

REGULATION IMPACT STATEMENT:
HEARD ISLAND AND MCDONALD ISLANDS MARINE RESERVE AND CONSERVATION ZONE

Introduction

Heard Island and McDonald Islands (HIMI) are Australia's most remote external territory located in the Southern Ocean around 4100 kilometres south west of Western Australia.

The HIMI region is an area of outstanding conservation significance. HIMI's terrestrial and marine ecology and oceanographic conditions are quite distinct from other subantarctic islands such as Macquarie Island. The region is essentially undisturbed and is the only subantarctic island group without introduced plants or animals. HIMI and the surrounding region provide crucial breeding and feeding habitats for a range of seals and seabirds. The surrounding marine environment features diverse and rich benthic habitats including corals, sponges, barnacles and echinoderms, nursery areas for juvenile stocks of commercially harvested fish species and highly productive nutrient rich areas created by direct interactions with the Antarctic Circumpolar Current. HIMI terrestrial environment also contains distinctive geographical features such as Australia's only active volcano, Big Ben, and significant cultural relics and heritage sites from early sealing activities and Australian Antarctic research expeditions.

HIMI has been listed on the Register of National Estate and the existing HIMI Wilderness Reserve, comprising the terrestrial islands and waters to the limit of the 12 nautical mile territorial sea, was listed in 1997 as a World Heritage Area. The Wilderness Reserve is currently managed as an IUCN Category 1a (strict nature reserve) by the Australian Antarctic Division in accordance with provisions of the *Environment Protection and Management Ordinance 1987* (the EPMO) made under the *Heard Island and McDonald Islands Act 1953*.

While the region's remote location has meant minimal human impacts to date, in recent years there has been increasing interest in commercial fishing in the region, both legal and illegal, for commercially viable species, primarily the Patagonian toothfish (*Dissostichus eleginoides*) and mackerel icefish (*Champsocephalus gunnari*). The HIMI region is included within the area of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) and is subject to the Convention's internationally acknowledged conservation and sustainable management measures. The Australian Fisheries Management Authority (AFMA) currently manages an exploratory trawl fishery within the Australian Fishing Zone (outside of the 12 nautical mile limit of the HIMI territorial sea to the limit of the Australian EEZ) in accordance with CCAMLR's precautionary management measures. Only three commercial operators are permitted in the fishery. The region also has particular significance for scientific research, with Australia's Antarctic Program over the last 10 years conducting extensive marine biological and oceanographic research in the EEZ, including trawl surveys for fish stock assessments, and establishing temporary field research bases on Heard Island for short periods.

There is currently no exploration or extraction of minerals or petroleum resources being conducted in the HIMI region. The area is part of the remote frontier region of the Kerguelen Plateau. Whilst some areas in the Kerguelen Plateau region may have potential petroleum prospectivity, given the speculative nature of mineral or petroleum exploration in deep ocean basins it is unlikely that the HIMI region will provide opportunities for commercial mining or petroleum activities in the near future.

The Problem

Protection of the conservation values in the HIMI region has to date been confined to the World Heritage property of the terrestrial environments and the associated territorial sea out to 12 nautical miles. There is a strong interdependent relationship between land based and inshore species that breed in the World Heritage area but depend on food sources and refuge areas in other areas of the EEZ. These areas have distinctive physical features and biodiversity values in their own right, including highly productive and nutrient rich benthic and pelagic environments that support unique and fragile benthos, pelagic species that are part of the diet of larger predators, and nursery areas for straddling fish stock species. These areas are integral to the ecosystem balance of the HIMI region but are under increasing threat from commercial fishing activities.

Commercial fishing is the activity with the greatest potential impact on the conservation values of the region. Commercial fishing activities may directly affect the biodiversity values of the proposed Reserve and Conservation Zone by damaging benthic communities and habitats, altering predator-prey relationships and threatening marine species.

Objectives

The proposed Reserve will incorporate the existing Heard Island Wilderness Reserve with additional southern, western, central and north eastern representative segments of the EEZ (comprising around 15.6% of EEZ).

The strategic objectives for the Reserve are as follows:

- a. protect conservation values of Heard Island and McDonald Islands, the territorial sea and the adjacent Exclusive Economic Zone (HIMI EEZ) including:
 - the World Heritage and cultural values of the Territory of Heard Island and McDonald Islands;
 - the unique features of the benthic and pelagic environments;
 - representative portions of the different marine habitat types; and
 - marine areas used by land-based marine predators for local foraging activities.
- b. provide an effective conservation framework which will contribute to the integrated and ecologically sustainable management of the HIMI region as a whole;
- c. provide a scientific reference area for the study of ecosystem function within the HIMI region; and
- d. add representative examples of the HIMI EEZ to the National Representative System of Marine Protected Areas.

A copy of the proposal for the Reserve is at [Attachment A](#).

The proposed Conservation Zone will comprise 4 separate areas:

1. A portion of the Northeastern Plateau region to the north of Shell Bank;
2. A southern portion of the Shell Bank;
3. Aurora Bank in the western region and surrounding deeper waters; and
4. A portion of the deep waters in the western region to the north of Coral Bank and near the Western Trough.

The strategic objective for the Conservation Zone is to obtain additional scientific and fishing data in order to:

- further assess conservation values of the Conservation Zone areas;
- assess the fisheries resource potential in the Conservation Zone areas; and
- assess potential impacts on the conservation values of the Conservation Zone from fishing;

and use the outcomes of these assessments to inform future decisions regarding the inclusion of the Conservation Zone in the HIMI Marine Reserve.

A copy of the proposal for the Conservation Zone is at Attachment B.

Options

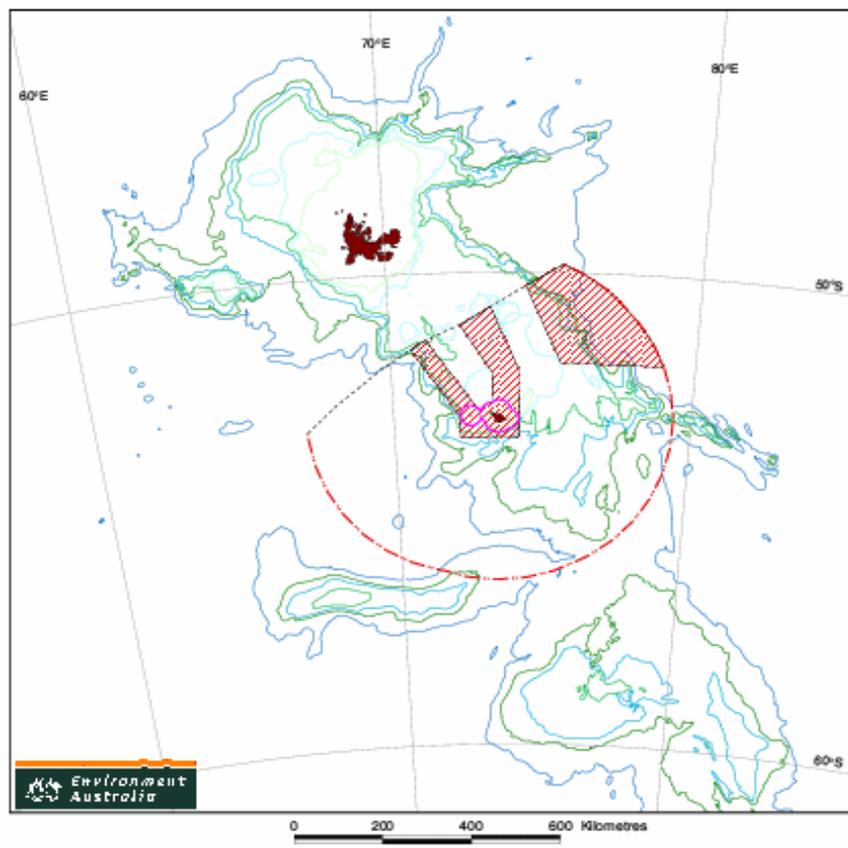
In developing the proclamation for the Reserve, three options were considered:

Option 1: The whole EEZ as a protected area (zoned as IUCN categories 1a and VI reserves);

Option 2: Part of the EEZ as a protected area (representative marine habitats plus the existing Heard Island Wilderness Reserve in a single IUCN category 1a reserve – see Figure 1); and

Option 3: the same overall protected area as per Option 2, but with 85% (including the existing Heard Island Wilderness Reserve) protected as an IUCN Ia reserve and the remaining 15% declared as a temporary conservation zone (see Figure 2).

