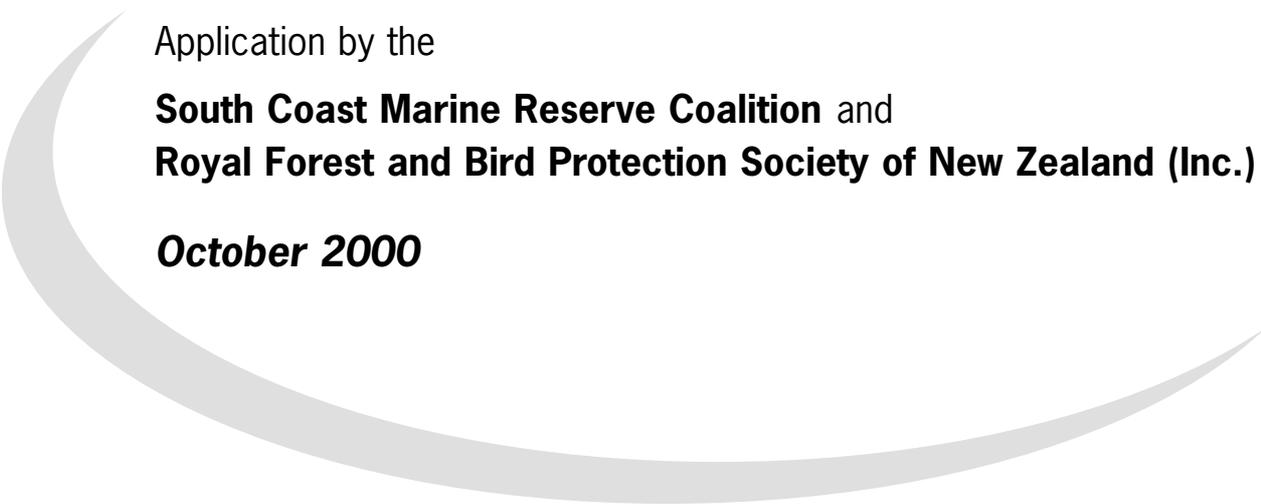


Taputeranga Marine Reserve
Marine Reserve Application

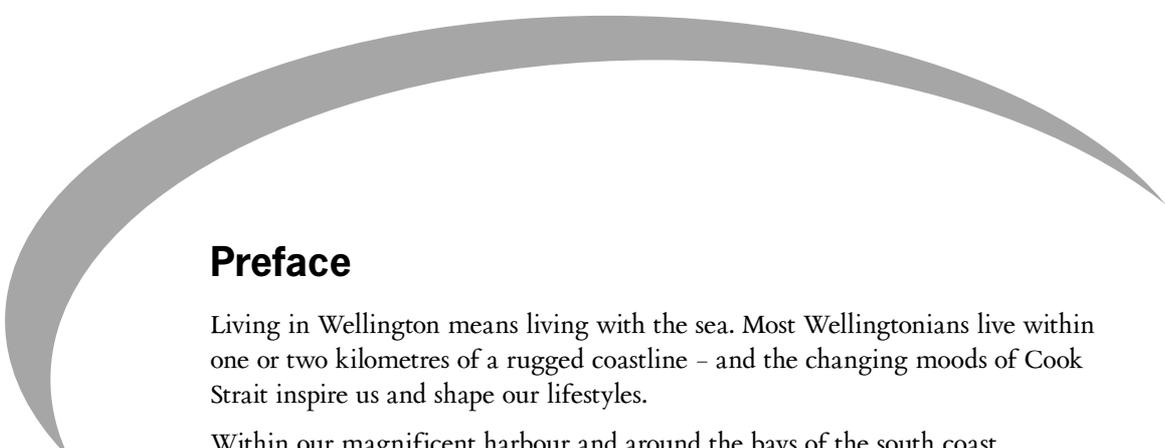
Application by the

South Coast Marine Reserve Coalition and
Royal Forest and Bird Protection Society of New Zealand (Inc.)

October 2000



ISBN 0-9597851-7-5



Preface

Living in Wellington means living with the sea. Most Wellingtonians live within one or two kilometres of a rugged coastline – and the changing moods of Cook Strait inspire us and shape our lifestyles.

Within our magnificent harbour and around the bays of the south coast, Wellington residents make many demands on our precious marine areas. These rich, but once richer, coastal and offshore habitats face a host of stresses from a growing and dynamic city. These include poaching, local depletion of fish, and declining quality of habitats.

On the south coast, from the Sinclair Head seal colony to Fort Dorset, lies an area of beauty and unique ecological importance. The rugged headlands, rocky shores, and steep gravel and sand beaches provide a range of habitats for many plants and animals. Over this varied topography wash three different currents, bringing together a mixture of species from warm and cold waters. The high energy and agitation of the waters of Cook Strait completes this special ecological and geographic picture.

This document supports an application for a marine reserve on part of the south coast. Our consultations have shown there to be widespread community support for a marine reserve in the area. Extensive and diverse scientific research has established a baseline of knowledge on which future research programmes can be based. We envisage the proposed marine reserve becoming the cornerstone of scientific, educational and management programmes aimed at conserving and enhancing our coast – a jewel in Wellington's crown.

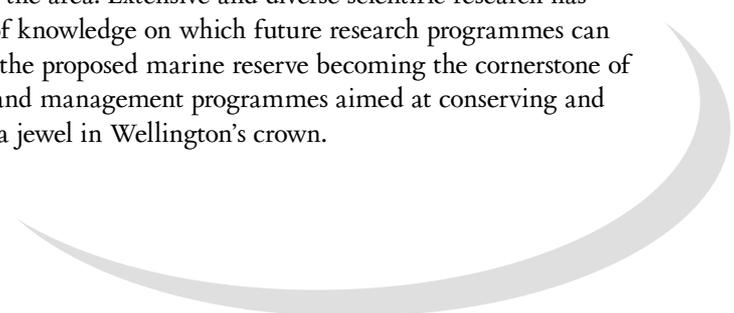


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1. Introduction

Investigations into the establishment of a marine reserve on Wellington's south coast have been undertaken since the late 1980s. Originally proposed by the Department of Conservation in 1988, the project has been shepherded since 1991 by the South Coast Marine Reserve Coalition with the support of the Royal Forest and Bird Protection Society of New Zealand (Inc.).

The proposed reserve is unique in many ways.

- It is adjacent to a large urban area. 156,000 Wellingtonians live within 10 kilometres of the proposed reserve. There are several major businesses close to the boundaries of the proposed reserve, most notably Wellington International Airport and the Clearwater Wastewater Treatment Plant. Wellington is New Zealand's capital city.
- Extensive scientific research has been undertaken in the area of the proposed reserve since at least the late 1950s. The Coalition has identified 87 research papers, books and university theses related to the biology and geology of the south coast area. Currently at least a dozen research projects involving the south coast are underway at local research institutions.
- A cluster of scientific institutions is adjacent or close to the proposed marine reserve area. Victoria University currently operates a Marine Laboratory at Island Bay, on the frontage of the proposed reserve. NIWA (National Institute of Water and Atmospheric Sciences) operates its Greta Point facility only a few kilometers from the proposed reserve. Scientists from Te Papa and the Department of Conservation's Science and Research Unit are nearby, and are regular users of the coast. Staff at other Crown Research Institutes such as IGNS (Institute for Geological and Nuclear Sciences), ESR (Environmental and Scientific Research) and IRL (Industrial Research Limited) use the area for research.
- A large marine education programme already operates at the Marine Education Centre, based at Victoria University's Marine Laboratory. Since February 1996 more than 20,000 school

age children have made visits to the Centre to learn about the biology, ecology and geography of the south coast. An equivalent number of pre-school children, and adults from social and service groups have also visited the Centre for one hour general programmes. The monthly open weekend attracts between 500 – 1000 visitors.

- Patterns and types of usage are different to those of reserves adjoining rural areas. There is a tradition (now greatly reduced) of commercial fishing, beginning with the Italian and Shetland Island families that settled in Island Bay. Recreational usage is diverse. Our surveys identified a large number of users (walkers, biking and 4 wheel drive enthusiasts) who value the coast alongside the area of the proposed reserve for passive recreation. Other uses, such as recreational fishing, extractive and non-extractive diving occur within the boundaries of the proposed reserve.
- The location of the proposed reserve adjacent to a large urban area has meant that consultation has been complex. The applicant has been conscious of the need to take the views of the different communities of interest into account in developing its proposal. Over a number of years, and through several surveys, the local community has expressed consistently high levels of support for the creation of a marine reserve on the south coast.

1.1 APPLICATION FOR A MARINE RESERVE ON WELLINGTON'S SOUTH COAST

This is an application by the South Coast Marine Reserve Coalition and the Royal Forest and Bird Protection Society of New Zealand (Inc.) for the creation of a marine reserve on Wellington's south coast. A full description of the boundary is contained in section 2.4. A map of the proposed reserve is attached in Appendix One.

This document contains the application for the reserve and details of the proposal, including the background to the application, a description of the consultation processes undertaken, an assessment of the scientific value of the proposed reserve, and an assessment of the impact that a marine reserve may have on existing users.

This application follows the guidelines outlined by the Department of Conservation in their publication *Marine Reserves – A Guide for Prospective Applicants* (1994).

1.2 PURPOSE OF MARINE RESERVES

Marine reserves are defined by the Marine Reserves Act 1971 [Section 3 (1)] as "areas of New Zealand that contain underwater scenery, natural features, or marine life, of such distinctive quality, or so typical, or beautiful, or unique, that their continued preservation is in the national interest".

Section 3 of the Act states that the purpose of marine reserves is to protect areas of sea, seabed and inter-tidal zones for "the scientific study of marine life". Once established marine reserves shall be "preserved as far as possible in their natural state", and the "marine life of the reserves" and "the natural habitat of marine life shall as far as possible be maintained".

Marine reserves also have a role in advancing public understanding and appreciation of the marine environment. The public has a right of access to a marine reserve. In section 3 (2) (d) the Act states that "... the public shall have freedom of access and entry to the reserves, so that they may enjoy in full measure the opportunity to study, observe, and record marine life in its natural habitat."

1.3 PROCESS FOR ESTABLISHING A MARINE RESERVE

Marine Reserves are established by an Order in Council made by the Governor General, following the procedure set out in Section 5 of the Marine Reserves Act (1971). The process, which begins with the lodging of this formal application with the Director General of Conservation, is summarised in Appendix Two.

This application comprises the statutory process outlined in Section 5 of the Marine Reserves Act. It was preceded by an extensive period of consultation with iwi, the local community, interest groups and other stakeholders. The consultation undertaken since 1991 includes:

- Three surveys of the local community
- Four surveys of user groups

- One survey of the local business community
- The publication of two public discussion documents
- Public meetings
- Meetings with key user groups and individual users
- Meetings with statutory and private organisations
- Scientific advice and surveys
- Circulation of a Draft Application
- Media reports

As a result of this investigation and consultation substantial changes have been made to draft proposals put forward in 1993/1994, 1996 and 1999. The constructive suggestions made by iwi, individuals and groups have contributed to and been incorporated into this proposal. The process of consultation has also led groups with conflicting views but a common interest in the wellbeing of Wellington's marine environment to meet and discuss long-term strategies for the management of the area.

1.4 THE ROLE OF THE DEPARTMENT OF CONSERVATION

Under Section 5 (1) (a) (iii) of the Marine Reserves Act (1971) applications for the establishment of a reserve may be made by "Any body corporate or other organisation engaged in or having as one of its objects the scientific study of marine life or natural history".

Regardless of who is the applicant, all marine reserves are administered by the Department of Conservation whose management responsibilities include marking the boundaries (where necessary), informing the public of permitted and prohibited activities, biological monitoring, issue of scientific permits, and overseeing the enforcement provisions of the Act in relation to offences.

In fulfilling its management functions the Department can be assisted by an Advisory Committee appointed from among key interest groups in the local community (see section 7).

1.5 RESPONSES INVITED

Any person may object to, or support this application. All objections or submissions in support must be sent to the Director-General of Conservation within two months of notification of this application. The Director-General of Conservation will refer submissions to the Minister of Conservation. A copy of any objections or submissions in support must also be sent to the applicant who has the opportunity to respond within three months of notification of this application.

The Minister of Conservation will consider the application, the objections and submissions in support. The Minister must then receive the concurrence of the Ministers of Transport, and Fisheries before recommending to the Governor General that the proposed area be declared a marine reserve. While there is no direct reference in the Marine Reserves Act to submissions being made in support of an application, such submissions may be relevant to the issue of “public interest” under section 5 (6) e.

All objections to this application, or submissions in support, must be made by Monday 18th December 2000, and sent to the Director-General of Conservation, and the applicants at the following addresses:

Taputeranga Marine Reserve
Director-General of Conservation
C/- Wellington Conservancy
Department of Conservation
PO Box 5086
Wellington
New Zealand

and

Taputeranga Marine Reserve
C/- South Coast Marine Reserve Coalition
PO Box 4183
Wellington
New Zealand

2. The Application

2.1 THE APPLICANTS – THE SOUTH COAST MARINE RESERVE COALITION AND THE ROYAL FOREST AND BIRD PROTECTION SOCIETY (INC).

The applicants for the marine reserve are the South Coast Marine Reserve Coalition and the Royal Forest and Bird Protection Society of New Zealand (Inc.), (hereafter referred to as the applicants). A copy of the formal notice of intention to apply for a marine reserve is provided in Appendix Three.

The South Coast Marine Reserve Coalition comprises groups and individuals who, since 1991, have wished to create a marine reserve on Wellington’s south coast. Participating in the Coalition at various times have been members of local iwi, students and staff of Victoria University, commercial diving operators, local residents and members of the Wellington Branch of the Royal Forest and Bird Protection Society of New Zealand (Inc).

The Royal Forest and Bird Protection Society of New Zealand (Inc.) is the oldest and largest national conservation organisation in New Zealand. The constitution of the Society provides that the Society’s main objectives shall be; “To take all reasonable steps within the power of the Society for the preservation of the indigenous flora and fauna and natural features of New Zealand, for the benefit of the public including future generations” (Clause 2 (a)). The Society’s ancillary objects are stated to include:

- “to advocate for the protection of indigenous species, habitats and ecosystems” (Clause 2 (b) (iv)); and
- “to advocate the creation and preservation of protected natural areas, reserves and national parks in public ownership and/or control” (Clause 2 (b) (v)).

The applicants clearly fulfill the requirements of Section 5 (1) (a) of the Marine Reserve Act that state that among the bodies permitted to apply for a marine reserve is “Any body corporate or other organisation engaged in or having as one of its objects the scientific study of marine life or natural history.”

2.2 LOCATION

The proposed reserve is located on the Wellington south coast. It is contiguous to the Wellington suburbs of Owhiro Bay, Island Bay and Houghton Bay. The proposed reserve runs from the edge of an unnamed bay just east of Red Rocks to the eastern edge of Houghton Bay. The reserve extends offshore an average distance of 1.15 nautical miles (2.315 kilometres). The southern or seaward boundary is at the line of latitude 41° 22.20' S.

A map showing the general location of the proposed reserve is included in Appendix Eight.

2.3 NAME

The name of the proposed reserve is the Taputeranga Marine Reserve, after the Island that is a dominant feature of Island Bay.

2.4 BOUNDARIES

Legal description of Taputeranga Marine Reserve.

All bearings are degrees true north. The line of latitude at 41° 22.20' S forms the southern boundary of the reserve.

The western boundary (000 – 180 degrees true) of the reserve is marked by a large white scar on a cliff face located at 41° 21.050' S, 174°44.350' E. This boundary extends 1.15 nautical miles (=2.135 km) offshore to the southern boundary at 41° 22.20' S.

The eastern boundary (000 – 180 degrees true) of the reserve is marked by a large white scar on a cliff face located at 41° 20.850' S, 174°47.360' E, with a large rock in the water immediately in front of this cliff scar. This boundary extends 1.35 nautical miles (=2.50 km) offshore to the southern boundary at 41° 22.20' S.

The approximate area of the marine reserve is 969 ha. All calculations assume 1 nautical mile = 1852 m.

2.5 OBJECTIVES OF THIS APPLICATION

The principal objective of the application is to give effect to the purposes and principles of the Marine Reserves Act 1971, through:

- Preserving, for scientific study of marine life, an area of Wellington's south coast that is representative of the area, and that contains marine life of distinctive quality and uniqueness, and has natural features and beauty worthy of continued preservation in the national interest.

Secondary objectives of the application are:

- To give effect to public support for the creation of a marine reserve on Wellington's south coast.
- To enable Wellingtonians, New Zealanders and overseas visitors to benefit from the enhanced recreational, commercial and educational opportunities that will be generated by a marine reserve located on the coastline of the capital city.



3. Application Background

3.1 ORIGIN OF THE PROPOSAL

The Department of Conservation carried out investigations into the feasibility of establishing a marine reserve along Wellington's south coast between 1988 and 1990. At the time consultation with various groups and community organisations elicited generally positive responses to the proposal. Despite support, the proposal did not proceed because the local Conservancy's resources and energies were focused on the Kapiti Marine Reserve proposal.

Concerned that the idea of a marine reserve on the south coast would lapse, the Wellington Branch of the Royal Forest and Bird Protection Society of New Zealand (Inc). took up the proposal in 1991. Subsequently the branch facilitated the formation of the Wellington South Coast Marine Reserve Coalition and began the process of consultation and investigation that has led to this application.

3.2 CONSULTATION AND INVESTIGATION

Throughout the 1990s this proposal has been the subject of consultation with iwi, the general public, recreational and commercial users and other affected parties. The location of the proposed reserve has meant that consultation has been complex, and the applicants have been conscious of the need to take the views of the different interested parties into account in developing this application.

As a result of this consultation, the locations of the proposed boundaries of the reserve have been altered on three occasions (see Appendix Four for a map of the previous boundary proposals). The three previous boundary proposals were:

- Boundary proposal (A) – the first proposal, made in December 1993. This boundary stretched from Sinclair Head in the west, to Te Raekaihau Point in the east. Within this proposal, there was a second option for a smaller reserve, from Owhiro Bay to Te Raekaihau Point – essentially identical (although with a shorter seaward boundary) to the current proposal.

- Boundary proposal (B) – proposed in November 1996. This boundary ran from Owhiro Bay to Palmer Head.
- Boundary proposal (C) – proposed in August 1999. In this proposal, the reserve was split into two parts. The Western section stretching from an unnamed bay immediately to the west of Owhiro Bay, to Te Raekaihau Point. The eastern portion running from Palmer Head to Breaker Bay.

The current proposal (D) is as follows:

- This boundary excludes the Eastern Reserve of the August 1999 proposal and returns to the core area stretching from an unnamed bay immediately to the west of Owhiro Bay, to Te Raekaihau Point. In addition, the seaward boundary has been extended to include complete reef systems that will better protect representative systems and processes for scientific study and to create a larger buffer to mitigate against extractive uses on the edge of the proposed marine reserve.

Throughout the consultation process the Coalition has been heartened by the consistently high levels of support for a south coast marine reserve expressed in three surveys of local residents undertaken in 1991, 1994 and 1996.

The following sections summarise the consultation and investigation undertaken by the Coalition.

3.2.1 CHRONOLOGY OF CONSULTATION

In developing this proposal, the applicant has sought the advice, opinions and input of four groups in the community: the public, coastal users, tangata whenua and stakeholders.

Public Opinion

Three public opinion surveys have been undertaken. Two of the surveys included proposed boundaries, and were distributed to residents of suburbs living adjacent to the proposed reserve. The surveys were undertaken in:

- 1991 – To residents of Island Bay. The survey sought to identify the level of support for a marine reserve and indications of preferred areas.
- December 1993 – To residents of Island Bay and adjoining suburbs. Two options for boundaries were proposed.

- 1996 – To residents of suburbs from Island Bay to Lyall Bay (suburbs adjoining the boundary of a proposed reserve). One option was proposed.

Coastal Users

Four surveys of coastal use were undertaken in 1995 and 1996–1997.

- April / May 1995. Face to face interviews with 93 people fishing or extracting sea life from the proposed area.
- October / November 1995. Observational study of coastal recreation at seven sites on the south coast. 1507 individuals were observed engaging in 24 types of activity.
- December 1995. 60 face to face interviews with coastal users to determine attitudes towards the proposed marine reserve.
- November 1996 – January 1997 face to face interviews with boat users to determine their usage patterns and activities on the south coast.

Local Businesses

- A survey of 45 local businesses was conducted in December 1997.

Consultation with Tangata Whenua

- Informal contact and consultation with tangata whenua, 1993–2000.
- Formal consultation with Te Ati Awa, incorporated as Te Runanganui o Taranaki Whanui Ki Te Upoko o Te Ika a Maui, 1999–2000.
- Formal consultation with the Wellington Tenth Trust, 1999–2000.

Consultation with Stakeholders

The applicants have consulted widely with stakeholders in the local communities, and wider city, including:

- Consultation meetings with recreational and commercial fishing interests in 1995, 1998 and 1999.
- Consultations with major industries adjacent to the south coast (eg. Wellington International Airport Ltd, Anglian Water International Ltd), 1995, 1999.
- Consultations with Local Authorities, 1995, 1998, 1999.

- Consultations with Police, Coastguard, Harbour Master, 1995, 1999.
- Consultation with local politicians and community representatives, 1993, 1996, 1999.
- Circulation of a Draft Application in August 1999 to Wellington Tenth Trust, Wellington Recreational Marine Fishers' Association (Inc.), Wellington International Airport Limited, Anglian Water International (NZ) Ltd., Department of Conservation, Ministry of Fisheries, Wellington City Council, Wellington Regional Council.

3.2.2 PUBLIC OPINION SURVEYS

For a marine reserve to be a success it is vitally important that there is widespread community support. This is all the more important when a reserve adjoins a large suburban area. In order to gauge the level of support in the local community the applicants have surveyed residents of local suburbs on three occasions, in late 1991, 1993 and 1996.

The purpose of the surveys was to gather information on public attitudes to:

- The concept of a south coast marine reserve.
- The level of support for specific boundaries of a south coast marine reserve.

