

**ATCM XXVIII
Information Paper
Agenda Item: CEP 4a
NEW ZEALAND**

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**Annual Report of New Zealand
pursuant to Article 17 of the
Protocol on Environmental Protection
to the Antarctic Treaty**

Information Paper submitted by New Zealand

**Annual Report of New Zealand Pursuant to Article 17 of the
Protocol on Environmental Protection to the Antarctic Treaty**

2004/2005

**1. Notification of measures taken pursuant to Articles 13(1) and 13(2) of the
Environmental Protocol**

No new legislation has been enacted in New Zealand to implement the Protocol since the Antarctica (Environmental Protection) Act 1994 came into force on 1 February 1995. Since that time New Zealand has worked to fully implement the Protocol, including into the activities of the national Antarctic programme managed by the New Zealand Antarctic Institute (Antarctica New Zealand). Presently regulations for further implementation of the Act are being developed.

A list of approvals and permits issued under the Antarctica (Environmental Protection) Act 1994 during the 2004/05 season is attached as Annex 1.

2. Contingency Plans established in accordance with Article 15 of the Protocol

Antarctica New Zealand has in place the following contingency plans to cover its activities in Antarctica:

- Environmental Management System
- Oil Spill Contingency Plan
- Disaster Recovery Plan

Information regarding these plans can be obtained from:

Environmental Manager
Antarctica New Zealand
Private Bag 4745
Christchurch
NEW ZEALAND

3. Circulation of information pursuant to Annex I, Article 6(1) of the Protocol

3.1 Environmental Impact Assessment Procedures

The Antarctica (Environmental Protection) Act 1994 implements the Protocol on Environmental Protection to the Antarctic Treaty. Under the Act, all activities must undergo an Environmental Impact Assessment (EIA) as set out in Part III of the Act (ss17-24). Under section 24 of the Act, it is an offence to carry out an activity without completing this process.

The Ministry of Foreign Affairs and Trade (MFAT) administers this Act and the Minister of Foreign Affairs and Trade makes the final determination as to whether or not an activity should proceed. EIAs are submitted to the Antarctic Policy Unit of MFAT, which then seeks expert advice on the potential environmental impacts of the proposed activities.

Antarctica New Zealand coordinates the provision of EIAs for any activities it supports. The preparation of other EIAs is the responsibility of the proponent, although MFAT can provide a model IEE on request, as well as advice and guidance on the type and content of the EIA that is needed.

The Minister of Foreign Affairs and Trade gives final approval of the EIA on the basis of MFAT recommendations which take into account the expert advice received. The Minister also has discretion under the Act to set conditions and make directions regarding the proposed activities in order to protect the environment. Conditions and directions are often imposed to manage issues such as compliance and environmental monitoring and post-activity reporting. Non-compliance with a direction given by the Minister is an offence carrying liability to imprisonment for a term not exceeding one year or to a fine not exceeding \$100,000 (ss 10(2) and (3)).

Further information on New Zealand's EIA procedures can be obtained from:

Antarctic Policy Unit
Ministry of Foreign Affairs and Trade
Private Bag 18-901
Wellington
NEW ZEALAND
Telephone (64) (4) 494-8500
Facsimile (64) (4) 494-8507

3.2 List of Initial Environmental Evaluations

A list of Initial Environmental Evaluations for the 2004/2005 season prepared in accordance with Annex I, Article 2 of the Protocol is included in Appendix 1.

3.3 Significant information obtained, and any action taken in consequence thereof, from procedures put in place in accordance with Annex I Articles 2(2) and 5 of the Protocol

During the 2004/2005 season, no significant information has been obtained from monitoring procedures put in place in accordance with the provisions of Annex I.

3.4 Comprehensive Environmental Evaluations (Annex I, Article 3(6))

No Comprehensive Environmental Evaluations were prepared for the 2004/2005 season.

4. Report pursuant to Annex II, Article 6 of the Protocol

4.1 Number and nature of permits issued under Annex II of the Protocol during the 2004/2005 season

Permits issued under Annex II for the 2004/2005 season are noted in the table in Annex 1.

