Antarctic Treaty Recommendations

ATCM XXIV: Measure 1(2001): Antarctic Protected Areas System:

Historic Sites And Monuments: "A Hut", Scott Base, Ross Sea Region, Antarctica

The Representatives,

Recalling Recommendations I – IX, VI-14, VII-9, XII-7, XIII-16, XIV-8;

Acknowledging the significance of "A Hut", Scott Base to:

- New Zealand Antarctic history
- the establishment of Scott Base
- early scientific investigation in the Ross Sea Region
- the involvement of New Zealand in the International Geophysical Year 1957
- connections between Antarctica and New Zealand
- the Commonwealth Trans Antarctic Expedition 1956/1957

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

The following building be added to the "List of Historic Monuments Identified and described by the Proposing Government or Governments" annexed to Recommendation VII-9 and that thereafter it be accorded the respect and protection required by the Recommendations recalled above:

The A Hut of Scott Base, being the only existing Trans Antarctic Expedition 1956/1957 building in Antarctica sited at Pram Point, Ross Island, Ross Sea Region, Antarctica.

ATCM XXIV: Measure 2(2001): Antarctic Protected Areas System:

Historic Sites And Monuments: Ruins of the Base Pedro Aguirre Cerda, Pendulum Cove, Deception Island, Antarctica

The Representatives,

Recalling Recommendations I-IX, VI-14, VII-9, XII-7, XIII-16, XIV-8;

Acknowledging the significance of the ruins of the base Pedro Aguirre Cerda, Deception Island:

- to Chilean Antarctic history;
- to early meteorological and volcanological recordings in Antarctica;
- as an example of historic damage to a base by a natural phenomena,

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

The following site be added to the "List of Historic Monuments identified and described by the Proposing Government or Governments" annexed to Recommendation VII-9 and thereafter it be accorded the respect and protection required by the Recommendations recalled above:

The ruins of the base Pedro Aguirre Cerda, being a Chilean meteorological and volcanological center situated at Pendulum Cove, Deception Island, Antarctica, that was destroyed by volcanic eruptions in 1967 and 1969.

ATCM XXIV: Measure 3(2001): Antarctic Protected Areas System: Extension of Expiry Dates for Certain Sites of Special Scientific Interest

The Representatives,

Recalling Recommendations VIII-4, XIII-8, XII-8, XVI-2, and XVI-3 adopting the Management Plans for Sites of Special Scientific Interest numbers 4, 5, 6, 7, 18, 33, 35, and 36;

Noting that the expiry date for these sites is 31 December 2001, but wishing to continue to protect these sites until such time their respective management plans have been revised in accordance with Annex V to the Environmental Protocol;

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

That the date of expiry of the management plans in the list annexed to this Measure be extended until 31 December 2005, and that this Measure be applied provisionally, to the fullest extent possible consistent with their Governments' domestic laws and regulations, pending such approval.

Annex to Measure 3(2001)

SSSI Number 4 Cape Crozier, Ross Island

SSSI Number 5 Fildes Peninsula, King George Island, South Shetland Islands

SSSI Number 6 Byers Peninsula, Livingston Island, South Shetland Islands

SSSI Number 7 Haswell Island

SSSI Number 18 North-west White Island, McMurdo Sound

SSSI Number 33 Ardley Island, Maxwell Bay, King George Island

SSSI Number 35 Western Bransfield Strait, off Low Island, South Shetland Islands

SSSI Number 36 East Dallman Bay, off Brabant Island

ATCM XXIV: Resolution 4(2001): Historic Sites and Monuments

The Representatives,

Recalling Recommendations I-IX, VI-14, VII-9, XII-7, XIII-16 and XIV-8;

Noting the desirability of reviewing the List and Historic Sites or Monuments to ensure that it remains accurate and up-to-date;

Noting also that on entry into force of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty, Historic Sites and Monuments may be also designated as Antarctic Specially Protected Areas or Antarctic Specially Managed Areas;

Recommend that:

- Parties assume responsibility for reviewing Historic Sites and Monuments according to the list appended to this resolution.
- In conducting a review of a listed Historic Site or Monument those Consultative Parties should assess whether:
 - the site still exists either in whole or in part;
 - the site continues to meet the guidelines for Historic Sites or Monuments set out in Resolution 8 (1995);
 - the description of the site should be amended and updated boundaries need to be identified for the site. If so, suitable maps should be produced;
 - the site requires special protection or management and, if so, whether it should be also designated as, or included in, an Antarctic Specially Protected Area or as an Antarctic Specially Managed Area;
 - in the light of this review, the site should be de-listed.
- The Consultative Parties identified in the Appendix to the Resolution report on the outcome of their review to the UK CEP contact in order to allow a report to be compiled for CEP V.
- Those Consultative Parties with relevant information on the status of any Historic Sites and Monuments should ensure that such information is made available to those Parties responsible for the site.

ATCM XXIV: Resolution 5(2001): Guidelines for Handling of Pre-1958 Historic Remains whose Existence or Present Location is Not Known

The Representatives,

Recalling Recommendation VII-9 which provides for Consultative Parties to adopt all adequate measures to preserve and protect from damage the historic monuments situated in the Antarctic Treaty area, and the provisions of Annex V to the Environmental Protocol,

Recalling also Resolution 8 (1995), which sets out criteria by which types of sites and artifacts that could be designated as historic sites and monuments,

Aware of the prohibition in Article 8 (4) of Annex V on the removal of listed historic monuments,

Recognizing the unique value of all the historic remains of early exploration of the Antarctic continent, and

Noting that increased activity in Antarctica has increased the pressure on historic sites and artifacts not protected by current measures,

Recommend that:

The Guidelines, appended to this Resolution, for handling of pre-1958 historic remains whose existence or present location is not known, be used by Parties as guidance on questions relating to protection of such historic remains in Antarctica.

Appendix to Resolution 5 (2001)

Guidelines for handling of pre-1958 historic remains whose existence or present location is not known.

- 1. These guidelines apply to pre-1958 historic artifacts/sites whose existence or location is not known.
- 2. These guidelines should be applied, as far as possible, to provide interim protection of pre-1958 historic artifacts/sites until the Parties have had due time to consider their inclusion into the protection system under Annex V to the Protocol on Environmental Protection. This interim protection should not extend beyond three years after the discovery of a new historic artifact/site has been brought to the attention of the Parties.
- 3. Historic artifacts/sites for the purpose of these Guidelines, include but are not necessarily limited to:
 - Artifacts with a particular association with a person who played an important role in the history of science or exploration of Antarctica;
 - Artifacts with a particular association with a notable feat of endurance achievement;
 - Artifacts representative of, or which form part of, some wide-ranging activity that has been important in the development of knowledge of Antarctica;
 - Artifacts with particular technical or architectural value in its materials, design or method of construction;
 - Artifacts with the potential, through study, to reveal information or which have the potential to educate people about significant human activities in Antarctica;
 - Artifacts with symbolic or commemorative value for people of many nations.
- 4. Any person/expedition who discovers pre-1958 historic remains should notify the appropriate authorities in their home country. The consequences of removing such remains should be duly considered. If items nonetheless are removed from Antarctica, they should be delivered to the appropriate authorities in the home country of the discoverer.

- 5. If historic artifacts/sites are discovered during construction activities, all construction should be discontinued to the greatest extent practical until the artifacts have been appropriately recorded and evaluated
- 6. The Party whose nationals have discovered pre-1958 historic artifacts/sites should notify the other Treaty Parties about the discovery, indicating what remains have been found, and where and when.
- 7. If there is uncertainty as to the age of a newly discovered historic artifact/site it should be treated as a pre-1958 artifact/site until its age has been established.

ATSCM XII: Measure 1(2000): Antarctic Protected Areas System: Revised Management Plans for Specially Protected Areas and Sites of Special Scientific Interest

The Representatives,

Recalling Resolution 1 (1998) allocating responsibility among Consultative Parties for the revision of Management Plans for protected areas;

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

- 1. That the Management Plan for Specially Protected Area Number 14, attached to this Measure, be inserted in the Annex to Recommendation IV-14 to replace the plan previously annexed to that Recommendation.
- 2. That the Management Plan for Specially Protected Area Number 19, attached to this Measure, be inserted in the Annex to Recommendation XIII-11 to replace the plan previously annexed to that Recommendation.
- 3. That the Management Plan for Specially Protected Area Number 20, attached to this Measure, be inserted in the Annex to Recommendation XIII-12 to replace the plan previously annexed to that Recommendation, and that thereupon SSSI Number 10, as designated by Recommendation XIII-8, shall cease to exist.
- 4. That the Management Plan for Site of Special Scientific Interest Number 8, attached to this Measure, be inserted in the Annex to Recommendation X-5 to replace the plan previously annexed to that Recommendation.
- 5. That the Management Plan for Site of Special Scientific Interest Number 17, attached to this Measure, be inserted in the Annex to Recommendation XIII-8 to replace the plan previously annexed to that Recommendation.
- 6. That the Management Plan for Site of Special Scientific Interest Number 22, attached to this Measure, be inserted in the Annex to Recommendation XIV-5 to replace the plan previously annexed to that Recommendation.
- 7. That the Management Plan for Site of Special Scientific Interest Number 34, attached to this Measure, be inserted in the Annex to Recommendation XVI-2 to replace the plan previously annexed to that Recommendation.

8. That the Parties ensure that their nationals comply with the mandatory provisions of the revised management plans.

ATSCM XII: Measure 2 (2000): Antarctic Protected Areas System: Extension of Expiry Dates for Certain Sites of Special Scientific Interest

The Representatives,

Recalling Recommendations VIII-4, XIII-8, XIV-5, XV-6 and XV-7 adopting the Management Plans for Sites of Special Scientific Interest numbers 1, 2, 3, 16, 20, 21, 24, 25, 26, 27, 28, 29, 31 and 32;

Noting that the expiry date for these sites is 31 December 2000, but wishing to continue to protect these sites, until such time that their respective Management Plans have been revised in accordance with Annex V of the Environmental Protocol;

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty.

That the date of expiry of the management plans in the list annexed to this Measure be extended until 31 December 2005, and that this Measure be applied provisionally, to the fullest extent possible consistent with their Governments' domestic laws and regulations, pending such approval.