Figure 1 - Boundaries of Option 2 of proposed Reserve



**Kerguelen Plateau and the proposed
Heard Island and McDonald Islands Marine Reserve**

 Areas to be included in the reserve

Legend:

Maritime Boundaries

 12 n.m. Territorial Sea

 Australian EEZ

 Australia-France Maritime Delimitation Agreement

Bathymetric Contours

 200 m

 500 m

 1000 m

 1500 m

 2000 m

 3000 m

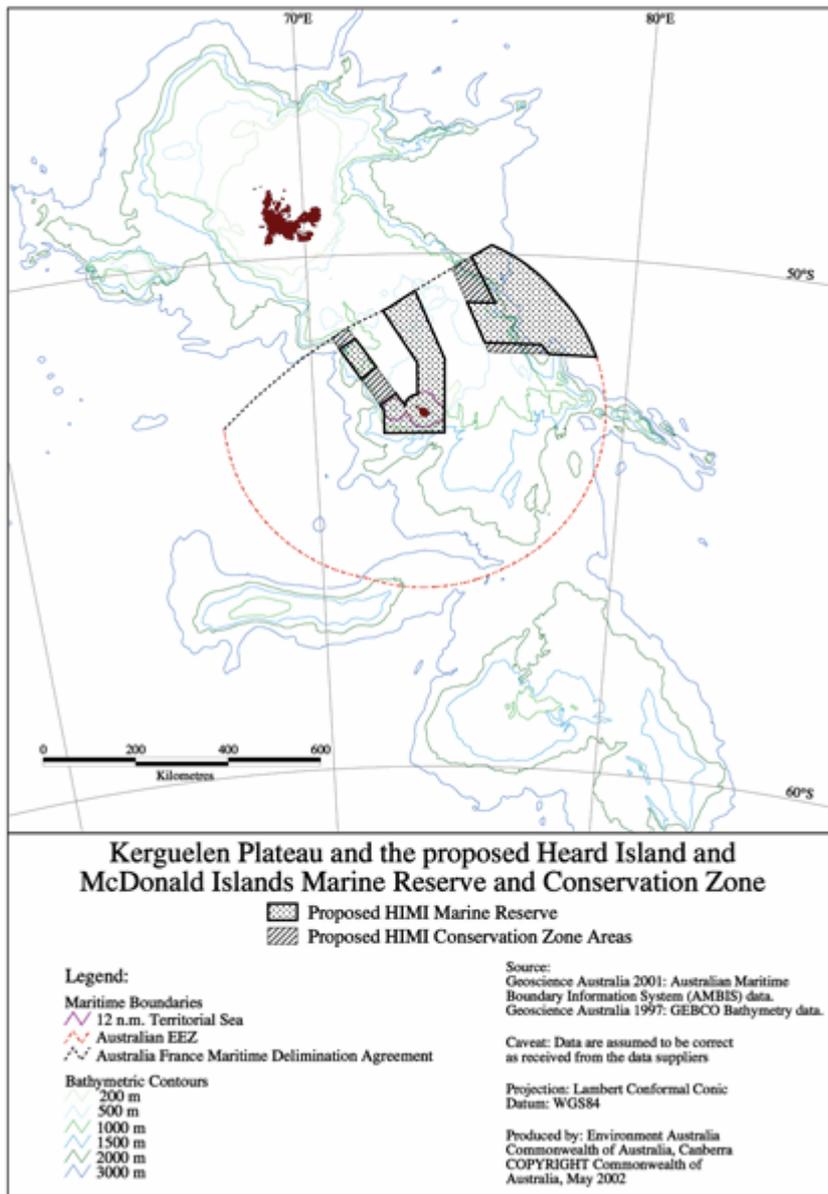
Source:
AUSLIG 1997: Australian Maritime Boundary Information System (AMIS) data.
AGSO 1997: GEBCO Bathymetry data.

Caution: Data are assumed to be correct as received from the data suppliers.

Projection: Lambert Conformal Conic
Datum: WGS84

Produced by: Environment Australia
Commonwealth of Australia, Canberra
COPYRIGHT Commonwealth of Australia, January 2001

Figure 2 - Boundaries of Option 3 of proposed Reserve and Conservation Zone



Option 1 considered the establishment and management of two protected areas under individual management plans:

- Protected area 1 - the existing Heard Island Wilderness Reserve (managed as an IUCN Category 1a) that continues to be managed under the EPMO through a revised Management Plan (refers to area within the unbroken line around Heard Island and McDonald Islands in Figure 1);
- Protected area 2 - comprising two zones:
 - i) A Highly Protected Zone (managed as an IUCN Category 1a - refers to the shaded area in Figure 1) afforded an equivalent level of protection to the existing Heard Island Wilderness Reserve. This zone includes unique and sensitive benthic communities such as corals, sponges and echinoderms, diverse and highly productive local habitats such as undersea banks and refuge areas for juvenile fish species, pelagic and deep

water habitats that sustain species that are a key part of the diet of land based predators and foraging and migratory range areas of land-based predators. The zone includes:

- western and central portions of the plateau area to the north of the territorial sea extending out to the Australian EEZ boundary;
- a small area to the south of the territorial sea; and
- a portion of the north east of the plateau area, including areas over and around Shell Bank and the North eastern Plateau out to the limits of the EEZ.

ii) A General Use Zone (IUCN category VI - managed resource protected area) comprising the remaining areas of the EEZ (the unshaded areas within the broken line EEZ boundary in Figure 1), to ensure that activities in the remainder of the EEZ are managed on an ecologically sustainable basis. This provides for the continuation of fishing in this part of the EEZ and the potential exploration and development of mineral and petroleum resources.

Key Management Strategies under this option for the EEZ would be:

- no fishing or other extractive activities in the existing Wilderness Reserve or Highly Protected Zone;
- commercial fishing and potentially mineral or petroleum exploration or extraction in the General Use Zone subject to permits or determinations by the Director on gear and practices;
- tourism strictly controlled;
- scientific research and monitoring that has minimal impact on the terrestrial, benthic and pelagic habitats and species;
- ongoing management of the World Heritage and cultural values.

Option 2 considered a single integrated management regime for the Reserve would be established incorporating the existing Heard Island Wilderness Reserve and the Highly Protected Zone from Option 1. The General Use Zone in Option 1 would be excluded from the Reserve in this option. The entire Reserve would be assigned as an IUCN Category 1a Highly Protected Zone and the environmental aspects managed under the provisions of the EPBC Act to streamline management conditions.

Key Management Strategies under this option would be:

- no fishing or mineral or petroleum exploration or extraction;
- tourism strictly controlled;
- scientific research and monitoring that has minimal impact on the terrestrial, benthic and pelagic habitats and species;
- ongoing management of the World Heritage and cultural values.

Option 3 considered the establishment of both a Reserve and Conservation Zone under the EPBC Act. The Reserve would constitute around 85% of the proposed Reserve in Option 2 and be managed in accordance with the same management strategies. The remaining 15% of the proposed Reserve in Option 2 would be declared as a Conservation Zone and assessed over a 3 year period to further determine commercial fishing potential and conservation significance of these areas before a decision is made whether to include these areas in the Reserve. As part of this assessment process limited access to the Conservation Zone by the fishing industry would be allowed.

Key Management Strategies for the Conservation Zone would be:

- commercial fishing subject to permits or determinations by the Director on gear and practices and review of each fishing trip;
- any tourism strictly controlled;
- scientific research and monitoring that has minimal impact on the terrestrial, benthic and pelagic habitats and species;
- no mineral or petroleum exploration or extraction.

Impact Analysis

Option 1: The whole EEZ as a protected area (zoned as IUCN categories 1a and VI)

Effects on stakeholder activities

This option treats the entire EEZ as an integrated ecosystem requiring protection from human impacts, primarily commercial fishing, and consequently increases the level of controls on existing commercial fishing operations. Under this option fishing is precluded from both the existing Wilderness Reserve and the surrounding Highly Protected Zones to ensure that prime breeding, feeding, species rich and unique habitats are protected from damaging commercial fishing activities such as bottom trawling, bycatch and incidental mortality. Commercial fishing effort to date has concentrated in areas outside of these high protection zones. Whilst preclusion from the proposed Highly Protection Zone should not impact in the short term on attaining existing commercial catch limits, it will restrict exploratory fishing in the vicinity of many sea banks and other productive grounds in the region that may have commercial fishing potential.

Fishing would be permitted in the remainder of the EEZ in the proposed General Use Zone subject to appropriate management measures to ensure ecological sustainability of practices. Given that this Zone is part of the existing HIMI Fishery, commercial fishing operators would still be required to comply with the high level of precautionary management measures (consistent with CCAMLR's conservation and sustainable management regime) that apply to the fishery.

