLATED AND WILL THEREFORE NOT BE UNDER THREAT IN TERMS OF LOSS OF CULTURAL MATERIAL. THE RECOMMENDATIONS ARE THEREFORE SPECIFICALLY APPLICABLE FOR MARION ISLAND. SUCH RECOMMENDATIONS MAY, OF COURSE BE RELEVANT TO WORK DONE ON PRINCE EDWARD ISLAND IN THE FUTURE -THE BASIC CONSERVATION PRINCIPLES REMAIN THE SAME.

The National Monuments Council is the statutory body charged with the protection of the country's cultural and historical heritage. This heritage consists of those buildings, places and objects which have particular connections with persons or events in our history and pre-history which were of particular significance. In the case of the Prince Edward Islands these resources comprise places and sites of significance, buildings or structures, archaeological deposits and the shipwrecks surrounding the coastlines of the Islands.

This document has been compiled with the aim of establishing a policy to protect the heritages existing on and around the Prince Edward Islands.

This document is based on the National Monuments Council's Policy Document for Cultural Conservation and the fundamental principles for heritage conservation in South Africa. It is these principles which have informed this document setting out a policy for the cultural conservation and management of heritage resources on the Prince Edward Islands.

These principles are set out below:

1. The heritage is a finite, valuable, non-renewable resource which must be carefully managed to ensure its survival.

Every generation has a moral responsibility to act as trustee of the natural and cultural heritage for succeeding generations.

South Africa has a rich heritage, both natural and man-made. This heritage is unique and worthy of conservation.

4. Numerous cultures, both past and present, have contributed to that heritage and all have a right to be protected. Conservation of that heritage is in the interest of all South Africans.
5. Every person, community and institution has an obligation to ensure that significant elements of the natural and cultural heritage are not damaged or destroyed.

The following specific conservation principles have been extracted from the NMC Policy Document as they are particularly relevant to the establishment of a conservation policy for

the Prince Edward Islands.

1. The aim of conservation is to preserve, retain or recover the cultural interest of a place, and must include provision for its maintenance and future. (i.e. sustainability).
2. Education of the inhabitants and visitors regarding the value of the natural and cultural heritage and the purpose of its conservation should be promoted.
3. Conservation should be preceded by an investigation by an interdisciplinary team into the history and physical condition of the place to establish its age, previous phases of construction and its archaeological significance. There should be precise durable documentation in the form of reports, drawings and photographs, and the existing fabric should be recorded before there is any disturbance of the place.
4. Cultural significance should be determined by analysis of the evidence in consultation with a range of parties including cultural bodies and conservation and related issues.
5. When conservation is undertaken, a written statement of conservation policy must be prepared, setting out the cultural significance, physical condition and conservation processes, together with the motivation and supporting evidence. Photographs, drawings and analysis of all appropriate samples.
6. The conservation policy will determine what uses are compatible.
7. All records should be placed in a permanent archive.
8. Appropriate professional supervision and monitoring must be maintained at all stages of the work.
9. Conservation of a place should take into consideration all aspects of its cultural significance without unwarranted emphasis on any one at the expense of another.
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13. Elements that have deteriorated should be repaired rather than replaced. The replaced articles should be recognised as new work but should match the original in composition, design and other visual qualities. Decisions regarding the replacement of missing parts of a building should be based on historical evidence.
14. Conservation should make use of all the disciplines contributing to the study. Every effort should be made to keep building techniques traditional.

15. Where possible, additions and alterations should be done in such a way that, if they are to be removed in the future, the original fabric would be visible.
16. Contemporary design for new buildings in an historical setting and alterations and additions to existing buildings and structures is encouraged if this does not disfigure the architectural or historical fabric, and is compatible with the character and quality of the environs.
17. The contents of historical places forming part of their historical significance should not be removed unless this is the sole means of ensuring their survival. If removed such contents must be returned when changed circumstances make this possible.

A building or structure should remain in its historical location. Translocation of or part of a building or structure is unacceptable unless this is the sole means of ensuring its survival.

19. Culturally sensitive buildings should be occupied and used at all times.

ISSUES THAT REQUIRE ADDRESSING IN THE POLICY

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This falls within the jurisdiction of the National Monuments Council, the statutory body charged with the protection and preservation of the cultural heritage of the nation.