Annex to Measure 2(2000)

SSSI Number 1	Cape Royds, Ross Island
SSSI Number 2	Arrival Heights, Hut Point Peninsula, Ross Island
SSSI Number 3	Barwick Valley, Victoria Land
SSSI Number 16	North-eastern Bailey Peninsula, Budd Coast
SSSI Number 20	Biscoe Point, Anvers Island
SSSI Number 21	Parts of Deception Island, South Shetland Islands
SSSI Number 24	Summit of Mount Melbourne, Northern Victoria Land
SSSI Number 25	Marine Plain, Mule Peninsula, Vestfold Hills
SSSI Number 26	Chile Bay, (Discovery Bay), Greenwich Island
SSSI Number 27	Port Foster, Deception Island, South Shetland Islands
SSSI Number 28	South Bay, Doumer Island, Palmer Archipelago
SSSI Number 29	Ablation Point-Ganymede Heights, Alexander Island
SSSI Number 31	Mount Flora, Hope Bay, Antarctic Peninsula

ATSCM XII: Resolution 1(2000): Guidelines for Implementation of the Framework for Protected Areas set forth in Article 3, Annex V of the Environmental Protocol

The Representatives,

Noting that Article 3 of Annex V of the Protocol provides a framework for the designation of Antarctic Specially Protected Areas;

Recognizing that these Areas must conform to the requirements of Article 3 of Annex V;

Recalling Resolution 2(1998) Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas;

Conscious of the need for general guidance in the assessment and definition of potential specially protected areas;

Recommend that the "Guidelines for Implementation of the Framework for Protected Areas set forth in Article 3, Annex V of the Environmental Protocol", attached to this Resolution, be used by those engaged in the development of proposals for specially protected areas in Antarctica.

Guidelines for implementation of the Framework for Protected Areas set forth in Article 3, Annex V of the Environmental Protocol

Part I: Introduction

1.1 The Antarctic Treaty System and Protected Areas

A variety of instruments have been developed within the Antarctic Treaty system to help protect special places such as important wildlife breeding areas, fragile plant communities, cold desert ecosystems and historic places. These instruments have included the Agreed Measures for the Conservation of Antarctic Fauna and Flora and numerous recommendations to Parties.

More recently Annex V of the Environmental Protocol was agreed. It defines the basic structure or framework for Antarctic Specially Protected Areas (ASPAs) with a list of values that may merit special protection (Article 3(1) and types or examples of area to be protected (Article 3(2)) (refer Appendix I). Article 3(2) of Annex V states that Parties shall seek to identify such areas within a systematic environmental-geographical framework. Such areas will then be included in the existing series of Antarctic Specially Protected Areas.

Antarctic Specially Protected Areas is the only category of protected area provided for under Annex V of the Environmental Protocol (refer Article 2). Another category of area,

Antarctic Specially Managed Areas (ASMAs) are defined in Article 4 and are areas with special management requirements. ASMAs are not considered in these guidelines.

Protected areas provide a higher level of protection for specific values beyond that achieved by other forms of planning and management measures under the Protocol. These areas are designated within geographically defined limits and are managed to achieve specific protection aims and objectives.

1.2 Aim of the Guidelines

The aim of the guidelines is to assist the Parties, SCAR, CCAMLR, COMNAP and the CEP to apply Article 3 of Annex V of the Environmental Protocol for the designation of Antarctic Specially Protected Areas. The guidelines provide a set of tools to enable more systematic assessment, selection, definition and proposal of areas that might require greater protection in accordance with the provisions of Annex V of the Environmental Protocol. It is hoped that they will facilitate methodical assessment and designation of such areas.

1.3 Structure of the Guidelines

The guidelines are organised into three main parts representing a process for assessing, selecting, defining and proposing new protected areas.

Part I is an introductory section, which offers a brief explanation of the existing mechanisms to protect Antarctic areas within the Antarctic Treaty system. This section also establishes the aims of the guidelines and details the way they are structured.

Part II provides guidance for **assessing** the potential of an area or site for protection and includes checklists on the framework for protected areas provided in Article 3(1) and 3(2). The checklist provides guidance on the values to be protected and on how to determine what should be protected and why, i.e. the reasons for protection. The concept of quality, including quality criteria, is defined to provide a further means of assessing whether an area merits being specially protected. Finally, the concept of environmental risk is presented as a very important aid in assessing the area's need for enhanced protection.

Part III provides guidance for **defining** areas for protection under Article 3 of Annex V of the Protocol, including ways to apply the concept of feasibility.

Part IV briefly notes the steps for **proposing** areas for protection including drafting of management plans and refers readers to the "Guide to Preparing Management Plans for Antarctic Specially Protected Areas".

NOTE:

As these guidelines have no legal status, those wishing to establish new protected areas should also carefully examine the provisions of Annex V of the Environmental Protocol to the Antarctic Treaty and should seek advice from their national authority at an early stage.

Part II: Assessing the protection potential of an area

2.1 Assessing Values to be Protected (Article 3(1))

When seeking to assess whether an area merits protection, a clear understanding is needed of the values to be protected. Values are generally taken to mean something of worth, merit or importance. Table 1 offers a checklist of the values listed in Article 3(1) that could be used to help identify those values represented in possible specially protected areas.

Table 1. Checklist of the values listed in Article 3(1)

Environmental values	Does the area contain physical, chemical or biological features e.g., glaciers, fresh water lakes, melt pools, rock outcrops, plant life or animal life that are particularly unique or representative components of the Antarctic environment?		
Scientific values	Does the area contain physical, chemical or biological features of special interest to scientific researchers where the principles and methods of science would be applicable?		
Historic values	Does the area contain features or objects that represent, connate or recall events, experiences, achievements, places or records that are important, significant or unusual in the course of human events and activity [1] in Antarctica?		
Aesthetic values	Does the area contain features or attributes e.g., beauty, pleasantness, inspirational qualities, scenic attraction and appeal [3] that contribute to people's appreciation and sense or perception of an area?		
Wilderness values	Does the area contain characteristics e.g., remoteness, few or no people, an absence of human-made objects, traces, sounds and smells, untravelled or infrequently visited terrain that are particularly unique or representative components of the Antarctic environment? [3]		
Combination	Does the area contain any combination of the above values?		
Ongoing or planned scientific activities	Does the area include ongoing or planned scientific projects or activities?		

If it is considered that any examples of the values listed in Article 3(1) are contained or represented in a particular area then further investigation of the area for protected area status may be worthwhile.

2.2 Assessment of Potential Protection and Use Category (Article 3(2a-i))

Article 3(2a-i) provides a list of examples of areas that can be designated as ASPAs. It should be noted that the specific examples of areas identified are not exclusive and that other examples of protected area could potentially be included provided they aim to protect the values set out in Article 3(1). In addition, it should be noted that Article 3(2) does not provide a uniform series of values, features, objectives, categories or uses of potential ASPAs.

A conceptual methodology has been developed to help understand more systematically what should be protected and why (i.e. examples or categories of areas and reasons for their proposed designation). Table 2 provides a checklist of the potential types or categories of areas to be protected and their management or use objectives. The aim is to provide a tool that can be used for the clearer identification of the important components or attributes of possible protected areas once the values to be protected have been agreed (refer section 2.1).

The checklist may also help to ensure that possible protected areas are considered in a more standardised way and to aid further work in the designation process (e.g. assessment and subsequent development of management plans.

Table 2. Checklist for identifying and clarifying the type of area to be protected (protection category) as well as the use or reasons (use category).

Protection Categories (i.e. what is being protected)

ld the area be protected for its ecosystems? i.e. dynamic	Ecosystems
plexes of plant, animal and micro-organism communities	
heir non-living environment interacting as an ecological	
Then from fiving environment interacting as a	

unit [4].

Habitats Would the area be protected for its habitats? i.e. the places or

types of site where an organism or population naturally

occurs [4].

Species assemblages Would the area be protected for its species assemblages? i.e.

important or unusual groupings or populations of one or more species of fauna or flora (usual type of area protection

of species in Antarctica).

Species (taxa) Would the area be protected for its species? i.e. special

groups of organisms which resemble each other and

sometimes are linked to a common habitat to a greater degree than members of other groups, and which commonly form reproductively isolated groups that will not normally breed with members of another group [5].

Geological, glaciological, or geomorphological features

Would the area be protected for its geological, glaciological or geomorphological features? i.e. distinctive or special characteristics of the history, structure or components of the Earth's crust, rocks, fossils and cryosphere or a result of present or past processes beneath or at the Earth's surface in Antarctica

Landscapes

Would the area be protected for its landscape? i.e. expanses of coastal or inland scenery, usually at a scale where they contain a mosaic of inter-related ecosystems, and characterised by particular patterns of geometry, heterogeneity, patch dynamics and biophysical processes [6].

Aesthetic

Would the area be protected for its aesthetic features? i.e. attributes concerned with beauty, appreciation, perception and inspiration [3].

Wilderness

Would the area be protected for its wilderness features? i.e. attributes concerned with remoteness and a relative absence of both people and indications of past and present human presence or activity [3].

Historic

Would the area be protected for its historic features? i.e. things which represent or recall events, experiences, places, achievements or records that are important, significant or unusual in the course of human events and activity in Antarctica.

Intrinsic

Would the area be protected for its intrinsic features? (The real or inherent nature of a thing is worth protecting in its own right i.e. without requiring use).

Use Categories (why the area is being protected)

Scientific research would the area be protected for scientific research?

Conservation would the area be protected for its conservation purposes?

(Conservation embraces both protection and judicious use, management of biodiversity, intrinsic value and importance in maintaining the life sustaining systems of the biosphere: distinguished from "sustainable use" and "sustainable

management" [4])

2.3 Quality Criteria

Quality criteria can be applied as a checklist to evaluate further whether an area deserves special protection or not. The quality of a potential protected area can be thought of as an overall degree of excellence in terms of the values it contains. Table 3 provides a checklist of questions that can be used to assess the quality of a proposed protected area.

Table 3. Checklist for assessing quality aspects of proposed protected areas

Representativeness

- Is the potential area **representative** of other comparable parts of Antarctica?
- Does it contain ecosystems, species, habitats, physical, historic, aesthetic and wilderness or other values or features represented elsewhere?
- What contribution would the area make to an Antarctic Protected Area system with a full range of outstanding natural environmental, biological, geographic and geological values of the Antarctic region?
- In relation to Antarctica as a whole, what proportion of the values or types of protected area identified in Articles 3(1) and 3(2) are represented in the site being investigated?.

E.g. an area containing representative examples of marine & terrestrial ecosystems & assemblages of species of seabird may be higher quality than one containing a single colony of a common species.

Diversity

• What **diversity** of species, habitats or other values or features does the area contain?

For example an area might be of higher quality if it contained a greater diversity of biological and/or geological features than a nearby area.

Distinctiveness

- Is the potential area **distinctive** from other areas? How different is it from other areas?
- Does it contain species, habitats or other values or features not duplicated elsewhere? Are they **unique**, **rare**, uncommon or common?
- Are there naturally uncommon taxa present, including "sparse" taxa which occur within typically small and widely scattered natural populations, "range restricted" taxa whose distribution is naturally confined to specific substrates (e.g. a specific rock type), habitats (e.g. geothermally-heated soils) or geographic areas (e.g. nunataks), "vagrant" taxa which may appear for short periods without establishing long-term breeding populations, and "seasonal" taxa which migrate into the polar regions during summer?
- Are there naturally uncommon abiotic features present that have been formed or preserved through an unusual or infrequent set of geological, geomorphological or glaciological processes?