Negligible change is anticipated for other commercial stakeholders. HIMI is not a scheduled tourism destination for existing commercial tourist operators. Whilst the region is an attractive destination for adventure activities, tourist visits to the region are infrequent given its isolation and safety implications of the volatile weather conditions. Heard Island is likely to remain the focus of any visits to the region with only passive transiting through the waters outside the existing HIMI territorial sea. Strong environmental protection measures such as limits on the number of visitors and stringent controls to protect habitats and prevent introduction of foreign species already apply under the EPMO for visitors to the HIMI Wilderness Reserve. Tourists would expect similar conditions to apply across the region.

While this option potentially allows mining and petroleum exploration and development in General Use Zone of the EEZ, this will have minimal, if any, impact given the very low prospectivity of the region for resource development. However, this potentially opens up the region to increased levels of human activities that, combined with fishing, increases the pressures of interactions with vulnerable land-based and marine species and damage to habitats on which they are dependant for survival. Increasing the level of extractive activities would also be counter to the Reserve's objectives of protecting the conservation values of the EEZ and its associated high World Heritage area values.

Current scientific research in the HIMI region addresses sustainable use of resources and ecosystem dynamics and contributes directly to management measures developed under CCAMLR. AFMA also administers ongoing fisheries research as an integral component of the management arrangements for the HIMI fishery, including determining the sustainability of fish stocks and recruitment rates across the HIMI region. These research priorities are likely to continue under this option.

Administrative impacts

Under this option administrative arrangements would be complex with two separate management processes - under the EPMO for the existing Wilderness Reserve and the EPBC Act for the remainder of the Reserve. These management arrangements would entail two legislative instruments and two management plans, with potential separate management conditions for three distinct zones. These arrangements would increase the level of stakeholder liaison required on activities within the Reserve with the most significant impact on researchers whose research activities are likely to extend across the EEZ.

Fishing operators would also be subject to two separate assessment processes - one for licences to operate in the AFZ under the *Fisheries Management Act 1991* and a second assessment for permits (or determinations by the Director) under the EPBC Act stipulating additional conditions on proposed activities within the Marine Reserve. There is potential for duplication of management strategies and administrative requirements under these arrangements.

Option 2: Part of the EEZ as a protected area (IUCN Category 1a)

Effect on stakeholder activities

Under this option Reserve management would be confined to the high conservation and biodiversity values areas within the EEZ as represented by the existing Wilderness Reserve and Highly Protected Zone identified in Option 1. As with Option 1, precluding commercial fishing from these highly protected areas will not affect overall existing primary commercial fishing effort and catch rates, but precluding exploratory commercial fishing from the vicinity of many sea banks and other productive grounds in the proposed Highly Protected Zone may impact on realising commercial fishing potential of new areas in the fishery in the future. Commercial fishing operators have claimed there are indications from past exploratory fishing in these areas of possible aggregations of commercial fish stocks.

As in Option 1 any impact on tourism will be negligible as tourist visits are very infrequent and the proposed management arrangements essentially extend to surrounding waters the same highly protected conditions that have applied to visits to the HIMI Wilderness Reserve for some time.

As with Option 1, research priorities across the HIMI region are unlikely to change under this option, although Option 2 would enhance these priorities by providing an extended undisturbed scientific reference area, consistent with the strategic objectives for the Reserve, in which to obtain long term information on ecosystem function, the habitats and status of marine mammals, seabirds and benthic, pelagic and terrestrial biotic communities.

Preclusion of mining and petroleum activities from the Reserve should not have any impacts given the low prospectivity of the HIMI region for resource development in the near future.

Administrative impacts

This option would provide a simpler administrative arrangement than Option 1 for activities in the region, with a single assessment process for permits under the EPBC Act for activities proposed in either the existing Wilderness Reserve area or other marine waters within the Reserve. Given the preclusion of fishing and negligible tourist activities in the proposed Reserve there will be negligible impact of these arrangements on commercial operators. Permit requirements for scientific research would be consistent with similar management arrangements that have existed under the EPMO for HIMI research for some time.

Option 3: Part of the EEZ as a protected area (IUCN Category 1a) and conservation zone

Effect on stakeholder activities

This option is similar to Option 2 in terms of total area protected. The key difference is that it allows limited commercial fishing in a conservation zone that includes defined shallow bank and productive areas identified by the fishing industry as most likely to have some future commercial fishing potential. This option provides the least change to commercial fishing operations as exploratory commercial fishing can continue to focus on confirming areas that have future commercial fishing resource. This option still provides for 85% of the highly protected areas in Options 1 and 2 to be maintained to protect breeding, feeding, species rich and unique habitats from extractive activities such as fishing and mining. The assessment arrangements outlined in the conservation zone proposal at Attachment B also place the onus on commercial fishing operators to prove the fishing resource potential of the conservation zone over a defined 3 year assessment period to avoid detrimental impacts that would arise from extended exploratory trawling.

As with Option 1 and 2, this option would not significantly alter the research priorities for the overall HIMI region. However the assessment arrangements for the conservation zone do provide an immediate focus for obtaining further data on key research and management aspects such as commercial fish stocks, areas of high conservation significance and impacts of fishing activities. Option 3 also provides the widest range of scientific reference areas in which to obtain comparative information on ecosystem function, with the highly protected reserve, conservation zone with limited commercial fishing activities, and remainder of EEZ outside the reserve and conservation zone but still within the regulated commercial fishery.

As with Option 2, tourism activities and mining and petroleum prospectivity are negligible and unlikely to be affected by the proposed reserve and conservation zone.

Administrative impacts

This option requires more management input than Option 2, having both a reserve and conservation zone compared with a single reserve in Option 2. However, both the reserve and conservation zone in this option are subject to similar management provisions under the EPBC Act. Expected activities in the conservation zone are already prescribed in the conservation zone proposal and limited to a 3 year duration, with progressive review of fishing activities by stakeholders to facilitate appropriate and agreed management measures.

Consultation

There has been extensive consultation with HIMI stakeholders during the development of proposals for the Marine Reserve and Conservation Zone.

- The Government's announcement in May 1998 included the HIMI region in a list of immediate priority areas for new marine parks in Commonwealth waters. A Conservation Report on the surrounding marine habitats in the HIMI region was published in January 2000 by the Australian Antarctic Division to supplement the existing information on the conservation values of the World Heritage property of the HIMI Wilderness Reserve. Comments on the Conservation Report were received from a range of stakeholders including commercial fishing operators, peak conservation groups, AFMA and Australian Bureau of Agriculture and Research Economics (ABARE).

On 31 January 2001, the Director of National Parks issued a Notice of Intent to declare the HIMI Reserve in accordance with EPBC Act requirements. Public comments on the proposal (Option 2 of the above assessment) closed on 2 April 2001 with submissions received from commercial fishing industry, research and conservation sectors.

Conservation groups and research agencies supported the highly protective and precautionary approach taken in the proposal. However, the fishing industry was critical of the proposal, in particular their perception that the proposed Reserve boundaries restricted access to potential productive fishing grounds in many of the shallower water areas in the region.

This was disputed by research and conservation groups, who argued for the need to protect shallower bank regions were integral components of the wider HIMI ecosystem and therefore needed protection from fishing. It was also noted that commercial fishing effort and yields were not spread across the whole plateau region but in two areas outside of the proposed Reserve boundaries.

The former Minister for the Environment and Heritage consequently sought further consultation with stakeholders, including a review by CSIRO of the science underpinning the Reserve proposal, before proceeding with a reserve declaration.

Environment Australia consulted extensively with stakeholders over a six-month period to resolve differences with the proposed Reserve design. The revised Reserve and Conservation Zone proposals (Option 3 in the above assessment) were developed to address the differences between fishing and conservation interest groups regarding the respective commercial fishing and conservation values of certain areas within the original Reserve proposal. The revised proposals involve around 85% of the original Reserve proposal being declared as a highly protected reserve, with the remaining areas declared a conservation zone and assessed over a 3 year period for conservation and fishing resource values to determine future use of these areas.

Whilst conservation groups indicated a preference for greater restriction on trawling activities in the proposed conservation zone, all stakeholders have indicated support to date for both the revised reserve and conservation zone proposals of Option 3.

On 5 June 2002 the Director of National Parks issued a new Notice of Intent to declare the HIMI Marine Reserve consistent with the revised reserve proposal. Public comment period on the proposal closed on 5 August 2002. Two public submissions were received. The submissions from Greenpeace and the Australian Fisheries Management Agency generally

supported the proposal for a reserve and a Conservation Zone. The NOI of 5 June 2001 overrides the earlier NOI.

Unlike the process for declaring a marine reserve, the declaration of a conservation zone under the EPBC Act does not require formal public consultation. Given that HIMI stakeholders have therefore been directly consulted in the development of both proposals, the proposed Reserve and Conservation Zone are unlikely to attract significant adverse comments before declaration.

Similarly, it is unlikely that significant issues will be raised during the subsequent development of the Reserve management plan.