To manage this effectively a survey should be done of all the sites and structures of historic and cultural importance and a management plan set in place to facilitate any future plans for development on the Island. With the possibility of an increase in tourism in the future these sites should be clearly identified afforded maximum protection and/or included in specific tourist routes to be developed on Marion Island.

2. The establishment of a master plan to address the curation and management of artifacts removed from Marion Island in the past.

Primarily archaeological in nature this process will involve the further identification and excavation of sites such as middens on Marion Island and secondly the formulation of a policy for the curation of any artifacts that are uncovered during this process.

The South African Cultural History Museum has prior involvement with the curation of some artifacts from Marion Island and is in the position to access such skills as may be required in terms of archaeological research. Additional specialist knowledge should also be sought.

3. Shipwrecks.

At least eight vessels of various nationalities are known to have foundered around the Prince Edward Islands between the early 19th century and c.1922. With the exception of the immigrant ship *Richard Dart* (1849), these vessels were almost all involved in sealing. The archaeological potential of these shipwrecks is great, since they represent a microcosm of global cultural and economic activities in the South Atlantic, and can therefore provide a wealth of historical information

Details about sealing as a global economic activity, about how the vessels were built, the daily lives of the crews, cargo composition and stowage, navigation instruments, crockery, tools, clothing and even foods and medicines used aboard these ships can all provide new historical insights. These clues to the past are only accessible if a wreck is carefully investigated and, and this resource therefore requires careful and sustainable management through a strict conservation policy.

All wrecks older than fifty years lying in South African territorial waters are protected in terms of Section 12 (2B) and (2C) of the National Monuments Act (Act 28 of 1969 as amended) which states that:

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The proper management of historical shipwrecks will ensure this valuable heritage resource will survive for the benefit, education and cultural enrichment of all South Africans.

SUGGESTED PROCEDURE FOR ADDRESSING THE THREE ASPECTS IDENTIFIED AS BEING OF SIGNIFICANCE IN THE CULTURAL CONSERVATION OF THE PRINCE EDWARD ISLANDS

1. THE IDENTIFICATION AND PROTECTION OF SITES, STRUCTURES AND BUILDINGS OF CULTURAL SIGNIFICANCE ON MARION ISLAND.

In order to make a thorough inventory of these sites it will be necessary to initiate a survey or catalogue of such sites on the entire Island.¹ In our experience once a catalogue of this nature has been compiled a management plan can be established with guidelines and regulations pertaining to the conservation of such sites which will facilitate any proposals made affecting the cultural resources of the Island.

Sites and structures can be graded according to conservation-worthiness in the catalogue and each category will be afforded certain measures of protection ranging from those that should receive some form of recognition, be it declaration or listing or simply recording or marking with a badge or plaque.

Using the work done in the Cooper and Avery publication to establish a base from which to work it will be necessary for a small group of specialists in this field, i.e. persons from the National Monuments Council who have experience in surveying conservation-worthy sites, to spend some time on Marion Island documenting the sites, structures and buildings.

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An inventory of historical artifacts from occupied sites of the Islands should be prepared. A concerted effort should be made to trace such artifacts and ensure their return either to a suitable place on Marion Island, or a photographic record of those artifacts that cannot be returned should be made. Recommendations should be made for the removal of fragile and deteriorating artifacts for safe-keeping and preservation.

Curation of artifacts

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1. Artifacts to remain undisturbed *in situ*.
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In his dissertation the "Cultural Resource Management of the Prince Edward Islands"² Tom Graham suggests that not all cultural material should be removed from its *in situ* position. He continues "In some instances, however, it may be necessary to remove artifacts to ensure their continual preservation. At both Macquarie and Heard Islands artifacts were removed for conservation treatment or for safekeeping (Townrow 1987 and Ledingham 1986)."³

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and Alfred Waterfront at the time of his research. Some of the artifacts removed from Marion Island are situated in the Maritime Museum.

3. Shipwrecks

In line with the proposals for the terrestrial archaeological and historical sites, it is recommended that an underwater and terrestrial survey of the wrecks on and around the Prince Edward Islands be carried out by a suitably qualified maritime archaeologist, and that an inventory of this heritage resource be compiled.

The management of the shipwreck resource should form part of the general policy with regards to the management of the cultural and natural resources of the Islands.