For example an area containing the only example of a terrestrial ecosystem or a unique fossil locality might be of higher quality than one that contained a common terrestrial ecosystem or type of fossil.

Ecological importance

- How **important**/critical is the area ecologically or numerically for key species, ecosystems or as a type locality?
- Do the number of individuals or groups occurring at the area include a high proportion of the global population? For example, if 90% of the global population were present, this would represent a key population and a very important ecological site.
- What contribution does the area make to maintenance of essential ecological processes or life-support systems or habitats?
- Does the area have any inherent vulnerability due to local endemism, rarity of species, biological vulnerability or for other reasons?

Degree of interference

- To what extent has the area been subject to human **interference**?
- Does the area lack signs of human activities (e.g. tracks, litters)?
- Is there minimal loss or addition of species, natural processes and abiotic material?
- What is the degree of visitation and alteration of the adjacent landscape?

E.g. an area that has not experienced local human-induced change and is protected from it because of isolation may have higher quality wilderness values and might be more valuable as an undisturbed reference area than a less natural area.

Scientific and monitoring uses

- What is the potential for the pursuit of science including gaining of knowledge by study and analysis?
- What is the potential of the area to be used as a reference area (e.g. for environmental monitoring)?

The reasons for area protection summarised in Tables 1 and 2 could be analysed together with the quality criteria in Table 3 using the matrix set out in Table 4 as a guide. This approach may provide a convenient and efficient method of evaluation and identification of a potential area. It could also help in the comparison of potential areas and for determining priorities for protection.

Table 4. Matrix of area values and categories from Tables 1 and 2 against quality criteria from Table 3.

	Quality Criteria					
Value / category	Representa- tiveness	Diversity	Distinctive- ness	Ecological	Degree of Interference	Science & monitoring
Ecosystems						
Habitats						
Assemblages						
Species						
Features						
Landscapes						
Aesthetics						
Wilderness						
Historic						
Science						
Conservation						
Intrinsic						

2.4 Environmental Risk Assessment

Environmental risk assessment can be used to further assess possible protected areas i.e. to help decide whether a particular area merits protection of its special characteristics (not as a means to modify or prohibit ongoing activities in or near the area). Risk assessment should assist in identifying what the actual and potential threats and risks are to an area containing outstanding values.

This step in the protected area process recognises that every area identified as having important values may not need to be formally designated as an ASPA. Most areas will not need additional protection because they are naturally robust or because the Antarctic Treaty system already provides sufficient protection. It should be noted that the degree of environmental risk to a potential area (e.g. as identified through application of the checklist in Table 5) is not a prerequisite for formal protection of an area under the Environmental Protocol. However, areas identified as subject to risks that threaten the identified values to an unacceptable or unmanageable level may need to be considered as a priority or more worthy of more formal protection.

Table 5 provides risk criteria in the form of a checklist for assessing environmental risk to a possible protected area.

Table 5. Checklist for assessing environmental risk to a possible protected area

Human activities and impacts

- Are human activities regularly, infrequently or almost never carried out in the area?
- Are biological or abiotic components or processes of the area vulnerable to any existing or likely future human activities in the area itself or nearby?
- Could these activities directly, indirectly or in a cumulative way result in impacts on the values for which this area has been identified or modify them in any way?
- How likely, frequent and intensive might the impacts be and over what temporal and spatial scales?
- When disturbance occurs, what is the time taken to return to pre-disturbance or equilibrium levels?

Natural processes

• Are natural processes (e.g. atmospheric, climatic, marine, biological or glacial processes) likely to modify the area or its values?

Natural variability and viability

- What are the short and long term variations (e.g. seasonal changes) in populations of biota present in the area?
- Is the likely variation due to natural processes likely to be smaller, similar to or larger than impacts of human activities in the area?
- Are there any medium- or long-term indications that natural trends could result in significantly different characteristics of the area which could effect its future viability, require a reassessment of protected status or necessitate changes in management?
- To what extent does natural buffering protect the area from outside influences?

Non-Antarctic threats

 Would protection of the area be compromised by processes originating or driven from outside the Antarctic such as global change, ozone depletion or long-range transport of contaminants such as long-lived chemical pollutants and introduction of non-native species?

Urgency

• Do human activities pose imminent environmental risks?

Scientific uncertainty

- How well known are the natural values and other characteristics of the area and potential impacts of human activities on them?
- Could these uncertainties mask significant threats to the area and its values?

Potential areas that "score" highly in regard to the checklists in Tables 3 and 4 (e.g. meet many of the criteria listed) and that have been assessed as being at some risk environmentally (Table 5) may be considered for further investigation as a possible ASPA. Consideration should then be given to advancing the proposal further, in particular into the selection and proposal phases.

Part III: Defining areas for protection

3.1 Tools for Assisting in Selecting Protected Areas

Once potential areas have been assessed, further design and assessment is needed to ensure that they are suitable for eventual selection and proposal as ASPAs. Area design and feasibility criteria are two tools that can be used to assist in further defining of areas for protection.

3.2 Area Design

There is a wide body of literature on aspects of protected area design and selection relevant here which is beyond the scope of these guidelines. Important aspects of design include boundaries, size and shape, access, management tools, duration and relation to other protected areas (see Table 6). Proposers may wish to consult Lewis-Smith and others (1992), Thorsell (1997), IUCN (1998), FAO (1988) and Dingwall (1992).

3.3 Feasibility Criteria

The feasibility of a possible protected area is defined here as *how possible is it to implement proposed management objectives for a particular area under consideration*. The criteria defined in Table 6 could be used to assess feasibility. While the meaning of each of these criteria is generally clear, the implications or their application may not be. Therefore Table 6 is structured as a checklist with additional questions to highlight some of the issues involved and to offer further guidance.

Table 6. Checklist of feasibility criteria for assessment of possible protected areas

Boundaries

- Are the proposed boundaries consistent with management objectives? (e.g. do
 they protect foraging areas of birds in an important breeding area and/or do they
 enclose other ecosystem components required for continuity of species
 identified?).
- Can boundaries be easily defined for management purposes and identified by visitors? (e.g. can fixed natural boundaries such as mountain peaks, ridgelines, shorelines, or water depth be used?).
- Can management objectives be met regardless of the future use of areas adjacent to the protected area boundary, including conflicts between different values or management objectives, and acceptability to others?

What are the existing scientific or other uses of the area?

• Are there conflicting values (e.g. between environmental and scientific values in Article 3(1)) or between protection and use categories, or management objectives?

Size

- Is the area large enough to maximise the chance of management objectives being achieved?
- Is it large enough to contain all or most of the key elements identified, in their natural relationships, so that it will be self-perpetuating?
- What is the minimum size needed to achieve management objectives?
- Is the area small enough to minimise conflicts between different values or management objectives?
- Is the area large enough to accommodate future changes (e.g. due to climate change?)

Possible management tools

- Are there management tools available that could be used to help achieve management objectives and minimise conflicts? (e.g. would zoning be useful to facilitate recognition, protection and management including partitioning between objectives such as protection of vulnerable species in core breeding areas, provision of reference areas and capacity for human activity in suitable fringe areas?).
- Can management programmes be formulated to attain management objectives? (e.g. signage or boundary markers, survey and research, monitoring, any specific information needed for reporting).

Time period/duration

- Can the area be protected for a time period that allows full achievement of management objectives?
- Are there some seasonal periods when parts of the area or species in it are not vulnerable to human activity?

Accessibility/logistics

- Is the area sufficiently accessible for management operations?
- Might the logistics needed negatively impact on management objectives and are there alternative management options?
- Would inaccessibility help achieve management objectives by deterring potentially impacting activity?

Ability to protect more than one value and meet different management objectives (i.e. complementarity)

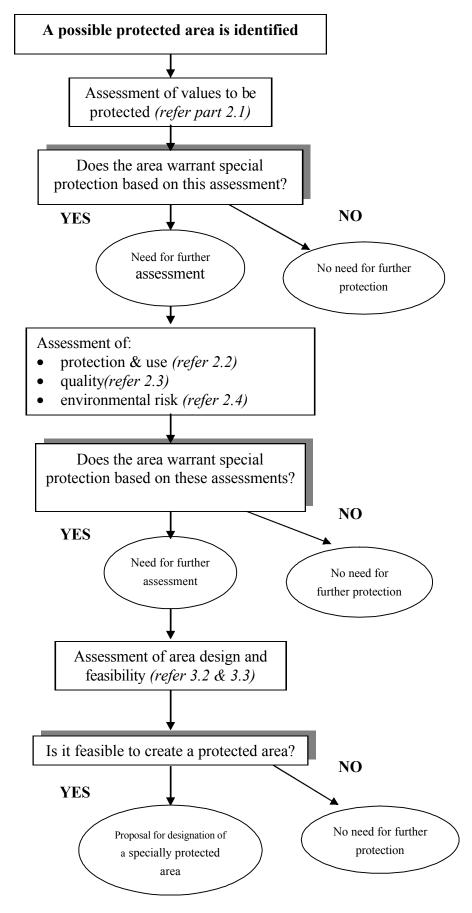
- Is there more than one value or objective in Article 3 (1) & 3(2) that can be protected in the area?
- Would the site add value to the Antarctic protected area system, in quality as well as quantity?

• Is there an appropriate balance between the costs and benefits of protecting the area, and appropriate equity in the distribution of it and adjacent protected and unprotected areas?

Therefore, if an area has been through an assessment process (Part II), and has satisfied feasibility criteria (Part III), it may be considered as a worthy candidate for further evaluation as a potential ASPA. The outcome of checking and analysis against criteria in Table 6 could also be used to help prepare the draft management plan for the area.

Figure 1 below provides a flowchart illustrating the assessment process from identifying the values and potential protection categories of a proposed area, to considering quality aspects, to identifying any environmental risks, to assessment of feasibility and finally to a decision on whether to develop a proposal for designation of the site as an ASPA.

Figure 1. The assessment process for potential protected areas as outlined in Part II and Part III of these guidelines.



Part IV: Proposing areas for protection

4.1 Drafting Management Plans for Proposed ASPAs

Once a candidate area has been assessed, it is ready for the next stages in the process. A draft management plan is prepared as required by Article 5 of Annex V. The document "Guide to the Preparation of Management Plans for Protected Areas" was recommended by CEP 1 and adopted at ATCM XXII in 1998 to give some practical elaboration of Article 5. This document should be referred to when drafting management plans for ASPAs.

4.2 Further Steps in the Designation Process

The final stages in the designation process involve formal consideration (review) by the Antarctic Treaty Consultative Parties of a draft management plan following the outline in Article 6 of Annex V.