Survey Methodology

The three surveys used identical methodology. Copies of the questionnaire or proposal were delivered to residents' letterboxes as an insert in the local community newspaper, the Cook Strait Times. Copies were also made available in local facilities such as libraries, community centres, supermarkets and dive shops. The surveys were publicised in the local media, and by interested groups. The applicants delivered survey forms to any local residents or groups who requested them.

It is important to note that these are not "scientific" surveys of a representative sample of the population. Respondents were those people motivated to participate. For example, the 1994 survey received 400 responses from individuals and groups. Eighty six per cent of these responses supported the concept of a marine reserve on the south coast.

The applicants consider it significant that widespread or substantial opposition to the proposal has not emerged in any of the surveys that have been undertaken.

Survey One – 1991. Island Bay

In December 1991 a survey of public opinion in the Island Bay area was undertaken. A survey form was delivered to 3200 houses in the Island Bay area (including Houghton Bay) as an insert in the Cook Strait Times. The survey sought to identify support for a marine reserve in the south coast area. There were 220 responses to the survey with 90 percent of these responses supporting the concept of a marine reserve in the south coast area.

Survey Two – December 1993. Island Bay, Lyall Bay

A questionnaire was distributed to 6800 households in the Island Bay – Lyall Bay / Kilbirnie area as an insert in the Cook Strait Times. A public discussion document was published by the applicants and made available in local libraries, dive shops, community centres and supermarkets. The questionnaire and proposal discussed two possible areas for a marine reserve (Boundary Proposal A) and included supporting information for the public as well as indicative maps of the proposed areas for consideration. (a copy of the discussion document and survey form is attached in Appendix Five).

Of the 400 responses, 86 percent of respondents supported the concept of a marine reserve on the Wellington south coast. Sixty one percent of these supported the larger of the two areas proposed as options (Sinclair Head to Te Raekaihau Point), while 44 percent gave support to the smaller option (Quarry Gates to Te Raekaihau Point). Some supported both options. Fifty nine percent supported the inclusion of the Island Bay embayment in the marine reserve.

Survey Three – 1996. Island Bay, Houghton Bay, Lyall Bay, Breaker Bay

As a result of feedback from earlier surveys and from consultation with commercial and recreational fishers the applicants proposed a new set of boundaries in 1996.

The significant change was the dropping from the proposal of the area between the Quarry gates and Sinclair Head and the proposed inclusion of the

area eastwards from Lyall Bay to the western ledge of the harbour at Palmer Head. Essentially the proposed reserve was shifted eastwards to avoid the area of high recreational usage between Sinclair Head and Owhiro Bay.

In November 1996 a brochure was distributed as an insert in the Cook Strait Times to 8300 households in the Island Bay, Houghton Bay, Lyall Bay/ Rongotai and Strathmore Park area seeking responses to the new boundaries (a copy of the information document and survey form is attached in Appendix Six).

A total of 419 responses was received. A marine reserve on the south coast was supported by 85 percent of respondents with 78 percent of these supporting the proposed area. High levels of support were recorded from respondents in suburbs adjoining the area of the proposed reserve.

Of 202 responses from Wellington City, 177, or 87 percent supported the proposal.



SUPPORT FOR A MARINE RESERVE BY SUBURB		
	Number of respondents	Number/Percentage support
Island Bay	n = 49	n = 49 n = 37 / 75 %
Houghton Bay	n = 6	n = 6 n = 5 / 83 %
Lyll Bay	n = 31	n = 31 n = 26 / 83 %
Strathmore	n = 16	n = 16 n = 10 / 62 %
Breaker Bay	n = 8	n = 8 n = 7 / 87 %

Summary of Survey Data

The surveys outlined above show that among those people who responded to the surveys, there is a consistent and high level of support for the principle of a south coast marine reserve.

Support for particular boundaries has varied more than support in principal. Following the exclusion of the Sinclair Head area from the 1996/97 survey, support for the area from Owhiro Bay Quarry - Western Harbour rose by 17 per cent to 78 per cent. It is part of this area that is the subject of this application.

SUMMARY OF SURVEY RESULTS, 1991 – 1996/97			
	1991	1994/95	1996/97
Number of Respondents	200	400	419
Support for a marine reserve on the south coast	90%	86%	85%
Support for including the Island Bay embayment	59%		
Support for Sinclair Head to Te Raekaihau Point (Option 1)		61%	
Support for Quarry Gates to Te Raekaihau Point (Option 2)		41%	
Support for Quarry Gates to Western Harbour			78%

3.2.3 SURVEYS OF COASTAL USERS

In order to deepen its understanding of patterns of usage on the south coast, the applicants undertook four surveys of coastal use in 1995, and 1996/97.

From these surveys the Coalition sought to:

- Determine the use(s) made of the area by the public and other users.
- Measure the potential benefits that might accrue to coast users from having such a marine reserve area.
- Identify the potential 'loss' to existing users of having such a reserve.

Students and staff of Victoria University's Marine Biology programme designed the methodology for each survey.

User Survey One – April / May 1995

This survey was an interview study of coastal users observed fishing or extracting sea life from within the area of the then proposed reserve. The survey took place in April / May 1995.

Face to face interviews were undertaken with a total of 93 people observed as being involved in fishing or taking sea life. No person was interviewed twice.

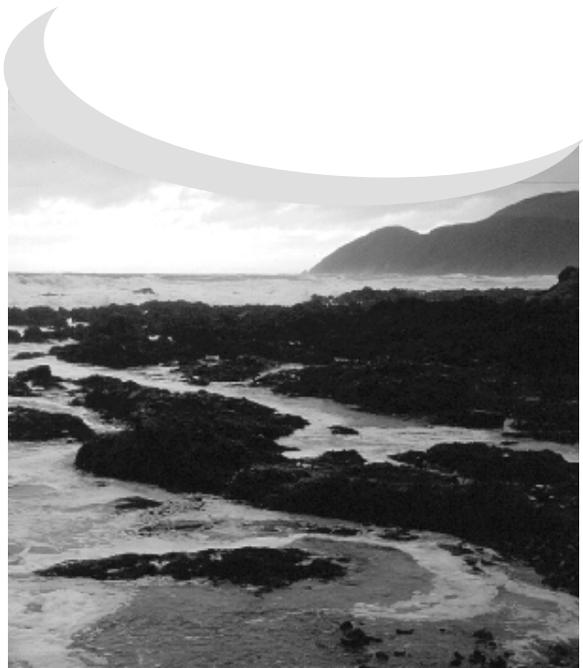
Fishing was the dominant activity with 65 (70 per cent) of the 93 people interviewed undertaking this activity. Most people fished or took sea life as part of a group and had been doing this for a period of 1-4 years. The weekend was the most popular time for this activity and fun / relaxation was the main reason. Island Bay was popular. Other findings of the survey were:

- About half of those interviewed had noticed no change in the abundance of sea life.
- Of those who noted a change, all noted a decrease in abundance.
- Around 30 percent of all respondents noted a decrease in the size of species of sea life caught in the area.

User Survey Two – October / November 1995

This survey was an observational study of other recreational users of the south coast. It was carried out between 22 October 1995 and 18 November 1995 at seven separate sites along the area of the south coast adjacent to the proposed marine reserve. This survey was undertaken to provide contextual information about the use of the south coast.

In all, the survey identified some 24 separate activities involving 1507 people. Nearly all participants were adult with approximately a 50:50 ratio of male to female. Walking was the most popular activity overall. Based on the observations, Lyall Bay was the most popular area with Moa Point the least popular.



SUMMARY OF OBSERVED ACTIVITIES, OCTOBER/NOVEMBER 1995

Activity	Percentage (total number = 1057)
Walking	30 % (n = 452)
Sitting in car	15 % (n = 226)
Surfing	11 % (n = 166)
Biking	8 % (n = 120)
Playing	8 % (n = 120)
Observing rockpools	6 % (n = 90)
Sitting	5 % (n = 75)
Fishing	3 % (n = 45)
Picnic	3 % (n = 45)
Other (sunbathing, beach-combing, running, diving, snorkelling, boating, wave skiing, boogie boarding, surf rescue, motor-biking, wind-surfing, swimming).	11 % (n = 166)

Activities that could involve the taking of sea life within the marine reserve area made up only six per cent of all observed activities. The remaining 94 per cent were non-extractive or passive recreational activities.

User Survey Three – December 1995

The third user survey sought to deepen our understanding of recreational use in the area of the proposed reserve. The survey was conducted on Saturday 16 December 1995 along the coastline adjacent to the area of the proposed marine reserve. A total of 60 face to face interviews were conducted with members of the public engaged in coastal recreational activities.

SUMMARY OF RESPONSES: USER SURVEY THREE – DECEMBER 1995

Three quarters (n = 45) of respondents lived in Wellington and 44 percent (n = 26) of those lived in Island Bay. Seventy percent (n = 42) were adults and 60 percent (n = 36) of respondents were male.

45 percent (n = 27) have used the south coast for recreation for ten years or more.

75 percent (n = 45) used other areas, as well as the south coast, for recreation.

7 percent (n = 4) were involved in activities that took sea life.

78 percent (n = 47) felt that a marine reserve would have no effect on, or would enhance their recreational use of the area.

83 percent (n = 50) supported a marine reserve in the proposed area of the south coast.

SUMMARY OF RESULTS: USER SURVEY FOUR – NOVEMBER/JANUARY 1997

Fishing and diving are the predominant activities of boat users.

The most popular area for fishing was around the Red Rocks area, and immediately to the west (an area outside the proposed boundaries).

Most boat users use the south coast at least once a week, and most have been using the area for over 10 years.

85 per cent of boat users also used other areas, including Kapiti, Makara and the Mana area.

Fifty per cent felt the abundance of marine life on the south coast was decreasing. Thirty two percent felt there had been no change in abundance, and eighteen per cent believed that marine life was increasing.

Forty eight per cent felt the proposed reserve would diminish their use of the coast. Twenty eight percent believed it would make no difference, and twenty four percent felt their use would be enhanced.

Sixty six percent of boat users interviewed supported a marine reserve somewhere on the south coast, but only half of these, (thirty three percent), supported the boundaries proposed in 1996.

User Survey Four – November 1996 – January 1997.

The fourth survey investigated boat use off Wellington's south coast, and recorded boat users views on the area, its marine life and the marine reserve proposal. Observations were also made about where boats were used off the south coast.

Two interviewers conducted face-to-face interviews over a total period of twenty hours spread over three high use summer months, with people observed launching or landing boats at boat ramps at Island Bay and Lyall Bay. Interviews were undertaken at weekends, with twenty six questionnaires completed, and no repeat interviews.

Summary of Coastal User Surveys

The coastal user surveys undertaken by the applicants identified the following information:

- Fishing and taking of sea life along the south coast is a relatively minor recreational activity when compared with other uses of the coast. It is most usually undertaken at weekends and in groups.
- The area of the proposed marine reserve is one of several popular areas along the south coast for recreational fishing and diving, both boat and shore based. Boat users identified the area around Red Rocks, and to the west as the most popular area (User Survey Four), and most boat users also fished at Kapiti, Mana and Makara.

- Of the overall numbers of people using the south coast area, a small proportion (six per cent) are engaged in extractive activities such as fishing or shellfish gathering.
- Among boat users, slightly more than half those surveyed (52 per cent) felt the proposed reserve would enhance or would not affect their use of the coast. Forty eight per cent felt a reserve would diminish their use of the coast.
- Overall use of the coastal area, including recreational use of the foreshore outside the boundaries of the proposed reserve, is intensive. The vast majority of people (94 percent of User Survey Two) use the coast for non-extractive or passive recreational purposes such as walking, sitting, surfing, biking, etc.
- The most intensive use for recreational purposes is in the Lyall Bay area. This area is outside the boundaries of the proposed reserve.

The information gathered suggests that although recreational fishers and divers value the area, it is not the only area on the south coast used for these activities. Areas outside the boundaries of the proposed reserve (Red Rocks, Lyall Bay), and further away (Makara, Mana, Kapiti – also with a marine reserve) are also used by boat users and recreational divers. Although establishment of a reserve would limit boating and diving activities involving extractive fishing, about half of those interviewed supported the concept.

3.2.4 SURVEY OF BUSINESSES ON THE SOUTH COAST

In December 1997 a survey of businesses in the south coast area was undertaken. The survey methodology was reviewed by staff of Victoria Universities Marine Laboratory and consisted of a response form filled out by business owners.

Forty five businesses were identified in the south coast area. Most were located on the Island Bay Parade, with three in Owhiro Bay and Lyall Bay. Thirty of the 45 businesses contacted participated in the survey (67 per cent). The main findings were:

- Of the 30 responses, 22 (73 per cent) were aware of what a marine reserve is, and the other eight (22 per cent) were unfamiliar.
- 16 (53 per cent) of the 30 respondents were aware of the proposal for a marine reserve on the south coast.
- Of the 16 respondents who were aware of the proposed south coast reserve, 12 (75 per cent) supported the proposal, two (12 per cent) were opposed, and two (12 per cent) were unsure.

When questioned about the effect the proposed reserve would have on their businesses and the community, the responses were as per the table below.

The survey concluded that in general the local business community believed that a marine reserve would be beneficial to the community.

3.2.5 CONSULTATION WITH TANGATA WHENUA

Consultation with tangata whenua began in 1988–1990 with the initial Department of Conservation proposal and has continued both informally and formally since that time.

The area in which the reserve is situated falls within the boundaries of rohe claimed by Te Ati Awa and Ngati Toa. Both tribes established themselves in the Wellington / Kapiti area in the 1820s and 1830s, displacing earlier inhabitants such

as Ngati Ira (see section 5.2.1 for a fuller description of the cultural history of the area). Both tribes have claimed manawhenua manamoana over the area under the Kaimoana Customary Fishing Regulation, 1998, and Te Ati Awa have asserted their rights in their claim to the Waitangi Tribunal (Wai 145). Matiu Rei Chief Executive of Ngati Toa, has stated that they are opposed to any complete ban on taking fish or shellfish¹.

In undertaking consultation with tangata whenua, the applicants have chosen to consult with representatives of the north Taranaki tribes, known as Te Ati Awa (incorporated as Te Runanganui o Taranaki Whanui Ki Te Upoko o Te Ika a Maui), and with the board of the Wellington Tenth's Trust.

The reasons for consulting with these two groups are:

- Te Ati Awa are resident in the Wellington City / Hutt Valley area, occupying three Marae: Pipitea (Wellington City), Tatau o Te Po (Eastern Hutt Valley) and Waiw'etu (Western Hutt Valley). By comparison, Ngati Toa Marae are situated outside the Wellington City area at Takapuwhia (Porirua) and Hongoeka (Plimmerton).
- Te Ati Awa's continuous occupation (noho tuturu) of the area since the 1830s, and the presence of three Marae demonstrate Te Ati Awa's take (customary basis) for claiming manawhenua manamoana over the area.
- Te Ati Awa has extensive knowledge of the customary fishing areas in Wellington Harbour and on the south coast, and uses these areas for gathering kaimoana. Because of this knowledge the Customary Fisheries Committee of Te Ati Awa was able to assist the coalition in the identification of boundaries for the proposed reserve.

¹City Voice, 30th December 1999, page 2.

NUMBER OF RESPONDENTS = 30	POSITIVE EFFECT	NEGATIVE EFFECT	NO EFFECT	UNSURE
Effects on your business	7 (23 per cent)	1 (3 per cent)	17 (57 per cent)	5 (17 per cent)
Effects on the community	16 (53 per cent)	3 (10 per cent)	4 (13 per cent)	7 (23 per cent)

- The Wellington Tenth's Trust represents the Taranaki tribes, including Te Ati Awa present in Wellington at the time of the purchase of Wellington by the New Zealand Company.

During its consultation the applicants have also sought advice from south coast resident Ray Ahipene Mercer (Ngati Ira). From 1992 informal liaison with Te Ati Awa and the Tenth's Trust was made through Morris Love, a member of the Tenth's Trust Board and the Customary Fisheries Committee of Te Runanganui o Taranaki Whanui Ki Te Upoko o Te Ika a Maui.

These contacts led the applicants to state in the 1994 Marine Reserve Discussion Document that "Consultation with local Maori has resulted in an understanding that the area available for collection of kaimoana will be reduced. The Tangata Whenua have given verbal support to the principle of a marine reserve on the south coast."²

Formal consultation with tangata whenua was delayed following feedback to the 1994 Discussion Document that led the applicant to substantially revise its boundary proposals. Similarly, public consultation in 1996/97 and 1998 led to further changes to boundary proposals. In 1999, with revised boundaries (C) having been developed, the Coalition sought formal consultation with tangata whenua.

On Friday 9th April 1999 the applicants met with staff of the Wellington Tenth's Trust at their offices on Pipitea Street, Wellington, to advise on the proposed boundaries of the reserve. Copies of the proposed boundaries were provided to the Trust.

Contact with the Trust was made again in June 1999 to follow-up on the April discussion. At this time the Trust advised that it was engaged in presenting its Waitangi Tribunal Claim (Wai. 145) and further contact was delayed until the new year.

On Thursday 2nd March, 2000 the applicants met with the Board of the Wellington Tenth's Trust. The Trust recommended that the applicants meet with the Customary Fisheries Committee of Te Ati Awa to discuss the proposal in detail. Following that advice, the applicants met with Ihaia Puketapu

(Customary Fisheries Iwi Liaison Officer) on Wednesday 19th April to discuss the proposal. Several discussions and meetings followed.

On Wednesday 21st June the applicants met with the Customary Fisheries Committee at Waiw'etu Marae to present the proposal. Several issues were raised at the meeting. Firstly, it was disclosed that customary fishing for kina takes place in the area between Barrett's Reef and Breaker Bay, and the area was being considered for a mataitai reserve. Secondly, the Coalition was asked to clarify the role of Tangata Whenua in the management of the reserve.

On August 1st the applicants wrote to the Customary Fisheries Committee agreeing to withdraw the area from Breaker Bay to Palmer Head from the marine reserve application, and stating its support for customary management of the area. The applicants also reconfirmed their intention to recommend that half the positions on the Marine Reserve Advisory Committee be reserved for Tangata Whenua.

Subsequent to these discussions the applicants have received assistance from Te Ati Awa regarding the historical and cultural values of the area proposed for the reserve.

It is understood that the Wellington Tenth's Trust and Te Ati Awa will make submissions on the proposal.

3.2.6 CONSULTATION WITH RECREATIONAL AND COMMERCIAL FISHING INTERESTS

Meetings and discussions with recreational and commercial fishing interests have been taking place since the first proposals for a reserve were made public in 1991. Consultation has taken the form of public meetings, published consultation documents, and an extensive series of informal meetings between the applicants and individuals involved in and knowledgeable about recreational and commercial fishing in the area.

The first round of public consultation took place between 1994 and 1996, following the publication of the first proposed boundaries (A). A series of major public meetings were held. Other smaller meetings also took place.

On 24 March 1994 a large public meeting was held in the Island Bay Baptist Church Hall. Present at

² Wellington South Coast Marine Reserve Proposal, Discussion Document, 1994, page 7.

the meeting were Jim Mikoz representing recreational fishers and Richard Cade (Fishing Industry Board) representing commercial fishermen. The following points were made:

- Jim Mikoz and Richard Cade suggested that the applicants should consider the Breaker Bay area instead of the Sinclair Head - Te Raekaihau area for a reserve.
- Commercial fishing interests estimated that four – six tonnes of rock lobster and 20 – 30 tonnes of wetfish are taken from the south coast area (Sinclair Head – Palmer Head).
- One commercial fisherman stated that pollution in the area was severe, and he never fished along the coast as a consequence.

On 14 June, 1995 a meeting was held with approximately 35 recreational fishers. The following points were made by recreational fishers.

- The most popular surf-casting areas were Island Bay, Houghton Bay, Lyall Bay.
- Safety issues were a concern should the Sinclair Head – Owhiro Bay area be part of a reserve, because boats would be forced into the more dangerous waters to the west of Sinclair Head.
- Access to a reserve in the Sinclair Head – Owhiro Bay area was a concern because of the operation of the Owhiro Bay Quarry
- The option of a reserve at Oteranga (Cable) Bay was raised and endorsed.
- The meeting did not endorse a reserve at Breaker Bay.

On 27 June, 1995 the Wellington Recreational Marine Fishers' Association (Inc.) organised a meeting, at which ten recreational and commercial fishers met with the applicants. At this meeting the following points were made:

- The airport runway breakwater is the only place that offers access for older people and disabled persons for fishing along the coast.
- The area at the mouth of Lyall Bay, between Te Raekaihau Point and Moa Point was an important fishing area for boat fishing, particularly for Terakihi, Blue Cod and Gurnard.
- Recreational fishing was common in the Island Bay Channel, and the area to the east around to Houghton Bay.

- The Island Bay embayment was an important area as a source for baitfish.

On 11 April 1996, a meeting was held with Richard Cade of the Fishing Industry Board. Mr Cade objected to the proposed reserve, and suggested that Breaker Bay would be a better site.

Following this round of meetings, public consultation ceased while the applicants developed the second proposal (B). This was released in late 1996, and submissions were accepted until December 23rd 1996. Analysis and discussion of this material took a further eighteen months before consultation resumed in mid-1998.

1998 – 1999: Detailed, informal consultations

In mid-1998 a further round of consultation with recreational and commercial fishing interests began. Two informal meetings with individuals involved in recreational fishing and diving groups were held in mid 1998. These meetings were held on the understanding that the individuals involved were not representing recreational groups, but were interested in a constructive debate on the concept and detail of the proposed reserve.

In October 1998, representatives of iwi, recreational and commercial fishing interests were invited to the Victoria University Marine Laboratory to discuss the scientific research being carried out on the south coast. The meeting described the potential of the area for scientific research and monitoring, and discussed former and current research in the area.

In early 1999 a further series of informal meetings were held with individuals involved in recreational fishing groups to discuss possible boundaries. As a result of these meetings the applicant has been able to identify areas of high recreational usage along the coastline (see Appendix Seven), and develop boundaries that meet some of the concerns of recreational fishers and divers. In particular:

- Lyall Bay was excluded from the proposed reserve.
- The proposed reserve was split into two parts (proposal C).
- The eastern boundary of the reserve lies to the west of Te Raekaihau Point – this enables divers entry to waters outside the proposed reserve along the sheltered western side of the point.