It is recommended that in terms of the present management policy for Prince Edward Island no diving on or exploitation of any wreck around this island should be allowed.

Any diving or disturbance of the wrecks around Marion Island should be strictly limited to underwater archaeological research by suitably qualified professionals.

All material removed from any wreck during the course of such work must be displayed either in a museum on the Island, or at the South African Cultural History Museum's Maritime Museum in Cape Town.

Applications for permission to work on any wreck must be made to both the Department of Environmental Affairs and Tourism Advisory Committee for the Prince Edward Islands and the National Monuments Council.

Archaeological work on wreck sites around the islands may only be undertaken in terms of a permit issued by the National Monuments Council and according to the conditions of such a permit.

Detailed recommendations for the conservation management of the sites and structures, and the archaeological deposits will naturally only be forthcoming on completion of the initial studies and surveys to be undertaken as mentioned above. It is therefore recommended that permission be granted for a number of specialists to visit Marion Island in 1997 in order to carry out the survey and archaeological work as soon as possible.

It is estimated that teams of two to three persons each would be necessary for the survey and archaeological work; if the maritime archaeology is to be considered an additional three people would be required.

Draft Policy compiled by:

Laura Robinson: Regional Manager: Western Cape office of the NMC and,

John Gribble: Maritime Archaeologist, NMC

September 1996

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2. Cultural Resource Management of the Prince Edward Islands. A B A (Hons) dissertation, Department of Archaeology, University of Cape Town 1989.
3. Dissertation, pg 96.

POLICY FOR THE CONSERVATION AND MANAGEMENT OF THE SHIPWRECKS AROUND THE PRINCE EDWARD ISLANDS:

At least 8 vessels of various nationalities are known to have foundered around the Prince Edward Islands between the early 19th century and c.1922. With the exception of the immigrant ship *Richard Dart* (1849), these vessels were almost all involved in sealing. The archaeological potential of these shipwrecks is great, since they represent a microcosm of global cultural and economic activities in the south Atlantic, and can therefore provide a wealth of historical information.

Details about sealing as a global economic activity, about how the vessels were built, the daily lives of the crews, cargo composition and stowage, navigation instruments, crockery, tools, clothing and even foods and medicines used aboard the ships can all provide new historical insights. These clues to the past are only accessible if a wreck is carefully investigated, and this resource therefore requires careful and sustainable management through a strict cultural conservation policy.

All wrecks in South African territorial waters older than 50 years are protected in terms of Sections 12 (2B) and (2C) of the National Monuments Act (Act 28 of 1969 as amended) which state that:

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The proper management of historical shipwrecks will ensure that this valuable heritage resource will survive for the benefit, education and cultural enrichment of all South Africans.

-
- In line with the proposals for the terrestrial archaeological and historical sites, it is recommended that an underwater and terrestrial survey of the wrecks on and around the Prince Edward Islands be carried out by a suitably qualified maritime archaeologist, and that an inventory of this heritage resource be compiled.
 - The management of the shipwreck resource should form part of the general policy with regards to the management of the cultural and natural resources of the islands.
 - It is recommended that in terms of the present management policy for Prince Edward Island no diving on or exploitation of any wreck around this island be allowed.
 - Any diving on or disturbance of the wrecks around Marion Island should be strictly limited to underwater archaeological research by suitably qualified professionals.
- All material removed from any wreck during the course of such work must be displayed either in a museum on the island, or at the South African Cultural History Museum's Maritime Museum in Cape Town.

-2-

- Applications for permission to work on any wreck must be made to both the Department of Environmental Affairs and Tourism Advisory Committee for the Prince Edward Islands and the National Monuments Council.
- Archaeological work on wreck sites around the islands may only be undertaken in terms of a permit issued by the National Monuments Council and according to the conditions of such a permit.

Joan Gribble: Maritime Archaeologist
5 September 1996

JOG/PIEG.POL

being water) was sprayed. The day was calm and dry and hence ideal for application of the herbicide. Mr. Nel. was instructed to monitor the sprayed patches (which are marked with green stakes) and to respray if re-growth is observed. He was also instructed to re-spray the patches in spring and mid-summer, after consultation with the Prince Edward Islands Management Committee. The herbicide will be stored in the flammable store at the island until the 1997 relief when a decision should be taken on whether it is still required. The situation should be monitored for the next five years at the very least.