Part V: Documentation

5.1 Articles 3(1) and 3(2) of the Environment Protocol

Article 3(1)

Any area, including any marine area, may be designated as an Antarctic Specially Protected Area to protect outstanding environmental, scientific, historic, aesthetic or wilderness values, any combination of those values, or ongoing or planned scientific research.

Article 3(2)

Parties shall seek to identify, within a systematic environmental-geographical framework, and to include in the series of Antarctic Specially Protected Areas:

- a) areas kept inviolate from human interference so that future comparisons may be possible with localities that have been affected by human activities;
- b) representative examples of major terrestrial, including glacial and aquatic, ecosystems and marine ecosystems;
- c) areas with important or unusual assemblages of species, including major colonies of breeding native birds or mammals;
- d) the type locality or only known habitat of any species;
- e) areas of interest to ongoing or planned scientific research;
- f) examples of outstanding geological, glaciological, or geomorphological features;
- g) areas of outstanding aesthetic and wilderness value;
- h) sites or monuments of recognized historic value; and
- i) such other areas as may be appropriate to protect the values set out in paragraph 1 above [Article 3(1)].

5.2. References

(see bibliography for full citation where needed)

- 1. adapted from Geddes and Grosset 1996
- 2. Antarctic Heritage Trust
- 3. adapted from Porteous 1996 with reference to philosopher Kant.
- 4. Convention on Biological Diversity
- 5. Allaby 1977

BIBLIOGRAPHY

Allaby, M. 1977. A dictionary of the environment. MacMillan Press, London.

Anon. 1998. Guide to the Preparation of Management Plans for Protected Areas. Report of Antarctic Treaty Consultative Meeting XXII, Norway

Austin, M.P. and Margules C.R. 1986. Assessing representativeness. In "Wildlife conservation evaluation", (MB Usher, Editor) Chapman and Hall, London, pp 45-67.

Calow, P. 1998. Handbook of environmental risk assessment & management. Blackwell Science, Oxford.

De Lange, P.J., and Norton, D.A. 1998. Revisiting rarity: a botanical perspective on the meanings of rarity and the classification of New Zealand's uncommon plants. In "Ecosystems, entomology and plants", Royal Society of New Zealand Misc. Series 48, pp 145-160.

De Poorter, M., and Dalziell, J.C. (Editors). 1996. Cumulative impacts in Antarctica. Proceedings of the Washington Workshop 18-21 September 1996. IUCN. 145 pages.

Dingwall, P.R. 1992. Design and delimitation of protected areas. In "Developing the Antarctic Protected Area System" (Lewis-Smith and others, Editors). Proceedings of the SCAR/IUCN Workshop 29 June-2 July 1992. IUCN, Gland Switzerland and Cambridge UK, pp 49-52.

FAO. 1988. National parks planning: a manual with annotated examples. Food and Agriculture Organisation of the United Nations, Rome. Conservation Guide 17, 105 pages.

Forey, P.L., Humphries, C.J., and Vane-Wright, R.I. (Editors). 1994. Systematics and conservation evaluation. Clarendon Press, Oxford.

Geddes and Grosset. 1996. English dictionary. Geddes and Grosset Ltd.

German Republic. 1999. Factors influencing risk analysis in relation to human activities in Antarctica based on German experience with logistics during German Antarctic research. Information Paper 38, XXIII ATCM, Lima, Peru, 13 pages.

Harwell, M.A., Cooper W., and Flaak, R. 1992. Prioritising ecological and human welfare risks from environmental stresses. Environmental Management 16, pp 451-464.

IUCN. 1994. Guidelines for protected area management categories. Commission on National Parks and Protected Areas, with the World Conservation Monitoring Centre. IUCN, Gland, Switzerland and Cambridge UK, 261 pages.

IUCN. 1998. National system planning for protected areas (AG Davey, main author). World Commission on Protected Areas, Best Practice Protected Area Guidelines Series No. 1, 71 pages.

Lewis-Smith, R.I., Walton D.W.H., and Dingwall, P.R. (Editors). 1992. Developing the Antarctic Protected Area System. Proceedings of the SCAR/IUCN Workshop 29 June-2 July 1992. IUCN, Gland, Switzerland and Cambridge UK, 137 pages.

Mackinnon, J. and K., Child, K., and Thorsell, J. 1986. Managing protected areas in the tropics. IUCN, Gland, Switzerland.

Njaastad, B. 1998. Antarctic Protected Areas Workshop, Norwegian Polar Institute Report 110, 86 pages.

Norton, D.A. 1999. Forest reserves. In "Maintaining biodiversity in forest ecosystems" (M Hunter, Editor) Cambridge University Press , pp 525-555.

O'Conner, K.F., Overmars, F.B., and Ralston, M.M. 1990. Land evaluation for nature conservation- a scientific review. Conservation Science Publication 3, Department of Conservation, Wellington.

Porteous, J.D. 1996. Environmental aesthetics. Routledge, London and New York, 290 pages.

Pressey, R.L., and Logan, V.S. 1994. Level of geographical subdivision and its effects on assessments of reserve coverage: a review of regional studies. Conservation Biology 8(4), pp 1037-1046

SCAR and COMNAP. 1996. Monitoring of environmental impacts from science and operations in Antarctica. Report of the Oslo and Texas workshops in 1995 and 1996. Scientific Committee on Antarctic Research and Council of Managers of National Antarctic Programs. 43 pages plus annexes.

Thorsell, J. 1997. Nature's hall of fame: IUCN and the World Heritage Convention. Parks 7 (2), pp 3-7

Udvardy, M.D.F. 1975. A classification of the biogeographical provinces of the world. IUCN, Gland, Switzerland Occasional Paper 18.

Valencia, **J.** (Editor). 1999 Final report of the second workshop on Antarctic Protected Areas. Instituto Antarctico Chileno, Santiago, 37 pages

XXIII: Measure 1(1999)

Antarctic Protected Areas System: Historic Sites and Monuments: South-West Coast of Elephant Island, South Shetland Islands

The Representatives,

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

- 1. That the Management Plan for SSSI N° 23, attached to this Measure, be inserted in the Annex to Recommendation XIII-8 to replace the plan previously annexed to that Recommendation.
- 2. That the Consultative Parties ensure that their nationals comply with the mandatory provisions of the revised management plan.

XXII: Measure 1 (1998)

Antarctic Protected Areas System: Management Plans for Specially Protected Areas

Number 27: Cape Royds Historic Site and its environs (Appendix A)

Number 28: Hut Point Historic Site (Appendix B)

Number 29: Cape Adare Historic Site and its environs (Appendix C)

The Representatives,

Recalling Recommendations XV-8 and XV-9;

Noting that Management Plans for the above Areas have been endorsed by the Scientific Committee on Antarctic Research (SCAR);

Noting also that the format of the Management Plans accord with Article 5 of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty adopted under Recommendation XVI-10;

Recognizing that these Areas have outstanding historic significance which require long-term protection to ensure that their values are maintained, and to avoid undue human disturbance;

Agreeing that pending entry into force of Annex V, proposals to designate and adopt management plans for the protection of particular historic values should be viewed as proposals for the designation of Specially Protected Areas (SPAs) in accordance with the Agreed Measures for the Conservation of Antarctic Flora and Fauna;

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

That the Management Plans for the Cape Royds Historic Site and its environs (SPA No 27), the Hut Point Historic Site (SPA No 28) and the Cape Adare Historic Site and its environs (SPA No 29) annexed to this Measure be adopted.

XXII: Measure 2 (1998)

Antarctic Protected Areas System: Historic Sites and Monuments: South-West Coast of Elephant Island, South Shetland Islands

The Representatives,

Recalling Recommendations I-IX, VI-14, VII-9, XII-7, XIII-16 and XIV-8;

Noting the urgent need to protect the site containing wreckage from a large wooden sailing ship on the south-west coast of Elephant Island;

Aware that the identity of this wreckage is still not known and that further investigation at the site may be necessary to determine the historical significance of the wreckage;

Considering that Historic Site status should be conferred on the site;

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

The following site be added to the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9 and that thereafter it be accorded the respect and protection required by the Recommendations recalled above:

The south-west coast of Elephant Island between the southern side of Mensa Bay (61°10'S, 55°24'W) and Cape Lookout (61°17'S, 55°13'W), including all of the fore-shore and intertidal areas, in which the wreckage of a large wooden sailing ship has been found.

XX: Resolution 1 (1998)
Annex V: Protected Areas

The Representatives,

Welcoming the entry into force of the Environmental Protocol, including its Annexes I-IV;

Conscious that this situation does not extend to Annex V on Area Protection and Management which was adopted under Recommendation XVI-10;

Aware that, to become effective, that Recommendation requires approval under the procedures of Article IX (4) of the Treaty;

Recommend that:

Those Consultative Parties which have yet to approve Recommendation XVI-10 under the procedures of Article IX(4), take steps to do so as soon as possible.

The Consultative Parties identified in the Appendix to this Resolution have responsibility for the preparation or revision of Management Plans for those sites listed.

Those Consultative Parties identified in the Annex should prepare a timetable for the preparation or revision of Management Plans for those sites for which they have principal responsibility, and should submit the timetable for information to ATCM XXIII.

Appendix to Resolution 1 (1998)

NATIONAL RESPONSIBILITIES FOR REVISING MANAGEMENT PLANS OF

ANTARCTIC PROTECTED AREAS

Australia

Sites of Special Scientific Interest

- 16. North-eastern Bailey Peninsula
- 17. Clark Peninsula
- 25. Marine Plain, Vestfold Hills

Chile

Specially Protected Areas

16. Coppermine Peninsula

Sites of Special Scientific Interest

- 5. Fildes Peninsula
- 6. Byers Peninsula (joint with UK)
- 26. Chile Bay, Greenwich Island
- 27. Port Foster, Deception Island
- 28. South Bay, Doumer Island
- 32. Cape Shirreff (joint with USA)
- 34. Ardley Island

New Zealand

Specially Protected Areas

- 4. Sabrina Island
- 22. Cryptogam Ridge

Sites of Special Scientific Interest

- 10. Caughley Beach
- 24. Summit of Mount Melbourne

Norway

Sites of Special Scientific Interest

23. Syarthamaren

Russia

Sites of Special Scientific Interest

7. Haswell Island

Poland

Sites of Special Scientific Interest

- 8. Western Shore, Admiralty Bay
- 34. Lions Rump, King George Island

Japan

Sites of Special Scientific Interest

22. Yukidori Valley

United Kingdom

Specially Protected Areas

- 8. Dion Island
- 9. Green Island
- 14. Lynch Island
- 18. North Coronation Island
- 19. Lagotellerie Island
- 21. Avian Island

Sites of Special Scientific Interest

- 6. Byers Peninsula (joint with Chile)
- 21. Parts of Deception island
- 29. Ablation Point
- 31. Mount Flora

USA

Specially Protected Areas

- 7. Cape Hallett
- 17. Litchfield Island
- 23. Forlidas Ponds

Sites of Special Scientific Interest

- 1. Cape Royds
- 2. Arrival Heights
- 3. Barwick Valley
- 4. Cape Crozier
- 18. Northwestern White Island
- 20. Biscoe Point
- 32. Cape Shirreff (joint with Chile)
- 35. Western Bransfield Strait
- 36. East Dallman Bay

XXII: Resolution 2 (1998)

Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas

The Representatives,

Noting the requirement under Recommendation XVI-10 to prepare or revise Management Plans for existing Specially Protected Areas and Sites of Special Scientific Interest;

Recognizing that all such Management Plans need to conform to the requirements of Article 5 of Annex V of the Protocol;

Conscious of the need to have in place Management Plans that provide for the adequate protection of designated sites;

Recommend that:

The Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas, appended to this Resolution, be used by those engaged in the preparation or revision of Management Plans.