Conclusions from consultation with recreational and commercial fishing and diving interests

The applicant believes the consultation process undertaken with recreational and commercial fishing interests has enabled a proposal to be developed which meets the purpose of the Marine Reserve Act while avoiding undue impact on recreational and commercial fishing.

The early round of public meetings identified major issues and concerns of recreational and commercial fishers. Subsequent detailed discussions with smaller groups of fishers, and individuals have enabled all parties to develop positions and discuss alternatives in good faith.

The applicant believes that the boundaries proposed in this draft provide fair access to the coastline for recreational fishers, both shore and boat based, while retaining the scientific integrity and value of the reserve. With regard to the concerns of recreational fishers, the applicant notes that the proposed boundaries meet the following concerns:

- The proposed reserve is smaller than those proposed in options (A) and (B), and is similar in size (but with a shorter coastal area) to option (C).
- The area Sinclair Head – Quarry, identified as an important boat-fishing / diving area has mostly been excluded from the proposed reserve.
- Lyall Bay, a popular boat fishing / surf-casting area has been excluded from the proposed reserve.
- An area on the western side of Te Raekaihau Point has been excluded from the proposed reserve, to enable safe access for divers to the water.

3.2.7 CONSULTATIONS WITH INDUSTRY ADJACENT TO THE SOUTH COAST

Two major industries operate in or around the area of the proposed marine reserve. These include the Wellington International Airport (WIAL), and the Wellington City Council Wastewater Treatment Plant at Moa Point operated by Anglian Water International (NZ) Ltd (AWI). Contact and consultation with these organisations took place in 1995 and in 1999.

WIAL

Wellington International Airport Limited operates a runway and associated facilities on the isthmus between Evans Bay and Lyall Bay. The runway extends onto reclaimed land into Lyall Bay.

The 1996 and 1999 boundary proposals (B) & (C) meant that the airport runway would have abutted the marine reserve. Following changes to the boundaries, the proposed reserve is no longer adjacent to the airport.

Anglian Water International Limited

AWI operates Wellington's Wastewater Treatment Plant situated adjacent to the southern end of the airport runway. Treated wastewater is discharged via an 1800 metre long outfall extending into Cook Strait from Lyall Bay. An emergency discharge pipe exists in Owhiro Bay.

Under boundary options (B) & (C), the main discharge pipe would have extended into the area of the proposed reserve, or directly adjacent to it. Under the current application, only the emergency discharge pipe in Owhiro Bay is in the proposed reserve.

As a result of meetings with AWI representatives in November 1996 and June 1999, the following two issues have been identified:

- Clarification of discharge consents in Owhiro Bay with the WRC.
- The impact of a marine reserve on the renewal of existing resource consents.

The applicant indicates its willingness to acknowledge AWI's existing consents, and recommends that this is done in the Order in Council when the marine reserve is established.

3.2.8 CONSULTATIONS WITH LOCAL AUTHORITIES, 1995, 1998, 1999.

The applicant has had regular contact with local authorities during the process of developing and consulting on the proposal.

Wellington City Council

In 1994 the Wellington City Council resolved to support in principle a Wellington south coast Marine Reserve. Since that time the applicant has

met with Councillors, Council committees and Council Officers to advise them of the progress of consultation and the application.

Following the decision to endorse the concept of a marine reserve, several major City Council policy and planning documents have included the proposal, and capital expenditure for implementation of a marine reserve was budgeted in the 1999–2000, and 2000–2001 financial years.

Support in Council Strategies

In 1996, as part of its commitment to the United Nations Agenda 21, the City undertook a major community consultative process called Our City – Our Future. The process aimed to develop a vision for the future of Wellington, that would then be implemented by the City Council in partnership with community groups. One outcome of the consultative process was agreement that the City should:

Support and establish mataitai, taiapure, and a range of marine protected areas including a marine reserve on the south coast accessible by public transport

In its Open Space Strategy For Wellington – Capital Spaces, published in November 1998, the City Council stated that it would “support and promote the establishment of a marine reserve on the South Coast.”

According to the Capital Spaces strategy the establishment of a marine reserve supports four of the outcomes in the City’s Strategic Plan:

Outcome 30: The City environment hosts and protects a representative range of indigenous plants and animals in their natural communities and habitats.

Outcome 31: The City’s natural landscape and ecosystems are recognised and, where appropriate, protected and restored.

Outcome 32: A wide range of recreational opportunities in the City’s open spaces are accessible to all.

Outcome 33: The features of the City’s natural environment that possess historical, spiritual, social, traditional or other special cultural significance are acknowledged, recognised and, where appropriate, protected.

Issues and implications for Wellington City Council.

The applicants met with City Councillors and staff in 1994 and 1995 to discuss the implications of a marine reserve. Councillors and officers indicated that the Council wished the following issues to be considered.

- Investigating the exclusion of the Island Bay embayment (inner Island Bay) from the proposal.

Some City Councillors were concerned about the effect of a marine reserve on traditional fishing areas on the south coast, particularly in Island Bay. The applicants’ consultation with local residents and recreational fishers also identified this concern, although in the 1994 public opinion survey there was fifty nine percent support among local residents for including the embayment in the reserve.

The applicants have decided to include the embayment in this application. See section 4.6 for a detailed discussion of this issue.

- Investigating the Breaker Bay option.

Some City Councillors asked that the applicants investigate the Breaker Bay option proposed by Mr Richard Cade. The applicants have undertaken an investigation of the Breaker Bay option and concluded that it does not meet the criteria for a marine reserve. See section 4.4 for a discussion of this issue.

- Resolving issues regarding pollution and discharge.

See section 3.2.7.

City Council Policy Issues

The applicants met with the Wellington City Council Cityscape Committee on 16 September 1998 to brief them on the marine reserve proposal. An Information Paper was prepared that identified issues to be considered by the Council when an application for a marine reserve was made. Subsequent to this meeting, the applicant met with Council Policy Manager Virginia Terpstra on June 31st 1999 to discuss boundaries and to discuss further the issues raised by the information paper. The following points list the issues.

A Impact on use of public facilities

The Information Paper advises that “currently there are good facilities along the southern coast” that could cope with increased visitation. These include toilet and changing facilities, parking areas and public transport. In mid-2000 the City Council began a consultation process with south coast residents to develop a management plan for the area.

B Water quality (storm water)

The Information Paper notes that considerable work has been done to reduce the impact of sewage pollution of storm water discharges. Storm water outlets exist in Houghton Bay, Island Bay and Owhiro Stream. There are many small street sumps which discharge to the coast from the street.

The applicants acknowledge the existence of the storm water and emergency sewer outfalls, and recommends that the discharge is acknowledged in the Order in Council when the marine reserve is established.

C Water Rights for Discharge of Treated Wastewater/Stormwater

The applicants acknowledge the existence of the emergency outfall in Owhiro Bay, and recommends that the discharge be acknowledged in the Order in Council when the marine reserve is established. The applicants support the renewal of existing discharge permits.

D Monitoring and enforcement

The Information Paper raises the issue of what support the Council may wish to grant to monitoring and enforcement of the proposed reserve.

The paper recommends investigating opportunities for warranting existing enforcement and council staff as Honorary Marine Reserve Rangers. These rangers would be warranted and trained by the Department of Conservation, as the agency administering the Act.

The applicants support such a proposal.

E WCC Empowering Acts

The paper raised the possibility that the City Council may own the seabed between Island Bay and Taputeranga Island. It is now understood that this area was vested in the Crown by the Foreshore and Seabed Endowment Act, 1991.

Wellington Regional Council

In April 1995 the applicants sought the opinion of the Wellington Regional Council regarding the proposed reserve.

- With regard to safety, the Council said in a letter of 18 April 1995 that it “... has no concerns with respect to safety and navigation within the areas proposed for the reserve.”
- With regard to the moorings in Island Bay, the Regional Council noted that mooring is a controlled activity, and conditions can be imposed if necessary.

On 23rd June 1999, the Coalition met with Captain Michael Pryce, Manager Harbours (Wellington Harbour Master) for the Regional Council to discuss safety issues regarding the reserve. Captain Pryce indicated that he had no significant safety issues regarding the proposed reserve (option C). The option proposed in this application is similar in size to the Western part of that proposal.

On 30th June 1999, the Coalition met with WRC Policy Managers Rob Forlong and Wayne Hastie to discuss regulatory and policy issues. No significant issues were raised.

Information provided by the WRC indicates that no current or active resource consents (other than the discharge consents identified) exist for activities (such as marine farming or mining) within the area of the proposed reserve.

The WRC has identified Taputeranga Island in its Regional Coastal Plan as an area of important conservation value.

3.2.9 CONSULTATION WITH LOCAL POLITICIANS AND COMMUNITY LEADERS

Throughout the consultation process, the applicants have sought to keep local politicians, community leaders, government and local officials up-to-date with the progress of the proposal.

The applicants have met with and / or briefed:

- The Mayor and City Councillors (including many of those representing the Southern and Eastern Wards)
- Members of the City Council's Environment and Recreation, and Cityscape Committees
- Local MPs
- The former Prime Minister and former Minister of Conservation
- Representatives of recreational and commercial fishing and diving groups
- City and Regional Council staff
- Staff of the Ministry of Fisheries and Department of Conservation
- Office of the Parliamentary Commissioner for the Environment.

3.2.10 AUGUST 1999 CONSULTATION DRAFT

In August 1999 major stakeholder groups were sent a Consultation Draft of the application, and invited to comment. The boundaries described in this draft were proposal (C). Copies of the draft were sent to:

- Wellington Tenth's Trust
- Wellington Recreational Marine Fisher's Association (Inc.)
- Wellington International Airport Limited
- Anglian Water International (NZ) Ltd
- Department of Conservation
- Minister of Conservation
- Wellington City Council
- Wellington Regional Council
- New Zealand Seafood Industry Council

Of the responses received, only that of the Wellington Recreational Marine Fisher's Association opposed the reserve.



4. Boundaries and Justification of the Proposed Marine Reserve

As noted, the boundaries of the proposed reserve have undergone significant change since the first maps were released in a consultation document in December 1993.

Constructive involvement from the public and user groups including tangata whenua, recreational fishers, local residents and scientific interests, has played a major role in the development of these boundaries. In particular, consultation with recreational users has enabled the applicants to identify points of special value and to design boundaries that enable fair access to the coast for everyone without threatening the scientific integrity or value of the reserve.

In this section we discuss earlier boundary proposals, the current proposal, and the overall justification for establishing a marine reserve in this area.

4.1 DECEMBER 1993 BOUNDARIES – (OPTION A). TE RAEKAIHAU POINT TO SINCLAIR HEAD / TE RAEKAIHAU POINT TO OWHIRO BAY QUARRY GATES

The applicant's first discussion document was released in early 1994 (Appendix Five) and proposed two sets of boundaries. A questionnaire was distributed to 6800 households in the Island Bay – Lyall Bay / Kilbirnie area as an insert in the Cook Strait Times. The discussion document was made available in local libraries, dive shops, community centres and supermarkets.

Option One

From Te Raekaihau (Phillips) Point in the east (the western edge of Lyall Bay) extending 1 nautical mile offshore to Sinclair Head in the west. The area inside Taputeranga Island may be excluded. A total area of 10.5 km².

Option Two

From Te Raekaihau Point to the Owhiro Bay quarry gates extending 1 nautical mile offshore in both locations. The area inside Taputeranga Island may be excluded. A total area of 7.5 km².

Responses to the Discussion Document

Overall, there was sixty one per cent support for the Sinclair Head – Te Raekaihau Point option from the 400 responses received. The smaller area of Option Two received 44 per cent support. The major issue identified by this consultation was concern at loss of access to the area Sinclair Head – Owhiro Bay. This area is relatively sheltered from the prevailing Westerly winds and is therefore a favoured fishing and diving area. The majority of this area is excluded from the current proposal.

After reviewing submissions, and considering these issues, the Coalition decided to remove the area Sinclair Head – Quarry from the proposed reserve area. The Coalition decided to move the Eastern boundary to Palmer Head, therefore including Lyall Bay in the proposed reserve. This option (B) was released in 1996.

4.2 1996 BOUNDARIES – (OPTION B). OWHIRO BAY QUARRY GATES – PALMER HEAD.

The applicant's second discussion document was released in November 1996 (Appendix Six) and distributed as an insert in the Cook Strait Times to 8300 households in the suburbs of Island Bay, Houghton Bay, Lyall Bay / Rongotai and Strathmore Park. In the document the proposed reserve ran from the Owhiro Bay Quarry Gates in the west, to Palmer Head in the east, extending offshore to a line running between Sinclair Head and the Pencarrow Lighthouse.

There was seventy eight per cent support for this option from the 419 public responses received. Concerns were once again raised about the extent of the reserve, and the potential impact on recreational fishers using Lyall Bay. Concerns were also raised about the impact on the traditional fishing practices of the Island Bay community in the embayment.

Following this consultation, the applicants reviewed the proposal and undertook further consultation with recreational and commercial fishing interests.

4.3 1999 BOUNDARIES – (OPTION C).

QUARRY – TE RAEKAIHAU POINT & PALMER HEAD – BREAKER BAY.

In August 1999, following detailed consultation with key stakeholders, the applicants released a third set of proposed boundaries in the form of a Draft Application for Consultation. The Draft was sent to groups that had been involved in the detailed discussions during 1998 – 1999. The main feature of this proposal was the exclusion of Lyall Bay from the reserve, and the inclusion of the Palmer Head – Breaker Bay area.

Of responses received, only the Wellington Recreational Marine Fishers' Association (Inc.) opposed the reserve, stating that they believed the "... proposal (was) unacceptable. They consider the area to (sic) large and the application infringes on the rights of the users of the area."

Between August 1999 – September 2000 the applicants consulted on this proposal with the Wellington Tenth's Trust, and the Customary Fisheries Committee of Te Ati Awa. As a result of this consultation, the eastern area of the reserve was identified as an area of customary significance in which customary fishing is taking place. Consequently this area has been excluded from the current proposal.

The applicants then proposed to extend the seaward boundary of the reserve (to an area similar to the second option proposed in 1994 (A)). The reason for extending the seaward boundary is to ensure that the remaining area of the reserve is large enough to include complete reef systems; to better protect representative systems and processes for scientific study; to create a larger buffer to mitigate against extractive uses on the edge of the proposed marine reserve, and; to include complete reef systems similar to those lost from the Palmer Head - Breaker Bay area included in option (C). This is the current proposal.

4.4 ALTERNATIVE AREAS FOR A RESERVE, PROPOSED BY OTHER PARTIES

During the consultation process other parties have proposed alternative boundaries or alternative areas for a marine reserve. The applicant has investigated these proposed alternatives. Our investigations have

found each of the proposed alternatives fails to meet the purposes outlined in the Marine Reserve Act, and as a result we have rejected them in favour of our current application.

4.4.1 OTERANGA BAY

At a meeting organised by the Wellington Recreational Marine Fishers' Association on 27 June 1995, a majority of those present favoured a proposal from Daryl Sykes (formerly of the Fishing Industry Board) that a marine reserve would be better sited at Oteranga Bay, where TransPower's Cook Strait cable comes ashore (see Appendix Eight).

Because fishing was not allowed within a defined radius of the cable it was argued that sea life in this area would have already recovered to equilibrium levels. Accordingly, the area would meet the criteria for a marine reserve.

The applicant subsequently raised the Oteranga Bay proposal with TransPower (owner of the cables), which in a letter dated 10 July 1995 informed the Coalition that it had no objection in principle to the establishment of a marine reserve including Oteranga Bay, but that it had serious reservations about:

- i) Road access to the reserve area, and;
- ii) Security of the cables.

Road access to the reserve area

The road to Oteranga Bay is narrow and has many steep bluffs and blind corners. TransPower considers that it is not suitable for routine public access. Any substantial increase in traffic on the road could lead to accidents or pose a hazard to TransPower staff or contractors. In addition, increased usage will lead to increased maintenance requirements on the gates and road surfaces.

Furthermore, the road is privately owned by the Terawhiti Farming Company. TransPower has rights of access under Section 23 of the Electricity Act 1992, and uses the road on a daily basis. TransPower contributes to the cost of maintaining the road.

Security of the cables

Although Trans Power has no objection to the concept of a Wellington south coast marine reserve, it is concerned more public access could

lead to an increased risk of vandalism and damage to the critically important installations at Oteranga Bay.

For the reasons of public safety and security of New Zealand's electricity supply TransPower would not support opening the private access road from South Makara to Oteranga Bay.

Conclusion

Given the poor roading and the unwillingness of Transpower to provide public access, any application for the establishment of a marine reserve in Oteranga Bay would have difficulty meeting the requirements of Section 3(1) of the Act that requires that the public have freedom of access and entry to a marine reserve. Access problems would also make it difficult to police the reserve, and would hamper any educational and research activities.

4.4.2 BREAKER BAY AREA FROM POINT DORSET TO MOA POINT, INCLUDING BARRETT REEF

The Breaker Bay area, from Point Dorset – Moa Point was proposed as an alternative marine reserve by Mr Richard Cade of the Fishing Industry Board (see Appendix Eight). A similar proposal, made at a meeting of recreational fishers on 14 June 1995, was not endorsed by that group.

The applicant has investigated the possibility of the Point Dorset to Moa Point area being made a marine reserve, and has concluded that this option fails key tests for a marine reserve including:

- At approximately 1.5 nautical miles at its longest length, it is, in the opinion of marine scientists, too small to be sustainable for scientific purposes.
- It does not contain underwater features and marine life represented on other parts of the south coast.
- The main feature (Barrett Reef) is not easily accessible, and is subject to strong winds and tides, increasing the danger to divers.
- The area is close to the main shipping lane in the harbour entrance.

Furthermore, the applicant is aware that customary fishing is undertaken in this area by members of Te Ati Awa. As a result, of all these factors, the applicant has not included this area in its application.

4.5 CURRENT APPLICATION. OWHIRO BAY QUARRY – TE RAEKAIHAU POINT

The current proposal retains the core area, Owhiro Bay Quarry – Te Raekaihau Point, that has been included in each of the discussion documents released thus far. At its maximum, the seaward boundary extends 1.35 nautical miles (2.5 kilometers), slightly further than proposed in 1994 (A), or in 1999 (C). The following points summarise the reasons why the Coalition believes this area is suitable for notification as a marine reserve.

Scientific advice provided to the Coalition states that:

- The area proposed for reserve status is of high scientific interest and includes areas of "underwater scenery, natural features, or marine life, of such distinctive quality, or so typical, or beautiful, or unique, that their continued preservation is in the national interest."

See section 5.1 for a detailed description of the natural features of the area.

- The area proposed for reserve status has been the subject of extensive and prolonged scientific research that has established a corpus of baseline data that will enable excellent comparison with future research in a reserve.

See section 5.1 and Appendix Ten for a description of the scientific research that has been undertaken, and is on-going in the area of the proposed reserve.

- The area proposed for reserve status is large enough to provide sufficient sites of diverse character for on-going scientific research and monitoring, and to minimise disturbance and edge effects. The proposed area includes complete reef systems and extends to a depth that supports a complete ecological system.

Advice and analysis received during the pre-consultation process suggests that:

- The proposed reserve will not interfere unduly with any estate or interest in land in or adjoining the proposed reserve.
- The proposed reserve will not interfere unduly with commercial fishing.

See section 6.4 for further discussion of the effects on commercial fishing.

- The proposed reserve will not interfere unduly with or adversely effect any existing usage of the area for recreational purposes. The affect on recreational fishing and extractive diving will be minimised by the exclusion of the areas Sinclair Head – Quarry, and Lyall Bay from the area of the proposed reserve.

See section 3.2.5 for a description of the process by which the Coalition determined the boundaries described in this application.

- The proposed reserve will not interfere unduly with any existing right of navigation.
- The proposed reserve will not unduly impact on cultural harvest by tangata whenua.

4.6 ISLAND BAY EMBAYMENT

Strong arguments have been made for, and against the inclusion of the Island Bay embayment in the proposed marine reserve. The arguments have been summarised below.

Arguments for including the embayment in the proposed reserve:

- Parts of the embayment have high ecological values. Particularly the reefs near Taputeranga Island, which include an extensive encrusting community on the shallow subtidal areas.
- Island Bay is one of the few areas in the proposed reserve with a shallow sand or gravel substrate. This provides different habitat from that of the reef systems that make up the majority of the reserve. Without some areas of sand / gravel substrate, the reserve as a whole does not reflect the nature of the south coast. Lyall Bay is the other major sandy beach on the south coast, and has been excluded from the proposed reserve following consultation with recreational fishers.
- Excluding Island Bay from the reserve will potentially create a recreational fishing "hotspot" in the middle of the core area of this marine reserve. It will be difficult to police boundaries and manage edge" effects on nearby reefs. The exclusion of Lyall Bay is much easier to manage, given its distinct geographical boundaries to the east and west.
- Local opinion is divided on the issue. In the applicant's 1994 public survey, fifty nine percent

of respondents supported the inclusion of the embayment in the area of the proposed reserve.

- The embayment is the natural heart of the proposed reserve. Excluding *both* Island Bay and Lyall Bay from the proposed reserve removes the two most attractive and accessible points for research, education and tourism.

Arguments against including the embayment in the proposed reserve:

- Island Bay has been the site of a commercial fishing community since the turn of the century. The embayment is a popular spot for recreational fishing, particularly among members of the Island Bay community.
- The potential inclusion of the embayment has caused concern in the local community about the loss of a community focus.
- The inclusion of the embayment was opposed by forty one percent of those responding to the Coalition's 1994 survey.

Including the embayment will affect recreational fishing *in this area*. However, given the values of the area, and the fact that the applicant has agreed to the exclusion of Lyall Bay for recreational use, the Coalition believes that including the embayment will not unduly affect access to recreational fishing on the south coast *as a whole*. Accordingly, we have decided to include the embayment in the reserve proposed in this application.

4.7 JUSTIFICATION FOR ESTABLISHING A MARINE RESERVE

Wellington's south coast is a particularly suitable area for the establishment of a marine reserve. The following section summarises how the application meets the criteria outlined in the Marine Reserves Act, 1971, and other factors which support the establishment of a marine reserve in this area.