Conclusion and recommended option

Option 3 - a highly protected marine reserve (IUCN Category 1a High Protection Zone) and adjoining conservation zone is the preferred management option for declaring protected areas in the region as it:

- Is supported by all key stakeholders;
- Meets the Government's objectives of protecting a representative sample of the unique and diverse habitats, species and benthic and pelagic environments of the region, protecting the World Heritage values of Heard Island and McDonald Islands and the feeding grounds for land-based predators and maintains scientific reference areas;
- Protects a significant proportion of vulnerable habitats and species from the impacts of the major threat to the region, commercial fishing, whilst providing the opportunity to confirm further conservation and fishing resource values in the region under controlled precautionary management arrangements;
- Enables management under a single legislative regime (EPBC Act); and
- Creates minimal changes to current uses of the areas.

Option 1 would meet the Government's objectives for conserving a representative area of the biodiversity values of the region but management arrangements would be more complex for stakeholders. The primary commercial stakeholders, commercial fishers, would be subject to an additional level of regulation and management conditions that would also increase restriction on their current activities in the region without necessarily eventuating in a more effective conservation regime. Government resources would also be considerably extended in administering effective management controls across the entire EEZ in such a remote region.

Option 2 would meet the Government's conservation objectives by providing a high level of protection, but would have a greater impact on potential commercial activities in the region without necessarily providing a more effective conservation framework or sounder ecological management measures for the entire region. It also represents a less integrated sustainable management regime compared with Option 3.

Implementation and review

For the Marine Reserve, comments from the Notice of Intent public consultation round will be incorporated into a report by the Director to the Minister for the Environment and Heritage for his consideration and approval of the proclamation proposal prior to formal proclamation by the Governor-General of the Reserve and assignation of an IUCN Reserve Management Category. Following proclamation public comments will be sought on the intention to develop a draft management plan for the Reserve. The Australian Antarctic Division will assume management responsibility for the Reserve and will draft the management plan and

seek further public comment on the draft plan along with comments from the Commonwealth Protected Area Committee (ComPAC).

Comments and information provided through the public consultation process will be used to finalise the Management Plan for the Marine Reserve. The final management plan will be submitted to the Minister for Environment and Heritage for approval. When approved by the Minister, the plan will be tabled in both Houses of Parliament. Unless disallowed by either the House of Representatives or the Senate within 15 sitting days, the plan will then come into operation for 7 years unless revoked or amended.

The operation of the Plan will be assessed against Australian Reserve Management Principles as they apply to the zone(s) of the Reserve (see [Attachment C](#)).

The Plan will be subject to performance assessment throughout its period of operation and reviewed within two years of its expiry as part of the process to develop the second Plan in accordance with EPBC Act requirements.

A public consultation period or plan of management is not required under the EPBC Act for the Conservation Zone. All relevant stakeholders plus the Minister for Fisheries and Minister for Industry, Tourism and Resources have been consulted on the Conservation Zone proposal prior to its declaration. The objectives, assessment arrangements and management prescriptions for the Conservation Zone are outlined in the attached proposal ([Attachment B](#)). A HIMI stakeholder group will review all stages of the assessment process. It is proposed to declare the Conservation Zone and Reserve at the same time.

Heard Island and McDonald Islands

Marine Reserve

Proposal



May 2002

Proposal for Heard Island and McDonald Islands Marine Reserve

1. Introduction

The process to be followed to establish new Commonwealth reserves is set out in Division 4, Subdivision B of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The simplified outline of that Subdivision states:

“The Governor-General can proclaim Commonwealth reserves over areas of land or sea:

- (a) that the Commonwealth owns; or*
- (b) that the Commonwealth or the Director leases; or*
- (c) that are in a Commonwealth marine area; or*
- (d) outside Australia that the Commonwealth has international obligations to protect.*

A Proclamation must assign the reserve to a particular category that affects how the reserve is managed and used.

Proclamations can be made to alter and revoke reserves.

The Director must consult publicly before some Proclamations are made.”

The purpose of this paper is to provide the basis for consultation on the notice of intent to declare a Commonwealth reserve under the EPBC Act in the region of Heard Island and McDonald Islands (HIMI) in the Southern Ocean.

Australia’s Oceans Policy (1998) contains an initial list of five priority areas for declaration as marine reserves. The reserve in the Heard Island and McDonald Islands region will be the last of these areas to be declared.

2. Proposed Name of the Reserve (EPBC Act s351(3)(a))

The proposed name of the reserve is the Heard Island and McDonald Islands Marine Reserve.

3. Proposed Boundaries of the Reserve (EPBC Act s351(3)(b))

The proposed boundaries of the Heard Island and McDonald Islands Marine Reserve are described in Attachment A(i).

In summary, the proposed reserve will encompass:

- Heard Island and McDonald Islands and the associated territorial sea (the existing Heard Island Wilderness Reserve);
- central portion of the plateau area to the north of the territorial sea extending out to the Australian EEZ boundary;
- a portion of the western plateau around Coral Bank;
- a small area to the south of the territorial sea; and
- a portion of the north east of the plateau area, including areas over and around Shell Bank and part of the Northeastern Plateau out to the limits of the EEZ.

It is proposed that the seabed and subsoil of the land and seabed, to a depth of 1000 metres, be included in the reserve.

Maps indicating the boundaries of the proposed reserve are at Attachment A(ii).

In addition to the proposed reserve, four further areas adjoining the proposed reserve will be declared as a Conservation Zone and further assessed for their conservation and fishing resource values before determining if these areas will eventually be included in the proposed reserve.

4. Purpose for which the Reserve is to be Declared (EPBC Act s.351(3)(c))

The purposes for declaring the Heard Island and McDonald Islands Marine Reserve are to:

- e. protect conservation values of Heard Island and McDonald Islands, the territorial sea and the adjacent Exclusive Economic Zone (HIMI EEZ) including:
 - the World Heritage and cultural values of the Territory of Heard Island and McDonald Islands;
 - the unique features of the benthic and pelagic environments;
 - representative portions of the different marine habitat types; and
 - marine areas used by land-based marine predators for local foraging activities.
- f. provide an effective conservation framework which will contribute to the integrated and ecologically sustainable management of the HIMI region as a whole;
- g. provide a scientific reference area for the study of ecosystem function within the HIMI region; and
- h. add representative examples of the HIMI EEZ to the National Representative System of Marine Protected Areas.

5. IUCN Category to be Assigned to Reserve (EPBC Act s.351(3)(d))

The area of the proposed Heard Island and McDonald Islands Marine Reserve contains outstanding and representative ecosystems, geographical features and terrestrial and marine species. The region remains in a relatively pristine state given the very recent opening of fisheries and the limited human interference in the region to date. The existing Heard Island Wilderness Reserve is currently managed as an IUCN Category 1a (strict nature reserve).

It is thus appropriate that the proposed Heard Island and McDonald Islands Marine Reserve is accorded the highest level of protection and is assigned to IUCN Category 1a (strict nature reserve) – in accordance with s346(1)(e) and s347(2) of the EPBC Act.

6. Purposes for which it is Intended to Manage and Use the Reserve (EPBC Act s.351(3)(e))

The proposed reserve will be managed as an IUCN Category 1a protected area (strict nature reserve) primarily for scientific research or environmental monitoring.

The proposed management regime will exclude most human activity, that is:

1. No activities deleterious or contrary to the purposes of the reserve will be permitted;
2. No mining or exploration for petroleum or minerals will be permitted; and
3. No commercial fishing will be permitted.

Based on available information, the intended management of the areas described in Part 3 of this proposal will meet the objectives set out for the reserve, and provide a high level of protection for the conservation values identified across the HIMI region.

Under the EPBC Act, a management plan for the reserve must be prepared as soon as practicable after it has been declared. A management plan is intended to be in force for seven years, at which time a

new management plan must be prepared. Any new plan that is prepared will take into account any further knowledge about the HIMI environment that has been gained in the intervening years.

It is intended that all of the areas described in Part 3 of this proposal will be managed as a single Commonwealth reserve via a single management plan prepared under the EPBC Act and administered by the Australian Antarctic Division (AAD) of the Department of Environment and Heritage.

7. Background to the Issuing of a Notice of Intent

a. Conservation Values

The conservation values of the HIMI region have been documented in the HIMI Conservation Report: *Conservation of marine habitats in the region of Heard Island and McDonald Islands* (AAD 2000) and also using the ANZECC criteria for the identification and selection of marine protected areas under the National Representative System of Marine Protected Areas (NRSMPA). The HIMI Conservation Report is available via the Internet at:
http://www.environment.gov.au/marine/marine_protected/commonwealth/future_mpa.html.