Appendix to Resolution 2 (1998)

GUIDE TO THE PREPARATION OF MANAGEMENT PLANS FOR

ANTARCTIC SPECIALLY PROTECTED AREAS

CONTENTS

Introduction
Purpose of this Guide
Format of Management Plans for ASPAs
Approval Process for Management Plans

APPENDICES

- 1. Text of Annex V to the Environmental Protocol (on Area Protection and Management). [Not reproduced here]
- 2. Moe Island Management Plan. [Not reproduced here]
- 3. Guidelines for the production of maps.
- 4. Reporting forms for visits to ASPAs.
- 5. Select bibliography
- 6. National Contact list. [Not reproduced here]

GUIDE TO THE PREPARATION OF MANAGEMENT PLANS FOR ANTARCTIC SPECIALLY PROTECTED AREAS.

1. Introduction

Activities in Antarctica are governed by the Antarctic Treaty of 1961, which applies to the area south of 60 degrees South Latitude, including all ice shelves.

The concept of setting aside areas for special protection was introduced in 1964 when the Antarctic Treaty Consultative Parties (ATCPs) adopted the Agreed Measures for the Conservation of Antarctic Flora and Fauna. Under these and subsequent measures five categories of protected areas were established:

- Specially Protected Areas (SPAs)
- Sites of Special Scientific Interest (SSSIs)
- Historic Sites and Monuments (HSMs)
- Specially Reserved Areas (SRAs)

• Multiple-use Planning Areas (MPAs)

The Recommendations addressing the last two categories have not entered into force. In 1991 the ATCPs adopted the Protocol on Environmental Protection to the Antarctic Treaty to ensure comprehensive environmental protection in Antarctica. The Protocol designates the whole of Antarctica as "a natural reserve devoted to peace and science".

Annex V to the Protocol, adopted subsequently at ATCM XVI under Recommendation XVI-10, rationalises the protected area system. It introduces two new site designations: Antarctic Specially Protected Areas (ASPAs) and Antarctic Specially Managed Areas (ASMAs). On entry into force of Annex V, all SPAs and SSSIs will become ASPAs.

Annex V of the Protocol requires Management Plans to be produced for ASPAs and ASMAs for which Management Plans were not previously adopted. Annex V also prohibits entry into ASPAs except in accordance with a permit issued by an appropriate national authority in accordance with the requirements of the Management Plan. The text of Annex V is reproduced at Appendix I to this Guide. [Not reproduced here]

1.1 ASPA Values.

Article 3 of Annex V of the Protocol states that any area, including any marine area, may be designated as an ASPA so as to protect outstanding environmental, scientific, historic, aesthetic or wilderness values and sets out a series of such values which ATCPs shall seek to incorporate into ASPAs.

In considering any new proposal for an ASPA, thought needs to be given as to how protected area status would address the values identified in Article 3 of Annex V, and whether such values are already adequately represented by protected areas in Antarctica.

2. Purpose of this Guide.

The objectives of this Guide are:

- to assist in the preparation of Management Plans for ASPAs.; to help achieve consistency of Management Plans and to expedite their review, adoption and implementation,
- to help ensure that Management Plans meet the requirements of the Protocol.

Caution:

This guide is intended as no more than an aide-mémoire to the production of Management Plans for ASPAs; it has no legal status. Anyone intending to prepare a Management Plan should examine the provisions of Annex V to the Protocol carefully and seek advice from their national authority at an early stage.

3. Format of Management Plans for ASPAs.

Annex V outlines the requirements of Management Plans and its Article 5 specifies the format that Management Plans should follow. The headings used in this Guide have been structured to follow that format, though for brevity the headings have been shortened (see Table 1).

Management Plan Section	Article 5 Reference
T a d a	
Introduction	
Description of Values	3 a
Aims and Objectives	3 b
Management Activities	3 c
Period of Designation	3 d
Area Description	3 e (i - iv)
Identification of Zones	3 f
Maps	3 g
Supporting Documentation	3 h
Terms and Conditions for entry Permits	3 i (i - x)

Table 1. Headings used in this Guide are cross-referenced to Article V

In 1995 at Antarctic Treaty Consultative Meeting (ATCM) XIX, Resolution 9/95 was adopted. This recommended that the Moe Island (SPA number 13) Management Plan be regarded as a model for the preparation of new and revised Plans for certain ASPAs. The Moe Island Plan is provided in Appendix 2. It should be recognized that this plan will not be a useful model in all circumstances. Since the development of Management Plans for ASPAs is an evolving process, preparers of Management Plans are strongly urged to consult more recent examples agreed at subsequent ATCMs. Those preparing Plans should be aware of current best practice.

3.1 Introduction.

An introduction to the Management Plan is not a stated requirement of Article 5 of Annex V, but might provide a useful opportunity for a brief overview. Information might include a summary of the important features of the site, its history, the scientific research and other activities that have been carried out there.

Reasons why special protection is deemed necessary or desirable for a site should also be stated in the Management Plan, preferably in the introduction.

3.2 Description of values.

Justification for the site's designation should be given. The description of the value or values of the site should state, clearly and in detail, why it is that the site deserves special protection and how site designation will strengthen protection measures.

For example, if the designation of the site is intended to prevent interference with ongoing or planned scientific investigations this section should describe the nature and value of this research.

In cases where the intent is to protect the value of sites as reference areas or controls for long-term environmental monitoring programmes, the particular characteristics of the area relevant to long-term monitoring should be described. In cases where site designation is being conferred to

protect historic, geological, aesthetic, wilderness or other values, those values should be described in this section.

In all cases the description should provide sufficient detail to enable readers to understand precisely what the site designation is intended to protect and how the Management Plan will achieve that aim.

3.3 Aims and Objectives.

This section should establish what is intended to be achieved by the Management Plan and how the Plan will address protection of the values described above. For example the aims of the Plan might be to:

- avoid certain specified changes to the site:
- prevent any human interference with specified features or activities in the area;
- allow only certain types of research that would not interfere with the reason for the site's designation.

It is important to note that the description of values and the objectives will be used by the national permitting authority to help decide activities they can, and cannot, be authorised to be conducted in the area. Consequently the values to be protected and the objectives of the plan must be described specifically not generally.

If the site contains a marine area the following objective might be included if appropriate:

• ensure protection to specified features or research which contributes to the objectives of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR).

A marine area requiring approval of the CCAMLR Commission has been defined by ATCPs and CCAMLR as an area in which:

 there is actual harvesting or potential capability for harvesting of marine living resources which might be affected by site designation; or there are provisions specified in a draft management plan that might prohibit or restrict CCAMLR-related activities.

3.4 Management Activities.

Management activities outlined in this section should relate to the aims of the Management Plan and to the objectives for which the site was designated.

There should be a clear indication of what is prohibited, what should be avoided or prevented as well as what is allowed. The Plan should make it clear when permitted activities can take place. For example some activities may only be allowed outside the breeding season of sensitive species.

This section should describe such actions as will be taken to protect the particular values of the site (e.g. installation and maintenance of scientific instruments, or signs indicating that the site is an ASPA and that entry is prohibited except in accordance with a permit issued by an appropriate national authority). If the management activities require cooperative action by two or more Parties conducting or supporting research in the area, the arrangements for carrying out the required activities should be jointly developed, and described in the Management Plan.

It is important to remember, and to note, in the Management Plan that active management may require an environmental impact assessment to be undertaken in accordance with the requirements of Annex I of the Protocol.

If no special management activities are required, this section of the Plan should state, "None required".

3.5 Period of Designation.

Designation of an ASPA is for an indefinite period unless the Management Plan provides otherwise. It is a requirement under Article VI (3) of Annex V that the Management Plan is reviewed at least every five years, and updated as necessary.

If the intent is to provide protection for a finite period, while a particular study or other activity is conducted, an expiry date should be included in this section.

3.6 Description of the Area.

This section requires an accurate description of the site and its surrounding area to ensure that individuals planning to visit the site and national authorities responsible for issuing permits are sufficiently appraised of the special features of the area.

It is important that this section describes adequately those features of the site that are being protected, thus alerting users of the Management Plan to features of particular sensitivity,

The section is divided into four subsections:

3.6.1 Geographical co-ordinates, boundary markers and natural features.

The boundaries of the site should be delineated unambiguously and the important features of the site clearly described, as the boundary delineation will form the basis of legal enforcement.

The geographical co-ordinates should be as accurate as possible. They should be given as latitude and longitude and should be accurate to within minutes, or seconds for small sites. If possible, reference should be made to published maps or charts to allow the site boundaries to be delineated on the map. The survey and mapping methods employed at the site should be stated if possible along with the name of the agency producing the maps or charts referred to.

The boundary of the site should be carefully selected and described. It is preferable to describe a boundary that is identifiable at all times of the year. This is often difficult due to snow cover in winter, but at least in summer it should be possible for any visitor to determine the limits of the site. For sites near to areas frequented by tourists this is especially important. It is best to choose static boundary markers such as exposed rock features for the site. Features such as the edges of snow fields or glaciers are not always suitable. In some instances it may be advisable to install boundary markers where natural features are not sufficient.

When describing the physical features of the site, only place names formally approved by a Consultative Party should be used. All names referred to in the text of the Plan should be shown on the maps. Unofficial place names should not be used and the gazetteers published by several of the Consultative Parties should be used to determine the acceptable name(s) for particular features. Where additional names are known to apply they might usefully be included in

bracketed subtext. If a new place name is needed, approval will be required by the appropriate national committee before using the new name on any maps and before submitting the plan.

The natural features of the site should include descriptions of, the local topography such as permanent snow/ice fields, the presence of any water bodies (lakes, streams, pools) and a brief summary of the local geology and geomorphology. An accurate, brief description of the biological features of the site is also useful including notes on major plant communities; bird and seal colonies and numbers of individuals or breeding pairs of birds. The locations of colonies or nesting areas and the presence of any seal haul-out sites, should be shown on attached maps.