4.7.1 THE AREA CONTAINS UNDERWATER SCENERY AND NATURAL FEATURES WORTHY OF PRESERVATION.

The area proposed meets the criteria of section 3(1) of the Marine Reserves Act, 1971, as an area that contains “underwater scenery, natural features, or marine life, of such distinctive quality, or so typical, or beautiful, or unique, that their continued preservation is in the national interest.”

For a full discussion of the natural values of the area, see section 5.1.

4.7.2 THE AREA WILL BE A VALUABLE SITE FOR SCIENTIFIC STUDY

The area proposed fulfills the criteria in Section 3 of the Act that states that the purpose of marine reserves is to protect areas of sea, seabed and inter-tidal zones for “the scientific study of marine life”.

Section 6.2 describes the scientific justification. Current research being undertaken in the area is listed in Appendix Nine. Appendix Ten lists eighty seven post-graduate theses, books and scientific papers that have been written either on, or in relation to the area proposed.

4.7.3 THE AREA IS EASILY ACCESSIBLE TO THE PUBLIC FOR ENJOYMENT AND STUDY

The area proposed fulfills the criteria in Section 3 (d) of the Marine Reserve Act that states that “... the public shall have freedom of access and entry to the reserves, so that they may enjoy in full measure the opportunity to study, observe, and record marine life in its natural habitat.”

The area is adjacent to a city of 156,000 residents, and is easily accessible by private and public transport. The public will therefore have free and easy access to the reserve to study, observe and record marine life in its natural habitat.

The educational opportunities offered by the proposed marine reserve are extensive. The Marine Education Centre (MEC), based at Victoria University’s Island Bay Marine Laboratory, was opened to the public in February 1996, and provides thousands of school students and casual visitors with an opportunity to observe and learn about marine life at close quarters. Section 5.3.2 describes these opportunities in detail.

4.7.4 THERE IS A HIGH LEVEL OF PUBLIC SUPPORT FOR THE PROPOSED RESERVE

There is widespread public support for establishing a marine reserve on the Wellington south coast.

The concept has been endorsed by the Wellington City Council, and by the “Our City Our Future” community consultation project undertaken in 1996. Three surveys of adjacent communities have shown high levels of support.

4.7.5 THE AREA MEETS OTHER LEGISLATIVE CRITERIA

Section 4 (1) of the Marine Reserves Act prohibits the establishment of a marine reserve in any area where a lease or licence has been issued under the Marine Farming Act. No such lease or licence is currently held within the area of the proposed reserve.

Under the Crown Minerals Act 1996 mining activity is banned in marine reserves. No current licences or permits to prospect, explore or mine any mineral resources exist in the area of the proposed reserve.

The applicant acknowledges the existence of major storm-water outfalls at Owhiro Stream, Island Bay and Houghton Bay, and of an emergency wastewater outfall at Owhiro Bay. The applicant acknowledges the current discharge rights held by the Wellington City Council and Anglian Water International (Ltd.) and supports their renewal.

5. Values and Significance of the Proposed Marine Reserve

This section outlines the scientific, natural, cultural and recreational values of the area proposed for a marine reserve. As described below, many of the natural and scientific features of the proposed area are unique and extensive. The features described meet the criteria outlined in Section 3 (1) of the Marine Reserves Act for the establishment of a marine reserve.

5.1 NATURAL AND SCIENTIFIC VALUES OF THE PROPOSED AREA

The natural and scientific values of the proposed reserve are both extensive, and in some cases, unique. The main natural and scientific values of the proposed reserve can be summarised as follows:

- The proposed reserve lies in the confluence of three oceanic water bodies or currents, which bring a richly varied mixture of warm, cold temperate and sub-Antarctic fauna and flora together. This mixture of plants and animals is unique in New Zealand.
- The northern and southern limit of many fish, invertebrate and algal species occur in the waters within which the reserve is proposed. The resulting variety is unusual and worthy of protection.
- The complex topography of the coast, and high energy of the local waters, has created a wide variety of habitats within the relatively small area of the proposed reserve.

In addition to its natural values, the south coast has been the focus of extensive scientific research over the last two to three decades. This research activity has increased in intensity during the last five years, so that several different Wellington-based institutions now are carrying out large-scale and long-term research programmes in the vicinity of the proposed marine reserve.

The unique ecological qualities of the south coast, the extent of the existing research base, and the proximity of scientific institutions mean that the proposed marine reserve has the potential to become one of the most valuable natural laboratories in New Zealand.

5.1.1 WATER MOVEMENT

Water movement around Cook Strait is complex and highly dynamic. For these reasons, and because of the geographic importance of Cook Strait, much is known about the hydrography of the area. On a larger geographic scale (and often from an historical perspective) it has been reviewed by Carter and Heath (1975), Garner (1961, 1962, 1967), Heath (1978b, 1985) and on a more detailed geographic scale it has been reviewed by Ritchie (1970), Heath (1969, 1971, 1978a), and Bowman et al. (1983a & b). Much of this work is summarised in Harris's (1990) excellent book entitled "Greater Cook Strait". The bathymetry of Cook Strait has also been well documented (Brodie, 1966).

Three main currents or bodies of water mix in the area of the proposed reserve. The main flow is called the D'Urville Current that originates in the Tasman Sea. Despite the strong reversing currents in Cook Strait, the overall movement of water is a weak north-west to south-east flow.

The effects of the D'Urville Current are modified by wind conditions and by water moving down the east coast of the North Island – the East Cape Current, which represents the remnants of the East Auckland Current. A gyre or eddy system exists off the Wairarapa–Hawke Bay coast and can also influence the Cook Strait currents in a sporadic manner.

Added to this is the influence of water moving up the east coast of the South Island from the Southland Current that has its origins from the now cooling subtropical/warm temperate water from the Tasman Current.

At a local level the area is subject to swift tidal currents generated by the hydraulic restriction of Cook Strait and the more gentle effects of a cold northward flowing current from the South Island that gives the coastal waters a net westward drift. Tidal movements can reach 3 to 4 knots at some headlands and are generally more than 2 knots at the height of each tidal cycle. Tidal surge however, is relatively small, reaching 1.7 metres during spring tides and 1.0 metres during neap tides. Consequently, the waters of Cook Strait are usually in a continuous state of agitation and mixing due to the effects of the strong winds common to the area.

The combination of these many different factors creates a unique marine environment that is highly dynamic, and this is reflected in the marine biology of the region.

5.1.2 GEOMORPHOLOGY OF HEADLANDS AND INTERTIDAL AREAS

This stretch of coast is rugged. It encompasses a series of steeply sloping greywacke and argillite headlands beyond which the terrain is very rugged with steep hills and narrow gullies. On headlands and in the gullies several protected natural areas exist, including nearby at Red Rocks (an important geological site) and Sinclair Head, which is an important winter haul out site for the New Zealand fur seal.

At the foot of the cliffs there is a variety of coastline types: rocky shores interspersed with steeply sloping beaches of gravel and sand. Offshore reef systems, including small underwater caves, sheer-sided channels and low reefs provide an extensive variety of habitats for fish, invertebrate and algal life.

Facing south, the area feels the full force of swells that arrive uninterrupted from the southern ocean and help to shape the exposed shorelines so predominant to the region. Further offshore, low reefs that are never exposed at low tide stand out from the mainly coarse sand sediments of much of the subtidal area. Winds predominantly from the southeast to southwest contribute to the extreme exposure of the coastline over the winter period. During the winter, storms from the south and southwest have been contributing factors in moulding the coast into its present rugged and interesting form. Winds from the north and northwest from spring through autumn create mainly calm nearshore conditions during the warmer months of the year. This results in inshore water cycling, creating a nutrient upwelling effect that enhances the growth of marine life.

5.1.3 MARINE HABITAT TYPES

As described above, the topography of the coast is complex with a large amount of variety within and among habitats dispersed over a relatively small area. As a consequence, Wellington's south coast supports one of the most diverse assemblages of

marine plants and animals in New Zealand. A brief and general description of these shores at Island Bay is provided by Morton and Miller on page 295 in their classic book "The New Zealand Sea Shore". Information regarding substrate types along Wellington's south coast is summarised in map form by Arron and Lewis (1993).

Typically, the region is principally composed of a well developed greywacke reef system which extends from the top of the intertidal region out to depths greater than 30 metres. In places, for example at The Sirens Rocks in front of the Island Bay Marine Laboratory, the reef system runs parallel to the shore and offshore parts of the reef take the brunt of wave energy from the south. This creates a more sheltered reef system closer to shore so that the region as a whole is composed of a mosaic of highly exposed and relatively sheltered reef systems.

In other regions of intermediate wave energy, cobble or pebble beaches can be found to the west of Owhiro Bay along the old quarry road, and at Houghton Bay.

In regions of lower wave energy, such as parts of Owhiro Bay, Island Bay and Houghton Bay, reasonably large sandy beaches have developed. This sand is often inter-digitated with the greywacke reef and can extend offshore for quite some distance.

The biological communities of the area reflect the exposed nature of the coast and are representative of those found at many sites along the South Wellington coast. A wide range of substrates and habitats exist, from fine sand to gravel, boulders and solid rock, a fact that is reflected in the often diverse nature of the biological communities found along this shore.

5.1.4 SEaweeds (MACROALGAE)

The area is perhaps the nation's richest with regard to diversity of large macroalgal species (seaweed life), with almost half of all known macroalgal species in New Zealand occurring along this coastline. Not surprisingly, many seaweed species are the subject of ongoing research projects. Typical of the south coast are the many turf-like species of red algae (Rhodophyta), and the extensive 'forests' of macroalgae. Of special importance are the areas

of dense beds of brown kelps (Phaeophyta) composed of species such as *Ecklonia radiata*, *Lessonia variegata* and *Durvillea Antarctica*.

Algal cover is rich and varied, but best developed in the subtidal region with the brown algae *Carpophyllum maschalocarpum*, *Lessonia variegata*, *Ecklonia radiata* and small colonies of *Durvillea antarctica* dominating. *Lessonia variegata* forms a continuous belt in a manner rarely seen in the North Island because, typically, the bull kelp *Durvillea antarctica* dominates the shallow subtidal region throughout most of New Zealand, but in the Cook Strait area *Lessonia* and *Ecklonia* are dominant, and *Durvillea* is often patchy in its distribution. The low intertidal region is characterised by a relatively large number of green (Chlorophyta) algae (Morton and Miller (1968) describe this as “lavish” representation), a situation that is most unusual in New Zealand. Genera include *Ulva* (the sea lettuce), *Enteromorpha* (sea “grass”), *Codium*, *Letterstedtia*, *Caulerpa*, and *Chaetomorpha*.

The algae themselves act as important habitats for associated animals. For example, Hicks (1970) has recorded individuals of almost every single major animal group to be intimately associated with the red coralline alga *Corallina officinalis* that is abundant along much of Wellington’s south coast.

Algal species in the Cook Strait that are at the extremes of their distributional limits include the strap-weed *Marginariella urvilleana*, the oak-leaf weed *Landsburgia quercifolia*, and *Desmarestia firma*.

At least 100 different species of algae have been recorded from the Wellington south coast region. Ongoing research conducted by staff from Victoria University of Wellington and Te Papa Tongarewa (The National Museum of NZ) is helping to document further the occurrence and seasonal patterns of abundance of many of these different species. Given its high level of algal species richness, this area is of prime scientific interest and is receiving considerable research attention as a consequence.

5.1.5 INVERTEBRATES

Under rocks, in crevices, and in places with relative shelter, the intertidal and shallow subtidal invertebrate fauna (animals with soft bodies and without backbones) is rich and extremely varied. The influence of three major oceanic currents means that the fauna represented on the coasts has affinities with warm and cool temperate species as well as sub-Antarctic species (see Battershill, 1993). Made up of many species at the northern extent of their southern distribution and at the southern extent of their northern geographical ranges, this is a unique coastline.

Sandy shores such as Lyall Bay, Houghton Bay and Island Bay are characterised by many animals (particularly shellfish and polychaete worms) that live in the sediment. These are important sources of food for fish such as gurnard and many flatfish species. The boulders and rocks of the reef system provide excellent habitat for a wide variety of encrusting or sessile animal communities that are well represented on the south coast. Subtidal reefs, especially to the east of Taputeranga Island and in the vicinity of Houghton Bay, are seasonally very important as nursery areas for the juvenile rock lobster that occur there in considerable numbers over the summer and autumn months.

The region is characterised by extremely well-developed encrusting communities of animals such as sponges, ascidians, hydroids and tunicates. Areas where such communities exist include the south side of the reef complex of Taputeranga island and along The Sirens Rocks at Island Bay.

Numerous examples of uncommon or unique occurrences of soft-bodied animal species exist for the south coast region. For example, the only place on the south coast where brachiopods occur is near Windy Point, Owhiro Bay, where three species of this unusual and ancient animal can be found. The south coast is also the only location in New Zealand where an unusual jellyfish, the cubomedusoid *Carybdea sivickisi* (Stiasny, 1926) has been recorded. Island Bay is also home to unique molluscs, including a primitive worm-like species *Proreomenia quincarinata* (Ponder, 1970) known by only two specimens (one from Island Bay and the other from the Chatham Islands). It is also home to the greenish limpet, *Montfortula chathamensis* (Finlay,

1928), which is occasionally found on intertidal rocks at the harbour approaches and is otherwise known only from Kaikoura and the Chatham Islands, and also the maggot-like mollusc *Smeagol dimoi* (Tillier and Ponder, 1992), which is known only from intertidal gravel near Houghton Bay.

Better known species such as paua, kina and rock lobster, populate most of the rocky reef system. These “key indicator species” have been the focus of research to establish their distributions (often patchy), abundances and sizes at sites along the south coast because their numbers and mean sizes are expected to increase with reservation status. Surveys of invertebrate abundance and/or size have been conducted by Cole and Jackson (1989) and by Gardner et al. (1998). Surveys of the region are presently being conducted by two separate teams, one from the Island Bay Marine Laboratory, Victoria University of Wellington, the other from NIWA Wellington (see subsequent section for more detail).

At the top of the intertidal region, the two Littorinid gastropods *Littorina cincta* and *Littorina unifasciata* are found together in roughly equal proportions, which happens nowhere else in New Zealand. We also find present a wide variety of limpets of the genus *Cellana*, including *C. ornata*, *C. radians*, *C. denticulata* and *C. stellifera*.

The coastal waters of this area contain a low quantity and quality of particulate material food that is the food for many different suspension-feeding organisms such as barnacles and mussels. This situation results in the almost complete absence of suspension-feeding mussels (greenshell, *Perna canaliculus*; blue, *Mytilus galloprovincialis*; ribbed, *Aulacomya maoriana*; little black, *Xenostrobus pulex*) from Cook Strait waters, and in particular from the

region of the proposed marine reserve (Gardner 2000). This makes the Cook Strait region most unusual by world standards as mussels are a dominant component of temperate hard-shore communities.

A number of invertebrate species found along the Wellington south coast are of current interest to medical science as they produce anti-tumour or anti-viral compounds (Munro et al., 1993). (See table below). Of significant interest are:

At least two sponge and ascidian (sea squirt) species are found here and nowhere else. The latter three species mentioned are found in the greatest density on the Wellington south coast compared to anywhere else in New Zealand. The populations of these species represent an extremely important genetic resource in New Zealand and internationally.

5.1.6 FISH

The fish fauna of the Wellington south coast comprises species with both northern and southern distributions, with a relatively high species diversity and abundance. Spotties, butterfish and blue cod are the most abundant reef-associated species around the coast. The extensive reefs offer ideal habitats for several commercially important species in particular butterfish, blue moki, blue cod, tarakihi and warehou. Subtidal reefs around Taputeranga Island are important butterfish breeding grounds.

A total of 187 fish species from 87 different families are recorded in the collections of Te Papa Tongarewa, The National Museum, from Wellington Harbour and the south coast. Of these, 80.2% are widespread, 7.0% are southern species extending their distributions into warmer northern

SPECIES	GROUP	SIGNIFICANCE
<i>Camia henstcheli</i>	Porifera (sponge)	Contains anti-tumour active compounds nearing clinical trials in the U.S. Uncommon.
<i>Latrunculia sp. (brevis)</i>	Porifera	Contains anti-tumour active compounds. Rare.
<i>Haliclona kaikoura</i>	Porifera	Contains anti-tumour active compounds. Rare.
<i>Amathia wilsoni</i>	Byrozoa	Contains anti-tumour active compounds. Rare.

waters, and 12.8% are northern species at the southern limits of their distributions.

Fish species targeted by recreational/commercial fishers are expected to increase in numbers and/or average size when protected within a marine reserve of significant size. This has occurred in other marine reserves – blue cod at Long Island, butterfish at Kapiti Island, and snapper at Cape Rodney – Okakari Point (Leigh).

Other fishes which occur at high abundance and/or are of significant ecological importance include the triple fins (22 different species are recorded along the south coast) and the wrasses (e.g., spotties, banded, girdled, scarlet).

5.1.7 SCIENTIFIC SURVEYS OF THE REGION

Two surveys have been carried out since 1989, and two surveys are presently ongoing, to assess the status (distribution, abundance, size) of key indicator species along the south coast. These surveys form the basis of some of the most detailed information available anywhere in the world regarding the status of biological communities before a marine reserve is established. These baseline data have been gathered for the specific purpose of permitting a statistically meaningful comparison to be made with similar data collected at different times if the proposed marine reserve is established.

Survey # 1: Cole and Jackson (1989) surveyed the abundance and sizes of paua (2 species not differentiated), kina and 8 reef fish species (marblefish, red moki, blue moki, spotties, banded wrasse, scarlet wrasses, butterfish, blue cod) at 10 sites from Red Rocks to Houghton Bay in August 1989.

Survey # 2: A team of 10 UK RAF divers working with Dr J. Gardner of the Island Bay Marine Laboratory surveyed the abundance and sizes of 2 species of paua, kina, rock lobster and 8 reef fish (marblefish, red moki, blue moki, spotties, banded wrasse, scarlet wrasses, butterfish, blue cod) at 10 sites (same sites as Cole and Jackson) during March/April 1998. This same team of divers is scheduled to return to Island Bay in March/April 2001 to carry out another survey.

Survey # 3: Scientists from NIWA Wellington have surveyed rock lobsters, paua, kina, blue cod, red moki, blue moki, butterfish, and tarakihi at 8 sites (Owhiro Bay to Pencarrow Head) in February of each year since 1998. This work is scheduled to continue until the February 2001 survey is completed.

Survey # 4: Staff and students from the Island Bay Marine Laboratory, Victoria University of Wellington, have monitored 5 algal species, 4 invertebrate species (2 paua, kina, rock lobster) and 15 reef fish (spotties, scarlet wrasse, banded wrasse, trevally, red moki, blue moki, butterfish, blue cod, tarakihi, sweep, leatherjacket, yellow eyed mullet, marblefish, jack mackerel, kahawai) at 8 sites (Sinclair Head to Barrett Reef). This research was initiated in February 1998 and will finish in early 2001. Surveys have typically been carried out at 2-monthly intervals. When complete, this data set will represent the most complete record of the status of the marine community of Wellington's south coast, covering a 3 year period and being composed of approx. 15 separate surveys. If a Marine Reserve is established along this coast, follow-up surveys will be carried out to determine how reservation status has effected the distributions, sizes and abundances of these plant and animal species.

5.1.8 TAPUTERANGA ISLAND

Although it does not form a legal part of the proposed marine reserve, Taputeranga Island (3.2 hectares), close inshore opposite Island Bay, cannot be separated from the coastal assemblage that makes up the area.

The island is a central stack some 15 metres high surrounded by an extensive shore platform. Shingle beaches have developed on this platform, particularly on the northern side of the island. A narrow channel separates the main island from a flat rocky reef or islet. An extensive encrusting community exists on the shallow subtidal areas on the south side of the island.

Vegetation covers about two-thirds of the island and consists of grassland, small patches of taupata or *Coprosma propinqua* – small leaved pohuehue scrubland and coastal cliff vegetation dominated

by mountain flax. The Island is a natural refuge for both terrestrial and marine ecosystems proving many nesting sites for marine birds.

The island is home to one of the best examples of saltmarsh in the Wellington region. Two native species of saltmarsh plant are of particular importance. Seablite (*Sueda nova zealandia*), while common on the island, is not found elsewhere in the region, and *Crassula (Tillea) moschata* is rare around Wellington. Taputeranga also supports the largest island population of *Melicytus (Hymenanthera) cf. obovata*, a coastal shrub rarely found north of Cook Strait.

The island is owned by the Wellington City Council and is zoned as a Scenic Reserve. It is identified by the Wellington Regional Council in its Regional Coastal Plan as an area of Important Conservation Value. The plan describes Taputeranga Island as an “outstanding natural and landscape feature with regionally significant flora and fauna” (page 236). It also notes that the island is of cultural importance to tangata whenua.

5.2 CULTURAL VALUES

5.2.1 MAORI HISTORICAL/CULTURAL VALUES

The Maori history of occupation of the Wellington area is complex.

Prior to the nineteenth century the Maori people of Wellington were a mixture of successive generations of independent, but related tribes. McLean’s summary of this population is that “names may have changed over time but essentially the people were the same: first Ngai Tara, who became Rangitane, who then became Ngati Ira and Kahungunu”³.

Ngai Tara, (descendants of Whatonga, captain of the voyaging canoe Kurahaupo) were originally from the Hawkes Bay. Rangitane were descendants of a grandson of Whatonga, Tautoki. Ngati Ira and Ngati Kahungunu were also from the Gisborne / Hawkes Bay area.

³ McLean Papers, quoted in “A Guide to New Zealand’s Marine Recreational Fishing Rules – Central Fisheries Management Area”, Ministry of Fisheries, 2000.

Dr Angela Ballara, writing in Hamer and Nicholls *The Making of Wellington 1800 – 1914* summarises the situation prior to 1820 as follows:

“The people who occupied the harbour around 1800 were the descendants of tribal groups which had been relatively undisturbed for several generations. Confusion concerning their identity has resulted in their being called, at different times, Ngati Ira, Ngati Hahungunu and even Ngai Tahu. ...