4.2 Records and statistics concerning flora and fauna taken in the 2004/2005 season

This information can be obtained from:

Environmental Manager
Antarctica New Zealand
Private Bag 4745
Christchurch
NEW ZEALAND

5. Report pursuant to Annex III, Article 9 of the Protocol

Antarctica New Zealand's overall policy statement on waste management is:

*“Antarctica New Zealand will **minimise, reuse and recycle** waste generated by its activities as far as practicable and will ensure that waste is disposed of with minimal environmental impacts. Waste management planning will examine the use, where appropriate, of alternative technologies, materials and disposal options, and identify areas of past activity which require future clean up and/or remediation.”*

Antarctica New Zealand has a more detailed waste management policy which sets out the requirements for waste handling, storage and disposal. Antarctica New Zealand also has a waste management handbook that provides national programme personnel with practical procedures for the day-to-day implementation of the waste management policy. The handbook is reviewed every year at the close of the summer season and aids planning of Antarctica New Zealand waste management activities.

The waste management policy and handbook, reports on their implementation and inventories of past activities can be obtained from:

Environmental Manager
Antarctica New Zealand
Private Bag 4745
Christchurch
NEW ZEALAND

6. Report pursuant to Annex IV of the Protocol

6.1 Notice of activities undertaken in case of emergency (Article 7(2))

There have been no cases of emergency relating to the safety of a ship and those on board or saving life at sea involving New Zealand flagged vessels in the 2004/2005 season.

6.2 Implementation of Sovereign Immunity (Art 11(2))

New Zealand state owned and operated vessels are subject to the Marine Protection Rules applicable to Antarctica issued under the Maritime Transport Act 1994. These rules implement both MARPOL 73/78 and Annex IV of the Protocol.

7. Report pursuant to Annex V, Article 10 of the Protocol

7.1 Number and nature of permits issued under Annex V of the Protocol during the 2004/2005 Season

Permits issued under Annex V for the 2004/2005 season are noted in the table in Annex 1.

7.2 Significant Change or Damage to any ASMA, ASPA or Historic Site or Monument

No significant change or damage has occurred to any ASMA, ASPA, Historic Site or Monument.

7.3 Measures taken to implement the provisions of Annex V

Five-year reviews of the management plans for Cape Evans ASPA 155, Cape Royds ASPA 157, Hut Point ASPA 158 and Cape Adare ASPA 159 have been completed and will be submitted to CEP VIII. Five-year reviews for Canada Glacier ASPA 131 and New College Valley (Cape Bird) ASPA 116 have commenced. An Information Paper providing a progress report on these reviews will be submitted to CEP VIII.

Appendix 1: Initial Environmental Evaluations

The following Initial Environmental Evaluations (IEEs) were completed by the following parties, and were addressed and approved by the Minister of Foreign Affairs and Trade. Permits were issued as noted for the 2004/2005 season.

Holder	Activity	Permit Notes
New Zealand Antarctic Heritage Trust	Ross Sea Heritage Restoration Project – Shackleton’s Hut, Cape Royds.	Permit issued for entry to ASPA 157.
Rodney Russ, Owner, Heritage Expeditions (NZ) Ltd	Two tourist cruises to the Ross Sea region of Antarctica using the <i>Akademik Shokalskiy</i> .	Permit issued for entry to ASPAs 106, 155, 157, 158 and 159.
Werner Stambach, Environmental Officer, Quark Expeditions Inc	Three tourist cruises to the Ross Sea region of Antarctica using the <i>Kapitan Khlebnikov</i> .	Permit issued for entry to ASPAs 106, 155, 157, 158 and 159.

In addition, the following IEE was completed by the New Zealand Antarctic Institute and was addressed and approved by the Minister of Foreign Affairs and Trade for the 2003/2004 season, but was not included in New Zealand’s report for that period.

Holder	Activity	Permit Notes
New Zealand Antarctic Institute	Construction of a warm store at Scott Base	Work continued in the 2004/2005 season

Appendix 2: Preliminary Environmental Evaluations

The following New Zealand Antarctic Institute supported activities were issued with permits for the 2004/2005 season after completion of preliminary stage Environmental Impact Assessment and approval by the Minister of Foreign Affairs and Trade.