Given that Monsanto donated the product (20 litres at a retail cost of R 750 per litre), it is suggested that Monsanto be forwarded a letter of thanks from the Management Committee as well as a short report on the actions taken.

IMPLEMENTATION OF THE MANAGEMENT PLAN

This Relief Voyage was the first to be undertaken under the provisions of the new Management Plan. In this respect, the voyage left much to be desired. The major problems and omissions are listed in point form below, to facilitate investigation by the Management Committee and DEA&T. The Management Plan (Part III) sections of relevance are noted.

1. There were no rat guards present on the mooring lines of the SA Agulhas (Section 15).
2. A major leak of lubrication oil from the propeller shaft into the surrounding ocean developed on the SA Agulhas. The potential for this problem had apparently (see Senior Scientists Report 1996) been identified prior to departure of the ship from Cape Town harbour (Section 7).
2. Poultry products did not appear to have been irradiated in South Africa (Section 6.7).
3. Many windows at the Station could not be darkened due to an absence of black blinds (Section). This resulted in a number of Petrel fatalities (Section 5).
4. Polystyrene packing material was found in at least four containers (Section 6.2).
5. Food waste is currently dumped into the sea. No high temperature incinerator is present (Section 6.8). This was investigated (see below).
6. Birds at the Station showed clear signs of having been fed throughout the year (Sections 5 and 13).
7. At least two Helicopter flights, which did not meet with the specifications of the management plan were undertaken. On 15th May, Majors A.W. Johnson & D.P. Schutte were instructed to uplift personnel from Cape Davis and Mixed Pickle Huts. I accompanied the flight to assist with location of personnel and placement of a generator at Repettos Hut. The Helicopter spent some time (c. 4 minutes) circling Boot Rock. Most flying was undertaken close to the coast at an altitude of approximately 200 feet. The Helicopter passed very close by the large King Penguin Colony at King Penguin Bay at low altitude. The birds were visibly disturbed. Because of strong winds there may have been a safety reason for the altitude and flight path chosen, but the circling of Boot Rock was rather inexplicable, and suggested that the helicopter was operating well within safety limits. On the final day, the last helicopter flight was undertaken at low altitudes over the coast. This was observed by Mr. D. Nel, but not by myself. (Section 8.3; Appendix VII).

8. There was a fuel spillage during transfer of the diesel oil from the SA Agulhas to the base (Section 7).

9. Due to the hurried departure of the ship, wooden packing material had to be burnt. This was done with my full knowledge and consent. However, it appeared to be the wisest choice between leaving the material to be washed off Cabbage Point during a storm, or burning it. The hurried departure forced this choice on those concerned. (Section 6).

10. The provisions of the Management Plan were generally well accepted by all personnel visiting the island. There was some resistance to the zonation by Marion 52, as would be expected, but once the Management Plan was fully explained most complaints seemed to disappear. Marion 53 appeared enthusiastic with regard to the Management Plan. However, there were some relief personnel who raised complaints. Mr. P. King argued that his personnel were being denied access to the "natural environment" of Marion Island. At one point Mr. King argued that his takeover staff had seen Ship's Cove, Trypot Beach, and the top of Juniors Kop and that they were now keen to view other sights. No formal application for a Zone 3 permit was made, however. In addition, neither Dr. Gremmen, Prof. Smith, Dr. Bester, Dr. Klages, Mr. Dyer nor myself were approached for guided walks which could have provided a far superior "natural history" experience than unguided ones. Furthermore, given the short period of the relief, it is rather surprising that Mr. King's personnel were able to manage so many walks in addition to their official responsibilities. Mr. King appeared to be rather unhappy with the circumstances at Marion Island. This is perhaps a poor reflection on the state of general knowledge concerning relief voyages and what is involved. It is recommended that an information booklet/book, especially designed for first time visitors to Marion Island, be produced as soon as possible. (Section 4)

11. There is some indication that differential access by team members to Zones 2-3 may be a source of conflict during the year. There may be some merit in providing free access to Zone 3 to all Team members. This issue should be raised during the next Management Committee meeting, in consultation with the current Team Leader and Conservation Officer. Marion 53 should be viewed as a test case. (Section 4).