During the first two decades of the 19th century the west side of Te Whanganui-a-Tara (Thorndon to Ngauranga) was deserted. Te Motu Kairangi, or Mirimar Peninsular, Paekawakawa or inland Island Bay, and southern areas between had been deserted after battles in the lifetime of the chief Kainga-kiore, who was of mixed Ngati Ira and Ngati Kahukura-awhitia descent, and lived about five generations before this period. Ngati Ira were settled along the eastern shores from Waiwhetu to Turakirae. Pa of refuge existed on Matiu (Somes Island), Makoro (Ward Island) - where there was no construction, the island itself serving as a refuge - on Tapu-te-Ranga, and at Hakoiwi, a pa in the area from Orongorongo to Turakirae.”⁴

Ballara’s description⁵ of the pre-1820s settlement patterns around Wellington suggests that the area adjacent to the proposed marine reserve had not been the site of permanent settlement for up to five generations.

In 1819 – 1820 a large war party (tauu) led by Nga Puhī, but including Ngati Toa from Kawhia in the Waikato, and Taranaki tribes Ngati Tama, Ngati Mutunga and Te Ati Awa undertook a raid on Te Whanganui-a-Tara (the great harbour of Tara - named after the first son of Whatonga). Ngati Ira, armed with traditional weapons, were overwhelmed by the Tauu, armed with muskets. Before returning north, different tribes of the Tauu spoke of returning to occupy Wellington after seeing European sailing ships passing through Cook Strait.

⁴ Angela Ballara. Te Whanganui-a-Tara: phases of Maori occupation of Wellington Harbour c. 1800 - 1840, in Hamer, David and Nicholls, Roberta *The Making of Wellington 1800 – 1914*, pp 12 – 15.

⁵ Ballara’s account was described by Dr Alan Ward as “the most authoritative account, in my view, of the pre-1820 occupancy.” Ward, “Maori Customary Interests in the Port Nicholson District, 1820s to 1840s: An Overview. Report to the Waitangi Tribunal, 1998” p 12.

In 1821 Te Rauparaha, a Ngati Toa chief led his people, and some allied contingents of Ngati Tama, Ngati Mutunga and Te Ati Awa back to Te Whanganui-a-Tara. After battles with Rangitane, Ngati Toa established themselves on the Kapiti Coast and the majority of the northern Taranaki people returned home. However, sections of Ngati Tama, Ngati Mutunga and Te Ati Awa soon returned along with a large group of Ngati Raukawa of Waikato. This migration, known as Ni'o Puta (1824), led by the chiefs Pomare, Patukawenga, Te Puo'o Ngatata and others, resulted in the occupation of Te Whanganui-a-Tara by the north Taranaki tribes. Within a few years the remaining Ngati Ira were driven back into the Wairarapa where they sought refuge with Kahungunu and Rangitane kin. The last Ngati Ira settlement, at the pa on Tapu-te-Ranga Island, was destroyed in a battle with Ngati Mutunga in 1827.

In the late 1820s pressure from Waikato tribes that were increasingly arming with muskets caused other Taranaki people to heke (migrate) south to Te Whanganui-a-Tara. Following the Ni'o Puta heke came the W'irinui (1828), Tama Te Uaua (1832), Paukena (1833) and 'au'aua (1834), led by the chiefs Te Puni, Te W'arepouri, Wi Tako Ngatata, Te Kaeaea, Te Rangitake and others. Ballara considers that as many as 2000 individuals were involved in the Tama Te Uaua heke. By the time of the signing of the Treaty of Waitangi (1840) and the arrival of the first European settlers to Wellington, the Ngati Toa and Taranaki tribes had successfully displaced Ngati Ira, and had become the Tangata Whenua of Porirua and Te Whanganui-a-Tara respectively.

In Te Whanganui-a-Tara, Te Ati Awa and their Taranaki kin had extended their occupation from their primary marae at Waiwhetu in the Hutt Valley, across the harbour to south Wellington. This extension occurred in November 1835 with the departure of Ngati Mutunga to the Chatham Islands.

*"The chiefs of Ngati Mutunga, during a meeting on Matiu, made over their lands by formal 'panui' (announcement) from Pito-one to Ngauranga (north east side) to their Te Ati Awa kinsman Te Matangi, later baptised Rawiri, and to his son Te Manihera Te Toru; these two cousins of Te Puni and Te Wharepouri had been living with Ngati Mutunga since 1832."*⁶

⁶Ballara, *ibid*, p 28.

Similarly, the lands in south Wellington from Waitangi (Basin Reserve) and Te Aro to Ngauranga (south west side), were made over to Ngati Haumia and Ngati Tupaia of the Taranaki tribe.

The settlement patterns of 1836 were essentially unchanged in August 1839 when the New Zealand Company ship Tory arrived in Te Whanganui-a-Tara. Subsequently, Te Wharepouri and Te Puni sold Te Whanganui-a-Tara to the New Zealand company. The events surrounding this sale were almost immediately the basis of disputes between (and among) Maori and European that persist to this day.

South Coast Settlement

There is little information about settlement along the southern coastline. According to Ballard, for at least five generations prior to 1820 there had not been significant permanent settlement on the south coast. Pa or kainga (settlements) did exist along the coast, and were probably temporary habitations used while gathering seasonal kai (food). The following is a list of known settlements close to the area proposed for a marine reserve.

- Rangitatau Pa was located on the headland above Tarakena Bay, close to Palmer Head on the Mirimar Peninsular. Nearby was a fortified settlement called Poito. Both Poito and Rangitatau were destroyed during the taua of 1819-20, with up to 50 being killed.
- A pa was located at Te Kopahau, west of Owhiro Bay, but was destroyed in 1819-20.
- Prior to the taua of 1819 - 1820 Ngai Tara or Ngati Ira occupied Uruhau Pa, located at Melbourne Rd, Island Bay Hill.
- Tapu-Te-Ranga Island was the site of a small pa, inhabited by Ngati Ira. It was destroyed by Ngati Mutunga in 1827.

5.2.2 EUROPEAN HISTORICAL VALUES

Around the turn of the Twentieth Century, the Island Bay – South Coast area was sparsely settled and rugged. In a brief history of the fishing community, Emmanuel Makarios describes Island Bay as “fairly bleak, windswept and marshy, particularly on the floor of the valley” . To begin with Wellington’s fishermen were predominantly Italians and Shetland Islanders. The influence of these fishermen and their families on the area has been substantial. They formed close-knit communities, many of whose descendants still live in the area.

Until the 1920s the Wellington fishing community was primarily based in Eastbourne, with a smaller community in Island Bay. According to Makarios, during the 1920s the growing size of the Island Bay community, its proximity to fishing grounds in Cook Strait and its better protection from north-west winds led fishermen to shift their base from Eastbourne to Island Bay. By the 1930s the Bay had become overcrowded with boats, up to 30 mooring there at any one time, forcing some to moor near the beach.

During the Second World War many in the Italian community were regarded as enemy aliens, and some were interned on Matiu / Somes Island. The size of the Island Bay fleet increased from mid-1940 as all boats, including those owned by Italians, had to be inspected at the Bay.

During these times the main methods of fishing were with lines, nets and craypots, with butterfish, moki and warehou being the main species caught. Until the 1950s crayfish was not in demand, and was often dumped. However, from the 1950s the development of the American market led to crayfish becoming an important species.

In 1996, the number of boats mooring in the bay was estimated at 10 – 12, and at the time of application, only two to three boats are regularly moored in the embayment. Most boats now moor in the inner harbour, closer to servicing facilities.

⁷Material in this section is taken from, Emmanuel Makarios, Pioneer Fishermen of Island Bay, Seafood New Zealand, February – March 1996.

The other major industry along this area of coast was the Owhiro Bay Quarry. This facility served the construction and road building industry of Wellington for many years before closing in 1999. Its closure, following purchase by Wellington City Council, will result in the rehabilitation and opening up of the area. Access to Sinclair Head / Red Rocks had long been restricted by the Quarry’s operations. It is expected that recreational and fishing activity in the Sinclair Head - Red Rocks area will significantly increase.

While they retain an individual character because of their history and location, Island Bay and its adjacent suburbs are now dormitory suburbs for Wellington City. Excellent public transport, and its proximity to a major urban area, means that Island Bay is a popular weekend and holiday destination. In recent years Wellington City Council has recognised the increasing pressure on the area, and in early 2000 called for submissions on a South Coast Strategy designed to manage increasing visitor and resident pressures.

5.3 RECREATIONAL VALUES

Wellington’s south coast is a highly used recreational area. Results of the applicant’s user surveys (section 3.2.3) show that a large number of residents and visitors use the coast for a wide range of passive and active recreational activities, including:

- walking
- surfing, biking
- observing rockpools
- fishing
- sunbathing
- running
- snorkelling
- wave skiing
- surf rescue
- wind-surfing
- sitting in the car
- playing
- sitting
- picnicing
- beach-combing
- diving
- boating
- boogie boarding
- motor-biking
- swimming

Most of these activities will not impact on the marine reserve. However, this survey does show the high value that local residents and Wellingtonians place on their coastline. The applicant’s consultation surveys have also shown that a large majority of local residents support the concept of a marine reserve on the south coast.

5.3.1 RECREATIONAL FISHING

The extractive recreational activity that will be most affected by the establishment of a marine reserve is recreational fishing. Recreational fishers value the south coast for its ease of access and good fishing spots.

It is difficult to estimate the number of recreational fishers who use the south coast area. A consultation meeting held in Island Bay in 1995 attracted approximately 35 recreational fishers. The coastal user survey, undertaken in October – November 1995 identified 45 recreational fishers from a sample of 1507 users. It is likely that a great many other casual fishers use the coast on an occasional basis. The applicants have based its remarks on information gathered at meetings with recreational fishers, and a series of surveys of coastal usage.

According to local fishers, the quality of recreational and commercial fishing on the south coast has decreased within living memory. The Boat User Survey, undertaken in November 1996 - January 1997 found that 50 per cent of those surveyed felt that the abundance of marine life was decreasing. In a Dominion feature published on March 16th 1999, Nunzio de Gregorio, an Island Bay fisherman of 25 years experience stated that “Twenty years ago we’d go down to the beach to collect pipis and seasnails and you could catch herrings in the bay, but not anymore.”

According to a meeting of recreational fishers, surfcasting is most common in Island Bay, Houghton Bay and Lyall Bay. Quite a lot of fishing is done off Lyall Bay and the Airport Runway Breakwater was also identified as a popular site for fishing. It has also been noted that the breakwater is the only site where disabled and older people could gain easy access to fishing sites⁸. Lyall Bay, and the breakwater are excluded from the proposed reserve.

The closure of the Owhiro Bay Quarry, on the immediate western boundary of the reserve, has greatly improved access to this area, and its

⁸The applicants note that Wellington International Airport Ltd. discourages fishers using the breakwater because of safety issues. The identification of the breakwater as a popular recreational fishing site was made by recreational fishers.

beaches. The Wellington City Council plans to restore the area, further increasing its attractiveness. This area has the potential to accommodate increased recreational fishing. Anecdotal reports indicate that in the short time since closure (in early 2000) increasing numbers of residents and visitors are making use of this area, and areas to the west beyond Red Rocks.

The Boat User Survey found that the most favoured areas for fishing from boats would not be greatly affected by the boundaries of the proposed reserve. The area from Red Rocks to the West was the most popular area for boat-based fishing and diving. This area will be excluded from the proposed reserve.

Of the boat users surveyed, 85 per cent said they also used other areas for recreational fishing and diving, primarily the Kapiti - Mana coast, and Makara. Of the boaties surveyed, 52 percent said that the creation of a marine reserve would have no effect on or would enhance their use of the coast.

5.3.2 EDUCATIONAL VALUES

The educational opportunities offered by the proposed marine reserve are extensive. The location of the reserve, adjacent to a large urban area, means it is easily accessible to the students and staff of many schools and tertiary institutions. Facilities already exist to provide educational opportunities, and the creation of a reserve will only increase the potential use of the area.

The Marine Education Centre, based at Victoria University’s Island Bay Marine Laboratory, was opened to the public in February 1996, and provides thousands of school students and casual visitors with an opportunity to observe and learn about marine life at close quarters.

The primary objective of the Marine Education Centre is to promote interest in, increase knowledge and understanding of, and encourage protection, enhancement, and enjoyment of Wellington’s marine environment through public education programmes, live displays, and community initiated research and service projects.

Since it opened to the public in February 1996, more than 20,000 school-aged children have had

the opportunity to participate in the Centre's one and a half hour school programmes. In addition, over 20,000 pre-school children and adults from social and service groups have booked into the Centre's one hour general programme. The Centre also hosts a monthly open weekend that attracts between 500 to 1,000 visitors.

In early 2000 the Directors of the Marine Education Centre proposed the establishment of a purpose built aquarium and education centre on reserve land at Te Raekaihau Point, at the Eastern end of the proposed reserve. If built, this facility would compliment the proposed reserve, and serve as a focus for interpretation and education about the area.

6. Implications for Current Uses and Users, and Other Groups

6.1 TANGATA WHENUA

The Customary Fisheries Committee of Te Ati Awa has not raised any concerns about the proposed area interfering with customary fishing.

6.2 IMPLICATIONS FOR SCIENTIFIC RESEARCH

The establishment of a marine reserve on Wellington's south coast would create an important opportunity for scientific research of our coastal marine environment. The area has been the site of scientific investigation for at least 30 years. As such, it is an established natural laboratory and source of material for the many scientific institutions and research facilities in the Wellington area. The applicants have been able to identify eighty seven post-graduate theses, books or scientific papers that have been written on the area (Appendix Ten), and significant research is currently under way (Appendix Nine).

Within a few kilometres of the proposed reserve is a cluster of scientific institutions engaged in marine research. These include NIWA's Greta Point facility, Te Papa, the Victoria University Marine Laboratory and the Department of Conservation's Science and Research Unit. Many of these institutions are already engaged in research near to, or within, the proposed boundaries. The establishment of a marine reserve will stimulate research activity, and improve the value of research.

The significant body of existing research, together with the current research programme forms a baseline of scientific material that will enable an important programme, of comparative research to be undertaken following the establishment of a reserve. The presence of this baseline information is unique in marine conservation, and makes the establishment of this reserve an important opportunity to increase our knowledge of human impact on our marine environment.

The proximity of the proposed reserve to Wellington City also makes it an important natural



laboratory to study the impact of urban areas on the marine environment.

6.2.1 VICTORIA UNIVERSITY MARINE LABORATORY

The presence of the Victoria University Marine Laboratory at Island Bay provides a major focus for marine research and education. The staff and students of this facility are already engaged in several long term research projects in the area of the proposed marine reserve. They are also contracted with the Department of Conservation to undertake a three year project monitoring the marine life around the Wellington Peninsula, and Kapiti Coast.

Experience over two decades at the Cape Rodney – Okakari Point (Leigh) Marine Reserve shows that setting up a reserve near a marine laboratory for scientific purposes can have positive spinoffs. Since its establishment, the Leigh laboratory has generated an important body of marine research and secured a formidable international reputation. An example of this research is the discovery that rock lobster densities have increased 25 fold within the marine reserve, compared to outside, in less than three decades. We can expect findings of similar importance (but not necessarily magnitude) to come from the proposed marine reserve for a variety of species, both algal and faunal.

Another important advantage of the south coast is its location on the fringes of a major metropolitan centre. This offers ready accessibility to public transport and other facilities in all weathers. Students would have opportunities to come to Wellington and study, providing benefits to the local and national scientific community.

The rocky foreshore region of Owhiro Bay is one site already used by third year and graduate marine ecology students for teaching purposes. Much of the south coast region is also used for teaching by the Geography and Geology departments of the University.

Graduate student research projects (Honours and Masters in particular) have long been carried out in the south coast region, with a number of papers published. In Biology, projects range from ecology to population and evolutionary genetics. Two examples following the closure of the Owhiro Bay

sewage outfall pipe are the investigations of rocky intertidal community dynamics and studies of tide pool floral and faunal abundances and distributions. Similarly, research involving the departments of Geography and Geology is widespread along this coastline.

Faculty research projects are also carried out in the same region. One study, for example, involves investigating the impact of relatively severe wave action on rocky intertidal community structure at Island Bay, as part of a research project focusing on the marine community in the Cook Strait area.

6.2.2 SUPPORT OF VICTORIA UNIVERSITY OF WELLINGTON

On October 21st 1997 the Vice-Chancellor of Victoria University, Les Holbrow, wrote to the South Coast Marine Reserve Coalition supporting the proposed reserve. He stated that:

Victoria University of Wellington has a fundamental interest in the development of a Marine Reserve in the Wellington region for its value to the University and the general community as an educational and research resource. ...

Over the years our staff and students have become increasingly concerned at the obvious degradation of the south coast marine environment and they recognise the need for this region to be actively conserved and protected against any further decline in quality. The University has an established profile in terrestrial conservation and is willing to commit to extending its activities to the marine environment.

For these reasons the University is pleased to support your initiative to protect this sometimes wild but always beautiful local amenity.

6.3 FISHING

Section 5 (6) (d) of the Marine Reserve Act states that the Minister shall uphold objections if a marine reserve would “Interfere unduly with or adversely affect any existing usage of the area for recreational purposes.”

Recreational fishers are the largest group of users who will be affected by the proposed marine reserve. Following extensive consultation, the application proposes boundaries that will not unduly affect recreational fishing in the area.

In reaching the proposed boundaries, the Coalition has undertaken extensive consultation with representatives of recreational fishing groups, and with individuals engaged in recreational fishing for the following purposes:

- To learn of the concerns of recreational fishers regarding the proposed reserve.
- To obtain “local knowledge” regarding areas of high use, and particular value to recreational fishers.
- To encourage participation in development of the marine reserve proposal.

Information and assistance gained during this process has enabled the Coalition to adjust the proposed boundaries in order to meet the main concerns of recreational fishers, without compromising the scientific value of the proposed reserve. As a result, the Coalition believes it has identified and met many of the concerns identified.

The concerns the Coalition has identified regarding recreational fishing and the proposed marine reserve are outlined in points 6.3.1 – 6.3.4.

6.3.1 CONCERNS ABOUT GENERAL LOSS OF ACCESS TO THE COAST

Early proposals (A) and (B) would have seen a marine reserve extend along most of the easily accessible south coast, severely restricting access for recreational fishing.

Feedback from recreational fishers has led the applicants to reconsider its initial proposals, and agree as a matter of principle that there should be reasonable access to the south coast for recreational fishing. Accordingly, the applicants have sought input from recreational fishers to identify popular fishing areas, and areas that are regarded as traditional recreational spots. The map attached in Appendix Seven identifies these areas.

As a result of this consultation, this application excludes one of the most popular coastal and boat fishing areas on this stretch of coast – Lyall Bay, including the reefs at Moa Point and Te Raekaihau. The Coalition has also excluded most of the area from Sinclair Head to the Quarry from the proposal because this is a popular diving and boat fishing area. We also expect it to become a popular

surf-casting area, following the closure of the Owhiro Bay Quarry.

The applicant recognises that this proposal will reduce access to the coast for recreational fishing, and that some individuals may lose access to personally preferred fishing spots. However, we believe that the proposed boundaries are a fair and reasonable compromise, that maintain access to the coast for recreational purposes, while reserving an area of outstanding scientific value.

6.3.2 WELLINGTON RECREATIONAL MARINE FISHERS’ ASSOCIATION SURVEY OF PUBLIC ATTITUDES

In early 1997 the Wellington Recreational Marine Fishers’ Association (WRMFA) undertook a survey of public attitudes towards a marine reserve on the south coast. The survey was undertaken using a public advertisement placed in seven community newspapers that together covered the Wellington and Hutt Valley urban areas.

Between 1995 and 1997 the WRMFA also surveyed its members about the proposed reserve. As these surveys were not public they have not been considered in this analysis.

Response Rate

Ninety eight people responded to the public advertisement. As the WRMFA noted in its covering newsletter “the number of respondents were low”. Also, it is not clear from the published results how many respondents were also members of the WRMFA. Therefore, the applicants do not believe that this survey can be accepted as a true reflection of public opinion. Furthermore, it is the view of the applicants that the low response to a widely circulated public advertisement placed by a group that was publicly opposed to the proposal suggests a low level of opposition to the proposed reserve.

Results

Respondents to the survey were generally opposed to the proposed marine reserve (proposal B). Sixty eight respondents (69 per cent) were opposed to the proposed area, and 30 (31 per cent) supportive.

6.3.3 ISLAND BAY EMBAYMENT

The establishment of a marine reserve on the south coast will restrict recreational fishing in some areas. Undoubtedly, some individuals may lose preferred fishing spots. This issue is particularly acute in Island Bay. Section 4.6 addresses the Island Bay issue.

6.3.4 SAFETY ISSUES

A number of recreational boaties and fishers were concerned that the establishment of a marine reserve in the area Sinclair Head – Te Raikaihau, would force recreational users to the waters west of Sinclair Head. There were also concerns that some boat fishers and divers would be forced east, towards the main harbour channel. The argument was made that these waters are more dangerous, and therefore the marine reserve would endanger lives.

The applicant makes the following points about these concerns:

- These concerns were expressed regarding the boundaries proposed in 1994 and 1996. The current proposal excludes most of the area Sinclair Head – Quarry, and the area of Lyall Bay. Both are popular boat fishing areas. The exclusion of these areas will reduce the displacement of boating and diving activities.
- Wellington Harbour Master, Captain Michael Pryce, does not foresee any significant safety issues arising from the boundaries proposed in 1999 (C). The current proposal is a subset of that proposal – with a deeper seaward boundary.
- The establishment of a marine reserve does not change the responsibility of fishers or divers for making safety decisions regarding weather and sea conditions.
- Cam Tremworth of the NZ Police noted that nowhere on the south coast is “safe” for recreational boating or diving. The police noted that boaties fish extensively outside the proposed boundaries of the reserve, both to the south and west.
- The Boat User survey undertaken by the applicant in November 1996 – January 1997 revealed that only two of 23 boaties interviewed did not already use the area to the west of Sinclair Head.

In a letter of 10 January 1997, Catriona McBean of the NZ Water Safety Council provided the following information regarding drownings in the Wellington Region.