3.6.2 Access to the area.

This subsection should include descriptions of preferred access routes to the site by land, sea or air. These should be clearly defined to prevent confusion and suitable alternatives provided if the preferred route is unavailable.

All access routes as well as marine anchorages and helicopter landing areas should be described and clearly marked on the accompanying map of the site. Helicopter landing areas should usually be located well outside the site's boundaries to ensure minimum interference with the integrity of the site.

The subsection should also describe preferred walking and, when permitted, vehicle routes within the area.

3.6.3 Location of structures within and adjacent to the site.

It is necessary to describe and accurately locate all structures within or adjacent to a designated site. These include, for example, boundary markers, sign boards, calms, field huts, depots and research facilities. Where possible the date the structures were erected and the country to whom they belong should be recorded, as well as the details of any HSMs in the area.

3.6.4 Location of other protected areas in the vicinity.

There is no guidance as to the radius to be used when describing other sites "in the vicinity", but a distance of up to 50km has been used in plans adopted so far. All such protected areas (ie ASPAs, ASMAs, HSMs, CCAS Seal Reserves, CCAMLR CEMP sites etc.) in the vicinity should be given by name and, where appropriate, number together with the approximate distance and direction from the site in question.

3.7 Special Zones with the Area.

Special zones within the site might be established in which activities are prohibited, restricted or managed so as to achieve the aims and objectives of the Management Plan. For example, special zones might include bird colonies to which access is restricted during the breeding season or sections of the site where access is prohibited for specified scientific reasons. The reasons for the establishment of the zones should be stated in the Management Plan together with clear descriptions of the zones and their boundaries. The zones should also be clearly identified on the accompanying maps.

If there are no prohibited, restricted or specially managed zones within the site, the Management Plan should state this.

3.8 *Maps*.

Maps are a critical component of any Management Plan and should be clear and sufficiently detailed. Maps should be capable of retaining all detail if reduced or photocopied. Several maps may be necessary for a given Plan, but the minimum is likely to be two: one showing the general area in which the site is situated, as well as the position of all nearby protected areas, and a second map illustrating the details of the site itself.

It is essential that the maps clearly indicate the boundary of the Protected Area as described under section 3.6.1 above.

The recommended criteria for maps are set out in Appendix 3 together with a check-list of features to be included.

3.9 Supporting Documentation

This section should refer to any additional documents that may be relevant. These may include any scientific reports or papers describing the values of the site in greater detail, although as a general rule the various components of the site and the intended management activities should be explained in the various sections of the Management Plan itself. Any such papers or supporting documents should either be fully cited or appended as annexes to the Management Plan.

3.10 Terms and Conditions for Entry Permits.

Article 3 (4) of Annex V of the Protocol specifies that entry into ASPAs is prohibited except in accordance with a permit issued by a National Authority.

The Management Plan should set out the conditions under which a permit might be issued. When drafting Management Plans, authors should note that the authorities appointed to issue permits for entry into ASPAs will use the contents of this section to determine whether, and under what conditions, permits may be issued.

Article 7(3) of Annex V of the Protocol directs that each Party must require the permit holder to carry a copy of the permit whilst in the ASPA. This section of the Management Plan should note that all permits should contain a condition requiring the permit holder to carry a copy of the permit whilst in the ASPA.

Article 5 of Annex V sets out 10 separate issues that need to be addressed when considering the terms and conditions that might be attached to permits. These are set out below:

3. 10.1 Access to, and movement within or over, the Area.

This section of the Management Plan should set out restrictions on the means of transport, points of access, routes and movement within the site. It should also address the direction of approach for aircraft and the minimum height for overflying the site. Such information should state the type of aircraft (e.g. fixed or rotary wing) on which the restrictions are based, that should be included as conditions of permits that are issued.

3.10.2 Activities which may be conducted in the Area.

This should detail what may be undertaken within the protected area and the conditions under which such activities are allowed. For example, to avoid interference with wildlife, only certain types of activity might be permitted.

If the Management Plan proposes that active management within the site may be necessary in the future, this should also be listed here.

3.10.3 Installation, Modification or Removal of Structures.

It is useful to record what structures are permitted within the site. For example, certain scientific research equipment might be allowed to be installed within the Area.

If any existing structures are present (eg refuges) the Management Plan should also indicate action which might be authorised to modify or remove the structures.

Alternatively, if no structures are to be permitted within the site the Management Plan should make this clear.

3.10.4 Location of Field Camps.

It is likely that field camps would not usually be permitted within the boundaries of the site. However, it may be permissible under certain conditions such as overriding reasons of safety. If so the conditions under which field camps may be permitted should be stated. It is possible that field camps would only be acceptable in certain parts of the site. Such campsites should be identified and recorded on the supporting maps.

3.10.5 Restrictions on materials and organisms which may be brought into the site.

This section should set out prohibitions and give guidance on the management of any materials that are to be used or stored in the site. There is a complete prohibition on the introduction of non-native species, parasites and diseases under Article 4 of Annex II of The Protocol, except in accordance with a separate permit issued under the Authority provided for in Annex II.

It may be necessary, for example, to bring some chemicals into the site for research or management purposes. If so guidance should be provided as to how they must be stored, handled and removed. It may also be necessary to bring food and fuel into the site, and guidance about the use, storage and removal of such materials should be given.

In some instances special precautions may need to be taken to prevent the introduction of nonnative species. If for example the site has been designated for its special microbial flora, it may be necessary to require all boots to be cleaned before entering the site or that sterile clothing should be worn within the site.

3.10.6 Taking of, or harmful interference with, native flora and fauna.

This is prohibited under Article 3 of Annex II of the Protocol except in accordance with a permit issued under the provisions of Annex II, this should be stated in all permits authorising activity in the area. The requirements under Article 3 of Annex II must be used as the minimum standard.

3.10.7 The collection, or removal, of materials not imported by the permit holder.

It may be permissible to remove from the site, materials such as beach litter, dead or pathological fauna or flora or abandoned relics and artifacts from previous activities. What items or samples can be removed by the permit holder should be clearly stated.

3.10.8 Disposal of waste.

Annex III of the Protocol deals with the management of wastes in Antarctica. This section of the plan should specify requirements for the disposal of wastes that should be included as conditions of permits. The requirements set out in Annex III must be used as the minimum standards for waste disposal in an ASPA.

All wastes should be removed from the site. Exceptions, which are in accordance with the provisions of the Protocol, should be identified as appropriate in the Management Plan.

3.10.9 Measures that may be necessary to continue to meet the aims of the Management Plan.

When appropriate this section should establish the conditions under which the issue of a permit may be necessary so as to ensure continued protection of the site. For example it may be necessary to issue permits to allow for monitoring of the site; to allow for repair or replacement of boundary markers and signs; or to allow for some active management as set out in section 3.4 above.3.10. 10 Requirements for Reports.

This section should describe the requirement for reports that should be included as a condition in permits issued by National Permitting Authorities. It should, as appropriate, specify the information that should be included in reports.

The Scientific Committee for Antarctic Research (SCAR) has developed a visit report form that could be useful in this regard. National permitting authorities may wish to make use of the SCAR form a condition of permits that they issue.

The SCAR visit Report Form is reproduced in Appendix 4 of this guide.

It may be useful to give a deadline by which time reports of a visit to the site must be made (eg within six months).

4. Approval Process for ASPA Management Plans.

Most draft Management Plans are put forward by Parties for adoption by the ATCM. However, a draft Management Plan can also be submitted by the Committee for Environmental Protection (CEP), SCAR or CCAMLR under Article 5 of Annex V of The Protocol.

The process by which Management Plans are handled from drafting through to acceptance is summarised by the flow chart in Figure 1. This is based on the requirements of Article 6 of Annex V.

In the initial stages of drafting the Management Plan, it is recommended that widespread consultation, both nationally and internationally, is undertaken on the scientific, environmental and logistical elements of the Plan as appropriate. This will aid the passage of the Plan through the more formal process at the ATCM.

The draft plan should be submitted to the CEP and SCAR, as well as CCAMLR if there is a significant marine component to the Plan (see Section 3.3 for definition).

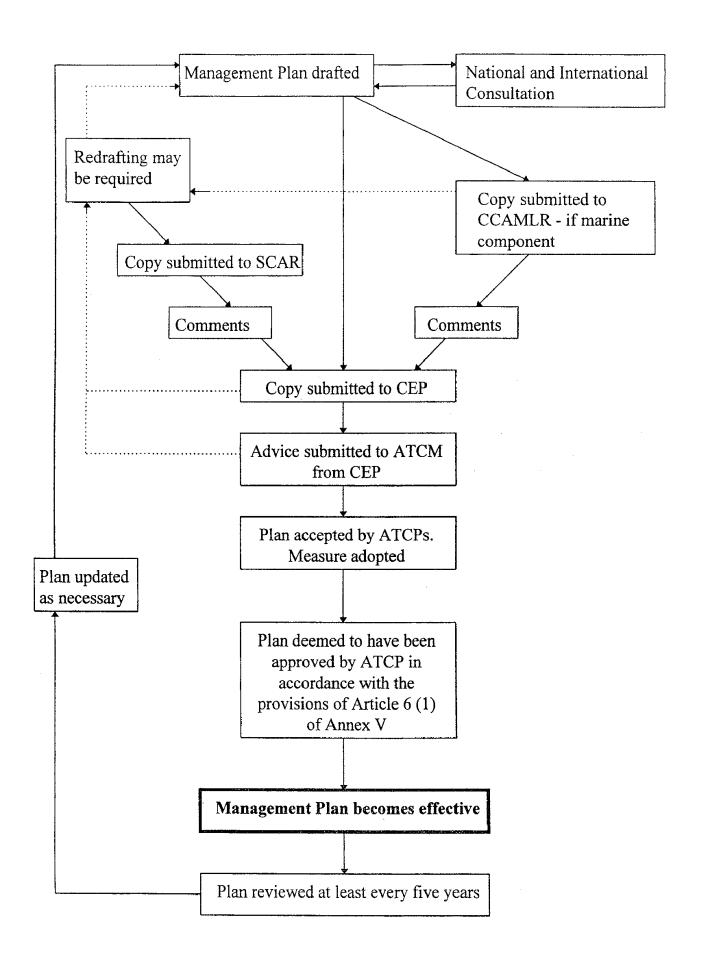
The CEP will then consider the Management Plan along with any comments made by SCAR and, if appropriate, CCAMLR. If necessary the CEP may recommend modification of the Plan.

The CEP then formulates and submits its advice to the ATCM. The ATCPs will thereafter give consideration to the plan. It is still possible for the ATCM to suggest further redrafting.

If the ATCPs agree on the Plan a Measure is adopted at an ATCM in accordance with Article IX(I) of the Antarctic Treaty. Unless the Measure specifies otherwise, the Plan is deemed to have been approved 90 days after the close of the ATCM at which it was adopted, unless one or more of the Consultative Parties notifies the Depository, within that time period, that it wishes an extension of that period or is unable to approve the Measure.