12. Zone 4 areas are not sufficiently well demarcated to prevent personnel from traversing them. This is particularly the case with the Sealers Beach and Macaroni Bay Wandering Albatross colonies. These colonies lie on well established paths to and from various sites. The best and most practical routes around the colonies should be investigated. (Section 4).

13. Due to the lack of time, the route traversing Grey Headed Albatross Ridge was not marked (Section 4).

14. The plastic containers supplied for waste chemicals were completely unsuitable. Many of them were simply old fuel containers which still contained varying amounts of old fuel oil or lubrication oil. This is unacceptable because mixing of chemicals can be hazardous from a safety and environmental viewpoint. Clean waste chemical containers must be supplied. All personnel must be instructed on waste chemical disposal and the classes of compounds that cannot be mixed (Section 6).

15. There is no permanent system for pumping contaminated diesel fuel from the generator shed fuel tanks back to a spare tank. There also appears to be no system for bulk transfer of diesel fuel from Marion Island to the supply ship in the case of contamination (Section 6).

16. A full time conservation officer should accompany each relief voyage. This person should undertake the trip yearly and he/she be fully informed concerning the Marion Island Environment, the provisions of the Management Plan, and the research to be undertaken. Running a research project, fulfilling the duties of Senior Scientist, and taking decisions as the "executive officer" for the Management Plan is time consuming and therefore unfair on those relief personnel who which to know more about the Island during the voyage. In addition, it leaves the system open for considerable criticism. A researcher/research leader should preferably not be the referee on the environmental impact of his/her research (Section 2.1)

MANAGEMENT ACTIONS IDENTIFIED AS PRIORITIES

The following issues deserve immediate attention

ZONE 1 SCIENTIFIC STATION

1. Black blinds are required for all windows in the main base and in the laboratories.
2. A high-temperature incinerator for organic waste to be installed where the present incinerator is located. (Agreed on by Mr. J.A. Dreyer, Mr. S. Morrison and myself).
3. A sewage macerator. No details on specifications were available and therefore a site could not be chosen. According to Mr. Dreyer, Mr. R. Purnell (PWD) investigated sewage flow rates.
4. The current HF aerial system and the wires leading from the base to the aerials is unsatisfactory due to bird injury caused by the wires. Mr. Neville Gleeson and the Radio technicians from Marion 52 and 53 investigated this problem. They concluded that the current system of aerials could not be altered without severely compromising stand-by communications. They recommended that the above-ground cable from the base to the Emergency Base be replaced. They also suggested the installation of a single, multi-directional antenna. Although costly, this system would involve a single mast with stays, rather than the plethora of masts and stays currently present at the base station.
5. Low level, low intensity lighting for all catwalks to minimize bird strike should be viewed as a long-term goal. *yes.*
6. Containment walls are not in place around any of the diesel fuel bulk storage tanks. These should be constructed as soon as possible. *Yes but calculate the height needed!*
7. A system for "back-pumping" fuel should be implemented (see above).
8. The old aluminium chip/KOH waste lying in the immediate vicinity of the Upper Air building should be cleared away and returned to South Africa.
9. A more suitable storage system for aluminium chips and KOH, and for the waste generated by emergency hydrogen generation by chemical means should be investigated. Currently, the systems are inadequate and the risk of environmental contamination is high.
10. The waste below the Brown Store, Food Store and Wet Lab should be removed. Pouring concrete below the Food Store should be considered the last alternative if all other methods of waste removal fail.

3. All old hut sites should be cleared. This includes the hut base near Kampkoppie, the hut at Laekop and all waste materials associated with old hut sites.

*BUT HUTS
ARE NEEDED
- 20 new ones*

ZONE 4 SPECIAL ENTRY AREAS

1. So far as is known, a weather buoy was deployed by the Weather Bureau in one of the lakes at Prince Edward Island in the early 1990s (V.R. Smith personal communication). This buoy should be retrieved if it is no longer in use.

2. Observations by Prof. V.R. Smith, Dr. N.J.M. Gremmen and myself certainly suggest that mouse activity, if not mouse density, continues to increase at Marion Island. Given this and the marked spread of many alien plant species on Marion Island (Dr. N.J.M. Gremmen, personal communication), it is strongly recommended that the visitor frequency to Prince Edward Island, specified in Part III, Section 9.2 of the Management Plan, be re-assessed by the Management Committee as soon as possible. From my point of view the increase in mouse activity argues for very stringent control of any visits to Prince Edward Island, and a re-assessment of the frequency with which visits are allowed (currently at yearly intervals).