Event	Permit	Permit holder	Event title	Specific permitted activities
K002	02/002	Shulamit Gordon	Latitudinal Gradient Project	<ul style="list-style-type: none"> Entry to ASPA 106 for 4 people. Event members must comply with IEE and ASPA provisions.
K015	04/015	Paul Augustinas	Imaging of New Harbour Deltas	
K018	04/018	Mary Sewell	Latitudinal patterns in the abundance of Ross Sea meroplankton – Year 2.	<ul style="list-style-type: none"> Collect 500 larval marine invertebrate, 50 larval marine fish, 50 marine species, and 20 zooplankton.
K023	04/023	Craig Cary	Microbial biodiversity and metgenomics of the Ross Desert, Eastern Antarctica	<ul style="list-style-type: none"> Entry into ASPA 130 Tramway Ridge, Mt Erebus, Ross Island
K024	04/024	Allan Green	Terrestrial biodiversity of southern Victoria Land	<ul style="list-style-type: none"> Entry to ASPA 106, Cape Hallett, Victoria Land Collection of Bryum subrotundifolium (800), Bryum pseudotriquetrum (800), lichens and moss (240), collembolla (springtails) (40), Acari (mites) (40), and collection of endolithic lichen (30) from Hedgehog Island.
K027	04/027	Joseph Waas	Long-term impacts of human disturbance on breeding Adélie penguins	<ul style="list-style-type: none"> Banding of 320 <i>Pygoscelis adeliae</i> penguins, blood samples from 256 <i>Pygoscelis adeliae</i> and faecal samples from 512 <i>Pygoscelis adeliae</i>.
K028	04/028	Allan Green	Terrestrial biodiversity of southern Victoria Land	<ul style="list-style-type: none"> Collect 60 samples of <i>Gomphiocephalus hodgsoni</i>, 60 samples of <i>Stereotydeus mollis</i>, 150 samples of lichen, and 60 samples of moss.
K030	04/030	David Lambert	Molecular Ecology of Antarctic Fauna: The Ancient DNA of Adélie Penguins in Antarctica	<ul style="list-style-type: none"> Bleeding of 1000 <i>Pygoscelis adeliae</i> at Cape Bird
K034	04/034	John Cockrem	Stress and disease in the Adélie penguin, Emperor penguin and skua.	<ul style="list-style-type: none"> Blood and cloacal samples, behav. obs of 200 <i>pygoscelis adeliae</i> – Mandible Cirque Blood and cloacal samples, behave. obs of <i>catharacta maccormicki</i> – Mandible Cirque (30), McMurdo Station (30), Scott Base (30). Blood and cloacal samples,

Event	Permit	Permit holder	Event title	Specific permitted activities
				behav. obs of 200 Aptenodytes forsteri, Cape Washington.
K042	04/042	Alex Pyne	Cape Roberts Tide Gauge	
K043	04/043	Ken Ryan (also K150 Andrew Martin)	Antarctic sea ice, algal productivity and global climate change.	<ul style="list-style-type: none"> Entry to ASPA 106 for 5 people. To avoid areas of terrestrial vegetation.
K047	04/047	Warren Dickinson	Dating Relict Ice in the Dry Valleys	
K049	04/049	Nancy Bertler	NZ ITASE – Holocene Climate Variability along the Victoria Land Coast	
K052	04/052	Ashley Sparrow	Natural spatial subsidies in continental Antarctic soil.	<ul style="list-style-type: none"> Experiments on Nostoc sp. (250) and Pholia sp. (250) in the Garwood Valley.
K053	04/053	Wendy Lawson	Ice Shelf Sensitivity and Change	
K055	04/055	Adrian McDonald	Dynamics and ionisation in the Antarctic middle atmosphere	<ul style="list-style-type: none"> Entry to ASPA 122 for 4 people.
K056	04/056	Christine Elliot	Influence of moisture on rock weathering processes	
K057	04/057	William Davison	Temperature and Cardiovascular Physiology of Antarctic Fish	Note that collection of marine species is covered by an Antarctic Marine Living Resources Act permit.
K061	04/061	James White	Magma-supply dynamics of the Ferrar large igneous province	
K062	04/062	Alan Cooper	Magmatism of the McMurdo volcanic Group	
K063	04/063	Lloyd Davis	Effects of Marine Productivity on Adélie penguins	<ul style="list-style-type: none"> Entry into ASPA 121 and 125 for 4 people (two visits). Handling for measurement and marking of 500 Pygoscelis adeliae at Cape Bird. Stomach flushing of 10 Pygoscelis adeliae at Cape Bird.
K064	04/064	Sean Fitzsimons	Behaviour of cold-based glaciers	
K065	04/065	Andrew Clifford	The physiography, flow characteristics and vulnerability of the southern McMurdo Ice Shelf, Antarctica	