“Analysis of DrownBase, the official drowning database of the New Zealand Water Safety Council, indicates that 62 people have drowned on the coast or within 5 km of shore in the Wellington Region (Kapiti south) since 1980. Of these 62 who have drowned, 14 or 23 percent, have drowned on the south coast. On average, nearly 4 people drown per year in Wellington’s coastal waters, and almost 1 per year is along the south coast.

A breakdown of these 14 indicates that 6 were underwater activities (scuba and snorkelling), 1 swimming, 3 boating, and 4 immersion accidents. Of particular interest to the issue of safety of users of the proposed marine reserve are the underwater activities and boating.

Of the six underwater drownings, 2 occurred at Island Bay, 1 at Sinclair Head, 1 at Terawhiti Head, 1 at Owhiro Bay and 1 at Red Rocks. Of the three boating drownings, 1 occurred at Red Rocks and 2 out in Cook Strait. From the 7 drownings directly along the coastal area, 4 or nearly 60 percent, occurred in the area west of Owhiro Bay.”

It is clear from this information that no area of the south coast, inside or outside the proposed boundaries, can be regarded as absolutely safe for marine recreation.

6.3.5 HARBOUR SAFETY ISSUES

The Coalition has met with the Wellington Harbour Master, Captain Michael Pryce, and the Maritime Safety Authority to discuss issues of harbour and shipping safety. Captain Pryce had no significant concerns regarding the effect of the 1999 boundaries (C) on harbour safety. The boundaries proposed in this application are a subset of the 1999 boundaries, with a deeper seaward boundary.

The exclusion of Lyall Bay, and most of the area Sinclair Head – Quarry from the proposed reserve has mitigated the potential that recreational fishers and divers will move eastward into the shipping channels near Barrett’s Reef. Captain Pryce believed existing regulatory powers are sufficient to safely manage any increase in fishing activity in that area.

CATCH STATISTICS – BUTTERFISH, WAREHOU, MOKI, STATISTICAL AREA 16

Year	Butterfish	Warehou	Blue Moki
1994/95	50,126 kg	10,650 kg set net (62,065 kg all methods)	55,503 kg
1995/96	32,369 kg	8,004 kg set net (144,166 kg all methods)	45,526 kg
1996/97	29,579 kg	4,327 kg set net (352,713 kg all methods)	60,319 kg
1997/98	24,814 kg	13,060 kg set net (247,878 kg all methods)	44,953 kg

6.4 IMPLICATIONS FOR COMMERCIAL FISHING

Island Bay was once a major commercial fishing centre. Today, several small commercial boats fish out of Island Bay and it remains an anchorage for these vessels. These vessels fish within and outside the boundaries of the proposed marine reserve. Fishers based elsewhere have the right to fish the area of the proposed marine reserve as long as they possess appropriate harvesting rights.

6.4.1 CURRENT LEVEL OF COMMERCIAL FISHING

The proposed reserve falls within the boundaries of two much larger statistical areas used by the Ministry of Fisheries to collect commercial catch effort data. Individual catch data are not available because of Privacy Act provisions. Aggregate data were therefore obtained from the Ministry of Fisheries for the purpose of preparing this application.

The major fishery on Wellington's south coast is rock lobster. The south coast is part of Rock Lobster Statistical area 915. This area extends from Turakirae Head to Sinclair Head. Reported landings of Rock Lobster for Statistical Area 915 are as follows:

- 1994/95, 45,880 kg
- 1995/96, 52,1771 kg
- 1996/97, 46,235 kg
- 1997/98, 42,429 kg

This represents approximately ten per cent of the total allowable catch for the Cray 4 quota

management area. The estimated value of the Statistical Area 915 fishery is approximately \$1.1 million to \$1.3 million per year. Approximately 20 vessels are involved in this fishery.

Finfish are also caught in the area of the proposed marine reserve. Catch effort data were obtained for Statistical Area 16 that extends from Paramata Harbour to Cape Palliser. Consultation with commercial fishers indicates that the main commercial species likely to be taken in the area of the marine reserve are Butterfish, Warehou, and Blue Moki. Butterfish and Moki are generally targeted with setnets. Trawling and setnetting are used to target Warehou with bottom trawling by far the preferred method. Bottom trawling is unlikely to occur in the area of the proposed marine reserve due to extensive reef systems.

Reported landings from the Ministry of Fisheries catch and effort data base of Butterfish, Warehou and Blue Moki for Statistical Area 16 are as follows:

The estimated value of this catch for 1997/98 based on available port price data is:

- Butterfish, \$71,000
- Warehou, \$18,500 set net (\$352,000 all methods)
- Moki, \$52,500

Commercial fishers have indicated that there are approximately 20 commercial vessels using lines or setnets in Statistical Area 16.

Landings of other commercial species are seasonal with relatively small catches of Tarakihi, Trevally, Conger eel, octopus and shark. Bait catches are not

recorded. Marble fish, pilchards, and Kahawai are commonly caught bait species on the south coast.

The south coast is currently closed to commercial paua fishing. If opened to commercial fishing this would be a valuable fishery.

6.4.2 IMPACT ON COMMERCIAL FISHING

The Marine Reserve Act states that a marine reserve application should not be approved if it would *interfere unduly with commercial fishing*.

It is difficult to assess the impact of the proposed marine reserve on commercial fishing. In particular it is difficult to allocate shares of the recorded rock lobster and finfish catches to the area of the proposed marine reserve. At one meeting in 1994 it was suggested commercial fishing interests that four to six tonnes of rock lobster and twenty to thirty tonnes of finfish are caught annually on the south coast between Sinclair Head and Palmer Head.

Using these figures, if rock lobster harvesting rights were completely unable to exercised or leased elsewhere in quota management area 4 this would translate to loss of approximately \$156,000 per annum for rock lobster fishers. Finfishers would forgo approximately \$40,000 to \$50,000 per annum if they were similarly prevented from exercising any of their harvesting rights.

During recent discussions commercial fishers suggested that since 1994 there has been considerable attrition in their numbers in the Wellington area. This is because of the aggregation of quota, transfer of quota to fishers with larger vessels and a shift in fishing effort away from the south coast to the Palliser region. This suggests that the impact of a marine reserve on the south coast on commercial fishers is considerably less than what it might have been four or five years ago.

No attempt has been made to carry out an authoritative quantitative estimate of the impact of the marine reserve on commercial fishing because data are not available at a spatial scale appropriate the size of the proposed marine reserve. Moreover, it is very difficult to predict with certainty the degree to which the marine reserve will exclude harvesting or affect the value of harvesting rights. Instead the following qualitative assessment is offered.

Rock Lobster

Commercial harvest of rock lobster is limited to parts of the Statistical Area 915 that are:

Open to commercial fishing, accessible to fishing vessels, and support lobster populations.

This means that commercial lobster fishing is restricted to certain areas. These tend to be from Pencarrow to Turakirae Head in the east and Houghton Bay to Sinclair Head in the west. Part of the proposed marine reserve overlaps with this western fishery. Although commercial fishers can fish elsewhere in Quota Management Area 4 there is no doubt that there will be some loss of fishing opportunity and a displacement of harvesting effort elsewhere.

For example, local commercial lobster fishers say they like to target the seaward end of reef systems on the south coast. The inclusion of some complete reef systems within the proposed boundaries of the marine reserve will cause some inconvenience and financial cost to these fishers.

The marginal impact of any lost fishing opportunity and potentially increased harvesting cost will be insignificant compared to the overall value of the area four lobster fishery. Nevertheless the impact on individual fishers may be greater. Fishers who find their fishing activity displaced by the marine reserve have two options:

- Pay potentially higher operating costs of fishing in adjacent areas accompanied by the uncertain biological impacts of increased harvesting pressure in a smaller area.
- Lease out quota that they are unable to catch (or find less profitable to fish) due to the presence of the marine reserve to other fishers in quota management area four.

Current government policy does not allow for a negotiated settlement with fishers who genuinely suffer material loss to provide public benefits that accompany the creation of a marine reserve. Better recognition of the contribution of commercial fishers and providing for compensation where a material loss can be demonstrated by commercial fishers because of the creation of a marine reserve is an issue that the applicants for this marine reserve believe the government should urgently address.

Finfish

The overall marginal impact of the marine reserve on finfish setnetting and lining will be minor. Discussions with commercial fishers indicate that two or three fishers will be affected by the marine reserve. One smaller boat consistently fishes the inshore area of the south coast. Nevertheless for these fishers the additional income gained from fishing the accessible south coast is likely to be important to their fishing businesses. The proposed boundaries still offer these fishers considerable scope for setnetting and lining outside of the marine reserve. This is especially so for lining of valuable species such as groper and bluenose. Setnetting for butterfish, moki and warehou will more affected by the marine reserve than lining.

6.4.3 OTHER IMPACTS ON COMMERCIAL FISHING

The South Coast Marine Reserve will not impact on anchoring and mooring of fishing vessels. The only fishing activity that will be banned is the taking of marine life within the reserve's boundaries.

6.5 POACHERS

Poachers are unofficial existing users of the coast. Paua poachers have recently been apprehended on the coast. The area around the Moa Point sewerage outfall, off-limits for a hundred years, is already being used by fishers and poachers. It is hoped the establishment of a marine reserve, and the policing activity that will follow will reduce the activities of poachers in the area.

6.6 IMPLICATIONS FOR EDUCATIONAL OPPORTUNITIES

The educational opportunities offered by a marine reserve on the south coast are excellent, and will build on a firm foundation of work already underway at the Marine Education Centre (MEC) based at the Island Bay Marine Laboratory.

The primary objective of the MEC is to promote interest in, increase knowledge and understanding of, and encourage protection, enhancement, and enjoyment of Wellington's marine environment through public education programmes, live displays, and community initiated research and service projects.

The Centre's programmes, activities, and live displays are designed to encourage a better understanding and appreciation of Wellington's south coast and harbour environment, and to engender a sense of guardianship within the greater Wellington community for this unique natural resource. The MEC promotes the conservation of Wellington's marine heritage through public education programmes and community activities which foster public awareness of issues affecting both local and world marine environments.

Should the MEC's proposed Te Raekaihau Point facility be built, it would compliment the reserve, and would provide a venue for interpretation and education about the area.

6.7 IMPLICATIONS FOR RECREATION AND TOURISM

The Coalition believes the establishment of a marine reserve will benefit recreation and tourism on the south coast and in Wellington.

Marine reserves established elsewhere have proven to be extremely popular with tourists and casual visitors. This reserve will be unique in its proximity to a major city. With the development of educational material and interpretative facilities, and the inclusion of information in marketing material, we believe the reserve will become a destination for casual and specialist tourism. The reserve will compliment the development of other eco-tourism initiatives in Wellington, such as the Karori Wildlife Sanctuary.

6.7.1 SUPPORT FROM TOURISM WELLINGTON

The applicants have sought the opinions of Tourism Wellington (renamed Totally Wellington in 1998) and local businesses regarding the impact of a marine reserve.

In a letter to the applicants on 15 November 1996, Trevor Hall, Chief Executive of Tourism Wellington endorsed the proposed reserve:

"The South Coast of Wellington already has tourism related activities such as penguin and seal watching, snorkelling, diving, walking and sightseeing. If the area was granted marine reserve status the tourism potential would be increased. It would give the ability to market the uniqueness

of a marine reserve on the boundaries of a capital city, possibly a world first. With the return of sea life to the area the diving/snorkelling experience would be enhanced and could be further developed. The reserve would also add to New Zealand's image as a "clean, green" country.

The tourism infrastructure of Wellington will only benefit from the addition of the proposed Wellington South Coast Marine Reserve and we look forward to having the opportunity to market this feature along with the many other icons of our capital city."

6.7.2 OPINION OF LOCAL BUSINESSES

Section 3.2.4 reviews the opinions of local businesses regarding the establishment of a marine reserve in the area. In general, local businesses believed the establishment of a reserve would benefit the community.

6.8 IMPACT ON ADJOINING LANDOWNERS

The impact of the proposed reserve on adjoining landowners will be small. A public road exists along the entire foreshore, and at the Owhiro Bay (Western) end of the reserve, the decommissioned quarry is now owned by Wellington City Council, and is intended to become a reserve.

Private Homeowners

Several hundred private homes in the areas/suburbs of Owhiro Bay, Island Bay and Houghton Bay are close to the foreshore of the proposed reserve, and may adjoin it within the meaning of the act (ie: their properties may be within 100 metres of the reserve boundary).

The establishment of the reserve does not confer any rights of access onto or across private land by the Department of Conservation or the public, and should not otherwise interfere with the owner's rights or obligations. The applicants note the potential for the proposed reserve to have positive benefits for homeowners, such as the increased provision of council services in the area, and the potential for the reserve to increase property values. Such effects are reported as occurring in suburbs around the Karori Wildlife Sanctuary.

Some concerns have been expressed by local residents regarding the potential for the reserve to increase vehicle traffic in the area. The applicants

recognise this possibility, and note that the Wellington City Council is currently engaged in a consultation process to develop a management plan for public services in the area, including traffic and parking issues. We also note that not all local residents consider an increase in visitation to be a problem. Some local businesses have noted that they will benefit from increased visitation to the area.

As part of the notified consultation process the applicants have obtained from the Wellington City Council a list of all ratepayers owning properties close to the proposed reserve. A letter has been sent to all ratepayers notifying them of the proposal, and inviting submissions.

Wellington City Council

Wellington City Council maintains roads along the foreshore, and owns the Owhiro Bay Quarry, and reserve areas in Island Bay. Consultations with the City Council have not identified significant concerns regarding the effect of the proposed reserve on Council operations. The applicants have indicated to the Council that they do not oppose the continued discharge of stormwater from local suburbs or roads into the area of the reserve.

Maori Land

The applicants wrote to the Registrar of the Maori Land Court on January 12th, 2000 requesting assistance to identify any owners of Maori land who may be affected by the establishment of a marine reserve on Wellington's south coast. No response has yet been received from the Court. The letter is attached in Appendix Eleven.

Mining and Aquaculture

The applicants have been advised by the Wellington Regional Council that no interests in mining or aquaculture exist in the area of the proposed reserve.

7. Proposed Management Regime

7.1 LEVEL OF PROTECTION

A marine reserve is a totally protected area in which no extraction or disturbance of marine life is permitted, except for approved scientific research permitted by the Director General of Conservation.

Visitors will be encouraged to explore the reserve, above and below the water, so long as they do not disturb, damage or remove any natural feature.

All forms of fishing will be prohibited, but boating, diving, snorkelling and other non-extractive or damaging activities will be encouraged.

7.2 ACCESS TO THE MARINE RESERVE

Section 3 (2) (d) the Act requires that "... the public shall have freedom of access and entry to the reserves, so that they may enjoy in full measure the opportunity to study, observe, and record marine life in its natural habitat."

The proposed area is adjacent to a city of 156,000 residents and a larger regional population exceeding 350,000. The area is easily accessible by private and public transport. The public will therefore have free and easy access to the reserve to study, observe and record marine life in its natural habitat.

An Information Paper to Wellington City Council's Cityscape committee (September 1998), advises that "currently there are good facilities along the southern coast" that could cope with increased visitation. Those facilities include carparking, boatramps, changing rooms and public toilets.

Navigation through the reserve will not be restricted. There is no intention to restrict anchoring in the area of the reserve. Anchoring in the Island Bay embayment will not be restricted.

7.3 IDENTIFICATION OF BOUNDARIES

Consultation with Wellington Harbour Master, Captain Michael Pryce, indicated that marking of outer boundaries with buoys would be unnecessary and impractical given the sea conditions of Cook Strait. Captain Pryce indicated that marking of

boundaries on the coastline using twin markers would be sufficient.

7.4 ADMINISTRATION

The Department of Conservation is responsible for the day-to-day management of the reserve. The Conservation Management Strategy for Wellington, 1996–2005 states that:

"Once a marine reserve has been legally created, several years of intensive management effort will be needed to effectively implement management, i.e., boundary markers, interpretative signs, published material, baseline data for monitoring habitats and compliance" (Vol 1, pp. 170).

One marine reserve exists in the Wellington Conservancy, at Kapiti. The applicants recommend that the Kapiti Marine Reserve management structure be used as the basis for the management structure of the South Coast Marine Reserve. This entails the establishment by the Conservation Board of an Advisory Committee under Section 56 of the Conservation Act, including representatives of iwi, community groups, fishing interests, scientific interests, conservation interests, and local and regional authorities. As in the case of the Kapiti Committee, we recommend that half of the places on the committee are nominated by iwi.

7.5 COMMUNITY INVOLVEMENT

Community involvement is essential to the success of any marine reserve. In the case of this proposal, its location adjacent to Wellington City means that the involvement of the public, local authorities, conservation groups and government departments is essential.

We strongly recommend that should a reserve be approved, the Department of Conservation invite all interested parties to a consultative meeting to develop a management strategy for the reserve. This should include:

- Development of an educational programme.
- Development of an enforcement programme.
- Development of interpretative facilities.
- Review of fisheries regulations for areas excluded from the marine reserve .

We strongly recommend that the Department of Conservation work closely with Wellington City Council and Wellington Regional Council in the development and implementation of the management plan.

7.6 ENFORCEMENT AND COMPLIANCE

Long term success will be achieved with widespread community support for the reserve. Given the high levels of support identified in surveys undertaken by the applicants, we believe an effective enforcement regime is possible. In addition to community support, the Kilbirnie Police Station is situated close to the reserve should assistance be required.

Enforcing the rules of the reserve is the responsibility of the Department of Conservation. However, we recommend that the Department of Conservation work closely with the Ministry of Fisheries, Wellington City Council, Wellington Regional Council, iwi and community and conservation groups to develop an enforcement strategy for the marine reserve. In particular, we propose that the other agencies named nominate Honorary Marine Reserve Rangers to assist in enforcing the reserve.

7.7 SCIENTIFIC STUDY AND MONITORING

An extensive scientific programme is currently underway in the area of the proposed marine reserve. No additional programmes are recommended at this time.

7.8 EDUCATION AND INTERPRETATION

The development of an education and interpretation programme for the marine reserve should be of a high priority. We recommend that such a programme recognise and involve local iwi, local communities (such as the Italian and Shetland Islander communities), recreational and commercial fishers, recreational divers, conservation groups and local authorities.

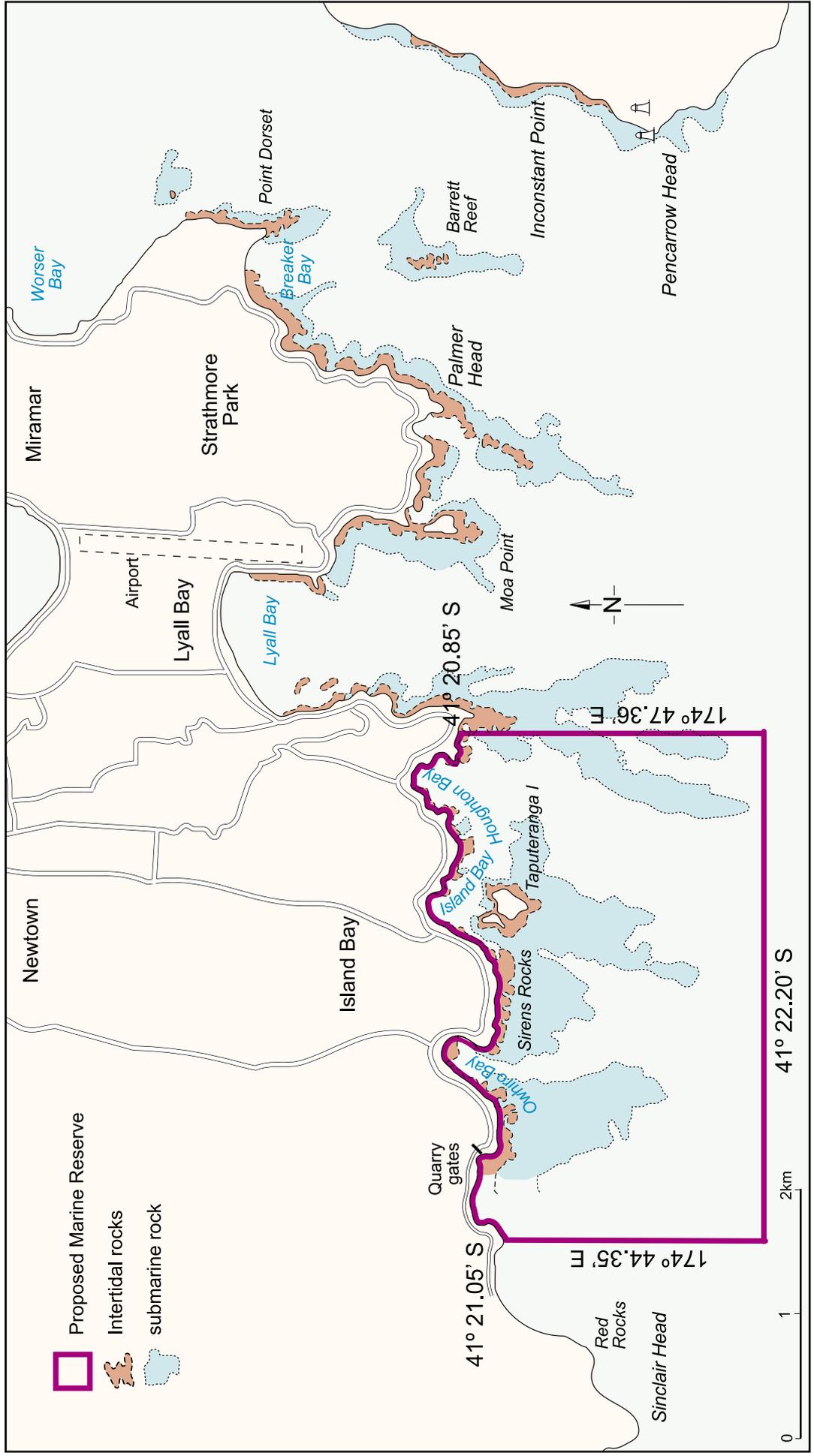
Wellington City Council has been active in creating heritage walkways and identifying sites of importance to iwi. The Council has identified \$60,000 in its 1999 – 2001 Capital Expenditure Budget for promotion and support for a marine reserve.