CONCLUDING REMARKS

Despite some resistance to the Management Plan, it was taken seriously by the vast majority of the relief personnel. However, it is recommended that all DEA&T staff involved at any level in the logistics for Marion Island be well informed of the provisions of the Management Plan.

Although many points still require attention, the implementation of the Management Plan has already shown benefits with regard to the sound management of the Prince Edward Islands.



PROF. S.L. CHOWN
12 June 1996

DEPARTEMENT VAN OMGEWINGSAKE EN TOERISME/DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM

Adres/Address
Fedlife Forumgebou/Building
Pretoriusstraat 315 Pretorius Street
Pretoria
Verwysing/Reference

A 10/2/13/1

Posadres/Postal Address
Privaatsak X447 Private Bag
Pretoria
0001
Telefoon/Telephone

(012) 310-3651

Telegramme/Telegrams
Omgewing
Faksno/Fax no
(012) 322-2682
Navrae/Enquiries

Dr C M Cameron



Vise-Admiraal R C Simpson-Anderson
Hoof van die Suid-Afrikaanse Vloot
S A Vloothoofkwartier
Privaatsak X 104
PRETORIA
0001

Geagte Vise-Adm. Simpson-Anderson

S A VLOOT FEESVIERINGE: MOONTLIKE GESAMENTLIKE PROJEK

1. Baie dankie vir u skrywe in bogenoemde verband gedateer 4 April 1996.
2. Dit is vir my aangenaam om u mee te deel dat u versoek na die Prins Edwardeilande Bestuurskomitee, wat verantwoordelik is vir die bestuur en kontrolering van alle besoeke aan Marioneiland, verwys is vir oorweging. U sal so gou moontlik 'n antwoord in die verband ontvang.

Vriendelike groete

Dr C M Cameron
DIREKTEUR-GENERAAL

1996-05-02

Hoof van die
Suid-Afrikaanse Vloot



Chief of the
South African Navy

VSH/B/511/2/2/3(SAN75)

Telefoon : (012) 339-4129
Faks : (012) 339-4286
Navrae : Kapt T.M. Butler

SA Vloothoofkwartier
Privaatsak X104
Pretoria
0001
4 April 1996

Dr C.M. Cameron
Die Direkteur-Generaal
Departement van Omgewingsake en Toerisme
Privaatsak X447
Pretoria
0001

Geagte dr Cameron

SA VLOOT 75 FEESVIERINGE : MOONTLIKE GESAMENTLIKE PROJEEK

Die SA Vloot vier in 1997 sy 75ste bestaansjaar. Dit word beoog om, as deel van die feesvieringe, 'n projek te loods om aandag op Suid-Afrika se maritieme belange te vestig. 'n Moontlikheid is om 'n aantal jeugdige skip na die Prince Edward- of Marioneilande te neem, waar daar vir hulle omgewingsverwante aktiwiteite aangebied sal word. Sodoende word daar opnuut aandag gevestig op die feit dat die RSA wel belange buite die vasteland het wat deur u Departement bestuur word.

Ek het verneem dat u Departement ook so 'n projek vir 1997 beoog. Ek wil voorstel dat die SA Vloot en u Departement 'n gesamentlike projek in dié verband beplan. Sodoende kan beide u Departement en die SA Vloot daaruit voordeel put. Ek verneem graag van u gedagtes in hierdie verband.

Intussen wens ek u en u Departement alle sterkte toe vir die uitdagings wat voorlê en ek bedank u hartlik vir u volgehoue ondersteuning.

Met beste wense

(R.C. SIMPSON-ANDERSON)

HOOF VAN DIE SUID-AFRIKAANSE VLOOT : VISE-ADMIRAAL

PRINCE EDWARD ISLANDS

PERMIT TO ENTER MARION ISLAND WATERS

Pursuant to the provisions of Section 33 (3) and Part IX of the Sea Fisheries Act (Act 12 of 1988) and Section 2 of the Seabirds and Seals Protection Act (Act 46 of 1973) and the provisions of the Prince Edward Islands Management Plan, permission is hereby granted to

the *Vieirasa 12* under command of Captain Marcelo Smith

of *Argentina* to enter into Marion Island waters during the period *5 August 1996 to 6 August 1996* for anchorage half a kilometer from Marion Island for emergency engine repairs.