Key conservation values for the region include:

- only sub-Antarctic island group without introduced plants or animals;
- diverse and distinctive benthic habitats supporting a range of slow growing and vulnerable benthos such as corals and sponges;
- several endemic fish and benthic species;
- nursery areas for a range of fish stocks including commercially harvested Patagonian toothfish;
- highly productive nutrient rich areas due to the confluence of key oceanographic fronts such as the Antarctic Circumpolar Current;
- prime foraging areas for a number of land-based marine predators, including threatened albatross and seal species.

b. Relevant Socio-economic Matters

An examination of socio-economic matters according to the ANZECC criteria for the identification and selection of a marine protected area is made in the HIMI Conservation Report. The information summarised below has been primarily drawn from that Report, with comments relating to fisheries management also drawn from the HIMI Fishery Assessment Report: *Assessment report – Heard Island and McDonald Islands Fishery* (AFMA 2001).

Fisheries

Due to its remote location there are no indigenous or recreational fishers operating in the region. Australian commercial fishing around HIMI began in 1997. Fishing effort is concentrated on two species considered to have sufficient stocks to support a fishery, namely the Patagonian toothfish and mackerel icefish. Commercial fisheries activities are conducted outside the 12 nautical mile territorial sea (which are currently protected under the Heard Island Wilderness Reserve Management Plan) and an additional 1 nautical mile buffer zone, and are subject to the *Fisheries Management Act 1991*, which is administered by the Australian Fisheries Management Authority (AFMA).

Current Australian fishing activities in the region are precluded from the use of longline fishing methods and so utilise demersal and to a much lesser extent pelagic trawling methods; future fishing activities may also include more extensive pelagic trawling and longlining. An evaluation of the

effects of longlining and development of suitable seabird bycatch mitigation measures is required to precede introduction of any Australian longline fishing in the region.

Commercial fisheries of a number of other countries have operated in the Kerguelen region to the north of the HIMI EEZ for some time. The northern and central parts of the Kerguelen-Heard Plateau have been the principal target of illegal longline fishing for Patagonian toothfish in recent years. The zone to the east and north east of HIMI is the main area where illegal fishers have taken toothfish (by longlining rather than trawling) from the HIMI EEZ.

Long-term commercial fishing is the main potential threat to the conservation values of the HIMI region. The management provisions for legal fishing in the region include a range of mitigating measures to minimise these threats. These include precautionary catch limits for both target and bycatch species that take account of predator-prey relationships, independent observers on all voyages, collection and analysis of a wide range of catch data and samples, restrictions on gear to minimise non-target species interactions, and ongoing research on the ecological viability of commercial fish stocks and impacts on the surrounding ecosystem.

Mineral or Petroleum Extraction

There is currently no exploration or extraction of minerals or petroleum resources being conducted in the HIMI region. The area is part of the remote frontier region of the Kerguelen Plateau. Whilst some areas in the Kerguelen Plateau region may have potential petroleum prospectivity, given the speculative nature of mineral or petroleum exploration in deep ocean basins it is unlikely that the HIMI region will provide opportunities for commercial mining or petroleum activities in the near future.

Research and Exploration

The AAD maintained a permanently occupied station at Heard Island for seven years (1947-1955). Since then, AAD visits to the Island have been irregular and generally for short periods. Extensive marine biological and oceanographic research has been conducted in the EEZ since 1990. The 12 nautical mile territorial sea around HIMI has been managed as an IUCN category 1a reserve for some years and this has not impeded research activities in the Territory.

Ongoing fisheries research across the region is also an integral component of the management arrangements for the HIMI Fishery. The commercial fishing licence provisions include a fisheries research component to contribute to determining the sustainability of fish stocks and recruitment rates. AFMA also administer a five-year Strategic Research Plan for the Fishery to address environmental impacts of fishing in the HIMI region.

Tourism

Opportunities exist for recreation and tourist activities at HIMI, although few tourist visits have been made to the Islands due to geographical and climatic difficulties. Any increase in tourism activities would mostly be concentrated ashore and within the territorial sea and be subject to conditions imposed by the management plan for the reserve.

c. Relevant National and International Matters

Australia is committed to the protection of marine biodiversity and ecological processes, and the sustainable use of marine resources, through the goals and principles of Ecologically Sustainable Development (ESD). This commitment has been ratified through a number of national and international agreements and strategies.

With regard to HIMI, Australia's international responsibilities and obligations mainly include those matters relating to the:

- Convention on the Conservation of Antarctic Marine Living Resources,
- United Nations Convention on the Law of the Sea (UNCLOS),
- Convention Concerning the Protection of the World Cultural and Natural Heritage,
- Convention on Biological Diversity,
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), and
- Convention on the International Trade of Endangered Species (CITES).

Management of HIMI, including waters to the limit of the 12 nautical mile territorial sea, presently occurs under the *Heard Island and McDonald Islands Act 1953*. Under this Act the *Environment Protection and Management Ordinance 1987* (the EPMO) has been made. Under the EPMO, the Territory is managed by the Australian Antarctic Division as an IUCN Category 1a reserve, in accordance with the Heard Island Wilderness Reserve Management Plan.

HIMI has been listed as a World Heritage Area to protect distinctive benthic habitats, flora and fauna of the islands and foraging predators dependant on the region. The area is also listed on the Register of National Estate. The World Heritage values of this area (<http://www.ea.gov.au/heritage/awh/worldheritage/sites/antarct/heard.html>) are currently managed by the AAD through its management of the Heard Island Wilderness Reserve.

Commercial fishing currently occurs in the Australian Fishing Zone, from outside of the 12 nautical mile limit of the territorial sea, plus an additional 1 nautical mile buffer zone, to the limit of the Australian EEZ. Commercial fishing is managed by the Australian Fisheries Management Authority in accordance with the provisions in the draft HIMI Fishery Management Plan, which is anticipated to come into effect by the end of 2002, and in accordance with relevant CCAMLR Conservation Measures.

SCHEDULE

Proposed Heard Island and McDonald Islands Marine Reserve

All of those areas of land and sea in the Southern Ocean contained within and bounded as follows*:

(a) the area bounded by the line:

- (i) commencing at the point of longitude 70 degrees 54 minutes east, latitude 51 degrees 50 minutes south;
- (ii) then along the geodesic in a generally southeasterly direction to the point of longitude 71 degrees 32 minutes 30 seconds east, latitude 52 degrees 25 minutes 30 seconds south;
- (iii) then along the geodesic in a generally northeasterly direction to the point of longitude 72 degrees 02 minutes 30 seconds east, latitude 52 degrees 12 minutes 30 seconds south;
- (iv) then along the geodesic in a generally north westerly direction to the point of longitude 71 degrees 24 minutes east, latitude 51 degrees 38 minutes south; and
- (v) then in a generally southwesterly direction along the geodesic to the point of commencement.

(b) the area bounded by the line:

- (i) commencing at the point of longitude 72 degrees 08 minutes east, latitude 52 degrees 57 minutes south;
- (ii) then along the geodesic in a generally south easterly direction to the point of longitude 72 degrees 14 minutes 30 seconds east, latitude 53 degrees 03 minutes south;
- (iii) then south along the meridian of longitude 72 degrees 14 minutes 30 seconds east to its intersection with the parallel of latitude 53 degrees 30 minutes south;
- (iv) then east along the parallel of latitude 53 degrees 30 minutes south to its intersection with the meridian of longitude 74 degrees 12 minutes east;
- (v) then north along the meridian of longitude 74 degrees 12 minutes east to its intersection with the parallel of latitude 52 degrees 04 minutes south;
- (vi) then along the geodesic in a generally north westerly direction to the point of intersection between the meridian of longitude 73 degrees 17 minutes east and the treaty line defined by Article 2 of the Maritime Delimitation Treaty agreed between the Government of Australia and the Government of the French Republic in January 1982 (the Treaty boundary);
- (vii) then in a generally south westerly direction along the Treaty boundary to its intersection with the meridian of longitude 72 degrees 17 minutes east;
- (viii) then along the geodesic in a generally south easterly direction to the point of longitude 73 degrees 20 minutes east, latitude 52 degrees 08 minutes south;
- (ix) then south along the meridian of longitude 73 degrees 20 minutes east to its intersection with the northern limit of the Territorial Sea (TS**) adjacent to Heard Island;
- (x) then in a generally westerly direction along the northern limits of the TS adjacent to Heard Island and McDonald Islands to its intersection with the meridian of longitude 72 degrees 48 minutes east;
- (xi) then along the geodesic in a generally north westerly direction to the point of longitude 72 degrees 38 minutes east, latitude 52 degrees 43 minutes 30 seconds south; and
- (xii) then in a generally south westerly direction along the geodesic to the point of commencement.