Event	Permit	Permit holder	Event title	Specific permitted activities
K068	04/068	Miles Lamare	An integrated approach to understanding the effects of increased Ultraviolet-B radiation on Antarctic invertebrate larvae	Collection of marine species is covered by the Antarctic Marine Living Resources Act 1981.
K069	04/069	Brian Fraser	Monitoring magnetosphere-ionosphere coupling and space weather in polar regions	<ul style="list-style-type: none"> • Entry into ASPA 122 Arrival Heights for 2 people.
K073	04/073	Tim Williams	Decision-making about environmental ethics in small group contexts in Antarctica.	
K081	04/081	Ian Hawes	Antarctic aquatic ecosystems (inland)	<ul style="list-style-type: none"> • Sampling of mixed microbial mats (100 samples of 5cm cores) from Bratina Island, Taylor Valley, and Wright Valley.
K082	04/082	Anne-Marie Schwarz	Antarctic aquatic ecosystems (coastal marine)	Collection of marine species is covered by an Antarctic Marine Living Resources Act permit.
K085	04/085	Steve Wood	Processes and interactions in the Antarctic Stratosphere	<ul style="list-style-type: none"> • Entry to ASPA 122 for 5 people.
K087	04/087	Gordon Brailsford	Atmospheric air sampling	<ul style="list-style-type: none"> • Entry to ASPA 122 for 1 person.
K089	04/089	Andrew Harper	Scott Base Climate	<ul style="list-style-type: none"> • Entry to ASPA 122 for 1 person
K122	04/122	Peter Wilson	Adélie penguin population research	<ul style="list-style-type: none"> • Entry into ASPA 106, ASPA 105, ASPA 121, and ASPA 125 for 2 people • Aerial census at Beaufort Island, Cape Bird, Cape Crozier and Cape Royds. • Weigh & measure (250), stomach flush (30), Implant PIT, flipper band, automated weigh (30), fenced weighbridge colony (300), attach geo location tag (10), attach sat tags to track foraging (15), attach TDR (15), attach transmitters (30), flipper band (1000), flipper band (30), pull 3 feathers for sexing (30) at Cape Bird. Weigh & measure (250), stomach flush (30), attach geo location tags (10), attach sat tags (15), attach TDR (15), attach transmitters (30), pull 3 feathers for sexing (30) at Cape Hallett.

Event	Permit	Permit holder	Event title	Specific permitted activities
K123	04/123	Jackie Aislabie	Environmental protection of Antarctic Soils	<ul style="list-style-type: none"> • Entry to ASPA 106 for 4 people. Unused chemicals to be removed at end of study. • Disturbance to <i>Pygoscelis adeliae</i>, (25) due to soil measurements.
K131	04/131	Tim Haskell	Sea ice and Southern Ocean processes	
K141A	04/141A	Azizan Samah	Model Development and Application of Microwave Remote Sensing in Antarctica.	
K141E	04/141E	Chuah Hean Teik	Model Development and Application of Microwave Remote Sensing in Antarctica	
K141Z	04/141Z	Zainol Abdin Abdul Rashid	Polar Atmospheric Water Vapour / Ionospheric Sensing using GPS	
K142	04/142	Hamish McGowan	Frozen dunes: An indicator of climate variability, McMurdo Dry Valleys, Antarctic	
K200	04/200	Michelle Finnemore	GCAS	<ul style="list-style-type: none"> • Entry to ASPA 155 (no more than 12 at a time), ASPA 157 (no more than 8 at a time), ASPA 158 (no more than 8 at a time), and ASPA 122 • Census on <i>Leptonychotes weddelli</i>, (150).
K210	04/210	Jo-anne Wilkinson	Project K – Youth Ice	<ul style="list-style-type: none"> ▪ Entry to ASPA 158 for 8 people.
K220	04/220	Natalie Cadenhead	Kelly Tarlton's Familiarisation Visit	Covered in K303.
K301	04/301	Lou Sanson	Invited Visitors - Ministers	<ul style="list-style-type: none"> ▪ Visit ASPAs 155, 157, 158 and 122 for 8 people.
K303	04/303	Lou Sanson	Government Visitors	<ul style="list-style-type: none"> ▪ Visit ASPAs 155, 157, and 158 for 4 people.
K310	04/310	Emma Reid	Media Programme - Dominion	<ul style="list-style-type: none"> ▪ Entry to ASPA 155, 157, 158 and 122 for 2 people.
K311	04/311	Emma Reid	Media Programme - TVNZ	<ul style="list-style-type: none"> ▪ Entry to ASPA 155, 157, 158 and 122 for 2 people.
K312	04/312	Emma Reid	Media Programme – TV3	<ul style="list-style-type: none"> ▪ Entry to ASPA 155, 157, 158 and 122 for 2 people.
K320	04/320	David Trubridge	Artist	<ul style="list-style-type: none"> ▪ Visit ASPAs 155, 157, 158 and HSM 75.
K321	04/321	Dick Frizzell	Invited Artist	<ul style="list-style-type: none"> ▪ Visit to ASPAs 155, 157 and 158.
K322	04/322	Bernadette Mary Hall	Artists to Antarctica	<ul style="list-style-type: none"> ▪ Visit ASPAs 155, 157, 158 and HSM 75
K323	04/323	Kirsten Haydon	Artists to Antarctica	<ul style="list-style-type: none"> ▪ Visit ASPAs 155, 157 and 158.
K331	04/331	Lou Sanson	Commemorative ceremonies for DC-10	