8. Appendices

APPENDIX ONE	BOUNDARIES OF PROPOSED MARINE RESERVE
APPENDIX TWO	PROCESS FOR ESTABLISHING A MARINE RESERVE
APPENDIX THREE	PUBLIC NOTICE OF APPLICATION
APPENDIX FOUR	1994 DISCUSSION DOCUMENT
APPENDIX FIVE	1996 DISCUSSION DOCUMENT
APPENDIX SIX	WELLINGTON SOUTH COAST FISHING SPOTS
APPENDIX SEVEN	BOUNDARIES PROPOSED IN 1994, 1996, AND 1999
APPENDIX EIGHT	ALTERNATIVE BOUNDARIES PROPOSED BY OTHER PARTIES OTERANGA BAY AND BREAKER BAY
APPENDIX NINE	SCIENTIFIC RESEARCH ON OR RELATED TO THE SOUTH COAST AREA
APPENDIX TEN	THESES, BOOKS AND PAPERS WITH RELEVANCE TO THE SOUTH COAST AREA
APPENDIX ELEVEN	LETTER TO MAORI LAND COURT
APPENDIX TWELVE	MARINE RESERVE RESPONSE FORM

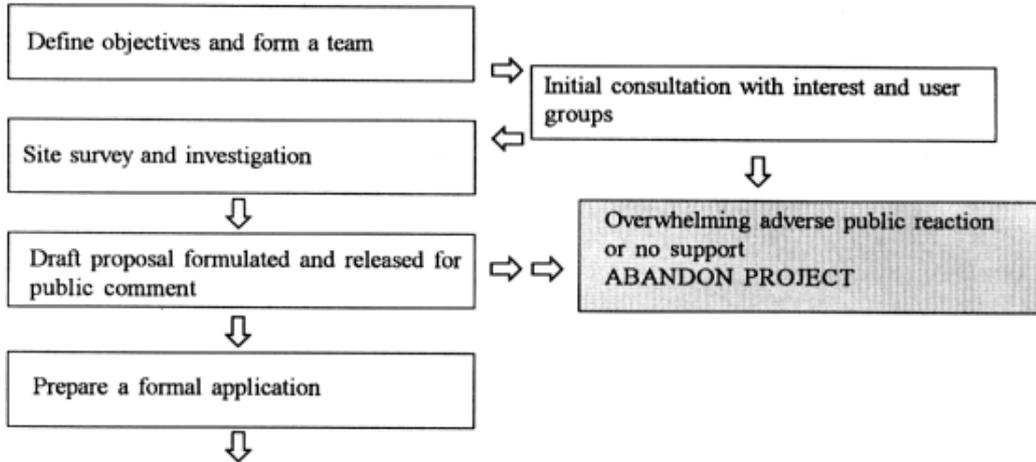
Appendix One – Boundaries of Wellington South Coast – Proposed Marine Reserve



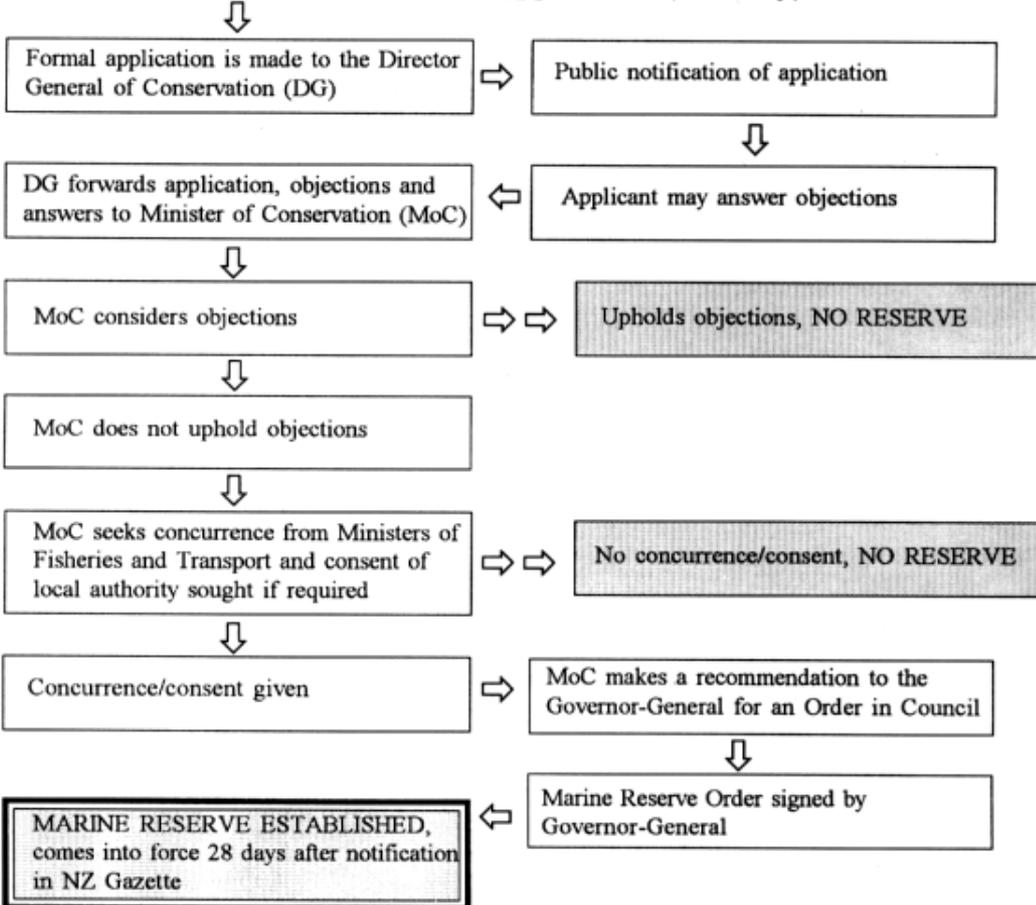
Appendix Two – Process for Establishing a Marine Reserve

MARINE RESERVE ESTABLISHMENT PROCESS

Developing a proposal (non-statutory)



..... Making a formal application (statutory)



Source: Department of Conservation, 1994. *Marine Reserves: a guide for prospective applicants*. Department of Conservation, Wellington.

Appendix Three – Public Notice of Application

Notice of Intention to Make Application

TAPUTERANGA MARINE RESERVE PROPOSAL

Notice under Section 5, Marine Reserves Act 1971

Pursuant to Section 5 of the Marine Reserves Act 1971, the Wellington South Coast Marine Reserve Coalition and The Royal Forest and Bird Protection Society of New Zealand (Inc), hereby give notice of their intention to apply for an Order in Council declaring an area of about 969 hectares, between Owhiro Bay Quarry and Te Raekaihau Point on Wellington's south coast a marine reserve. The proposed name for the reserve is "Taputeranga Marine Reserve".

A plan of the proposed marine reserve showing all tidal waters coloured blue, the boundaries and the extent of the area sought to be declared a marine reserve, together with a copy of the application, may be inspected free of charge at the Department of Conservation's Wellington Conservancy Office. Copies of the application are also available for inspection at branches of Wellington City Libraries.

Any person or organisation may object to the making of an Order in Council establishing the marine reserve by specifying the grounds of objection in writing and submitting it to the Director-General of Conservation within two months from the date of first publication of this notice.

The date of first publication of this notice is Wednesday 18th October, 2000. The period for submitting objections closes on Monday 18th December, 2000.

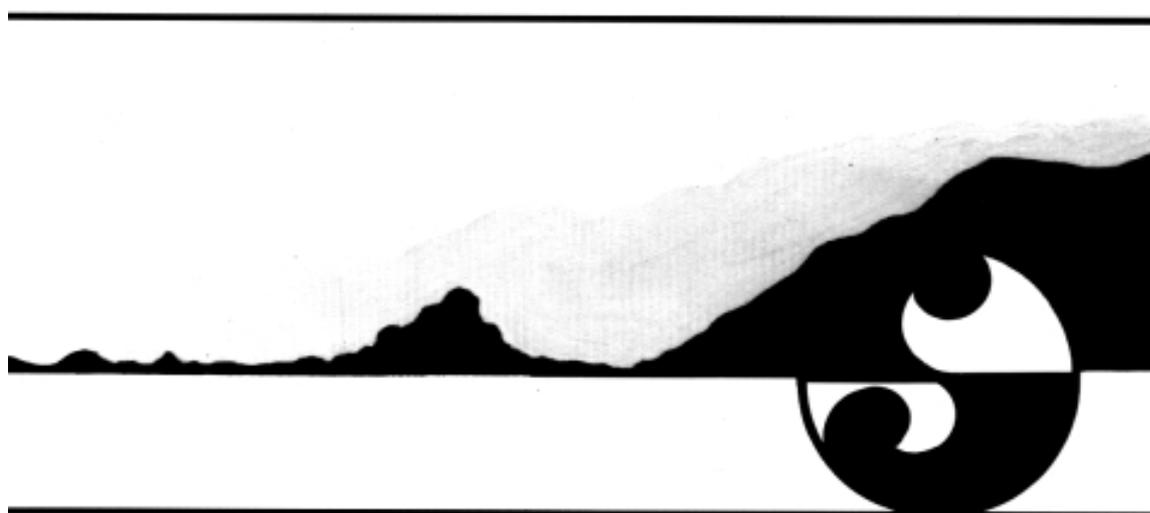
Submissions should be addressed to: Taputeranga Marine Reserve Application, The Director-General of Conservation, c/- Wellington Conservancy, PO Box 5086, Wellington. A copy of the submission must also be forwarded to the Applicant, Taputeranga Marine Reserve Application, c/- PO Box 4183, Wellington.

This notice of intention to apply for a marine reserve is given by the Applicant, The Wellington South Coast Marine Reserve Coalition and The Royal Forest and Bird Protection Society of New Zealand (Inc), whose address for service is PO Box 4183, Wellington. Copies of the Application document are available from the applicants at a cost of \$5.

Andrew Cutler

Wellington South Coast Marine Reserve Coalition and Wellington Branch,
Royal Forest and Bird Protection Society

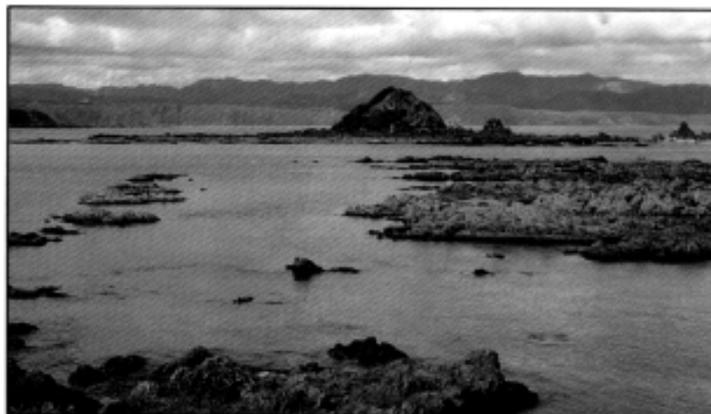
Wellington South Coast Marine Reserve Proposal



Discussion Document

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Island Bay - Tapu te Ranga Island

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1. INTRODUCTION

This discussion document has been prepared on behalf of the Wellington South Coast Marine Reserve Coalition, which comprises the Wellington Branch of the Royal Forest and Bird Protection Society and Wellington Dive Clubs. It follows preliminary investigations by the Department of Conservation and the Coalition into the feasibility of establishing a marine reserve along Wellington's south coast.

This document considers:

- What a marine reserve is.
- Why marine reserves are needed.
- The criteria to be considered for the establishment of a reserve.
- Two options for a marine reserve on the south coast and their relative strengths and weaknesses.
- The possible impacts of a reserve on user groups, local residents and the greater Wellington population.

As well as aiming to provide you with information about the issues, we invite you to let us know whether you support the proposal. Comments on how the proposal could be improved would be welcomed. Please complete and return the attached response form.

On the basis of the support we receive, we will decide whether to take this proposal further.

Please send your comments to:

**Wellington South Coast Marine Reserve Coalition
P.O. Box 4183
Wellington.**

These should be received by 1 March 1994.

2. WHAT IS A MARINE RESERVE?

A marine reserve is an area of the sea which is totally protected. This means that the taking or disturbance of marine life is prohibited within the reserve boundaries, other than for approved scientific purposes. These areas are otherwise completely open for public access and enjoyment, including boating, diving, and swimming.

The Marine Reserves Act 1971 provides that a marine reserve must contain "underwater scenery, natural features, or marine life, of such distinctive quality, or so typical, or beautiful, or unique, that their continued preservation is in the national interest."

Management of marine reserves must ensure that they remain in their natural state, that the marine life within them is protected and preserved, and that the public have freedom of access and entry. In effect, a marine reserve is the ocean equivalent of a national park.

New Zealand currently has seven marine reserves plus several in the pipeline. The largest, the Kermadec Islands Marine Reserve was established in 1990. The Poor Knights Reserve was gazetted in 1981 while the reserve near Leigh (80 kilometres north of Auckland) was created in the mid 1970's. An area around Kapiti Island was gazetted in 1991 while Mayor Island, Long Island (Marlborough Sounds) and Cathedral Cove (Coromandel) were approved in late 1992. Although not a true marine reserve, the Sugarloaf Rocks off New Plymouth is designated as a marine protected area. There are also marine parks at Mimiwhangata and Tawharanui in Northland. Combined, these represent less than 1% of the New Zealand coastline.

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Spiny Lobster

3. WHY DO WE NEED MARINE RESERVES

There are a variety of reasons why marine reserves benefit the community, as well as the environment:

·Recreation: The opportunity for people to witness what the undersea environment used to be like has attracted many visitors to Leigh. It is possible to see tame snapper in the shallows, and the now prolific fish life is a boon for divers. The Poor Knights Islands are now an internationally renowned dive site and bring tourists into the country. With higher densities of fish within a reserve, fishing tends to improve outside the boundaries due to a spillover effect.

·Education: As an area where marine life is returning to its natural density and variety, a marine reserve provides outstanding educational opportunities for people from early school age through to university students and the general public.

·Water Quality: The quality of water in a marine reserve must be preserved. Existing uses may continue, although where those uses are to the detriment of the reserve, a reserve may result in increased awareness and the impetus for change.

·Research: We have a poor understanding of the marine environment in comparison to land. A marine reserve provides a baseline against which other areas can be compared. The results of scientific investigations will have greater validity, and results gained from reserve experiments may assist in providing more enlightened fisheries management for inshore species.

·Conservation: Preservation of marine habitats and the plants and animals within them. Marine reserves are the only means by which marine habitats can be completely protected. Failure to maintain at least a few examples of our coastline in a relatively pristine state would rightly invite the contempt of our descendants.

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Quarry looking toward Red Rocks area

4. A PROPOSAL FOR A MARINE RESERVE AT WELLINGTON

THE PROPOSAL

The Coalition has prepared this discussion paper proposing a marine reserve for the Wellington South Coast based on replies to two questionnaires; one by the Department of Conservation in 1989, and the other produced by the Coalition in 1992. Two options are proposed:

Option 1

From Te Raekaihau (Phillips) Point in the east, (the western edge of Lyall Bay) extending 1 Nautical mile offshore to Sinclair Head in the west. The area inside Taputeranga Island may be excluded. A total area of 10.5km².(3.07 NM²)

Option 2

From Te Raekaihau Point extending 1 nautical mile offshore to the Owhiro Bay quarry gates in the west at the same distance offshore. The area inside Taputeranga Island may be excluded. A total area of 7.5 km².(2.19 NM²)

Under both options the seaward boundary of the reserve would be on a line of sight between Sinclair Head and Pencarrow lighthouse.

REASONING BEHIND THESE OPTIONS

In determining where a marine reserve should be sited, the following criteria must be considered. The area must be:

- A biologically and geologically representative example of a region's coastline.
- Of sufficient size and depth, and sited where there is the potential for marine life to return to it's natural level of abundance and diversity.
- Readily accessible for scientific research and public enjoyment.
- Relatively easy to police.
- Sited to minimise impact upon existing user groups, without compromising the integrity of the reserve.

Both options are typical of the Wellington south coast, and incorporate all of the habitats found in the area. These include cobble beaches (Owhiro Bay), sandy beaches (Houghton Bay), and extensive areas of complex greywacke reef extending for considerable distances out to sea. These reefs could support more diverse and extensive communities of plants and animals, however human impact has depleted many species. Many of these are territorial and require an area sufficiently large to ensure their protection.

This site is easily accessible, having a waterfront road running its full length. The Victoria University Marine Laboratory (between Island Bay and Owhiro Bay) is ideally placed to take advantage of research opportunities arising from the presence of a reserve, as are government institutions such as MAF Fisheries, the National Institute of Water and Atmospheric Research (formerly DSIR) and the Department of Conservation. At present there is little published information regarding the underwater habitats of the south coast.

Replies to the questionnaires indicated strong public support for a reserve within the areas suggested (90%). An effort has been made to choose an area which includes localities defined as meriting protection by respondents, while minimising adverse impacts on other users.

ISLAND BAY - SHOULD IT BE INCLUDED ?

In response to concerns raised in the replies to the questionnaire, the area inside Taputeranga Island (Island Bay) may be excluded from either option. Commercial fishers use the bay for baitfishing, and the western beach is popular for surfcasting. Since these activities target mainly transient fish, the omission of Island Bay will not detract from the viability of the reserve.

Including the bay increases the diversity of the reserve by including a sheltered area with both different habitat and species. It is also the best and safest access point to the reserve for people who are not divers. As at Leigh, with the reserve including the bay, there is the potential for wide-ranging use and enjoyment of the area with an increased fish population. It would be a unique asset for the city of Wellington

SPECIAL FEATURES OF THIS LOCALITY

Taputeranga Island: An important nesting site for seabirds, the island is owned by the Wellington City Council and zoned as a recreation reserve. It is of special significance to local Maori.

Owhiro Bay Wrecks: There are several wrecks in shallow water of interest to marine archaeologists. The hull of the most recent (Yung Pen, 1982) lies in less than five metres of water and is frequently visited by divers.

Crayfish: The subtidal reefs found in this area support a number of crayfish "nurseries" where large aggregations of juveniles may be found. These undersize animals may be important to the regional fishery.

Red Rocks: A popular walking destination and designated as a scientific reserve, Red Rocks near Sinclair Head is a haul-out for New Zealand Fur Seals.



Strens Rocks looking towards Pencarrow Head.

5. LIKELY EFFECTS OF THE PROPOSAL

It is anticipated that this proposal will affect user groups in the following ways:

TANGATA WHENUA

Consultation with local Maori has resulted in an understanding that the area available for collection of kaimoana will be reduced. The Tangata Whenua have given verbal support to the principle of a marine reserve on the south coast.

COMMERCIAL ACTIVITIES

The proposal will have minimal impact on the activities of the existing fishing fleet at Island Bay. Small numbers of crayfish pots are used within parts of the proposed reserve, however fishing in this area is limited and seasonal. It is not envisaged that the loss of this small fishing ground will unduly affect the productivity of local fishers.

As the whole of the South Coast area between Palliser Bay and Makara is presently available for fishing whether through netting, potting or diving inevitably a reserve in one of the areas proposed will affect individual fishers by restricting the available fishery.

Studies in other areas have shown that marine reserves may increase the productivity of an area. Once the density of the target species approaches its natural level, lack of space forces individuals outside the reserve boundaries where they may be caught. It is likely that such "spillover" could occur here.

RECREATIONAL ACTIVITIES

Setnetting: A small amount of recreational netting occurs, especially around Island Bay and Owhiro Bay, however yields are low.

Diving: This is an even more popular pastime. People who dive just for "a look" or to take photographs will benefit from any resurgence in marine life. Those diving regularly for crayfish will have the same concerns as spearfishers. There are a significant number of spearfishers using the south coast. Some concern has been expressed as to the limitations which would be placed on these people, especially with regard to Option 1, where most of the accessible (by car) coast would be unavailable. In addition Option 2 is an attractive area at times when the Quarry Gates are closed. The Breaker Bay/Barretts reef area will still be available for the taking of crayfish or for spearfishing.

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Shellfish handgathering: Little remains of the stocks of edible species. There are few paua or kina found at less than forty feet depth away from the sewer outfalls. There can be little impact upon users.



The Day's Catch Island Bay



Diver and Octopus

Fishing: The south coast is very popular for boat fishing. Most people appear to fish either west of Sinclair Head, or further offshore than the reserve boundaries. The western beach of Island Bay is popular for surfcasting, and people occasionally fish off the rocks in the same area. It is thought that a small number of people will be disadvantaged.

Boating and access: The public would be free to go into and navigate around the marine reserve, provided they did not damage the protected marine life in any way. Anchoring would be permitted to facilitate public enjoyment of the reserve in safety. The proposal will not affect existing permanent moorings.

LAND OWNERS

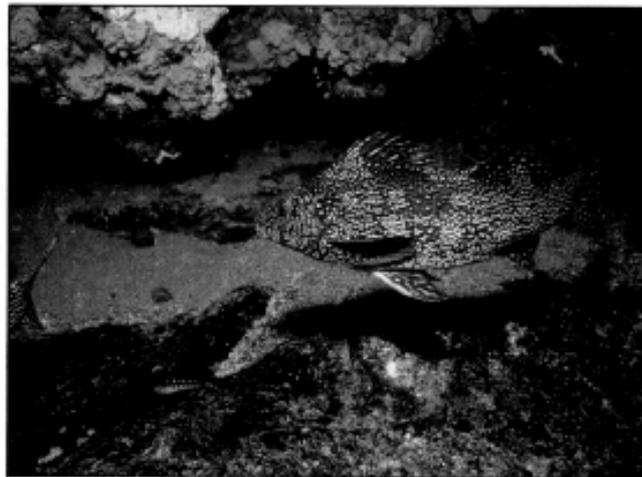
Access to private property will be unaffected.

GENERAL RECREATIONAL AND EDUCATIONAL ACTIVITIES

People who go to the coast to walk, sunbathe, swim, surf or look at the view will not be affected by the marine reserve.

There is huge potential in reserves for education and research. The opportunity to experience and utilise a stretch of coastline which is unexploited is rare, and such an area on the edge of the capital city would be unique in the world. The use of the marine reserve by schools, universities and research agencies would be encouraged, providing a quantity of information about our coastal processes which would be otherwise unavailable.