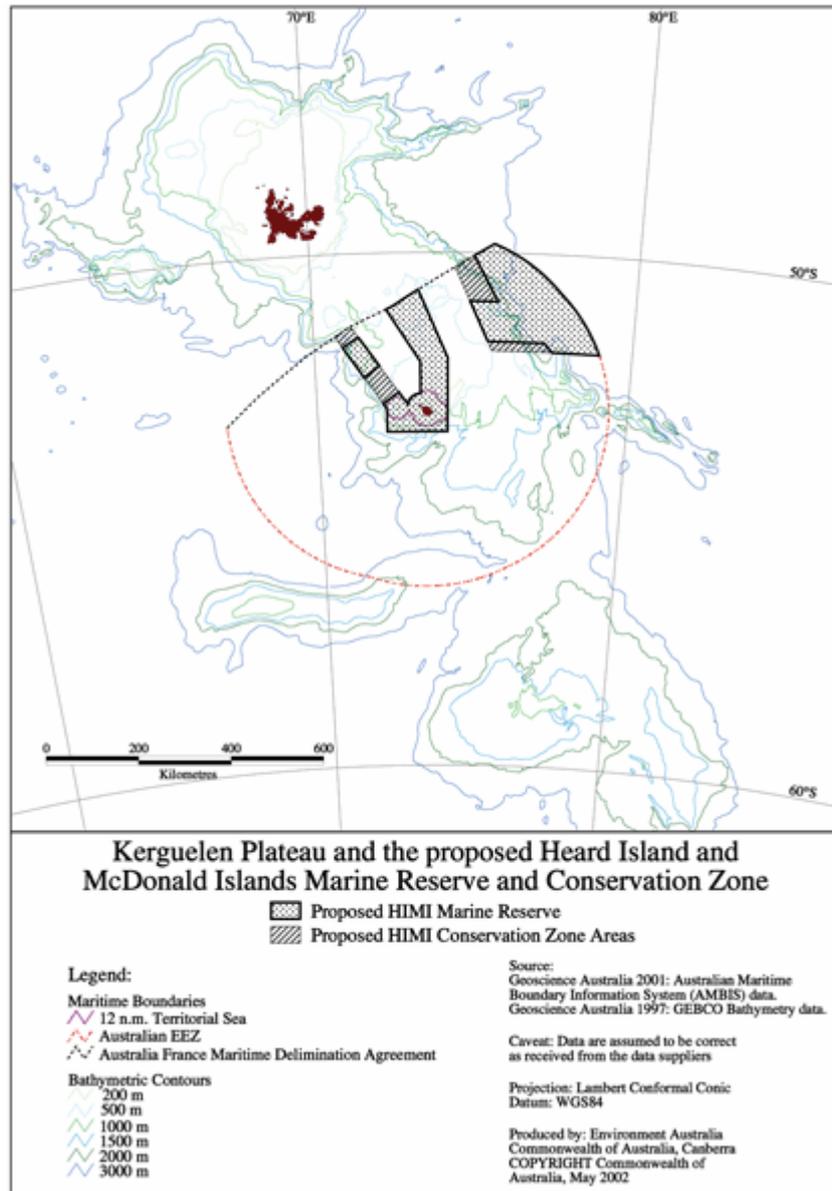
(c) the area bounded by the line:

- (i) commencing at the point of longitude 75 degrees 27 minutes east, latitude 51 degrees 44 minutes south;
- (ii) then east along the parallel of latitude 51 degrees 44 minute south to its intersection with the meridian of longitude 77 degrees 13 minutes east;
- (iii) then along the geodesic in a generally south easterly direction to the point of longitude 77 degrees 29 minutes east, latitude 51 degrees 55 minutes south;
- (iv) then east along the parallel of latitude 51 degrees 55 minute south to its intersection with the outer edge of the Exclusive Economic Zone (EEZ***);
- (v) then in a generally north westerly direction along the EEZ boundary to its intersection with the Treaty boundary;
- (vi) then in a generally south westerly direction along the Treaty boundary to its intersection with the meridian of longitude 75 degrees east; and
- (vii) then along the geodesic in a generally south easterly direction to the point of longitude 75 degrees 45 minutes east, latitude 50 degrees 57 minutes south.
- (viii) then west along the parallel of latitude 50 degrees 57 minute south to its intersection with the meridian of longitude 74 degrees 53 minutes east;
- (ix) then along the geodesic in a generally southeasterly direction to the point of commencement.

* All geographic coordinates are expressed in terms of the World Geodetic System 1984 ("WGS84").

** The "TS" is the territorial sea of Australia and its external territories established under the *Seas and Submerged Lands Act 1973* in accordance with Articles 3 and 4 of the 1982 United Nations Convention on the Law of the Sea. Australia has declared a 12 nautical mile wide territorial sea under the Act by (proclamation, which entered into force on 20 November 1990 and published in the Commonwealth of Australia Gazette No. S297 on 13 November 1990). The outer limit of the territorial sea is 12 nautical miles seaward from the territorial sea baselines established under the Act (proclamations published in the Commonwealth of Australia Gazette No. S29 on 9 February 1983 and No. S57 on 31 March 1987).

*** The "EEZ" is the Exclusive Economic Zone declared in relation to Australia and its external territories under the *Seas and Submerged Lands Act 1973* (proclamation dated 26 July 1994 published in the Commonwealth of Australia Gazette No. S290 on 29 July 1994). It commences at the outer limit of the territorial sea (12 nautical miles from the territorial sea baselines established under the Act) and extends generally to 200 nautical miles from the baselines. In relation to Heard Island and McDonald Islands it is in part less than 200 nautical miles to take account of the treaty line defined by Article 2 of the Maritime Delimitation Treaty agreed between the Government of Australia and the Government of the French Republic in January 1982 (entry into force 10 January 1983).



Proposal for Conservation Zone under EPBC Act - Heard Island and McDonald Islands (HIMI)

Introduction

The Government announced in 1998 that the HIMI region was a priority area for assessment and establishment of a marine reserve. Following completion of a conservation assessment of the HIMI region by the Australian Antarctic Division (AAD), Environment Australia (EA) in January 2001 published a Notice of Intent (NOI) to declare a marine reserve in the HIMI region under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The proposed reserve would have a highly protected IUCN Category Ia reserve status that precluded extractive activities.

The main concerns expressed on the proposed reserve during the subsequent consultation period were from fishing industry stakeholders regarding the impact of the proposed design of the reserve on potential commercial fishing grounds in the region. Over the following 12 months significant consultation was conducted with both government and non-government HIMI stakeholders to review the basis for the proposed reserve design and appropriateness of the proposed reserve boundaries. This included a review by the CSIRO of the science underpinning the initial NOI proposal for the reserve.

Government and non-government stakeholders eventually agreed at a meeting on 15 February 2002 to the following approach to establish a marine reserve in the HIMI region:

1. proceed to a new revised notice of declaration for those areas that all agree should be included immediately in an IUCN Category Ia reserve (the majority of the area proposed in the original NOI); and
2. declare a conservation zone in accordance with the EPBC Act over the remaining areas in the initial NOI, assess these areas for their conservation and resource values and determine their suitability for subsequent inclusion in the reserve.

This approach is being taken as fishing and conservation interest groups were collectively not confident regarding the respective commercial fishing and conservation values of certain areas within the originally proposed boundaries of the Marine Reserve. It was agreed that these areas needed further assessment of their fishing resource potential and conservation significance before a decision was made to include them in the marine reserve. As part of this assessment process limited access to the Conservation Zone by the fishing industry would be allowed.

Unlike the process for declaring a marine reserve, the declaration of a conservation zone under the EPBC Act does not require formal public consultation. HIMI stakeholders have therefore been directly consulted in the development of the following conditions in this proposal to establish and assess the HIMI Conservation Zone.

Objectives for HIMI Conservation Zone

To obtain additional scientific and fishing data in order to:

- further assess conservation values of the Conservation Zone areas;

- assess the fisheries resource potential in the Conservation Zone areas; and
- assess potential impacts on the conservation values of the Conservation Zone from fishing;

and use the outcomes of these assessments to inform future decisions regarding the inclusion of the Conservation Zone in the HIMI Marine Reserve.

Conservation Zone Specifications

The Conservation Zone will comprise 4 separate areas:

5. A portion of the Northeastern Plateau region to the north of Shell Bank;
6. A southern portion of the Shell Bank;
7. Aurora Bank and surrounding deeper waters; and
8. A portion of the deep waters to the north of Coral Bank and near the Western Trough.

Maps and geographical coordinates of these areas are attached.

The Conservation Zone will be declared and management prescription applied in accordance with the EPBC Act and related Regulations. Activities undertaken within the Conservation Zone during the assessment period will be controlled as required to protect and minimise damage to biodiversity and natural values of the assessed areas, consistent with the resource and conservation assessment programs.