The Management Plan shall be reviewed every five years in accordance with Article 6(3) of Annex V of the Protocol and updated as required. Updated Management Plans then follow the same course of agreement as before.

The approval process for an ASPA Management Plan has many critical stages, which can take a long time to complete. However, these stages are necessary as an ASPA Management Plan requires the agreement of all ATCPs at an ATCM.



Appendix 1: Annex V to the Protocol on Environmental Protection to the Antarctic Treaty: Area Protection and Management [Not reproduced here]

Appendix 2: Management Plan for Specially Protected Area (SPA) No. 13 Moe Island, South Orkney Island [Not reproduced here]

Appendix 3:

Guidance Notes for Producing Maps for Inclusion in Management Plans

Management Plans should include a general location map to show the position of the site and the location of any other protected areas in the vicinity, and at least one detailed map of the site showing those features essential for meeting the Management plan objectives.

- 1. All maps should include latitude and longitude as well as having scale bars. Avoid ratio scales enlargement/reduction renders them useless. The spheroid (eg WPS 84) or reference framework used should be indicated as text beneath these scale bars.
- 2. The importance of GPS for fixing positions cannot be overstated. Over past years it has become clear that the original positioning of some protected sites is highly suspect. The opportunity to revise the plan for each site is an opportunity to use GPS, to provide clear locational information on boundaries. It is strongly recommended that plans are not submitted with such information.
- 3. It is important to use up-to-date coastline and glacier front data. Ice recession and advance continues to affect many areas with consequent changes to site boundaries. If an ice front is used as a boundary the date of the survey should be shown.
- 4. A map should show the following features: any specified routes; any restricted zones; boat and/or helicopter landing sites and access points; cam-sites; installations and huts; major animal concentrations and breeding sites; any extensive areas of vegetation and should clearly delineate between ice/snow and ice-free ground. In many instances it is useful to include a geological map of the Area. It is suggested that, in most cases, it is helpful to have contouring at an appropriate interval on all maps of the Area. But contouring should not be too close as to mark other features or symbols on the map.
- 5. Be aware when preparing the map that it will be reduced to about 150 x 200 mm size to fit on the ATCM official report. This is of importance in selecting the size of symbols, the closeness of contouring and the use of shading. Reproduction is always monochrome so do not use colours to distinguish features in the original. There may well be other versions of an Area map available but as far as the legal status of the management plan is concerned it is the version published in the Final Report of the Antarctic Treaty Consultative Meeting that is the definitive version which will be included in national legislation.
- 6. Photographs can be a valuable aid to using the plan in the field. Remember that good contrast prints are essential for adequate reproduction. Screening or digitalising of photograph will improve reproduction when the plan is photocopied.

- 7. Some plans already use 3-dimensional terrain models which again can provide important locational information when approaching a site, especially by helicopter. Such drawings need careful design if they are not to become confusing when reduced.
- 8. If the Area will require evaluation by CCAMLR the location of nearly CEMP sites should be indicated. CCAMLR has requested that the location of bird and seal colonies (for penguins and seals) and access routes from the sea should be indicated on the map wherever possible.

A CHECKLIST OF FEATURES TO BE CONSIDERED FOR INCLUSION ON MAPS

1. Essential features

- 1.1 Title
- 1.2 Latitude and longitude co-ordinates
- 1.3 Scare bar with numerical scale
- 1.4 Comprehensive legend
- 1.5 Adequate and approved placenames
- 1.6 Map projection and spheroid
- 1.7 North arrow
- 1.8 Contour interval
- 1.9 If image data are included, date of image collection

2. Essential topographical features

- 2.1 Coastline, rock and ice
- 2.2 Peaks and ridge lines
- 2.3 Ice margins and other glacial features
- 2.4 Contours (labelled as necessary) survey points and spot heights

3. Natural features

- 3.1 Lakes, ponds, streams
- 3.2 Moraines, screes, cliffs, beaches
- 3.3 Beach areas
- 3.4 Vegetation
- 3.5 Bird and seal colonies

4. Anthropogenic features

- 4.1 Station
- 4.2 Field huts, refuges
- 4.3 Campsites
- 4.4 Roads and vehicle tracks, footpaths

- 4.5 Landing areas for fixed wing aeroplanes and helicopters
- 4.6 Wharf, jetties
- 4.7 Power supplies, cables
- 4.8 Aerials, antennae
- 4.9 Fuel storage areas
- 4.10 Water reservoirs and pipes
- 4.11 Emergency caches
- 4.12 Markers, signs
- 4.13 Historic sites or artifacts, archaeological sites
- 4.14 Scientific installations or sampling areas
- 4.15 Site contamination or modification

5. Boundaries

- 5.1 Boundary of Area
- 5.2 Boundaries of subsidiary zones areas. Boundaries of contained protected areas.
- 5.3 Boundary signs and markers (including cairns)
- 5.4 Boat/aircraft approach routes
- 5.5 Navigation markers or beacons
- 5.6 Survey points and markers

The same approach is obviously required of any inset maps.

At the conclusion of drafting a check should be made on cartographic quality to ensure:

- Balance between the elements.
- Appropriate shading to enhance features but which will not be confusing when photocopied and where degree should reflect importance.
- Correct and appropriate text with no features overlap.
- An appropriate legend using SCAR approved map symbols wherever possible.
- White text appropriately shadowed on all image data.

Antarctic Specially Protected Area VISIT REPORT

Protected Area name and number:	
2. Name and address of Authority issuing permit:	3. Date Report filed:
4. Name and address of Authority to whom Report is made:	5. Person completing Report:
6. Name and address of Principal Permit Holder:	7. List of all persons who entered the Area under the current Permit:
International telephone: + International fax: + E-mail address:	
8. Objectives of the visit to the Area under the current Permit:	
9. Date(s) and duration of visit(s) under the current Permit:	
10. Mode of transport to/from the Area:	
11. Activities conducted in the Area:	
12. Description and location of samples collected (type, quantity, and details of any Permits for sample collection):	
13. Description and location of markers, instrumentation or equipment installed, or any material released into the environment (noting how long these are intended to remain in the Area:	
14. Descriptions and locations of markers, instrumenta	tion or equipment removed:

15. Any departures from the provisions of the Management Plan during this visit, noting dates, magnitudes and locations:
16. Measures taken during this visit to ensure compliance with the Management Plan:
17. Observations of human effects on the Area, distinguishing between those resulting from the visit and those due to previous visitors:
18. Evaluation of whether the values for which the Area was designated are being adequately protected:
19. Note any features of special significance that have not been previously recorded for the Area:
20. Recommendations on further management measures needed to protect the values of the Area, including location and appraisal of condition of structures, markers, etc:
21. Summary of scientific research undertaken in the Area:
22. On an attached photocopy of the map of the Area, please show (as applicable) camp site location(s), land/sea/air movements or routes, sampling sites, installations, deliberate release of materials, any impacts, and features of special significance not previously recorded:
23. Any other comments or information:

SELECT BIBLIOGRAPHY

ANTARCTIC TREATY. 1993. Final Report of the Seventeenth Antarctic Treaty Consultative Meeting (Venice, Italy 11-20 November 1992). [Rome, Ministry of Foreign Affairs] 485 pp

ANTARCTIC TREATY. 1995. Final Report of the Nineteenth Antarctic Treaty Consultative Meeting (Seoul, Korea, 8-19 May 1995). [Seoul, Ministry of Foreign Affairs] 367 pp

ANTARCTIC TREATY. 1997. Final Report of the Twentieth Antarctic Treaty Consultative Meeting (Utrecht, Netherlands, 29 April-10 May 1995). [The Hague, Ministry of Foreign Affairs] 278 pp

ANTARCTIC TREATY. 1994. *Handbook of the Antarctic Treaty System* (Eighth edition). [Washington DC, Department of State] Part I – 296 pp, Part 2 – 300 pp

Benninghoff, W. S., and Bonner, W.N. 1985. *Man's Impact on the Antarctic Environment*. [Cambridge, SCAR] 299 pp

Bleasel, J.E. (ed) 1989. *Waste Disposal in the Antarctic* (Report of the SCAR Panel of Experts on Waste Disposal). [Hobart, Australian Antarctic Division for SCAR] 53 pp

Bonner, W.N., and Lewis-Smith, R.I. (ed). 1985. *Conservation Areas in the Antarctic*. [Cambridge, SCAR] 299 pp

Dingwall, P.R. 1994. *Progress in the Conservation of sub-Antarctic Islands*. (Proceedings of the SCAR/IUCN Workshop on Protection, Research and Management of sub-Antarctic Islands, Paimpont, France, 27-29 April 1992). [Gland, IUCN] xvi-225 pp

Kennicutt II, M.C., Sayers, J.C.A., Walton, D.W.H., and Wratt, G. (compilers). 1996. *Monitoring of Environmental Impacts from Science and Operations in Antarctica*. [Cambridge, SCAR] x+124 pp

Lewis-Smith, R.I., Walton, D.W.H., and Dingwall, P.R. (ed). 1994. *Developing the Antarctic Protected Area System*. (Proceedings to the SCAR/IUCN Workshop on Protected Areas, Cambridge, United Kingdom, 29 June-2 July 1992). [Gland, IUCN] x+137 pp

Protocol on Environmental Protection to the Antarctic Treaty, 1991. *Final Report of the Eleventh Antarctic Treaty Special Consultative Meeting*. (Madrid, Spain 7-18 October 1991). [Madrid, Ministerio de Asuntos Exteriores] 225 pp

Rutford, R.H. (ed). 1986. Reports of the SCAR Group of Specialists on Antarctic Environmental Implications of Possible Mineral Exploration (AEIMEE). [Cambridge, SCAR] 95 pp

Zumberge, J.H. (ed). 1979. Possible Environmental Effects of Mineral Exploration and Exploitation in Antarctica. [Cambridge, SCAR] 59 pp

XXII: Decision 4 (1998) Marine Protected Areas

The Representatives,

Noting the requirements in Annex V, Article 6, paragraphs 1 and 2, of the Protocol on Environment Protection to the Antarctic Treaty (the Protocol) that the views of the Commission of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) must be sought on proposals for Antarctic Specially Protected Areas which contain marine areas;

Recalling the adoption at ATCM XXI of a draft text on marine areas;

Noting also the endorsement by CCAMLR at its XVIth Meeting of that draft text;

Decide:

1. To adopt the following:

For the purposes of implementation of Article 6(2) of the Environmental Protocol, draft management plans which require the approval of CCAMLR are those which include marine areas

- in which there is actual harvesting or potential capability for harvesting of marine living resources which might be affected by site designation, or
- for which there are provisions specified in a draft management plan which might prevent or restrict CCAMLR-related activities;
- 2. That the sites listed in the appendix to this Decision meet the above criteria;
- 3. Proposals for designations of Antarctic Specially Protected Areas or Antarctic Specially Managed Areas which might have implications for CCAMLR Ecosystem Monitoring Programme (CEMP). Sites shall be submitted to CCAMLR for its consideration before any decision is taken on the proposals;
- 4. That the above procedures should be followed pending entry into force of Annex V.