1. A full report of the results of the activities authorized by this permit must be forwarded to the Director-General within 10 days, following the expiry of this permit.
2. This permit may be revoked by notice in writing by the Director-General of the Department of Environmental Affairs and Tourism or any person to whom he has delegated such authority.
3. Close liaison must be maintained with the Team leader/Conservation Officer on the Island.

Date of issue:.....*5 August, 1996.*

C.M. Cameron.

DR C M CAMERON
DIRECTOR GENERAL: ENVIRONMENTAL AFFAIRS AND TOURISM

Doc. 6.1

MICHAEL HORAN
P. O. Box 167
Eagle Nest
New Mexico 87718
U.S.A., EE. UU.

DEPT. VAN COASTGUARD
RECEIVED
1996-05-05
PRETORIA 0001
RECEIVED
DEPT. OF ENVIRONMENTAL AFFAIRS

16 May, 1996

Director-General
Department of Environmental Affairs
Privaatsak X447 Private Bag
Pretoria 0001
Republic of South Africa

Dear Sirs:

YOUR REF. A15/3/1
Ms. C A Jacobs
REQUEST TO VISIT MARION AND PRINCE EDWARD
ISLANDS

Thank you for your letter of 6 May, 1996 In reference to my request to visit Marion and Prince Edward Islands.

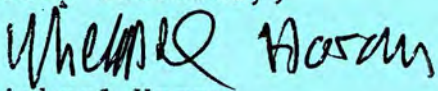
Would you please keep me on the waiting list to accompany a vessel to Marion Island in April or May 1997 or 1998, pending the outcome of the Environmental Impact Assessment (EIA) you are going to prepare on effects of tourism to the islands.

I would like to visit Marion Island for the purposes of exploratory mountaineering and study of the vegetation as an individual.

However, I will also volunteer to assist in any needed environmental remediation clean up projects on the islands, if there is a need for that, such as removing debris left by early scientific expeditions, or packing out garbage.

At the Argentine Navy outpost on Staten Island (Isla de Los Estados) Tierra Del Fuego, the rotation period for the five man crew is every 40 days. We returned all garbage, except for food wastes, by ship to Ushuaia. Food wastes were composted in a designated area to produce soil humus for a small garden at the outpost.

Yours sincerely,


Michael Horan



The Director-General,
Attention: Mr Dirk Van Schalkwyk,
Antarctica and Islands,
Department of Environmental Affairs and Tourism,
Private Bag X447
Pretoria

13 August 1996

Dear Dirk,

SOIL EROSION ON MARION ISLAND

In the early 1990s I reported a peat slip caused by the dam constructed for the hydroelectric project on Marion Island. Water diverted from the dam had caused about 250 m³ of soil/peat to slip down a slope immediately below the dam. I pointed out that it was virtually certain that further soil movement would occur if the water was not rerouted or the area stabilized in some way.

The area below the dam is now a disaster. There is large-scale soil erosion and about 3000 square metres of surface has been denuded of vegetation. In May this year I estimated that 15000 m³ of soil had been washed away. The erosion is eating into the slopes on either side - a frontage of about 200 m.

As an erosion event, this one instance is easily ten times greater than all the naturally caused erosion on the island put together. It would be a mockery of the Prince Edward Island Management Plan if we ignored our responsibility to correct the matter.

I propose that:

1. The dam be breached and the river allowed to follow its old course. Strictly, in terms of the management directives, the dam should be dismantled completely and the material returned to SA.
2. Experts in land rehabilitation be appointed to correct the damage already done.

Please include this matter on the agenda for the Prince Edward Islands Management Committee meeting to be held on 11 th September 1996.

Yours truly,

A handwritten signature in black ink, appearing to read 'V. Smith', written in a cursive style.

Valdon R. Smith,
Department of Botany and Genetics
University of the Orange Free State

The Director-General,
Attention: Mr Dirk Van Schalkwyk,
Antarctica and Islands,
Department of Environmental Affairs and Tourism,
Private Bag X447
Pretoria

13 August 1996

Dear Dirk,

RUBBLE AND BUILDING WASTE ON MARION ISLAND

There is an alarming amount of building rubble and discarded building material scattered around Marion Island.