Biological values of the Conservation Zone

The physical and biological values of the HIMI region are detailed in the AAD report: *Conservation of the marine habitats in the region of Heard Island and the McDonald Islands* (2000). The known biological values of the four areas proposed within the Conservation Zone are summarised below.

1. North eastern plateau area

The deeper waters of this area have similar benthic fauna to nearby Shell Bank, with benthic species such as glass sponges, prawns, shrimp and isopods. The area contains foraging grounds for land-based predators such as Antarctic fur seals and king and macaroni penguins that suggest a highly productive local environment.

The area is a known habitat of commercial fish species such as Patagonian toothfish and to a lesser extent *Macrourus* species along with other deeper water fish species, and is the only known location in the HIMI region for Lucifer sharks.

2. Southern Shell Bank area

Shell Bank has a distinctive covering of shell grit over relatively shallow productive waters that support a rich and diverse array of benthic fauna including glass sponges, echinoderms, isopods, sea stars and sea cucumbers. It is a foraging area for many land-based marine predators, including Antarctic fur seals, king and macaroni penguins and albatross species. The bank supports a separate population of mackerel icefish and is a habitat for juvenile

Patagonian toothfish, the two main commercial fish species in the region, along with other commercial bycatch species, such as unicorn icefish and grey rock (identified in the southern edge of the bank).

3. Aurora Bank

Aurora Bank has relatively shallow, warm and nutrient rich waters that support a rich array of benthic fauna such as giant barnacles, gorgonian corals and echinoderms. It is a productive area for a range of meso-pelagic fish species.

4. Area north of Coral Bank

Whilst this particular area has not been closely studied it is likely to have a similar deepwater environment to the nearby Western Trough, a productive area influenced by the warmer waters of the Antarctic Circumpolar Current and containing similar benthic fauna such as gorgonian corals found on the nearby Coral Bank. The area may contain deepwater commercial fish species such as Patagonian toothfish and *Macrourus* species and possibly aggregations of meso-pelagic fish species that form an important part of the diet of some land-based marine predators.

Uses of Conservation Zone

The primary activities in the HIMI region are scientific research and commercial fishing. There is no indigenous or recreational fishing in the HIMI region. Commercial fishing is the most regular activity in the HIMI region targeting Patagonian toothfish and to a lesser extent mackerel icefish, but since its inception in 1997 has tended to focus on areas outside of the proposed Conservation Zone. There has been widespread exploratory fishing across the HIMI region, including in the proposed Conservation Zone areas, with some indications of potential commercial fish stocks in the Aurora Bank area and around Shell Bank.

The AAD coordinates scientific research programs in the HIMI region that address sustainable use of resources and ecosystem dynamics and contribute directly to management measures developed under the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR). Ship-based marine science research is undertaken on a periodic basis and has included fish stock assessment surveys and studies of foraging activity of land-based predators. Areas of the northeastern plateau, Shell and Aurora Bank areas have been sample sites in past surveys. The next AAD marine science program in the HIMI region will be over the 2003-04 summer season.

The Australian Fisheries Management Authority (AFMA) administers ongoing fisheries research as an integral component of the management arrangements for the HIMI Fishery. The commercial fishing licence provisions include a fisheries research component to contribute to determining the sustainability of fish stocks and recruitment rates across the HIMI region. All areas of the Conservation Zone have been sample sites in past surveys designed by AAD. AFMA also administers a five year Strategic Research Plan for the Fishery to address environmental impacts of fishing in the HIMI region. Future research is likely to include activities in the proposed Conservation Zone areas.

As with the rest of the HIMI region, there is currently no exploration or extraction of minerals or petroleum resources being conducted in the proposed Conservation Zone areas. The Conservation Zone areas are part of the remote frontier region of the Kerguelen Plateau. Whilst some areas in the Kerguelen Plateau region may have potential petroleum prospectivity, given the speculative nature of mineral or petroleum exploration in deep ocean basins it is unlikely that the HIMI region will provide opportunities for commercial mining or petroleum activities in the near future.

The HIMI region is also too remote and the climate and ocean conditions too inhospitable for regular tourist or other recreational activities.

Threats to Conservation Zone

The main threats to the proposed Conservation Zone areas are from long-term fishing. The benthic environment, particularly in the shallow waters of Aurora and Shell Bank, is characterised by fragile, slow growing species such as sponges and corals that provide important habitat for other invertebrate species.

Trawling is the only method of fishing currently permitted in the HIMI region. Benthic trawling is used to catch the main commercial fish species, Patagonian toothfish, and benthic and midwater trawling used to catch mackerel icefish. To date trawling for toothfish has concentrated on the more productive commercial fishing grounds outside the proposed Conservation Zone. Exploratory trawl fishing and trawl research surveys have occurred in the past in the proposed Conservation Zones areas and further controlled trawling is planned in these areas to determine the availability of an economic fishing resource in these areas.

The management provisions for commercial fishing in the HIMI region include a range of measures to minimise the impact of trawling, including limiting access to 3 operators at any one time in the fishery, precautionary catch limits for both target and bycatch species, independent observers on all voyages to collect and analyse a wide range of data on target species and bycatch and restrictions on gear to minimise non-target species interactions. The proposed assessment process for the Conservation Zone outlined below includes provisions to review the impacts of each trip to the Conservation Zone, including impacts on the benthic environment.

To date there has been few interactions between trawlers and land-based marine predators, and management provisions for the fishery include a range of measures to limit interactions. The catch limits for the fishery also take account of predator-prey relationships.

Conservation Zone Assessment Process

The assessment process for the proposed Conservation Zone has been designed to:

- a) link with and utilise the results from previously planned scientific research in the HIMI region in the near future and;

- b) allow fishing to be undertaken to assess the economic potential of fishing in the Conservation Zone and an indication of the impact of fishing on these areas.

Specific research and assessment tasks and conditions will be developed after the approval of the proposal to declare the Conservation Zone.

Any assessment activities and other operations in the Conservation Zone will need to give due consideration to minimising impacts on particularly sensitive benthic habitats such as in waters less than 350 metres depth.

There are 3 aspects to the proposed assessment process.

1. Scientific assessment of conservation values

The assessment of conservation values will aim to further define the biodiversity and natural values of the Conservation Zone areas, and the significance of these areas to the overall HIMI ecosystem. Subject to available resources and access to appropriate field research areas and data, the assessment should attempt to address conservation values such as species abundance and distribution, trophic relationships, areas or features of high biodiversity value, influence on foraging, breeding and migratory behaviour and predator/prey interactions. Foraging issues beyond the HIMI Reserve and Conservation Zone will be included in this assessment.

It is anticipated that assessment data will primarily be drawn from:

- Available scientific and operational data and publications on the HIMI region;
- Specific field research undertaken in conjunction with the Australian Antarctic Division's (AAD) HIMI marine research program scheduled for the 2003-04 season (potentially including land based predator foraging, pelagic fish studies, benthic environment studies, possible ecological dynamics models);
- Any research conducted in association with fishing operations.

2. Resource assessment of fishing potential

The fishing resource assessment of the Conservation Zone should aim to provide a clearer indication of the fish stocks in the relevant areas and the economic viability of fishing these areas.

Fishing operations and assessment measures for the Conservation Zone will be subject to a pre-determined process on fishing operations in the Conservation Zone that aim to minimise impacts on the conservation values and provide an early indication of the economic potential of fished areas (see Attachment 1). Stakeholders will be consulted on this process prior to fishing being allowed in the Conservation Zone areas.

The types, nature and extent of resource assessment activities required will be determined in consultation with the Australian Fisheries Management Authority's (AFMA's) Sub-Antarctic Fisheries Assessment Group (SAFAG) and Sub-Antarctic Fisheries Management Advisory Committee (SouthMAC).

It is anticipated the assessment would include an analysis of appropriate fishing methods, gear usage, catch and acoustic information, by-catch information, fishing effort that might be employed in these areas following the conservation zone phase.

Whilst the Conservation Zone is in place alternative fishing techniques apart from trawling may be used to conduct relevant fishing resource assessments, subject to appropriate environmental approval of the fishing technique.

Initially fishing access to the Conservation Zone will be limited to the period of the conservation zone assessment. Any further access will be determined following the outcomes of the assessment.

3. Impacts of fishing activities

To the extent possible, the assessment of fishing impacts will form part of the conservation values and fisheries resource assessments in Parts 1 and 2 above, and should aim to compare indicative fishing impacts in both fished and unfished areas.

The assessment should take account of the progress and outcomes of other evaluations relevant to fishing in the region, including the strategic assessment of the HIMI Fishery under the EPBC Act, threat abatement plans for long line fishing and SAFAG's Sub-Antarctic 5 year Strategic Research Plan.