Appendix to Decision 4 (1998)

List of SSSIs with Marine Areas of Interest to CCAMLR

SSSI 1: Cape Royds, Ross Island

SSSI 20: Biscoe Point, Anvers Island

SSSI 26: 'Chile Bay' (Discovery Bay), Greenwich Island, South Shetland Islands

SSSI 27: Port Foster, Deception Island, South Shetland Islands

SSSI 28: South Bay, Doumer Island, Palmer Archipelago

SSSI 32: Cape Shirreff, Livingstone Island, South Shetland Islands

SSSI 34: Lions Rump, King George Island, South Shetland Islands

SSSI 35: Western Bransfield Strait off Low Island, South Shetland Islands

SSSI 36: Eastern Dallmann Bay off Brabant Island, Palmer Archipelago

XXI: Measure 1 (1997)

Antarctic Protected Areas System: Revised Description and Management Plan for Specially Protected Area SPA 5 Beaufort Island (Annex A)

The Representatives,

Recalling Recommendations XV-8 and XV-9/VIII-3

Noting that revised and new Area Descriptions and Proposed Management Plans have been endorsed by the Scientific Committee on Antarctic Research (SCAR);

Noting also that the format of the revised and new Area Descriptions and proposed Management Plans accord with Article 5 of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty adopted under Recommendation XVI-10;

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

For Specially Protected Area No. 5 Beaufort Island (Annex A)

- 1. That the Description inserted in Annex B. Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora shall be deleted.
- 2. That the Description and Management Plan of the Specially Protected Area at Annex A shall be inserted in Annex B. Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

XXI: Measure 2 (1997)

Antarctic Protected Areas System: Management Plans for Specially Protected Areas

Number 25: Cape Evans Historic Site and its environs (Annex A) Number 26: Lewis Bay Tomb (Annex B)

The Representatives,

Recalling Recommendations XV-8 and XV-9;

Noting that Management Plans for the above Areas have been endorsed by the Scientific Committee on Antarctic Research (SCAR);

Noting also that the format of the Management Plans accord with Article 5 of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty adopted under Recommendation XVI-10;

Recognizing that both these Areas have outstanding historic and commemorative significance which require long-term protection to ensure that their values are maintained and to avoid undue human disturbance;

Agreeing that pending entry into force of Annex V, proposals to designate and adopt management plans for the protection of historic or commemorative values should be viewed as proposals for the designation of Specially Protected Areas (SPAs) in accordance with the Agreed Measures for the Conservation of Antarctic Flora and Fauna;

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

That the Management Plans for the Cape Evans Historic Site and its environs (SPA No. 25) and the Lewis Bay Tomb (SPA No. 26) annexed to this Measure be adopted.

XXI: Measure 3 (1997)

Antarctic Protected Areas System: Revised Descriptions and Management Plans for Sites of Special Scientific Interest (SSSI)

SSSI 11: Tramway Ridge

SSSI 12: Canada Glacier, Taylor Valley, Victoria Land (Annex A)

SSSI 13: Potter Peninsula, 25 de Mayo Island (King George Island), South Shetland Islands (Annex B)

SSSI 14: Harmony Point, Nelson Island, South Shetland Islands (Annex C)

SSSI 15: Cierva Point, Danco Coast, Antarctic Peninsula (Annex D)

SSSI 37: Botany Bay, Cape Geology, Victoria Land

The Representatives,

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

- 1. For the following Sites of Special Scientific Interest, that the relevant Management Plans annexed to this Measure be inserted in the Annex to Recommendation XIII-8 to replace those plans previously annexed to this Recommendation:
- 2. SSSI 12: Canada Glacier, Taylor Valley, Victoria Land (Annex A)
- 3. SSSI 13: Potter Peninsula, 25 de Mayo Island (King George Island), South Shetland Islands (Annex B)
- 4. SSSI 14: Harmony Point, Nelson Island, South Shetland Islands (Annex C)
- 5. SSSI 15: Cierva Point, Danco Coast, Antarctic Peninsula (Annex D)
- 6. For SSSI No. 37 Botany Bay, Cape Geology, Victoria Land, that the Management Plan annexed to this Measure (Annex E) be approved and adopted.
- 7. For SSSI No. 11 Tramway Ridge, that the term 'restricted zone' be changed to 'prohibited zone'.

8. That the Consultative Parties ensure that their nationals comply with the mandatory provisions of the new and revised management plans.

XXI: Measure 4 (1997)

Antarctic Protected Areas System: Historic Sites and Monuments: Memorial Cross, Lewis Bay, Ross Island.

The Representatives,

Recalling in particular Recommendation XI-3;

And also Recommendations I-9, V-4, VI-14, VII-9, XIII-7, XIII-16, XIV-8;

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article 9 of the Antarctic Treaty to add the following historic monument to the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9, thereby guaranteeing its full protection and respect as envisaged by the Recommendation noted above.

Memorial Cross for the 1979 Mount Erebus Crash Victims, Lewis Bay, Ross Island.

A cross of stainless steel which was erected in January 1987 on a rocky promontory three kilometres from the Mount Erebus crash site in memory of the 257 people of different nationalities who lost their lives when the aircraft in which they were travelling crashed into the lower slopes of Mount Erebus, Ross Island. The Cross was erected as a mark of respect and in remembrance of those who died in this tragedy.

XXI: Measure 5 (1997)

Antarctic Protected Areas System: Historic Sites and Monuments: Amendment Number 41: Stone Hut on Paulet Island

The Representatives,

Recalling the Measures adopted in Recommendations I-IX, V-4, VI-14, VII-9; and Resolution 8 (1995);

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty:

That an amendment of the description of Historic Site Number 41, which is contained in the "List of Historic Monuments and Described by the proposing Government or Governments" annexed to Recommendation VII-9, be approved.

Amendment to Listing:

Site Number 41: Stone Hut on Paulet Island.

The following text should be added to the final part of the paragraph;

"...and the rock cairn built by the survivors of the wreck at the highest point of the island to draw the attention of rescue expeditions."

XX: Measure 1 (1996)

Revised Description and Management Plan for Sites of Special Scientific Interest (SSSI)

The Representatives,

Recommend to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty,

For the Sites of Special Scientific Interest mentioned below.

- i) the Management Plan inserted in the Annex to Recommendation XIII-8 on the Facilitation of scientific research: Sites of Special Scientific Interest be deleted;
- ii) the relevant Management Plan of the Sites of Special Scientific Interest, annexed to this Measure, be inserted in the Annex to Recommendation XIII-8 on the Facilitation of scientific research: Sites of Special Scientific Interest;

The Sites of Special Scientific Interest concerned are:

SSSI No 9 Rothera Point, Adelaide Island

SSSI No 19 Linnaeus Terrace, Asgard Range, Victoria Land;

iii) that the Consultative Parties ensure that their nationals comply with mandatory provisions of the new Management Plans.

XX: Measure 2 (1996)

Antarctic Protected Area System: New Historic Sites and Monuments

The Representatives,

Recalling Recommendations I-IX, V-4, Vl-14, Vll-9, X11-7, X111-16 and XIV-8, Measures 4 and 5 (1995) and Resolution 8 (1995),

Recommend to their governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty to add the following historic monuments to the "List of Historic Monuments Identified and Described by the proposing Government of Governments" annexed to recommendation VII-9, thereby guaranteeing its full protection and respect as envisaged by the Recommendations noted above.

Mikkelsen Cairn, Tryne Islands, Vestfold Hills. A rock cairn and a wooden mast erected by the landing party led by Captain Klarius Mikkelsen of the Norwegian whaling ship Thorshavn and including Caroline Mikkelsen, Captain Mikkelsen's wife, the first woman to set foot on East Antarctica. The cairn, at latitude 68°22'34"S longitude 78°24'33"E was discovered by Australian National Antarctic Research Expedition field parties in 1957 and again in 1995.

XX: Resolution 3 (1996)

Extension of the Expiry Dates for Sites of Special Scientific Interest

The Representatives,

Recalling Recommendations VIII-3 and XII-5, and Resolution 7(1995);

Noting that experience of the practical effect of the Management Plans for these sites has shown them to be an effective means of reducing the risks of interference with science in areas of special scientific interest; and

Conscious of the advantage of further harmonising the expiry dates of Sites of Special Scientific Interest pending the entry into force of the Protocol on Environmental Protection to the Antarctic Treaty and Annex V to that Protocol.

Recommend that:

- 1. The date of expiry of Sites of Special Scientific Interest numbers 13 and 20 which were considered at XIX ATCM be extended to 31 December 2000.
- 2. The date of expiry of Sites of Special Scientific Interest numbers 2, 23, 24, 25, 26, 27 and 28 be extended from 31 December 1997 to 31 December 2000.
- 3. The date of expiry of Sites of Special Scientific Interest numbers 29, 31 and 32 be extended from 31 December 1999 to 31 December 2000.
- 4. The Governments of the Consultative Parties should use their best endeavours to ensure, in accordance with paragraphs 3 and 4 of Recommendation VII-3, that the Management Plans for these sites are complied with.

XX: Resolution 4 (1996)

Effective management and conservation of Historic Sites and Monuments

The Representatives,

Noting the need to ensure the effective management and conservation of Historic Sites or Monuments:

Aware that those who originally created Historic Sites or Monuments are not necessarily the same as the designators for the Sites or the proposers of Management Plans for some sites;

Recognizing the particular historic and cultural importance of such sites to originating Parties;

that:

During the preparations for the Listing of a Historic Site or Monument, or the writing of a Site Management Plan, adequate liaison is accorded by the proposing Party with the originator of the Historic Site or Monument and other Parties, as appropriate.

XX: Resolution 5 (1996)

Revised renumbering of Antarctic Protected Areas

The Representatives,

Noting the requirement in Article 3(3) of Annex V that all SPAs and SSSIs designated as such by past ATCMs should, on entry into force of Annex V, be renamed and renumbered accordingly;

Acknowledging that at the XIX ATCM the Parties agreed to adopt a numbering system based on the use of three digits;

Taking account of the gaps in the existing numbering system;

Recommend that:

- 1. The numbering system for ASPAs annexed to this Resolution be adopted; and
- 2. The three-digit numbers should be introduced at the same time as an Annex V Management Plan is adopted by the ATCM for any protected area.
- 3. Where an SPA and SSSI are collocated that they be assigned separate numbers so as not to preempt any review of the Management Plans for those areas.