The island has been afforded the legal status of Nature Reserve and a management plan has been formulated and is being enforced. This, considered together with the Department of Environmental Affairs and Tourism's responsibility for, and stated commitment to, preserving the islands environment in as pristine a state as possible leads to the inescapable conclusion that this rubble and waste must be removed.

Mainly these sites are within 2 km of the base but there are others. For example, on the west coast, in a zone 3 area, there is a demolished hut, with foundation, roof, walls and floor panels lying scattered over about a 200 square meter area.

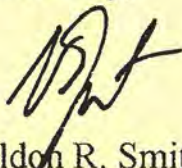
There are several large areas on the old pipeline route, and between the dam and the base, where hundreds of meters of piping, drums, wire stays, plastic bags of sand/concrete etc are strewn around. There are at least two places where the large hydroelectric pipes were jettisoned and never recovered.

The site of the turbine hut is an eyesore, possibly it is one of the most degraded areas in the whole sub-Antarctic. A plan must be formulated to remove the two buildings and the surrounding rubble and to rehabilitate the area.

I suggest that the current team be instructed to note (preferably using a GPS) where the sites are exactly, and during the next takeover the helicopter be used to remove rubble from the worst affected of these. If we can clean up say ten sites per takeover it will be a step toward instigating the remedial measures outlined in the Management Plan.

Please place this letter on the agenda for the Prince Edward Islands Management Committee meeting to be held on 11 th September 1996.

Yours truly,

A handwritten signature in black ink, appearing to read 'V.R. Smith', written in a cursive style.

Valdon R. Smith,
Department of Botany and Genetics
University of the Orange Free State

Doc. 7.7

The Director-General,
Attention: Mr Dirk Van Schalkwyk,
Antarctica and Islands,
Department of Environmental Affairs and Tourism,
Private Bag X447
Pretoria

13 August 1996

Dear Dirk,

WASTE DISPOSAL ON THE S.A. AGULHAS

On three occasions during this last takeover voyage to Marion Island I saw the crew of the S.A. Agulhas throw garbage into the sea. Twice it was kitchen waste and once it was about 7 or 8 large bags of tin and aluminium cans. On that occasion I confronted the two crew members concerned and they told me that this was normal practice but that they did it only at night "when the scientists are asleep".

You will be aware of the friction and anger between the takeover personnel and Steve Chown, who as chief scientist had to enforce the new regulations and procedures outlined in the Management Plan. The attitude of the ship's personnel does nothing to convince takeover people of our environmental obligations in the Antarctic/ sub-Antarctic, or to support those who are trying to promote the departments policy of minimal environmental disturbance resulting from our research and logistic activities in the region.

Please place this matter on the agenda for the Prince Edward Islands Management Committee meeting to be held on 11 th September 1996.

Yours truly,



Valdon R. Smith,
Department of Botany and Genetics
University of the Orange Free State

The Director-General,
Attention: Mr Dirk Van Schalkwyk,
Department of Environmental Affairs and Tourism,
Private Bag X447
Pretoria
13 August 1996

Dear Dirk,

ANTENNAE AND STAY WIRES ON MARION ISLAND

In May this year I measured the total length of antennae cables, stay wires and cables etc erected around the Marion Island base. Because the ship left early and suddenly I did not complete the measurement, nor did I write down my results. I have forgotten the exact length but it was something like $5\frac{1}{2}$ km of cable/wire strung up near the base, at heights of up to about 25 m.

The radio technician told me that most of these aerials are not used.

There is also a line of telephone poles carrying cables for several hundred meters, from the base to the emergency base. These serve no function since there is no telephone communication between the buildings along the line.

At all of the huts there are also aerials and stay wires.

These obstacles are a definite danger to the many nocturnal bird species on the island - in fact, I have seen a Giant Petrel break a wing against the aerial wire at Swartkop Hut in daylight. I find it ludicrous that there are plans to install blinds in all the windows at the island to prevent bird strikes, when this much greater threat to flying birds is ignored.

Please place this matter on the agenda for the Prince Edward Islands Management Committee meeting to be held on 11 th September 1996.

Yours truly,



Valdon Smith,
Department of Botany and Genetics, University of the Orange Free State