Event	Permit	Permit holder	Event title	Specific permitted activities
			crash	
K340	04/340	Lou Sanson	50 th Anniversary Visit by Sir Edmund Hillary	<ul style="list-style-type: none"> • Visit ASPAs 155, 157 and 158 for 7 people
K400	04/400	Julian Tangaere	Antarctica New Zealand Staff Visits	
K401	04/401	Julian Tangaere	Scott Base Summer Support Staff	<ul style="list-style-type: none"> ▪ Entry to ASPAs 122 (10 people at a time), ASPA 155 (12 people at a time), ASPA 157 (8 people at a time), ASPA 158 (8 people at a time), ASPA 154 (3 people at a time).
K402	04/402	Julian Tangaere	Scott Base Winter Support Staff	
K403	04/403	Lou Sanson	Board of Antarctica New Zealand	<ul style="list-style-type: none"> ▪ Entry to ASPAs 122 (8 people at a time), ASPA 155 (8 people at a time), ASPA 157 (8 people at a time), and ASPA 158 (8 people at a time).
K411	04/411	Julian Tangaere	Helicopters New Zealand	
K412	04/412	Julian Tangaere	New Zealand Air Force	
K413	04/413	Julian Tangaere	Royal NZ navy exchange with USCG	
K414	04/414	Julian Tangaere	Worker visitors	<ul style="list-style-type: none"> ▪ Entry to ASPA 122 (2 people)
K423	04/423	Julian Tangaere	Telecom Riggers	<ul style="list-style-type: none"> ▪ Entry to ASPA 122 (2 people)
K424	04/424	Julian Tangaere	Worker visitors	
K425	04/425	Julian Tangaere	Construction of Hillary Field Centre	
K430	04/430	Julian Tangaere	Armed Forces Canteen Council	
K440	04/440	Nigel Watson	Antarctic Heritage Trust – Ross Sea Heritage Restoration Project	<ul style="list-style-type: none"> • Entry to ASPAs 155, 157, and 158 of 6 people.
K450	04/450	Graeme Blick	Land Information New Zealand	
K451	04/451		Australian Antarctic Division Staff visit	
K453	04/453	Lou Sanson	Invited Visitors - Belgium	<ul style="list-style-type: none"> ▪ Entry to ASPAs 122, 155, 157, and ASPA 158 for 8 people.
K500	04/500	Neil Gilbert	Environmental Management and Monitoring	<ul style="list-style-type: none"> • Visit ASPA 106 for 5 people. • Disturbance of <i>Pygoscelis adeliae</i> (5) at Cape Hallett ASPA 106 due to human disturbance during clean up.
KNA	04/KNA		Collection of Antarctic	Collection of Antarctic Marine

Event	Permit	Permit holder	Event title	Specific permitted activities
			Marine Specimens	Living Resources under AMLR Act permit.