Expected Outputs from Assessment Process

- Analysis of relevant scientific research program data and fishing data (catch data, observer data, effort, etc - subject to confidentiality provisions);
- Reference to related scientific and other publications;
- Report addressing conservation values for the Conservation Zone, and reports addressing fisheries resource and fishing impacts assessment components for the Conservation Zone (all peer reviewed).

Decision on assessment outcomes

At the conclusion of the assessment activities, HIMI stakeholders will be provided with copies of assessment reports for comment on future uses of the Conservation Zone. The Delegate of the Director of National Parks will then make a recommendation to the Minister for the Environment and Heritage on whether the Conservation Zone areas should be incorporated into the adjacent HIMI Marine Reserve. The following decision points will inform the final recommendation:

- The extent of fishing resource potential of the Conservation Zone;
- The extent of protection warranted for the identified conservation values;
- The extent that projected fishing in the areas may impact on the conservation values.

The above decision points may be addressed through a process to be agreed by stakeholders, such as a cost benefit analysis or risk analysis.

Management of Conservation Zone Assessment Process

EA will be responsible for the overall management of the assessment process, including the following specific actions:

- Development of conservation zone assessment process for stakeholder agreement;
- Development of conservation zone proposal for Minister of the Environment and Heritage's approval;
- Preparation of conservation zone declaration material for Governor-General's approval;
- Coordination of HIMI stakeholder group, including final recommendation on outcomes of conservation zone assessment;
- Provision of relevant conservation zone information for HIMI stakeholder consultation;
- Organisation of relevant permits under EPBC Act and Regulations;
- Publication of reports at conclusion of conservation zone assessment;
- Briefing Minister for the Environment and Heritage on the conservation zone assessment.

The AAD, in consultation with AFMA and other stakeholders, will have primary responsibility for the development and implementation of the scientific assessment of conservation values including report(s) on this assessment.

EA and AAD will have primary responsibility for establishing the requirements for the fishing resource assessments, in consultation with AFMA (including SouthMAC and SAFAG) and other stakeholders.

AFMA in consultation with the fishing industry will have primary responsibility for the implementation of the fishing resource assessment activities, including the eventual report(s) on fishing resources.

Consultative Arrangements

The HIMI stakeholder group will continue to be the main forum for stakeholder consultation on the conservation zone assessment process (see members at Attachment 2). Consultation will primarily be via e-mail although stakeholder meetings will be held when required, such as when the conservation assessment reports become available.

The stakeholder group will be provided with the opportunity to agree on the following key assessment stages:

- Revised NOI for HIMI Marine Reserve;
- Proposal to establish the Conservation Zone;
- Recommendation on future use of the Conservation Zone based on the findings from conservation zone assessment reports.

HIMI stakeholders will also be consulted concerning the development and implementation of the scientific research (including scientific fishing undertaken by industry), fishing resource and fishing impact assessments, along with additional information used from other sources to inform the assessment process.

Related forums such as SouthMAC, SAFAG and CCAMLR will also be kept informed of developments with the conservation zone assessments.

Provisional Timetable for Declaration of HIMI Reserve and Conservation Zone

Tasks to declare Reserve and Conservation Zone	March 02	April 02	May 02	June 02	July 02	August 02	Sept 02
Legal confirmation on reserve declaration/conservation zone		■					
Agreement on conservation zone assessment process	■	■					
Minister's agreement on revised reserve/conservation zone arrangements			■				
Draft revised NOI/reserve proposal		■					
Draft Conservation Zone proposal		■					
Stakeholder consultation revised NOI/conservation zone proposal			■	■			
Minister's agreement to revised NOI/conservation zone proposal				■			
Gazette revised NOI - start of public comment period				■			
Ministerial consultation on conservation zone				■	■		
NOI public comment period				■	■	■	
Finalise Director's Report for reserve declaration						■	
Minister's agreement on Director's Report						■	■
Declaration of conservation zone							■
Declaration of reserve							■

Tasks to implement Conservation Zone assessment	Jun 02	Sept 02	Dec 02	Mar 03	Jun 03	Sept 03	Dec 03	Mar 04	Jun 04	Sept 04	Dec 04	Mar 05	Jun 05	Sept 05
Development of fishing resource assessment program	█	█												
Development of conservation value assessment program	█	█	█	█										
Fisheries field research				█	█	█		█	█	█		█	█	
AAD scientific field research							█	█						
Analysis scientific field data									█	█	█	█		
Analysis of fisheries data											█	█	█	
Draft assessment reports												█	█	
Recommendation on conservation zone														█

Decision Process for Fishing Operations in HIMI Conservation Zone

Purpose

To provide parameters to monitor and control fishing effort and impacts in the HIMI Conservation Zone over the period allowed for the determination on the future use of the Conservation Zone.

Objectives

1. Allow a sufficient level of fishing activity to establish the extent of economic fishing resource in the Conservation Zone areas;
2. Ensure that fishing effort in the Conservation Zone during the assessment period does not exceed the acceptable levels of fishing activities for the region; and gives due consideration to minimising impacts on the particularly sensitive benthic habitats such as in waters less than 350 metres depth;
3. Provide any necessary additional measures to those existing from CCAMLR and AFMA to mitigate against long term damage to the Conservation Zone.

Decision Process

The components for the decision process would comprise:

1. Annual permits/directions issued by Environment Australia under the EPBC Act stipulating conditions of access to the Conservation Zone;
2. Review by HIMI stakeholder group of conditions for each operator to the Conservation Zone taking into account data on fishing and exploratory activities, catches, by-catch after each trip to Conservation Zone;
3. Decision on subsequent access conditions by Delegate of Director National Parks.

Suggested Steps for Review of Continuing Access after each fishing trip

Stakeholder group to agree before each fishing trip what data are to be collected both by the operators and by the observers, and use of data for subsequent decisions on further fishing access.

Fishing operator to prepare report on fishing and exploratory activities after completing any fishing trip to the HIMI region involving activity in the Conservation Zone, including an assessment of the economic potential of the fishing in the Conservation Zone (including findings from exploratory activities such as acoustic soundings).

Stakeholder group to analyse operator's report in conjunction with observer logbook data on fishing activities in the Conservation Zone, including:

- Number of shots;

- Acoustic and other survey results;
- Gear used;
- Catch estimates - target and bycatch species, including benthic bycatch;
- Effort applied eg. distance trawled and bottom time;
- Trawl bottom time;
- Interactions with marine mammals and seabirds.

Trip specific data will also be compared with fishing data for fishing activity in established HIMI commercial fishing grounds outside of HIMI Reserve and Conservation Zone. Any comparative analysis should give due consideration to the "commercial-in-confidence" nature of the data and the types of data needed to make a recommendation on appropriate fishing effort in the Conservation Zone.

HIMI stakeholder group to make recommendation to the Delegate of the Director National Parks on further access to the Conservation Zone based on:

- Economic value (actual or potential);
- Benthic and other environmental impacts

Delegate of Director National Parks to consider this recommendation and any other relevant information and determine whether to alter permit conditions within a season or to amend any permit conditions for activities in the Conservation Zone for the following season.

The Delegate of Director National Parks may seek independent third party advice to assist with reaching a decision on the stakeholder group's recommendation and supporting data on fishing activities in the Conservation Zone.

Stakeholder Group for HIMI Marine Reserve and Conservation Zone

Organisation
Australian Fisheries Management Authority
Agriculture, Fisheries and Forestry Australia
Australian Antarctic Division
Humane Society International
World Wide Fund for Nature
Greenpeace
Austral Fisheries
Petuna Management
Everfresh Seafoods
Environment Australia
CSIRO Marine

RESERVE MANAGEMENT PRINCIPLES

(a) Reserve Management Principles applying to IUCN Category Ia – Strict Nature Reserve

Under Section 367 of the EPBC Act, and in accordance with the Australian IUCN reserve management principles outlined in Schedule 8, Part 2 of the EPBC Regulations, the Highly Protected Zone of the Marine Park is assigned by the plan to IUCN Category Ia – strict nature reserve: protected area managed primarily for scientific research or monitoring.

The provisions of a management plan for a Commonwealth reserve must not be inconsistent with the Australian reserve management principles for the IUCN category to which the reserve is assigned by the plan. The reserve management principles under the EPBC Regulations that apply to the management of the Highly Protected Zone are as follows:

- habitats, ecosystems and native species should be preserved in as undisturbed a state as possible;
- genetic resources should be maintained in a dynamic and evolutionary state;
- established ecological processes should be maintained;
- structural landscape features or rock exposures should be safeguarded;
- examples of the natural environment should be secured for scientific studies, environmental monitoring and education, including baseline areas from which all avoidable access is excluded;
- disturbance should be minimised by careful planning and execution of research and other approved activities; and
- public access should be limited to the extent that is consistent with these principles.