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Marble Fish

6. WHO WOULD LOOK AFTER THE RESERVE?

MANAGEMENT

The Department of Conservation (DoC) is responsible for effective marine reserve management. There is provision for a management committee to be composed of people representing interest groups. The exact management strategy in this case has yet to be established.

ENFORCEMENT

Officers of DoC and Fisheries officers would police the reserve. It is possible for interested members of the public to be appointed as honorary marine reserve rangers.

7. YOUR RESPONSE IS IMPORTANT

The Coalition has put forward this proposal based on strong public support for the protection of the Wellington marine environment. In this document we have incorporated both the views of those consulted as well as setting out the key elements which make up the proposal.

Whatever action is taken now depends entirely on the response of the public. We invite you to fill in the form on page 11 of this document to let us know if you support this proposal or if you feel it could be improved. On the basis of the support we get, we will decide whether to take it further.



Blue Moki

**Wellington South Coast Marine Reserve Coalition
PO Box 4183
WELLINGTON**

1 Name

2 Address

3 Iwi

4 I am a user of the area currently Yes No

If yes, specify use (ie. diving, walking, boating, etc.)
.....

5 I support the establishment of a marine reserve on the Wellington South Coast Yes No

6 I would support a marine reserve from Te Raekaihau Point in the East to Sinclair Head in the West. **Option 1** Yes No

OR

I would support a marine reserve from Te Raekaihau Point in the East to the Owhiro Bay Quarry gates in the West. **Option 2** Yes No

7 On either of Options 1 or 2 I would support the inclusion of the area inside Tapu te Ranga Island (Island Bay) Yes No

8 I support or oppose the proposed marine reserve on the Wellington South Coast for the following reasons:

.....
.....
.....
.....
.....

continue on a separate page as required

9 Please forward the completed response form together with any additional comments to the above address as soon as possible so that we can decide whether there is sufficient support for the proposal to enable it to be taken further on an application to the Minister of Conservation.

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Appendix Five – 1996 Discussion Document

WELLINGTON SOUTH COAST MARINE RESERVE PROPOSAL

Information for South Coast Residents

PREPARED BY THE SOUTH COAST MARINE RESERVE COALITION

November 1996

Introduction

Most Wellingtonians live within one or two kilometres of the sea - it's an important part of our environment and our lifestyles.

We make many demands of our marine environment - recreation, harvesting, reclamation and development.

Marine reserves are a means of protecting some portions of the marine environment in as close as possible to their natural state.

There is currently a proposal for a marine reserve along Wellington's South Coast. The purpose of this information sheet is to:

- Explain what a marine reserve is;
- Explain recent changes being considered to the proposal;
- Explain how the South Coast proposal could affect you.

Marine Reserves

As an island nation with more than 11 000 kilometres of coastline, the sea and the life in it are an important part of New Zealanders' natural environment.

A marine reserve is an area of sea in which the marine life is totally protected, but which remains accessible for public access and enjoyment. They're a marine version of our national parks.

Marine reserves are created under the Marine Reserves Act 1971, which says that to be considered for marine reserve status an area must contain 'underwater scenery, natural features or marine life of such distinctive quality or so typical or beautiful or unique that their continued preservation is in the national interest.'

There is just one...marine reserve in the Wellington area, around Kapiti Island.

Marine reserves provide the following benefits:

RECREATION – For snorkellers and divers, or those who like to observe marine life from the shore.

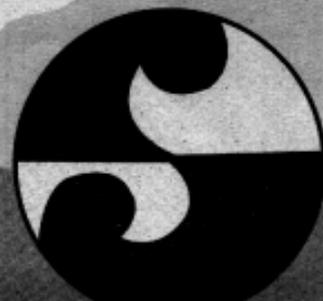
EDUCATION – An outside classroom for schools and universities.

RESEARCH – An opportunity to study marine life in an undisturbed natural environment.

CONSERVATION – Protection of marine plants and animals and the places where they live.

COMMERCIAL – Marine reserves create interest and draw people to the coast, generating opportunities for the city and local businesses such as tourist operators and eateries.

These headlands and related intertidal zones are of considerable ecological interest providing habitats for many plants and animals



THE SOUTH COAST



This stretch of coast is an area of rugged and unique beauty

The South Coast takes the full force of southern ocean swells and is an area of rugged and unique beauty.

The coastline features rocky shores interspersed with steeply sloping beaches of gravel and sand. Further offshore, there are low reefs that are never exposed at low tide.

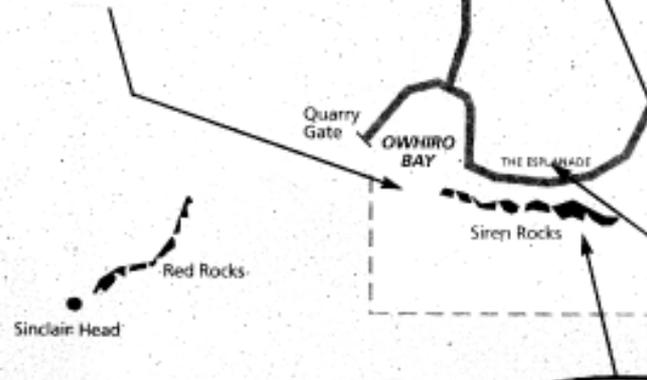
We believe that this area, with its special biological, cultural and historical features, deserves to be a marine reserve.

The area proposed for the marine reserve is:

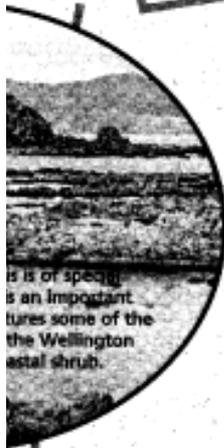
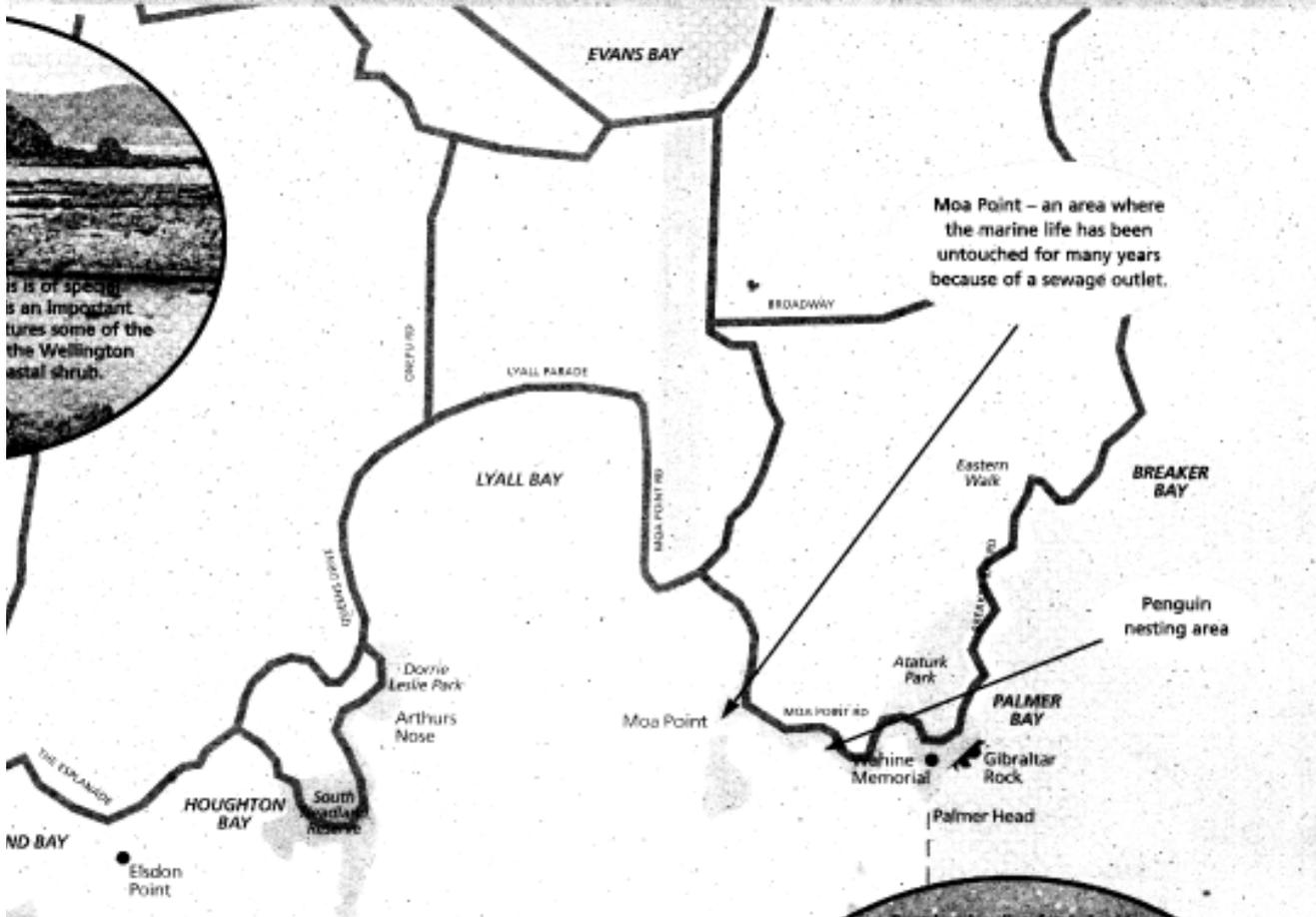
- A good example of Wellington's South Coast;
- A biologically rich area that can recover its former abundance, with a variety of coastal and offshore habitats;
- Contains a unique mix of cold water and temperate species;
- Of sufficient size and depth to enable resident marine life to develop safely to maturity and to breed within their home ranges;
- Readily accessible for scientific research and public enjoyment;
- An area where it would be easy to enforce the marine reserve status;
- An area where marine reserve status would not unduly affect commercial fishers and other existing user groups.

A discussion document about the proposal circulated in 1994 won overwhelming approval from most sectors of the community. Since then the Coalition has been collecting more information about the area and liaising with user groups.

There are several wrecks in shallow water of interest to marine archaeologists. The hull of the most recent (Yung Pen, 1982) lies in less than five metres of water and is frequently visited by divers



AST PROPOSAL



is is of species
is an important
tures some of the
the Wellington
estral shrub.

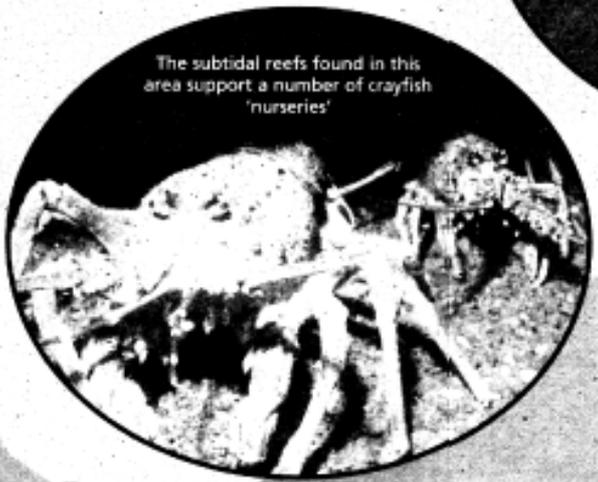
Maa Point – an area where
the marine life has been
untouched for many years
because of a sewage outlet.

Proposed Wellington South Coast Marine Reserve boundary

Victoria University
Marine Laboratory. A focus
for research and education.



People who dive for 'a look'
or to take photographs will
benefit from any resurgence
marine life.



The subtidal reefs found in this
area support a number of crayfish
'nurseries'

*A marine reserve is an
area of the sea which is
totally protected*

Boundaries

The boundaries proposed in the 1994 discussion document were from Te Raekaihau Point in the east, to Sinclair Head in the west.

Since then it has been decided to move the proposed boundaries, so that the reserve would begin at Palmer Head in the east, and extend to the Owhiro Bay Quarry gates in the west.

The reasons are:

1. Significance and variety of marine life in the areas further to the east.
2. Improve safety for divers and boaties by avoiding the strong currents off Sinclair Head.
2. Reduced impact on recreational and commercial fishers.
4. Protect the untouched marine life around the Moa Point sewage outfall.
5. Increase research opportunities.

Management of the reserve

The proposal recommends a special management committee including local people to be formed for the South Coast Marine Reserve. This has worked well with other Marine Reserves.

What a reserve will mean

- No taking of marine life from the reserve will be allowed.
- Boating, swimming, diving, snorkelling and other such uses will be encouraged.
- Increased opportunities for research and education.
- Attract visitors to the South Coast.
- Existing permanent mooring rights of the Island Bay fishing fleet will continue.
- Access to private property will be unaffected.
- Public access to the reserve will be encouraged.
- Recovery of sealife to more natural levels.

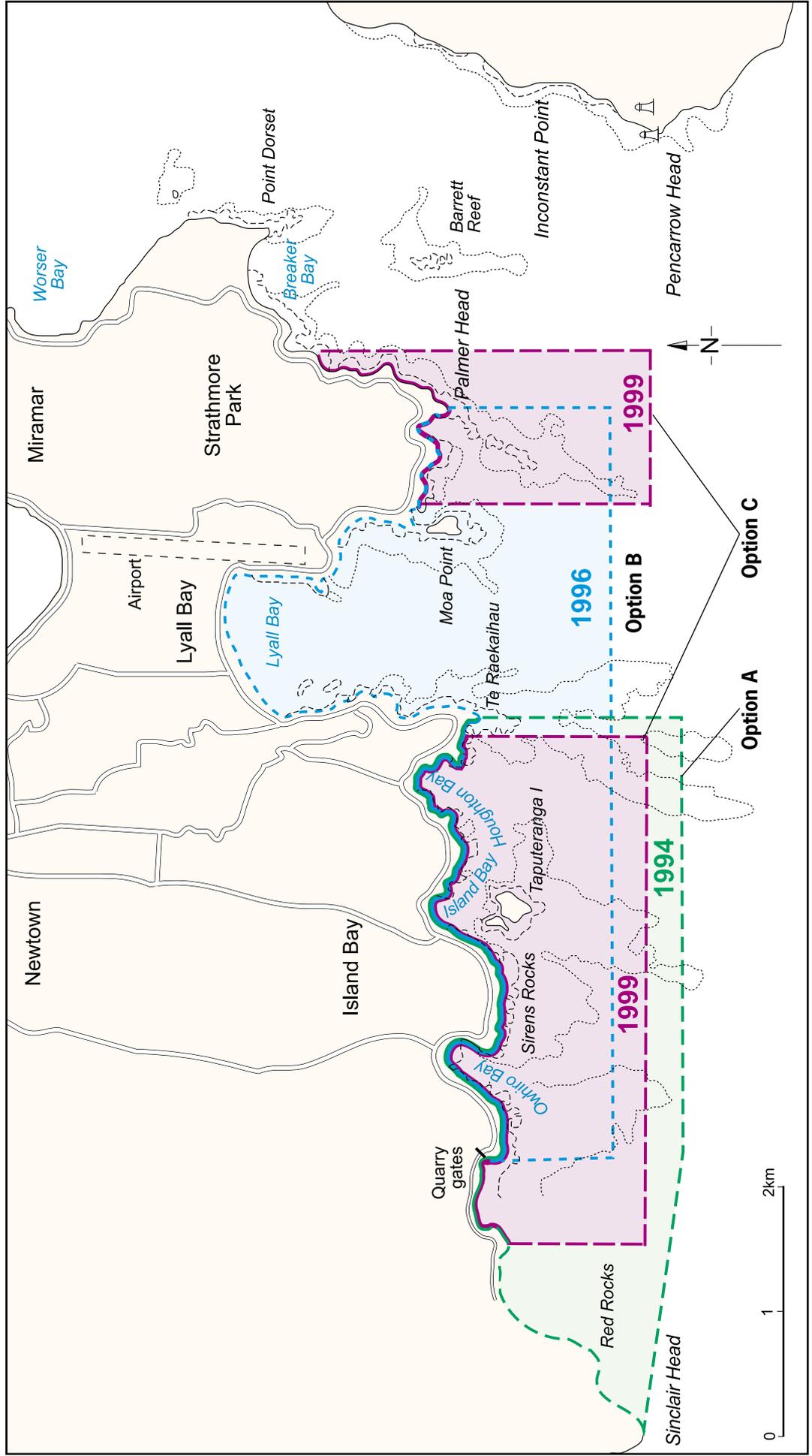
Contact

We are interested in your views. Please complete the enclosed questionnaire and send it to us at the address below by 23 December 1996. To obtain further information, or to give your comments, write to:

WELLINGTON SOUTH COAST MARINE RESERVE COALITION
PO Box 4183
WELLINGTON
Fax 471-0333



Appendix Seven – Previous Boundaries Proposed in 1994, 1996, and 1999



Appendix Eight – Location of Proposed Marine Reserve, and Alternative Boundaries Proposed by Other Parties



Appendix Nine – Scientific Research On Or Related To The Appendix Nine – Scientific Research on or related to the South Coast Area

RESEARCH CURRENTLY UNDERTAKEN BY VICTORIA UNIVERSITY

Baseline monitoring of proposed south coast marine reserve

Victoria University and the Department of Conservation have funded a three year study to monitor four sites “inside”, and four sites “outside” the proposed south coast marine reserve. Monitoring includes key fish, invertebrate and algal species. Comparison of the results will be made with results in the Kapiti Island Marine Reserve. This baseline study will form the basis of ongoing research when the proposed reserve is established.

Mussel ecology in Cook Strait

Victoria University and the Lotteries Research Board have funded research to investigate why mussels are absent from many Cook Strait shores. The research uses physiological ecology, plankton monitoring, and spat settlement patterns to address the question. The study is funded for three years, but is likely to continue longer.

Population dynamics of two co-occurring gastropods

Victoria University has funded research into the basic population biology of *Turbo smaragdus* (cat’s eye, pupu) and *Melagraphia aethiops* (top shell) at Island Bay. The research will look at environmental factors along the south coast which determine the distribution and population dynamics of these 2 species inside and outside the area of the proposed marine reserve. This is a long-term study.

Community recolonisation and recovery at the Owhiro Bay sewer

Victoria University has funded research looking at the rate and sequence of rocky intertidal community recovery following sewage abatement at Owhiro Bay. This research is relevant to the

recovery of the Moa Point area and seeks to answer the question of how important are such areas as sources for breeding stock. This is a 3 year study, likely to finish in mid-1999. Long-term follow-up is possible.

Comparison of a marine reserve, a mataitai area and a proposed marine reserve

This project, funded by Public Good Science Fund to NIWA is looking at community structure in an established marine reserve (Kapiti Island) as compared with a mataitai area (Cape Palliser) and an area which is proposed as a marine reserve (south coast). The project is funded for four years.

Monitoring of the spread of the invasive seaweed *Undaria pinnatifida*

This project, funded by Public Good Science Fund as a sub-contract to Victoria University through the Cawthron Institute, monitors the spread, growth and longevity of *U.pinnatifida* along the south coast (and in the Harbour to a much lesser extent). The purpose is to develop a predictive model about spread and impacts at various NZ sites. This is a three year project in the first instance, but likely to continue longer than this.

RESEARCH BEING UNDERTAKEN BY OTHER ORGANISATIONS

Taxonomy and Systematics of New Zealand triplefins

Chris Paulin and Dr Clive Roberts at Te Papa routinely use the south coast for this work.

Phycological research

Dr Wendy Nelson at Te Papa routinely uses the south coast for phycological research.

Rock lobster research

Dr John Booth and colleagues at NIWA have a series of puerulus (larval rock lobster) collection sites along south coast.

Paua research

NIWA is undertaking extensive surveys of many coastlines of NZ for paua stocks. Work has been undertaken at several sites along the south coast.

Sponge research

NIWA scientists are investigating the population dynamics of sponges on the south coast and investigating bioactive compounds derived from sponges, and their potential use as anti-cancer drugs.

Rock Lobster Enhancement

Alison MacDiarmid of NIWA is undertaking research funded by FRST (Foundation for Research Science and Technology) into rock lobster stock enhancement. Field experiments are conducted mainly in the Harbour entrance but some between Lyall Bay and Owhiro Bay to assess juvenile growth, and mortality.

Red Seaweed

Dr Ruth Falshaw of Industrial Research Ltd is currently undertaking research on a red seaweed known as *Gigartina circumcineta*. Small-scale farming trials are being undertaken at Mahanga Bay using material from Owhiro Bay and Tarakina Bay. A PhD Student at Victoria University is studying the reproduction of this species from south coast and other harbour sites. A wild population study will be undertaken at various sites, including the south coast involving tagging plants in situ.

Taxonomic Research – Te Papa

Clive Roberts from Te Papa periodically uses the south coast to sample common fish species that are the subject of New Zealand wide taxonomic study. Examples of the many studies that have been carried out on the south coast (usually in conjunction with other areas) include:

Paulin, C.D. and Roberts, C.D. 1992. The Rockpool fishes of New Zealand, Te ika aaria o Aotearoa. Museum of New Zealand Te Papa Tongarewa, Wellington. 177 pp. 88 Figs. 32 Pls.

Paulin, C.D. and Roberts, C.D. 1993. Biogeography of New Zealand rockpool fishes, pp. 191–199. In: Battershill, C.N. et al. (eds.), Proceedings of the Second International Temperate Reef Symposium, University of Auckland, New Zealand, 7–10 Jan 1992. NIWAR Marine, Wellington. 252 pp.

Paulin, C.D. and Roberts, C.D. 1994. Monitoring marine reserves: a fish eye view. pp. 27–31. In: Pugsley, C. and Turnbull, J. (compilers), Marine Reserves Monitoring Workshop, 24–25 Feb 1994.

Department of Conservation, Science and Research Internal Report No. 146.

Paulin, C.D. and Roberts, C.D. MS. Fishes of Wellington Harbour and South Coast.

Willis, T.W. and Roberts, C.D. 1996. Recolonisation and recruitment of fishes to intertidal rockpools at Wellington, New Zealand. Environmental Biology of Fishes, 47: 329–343.

Appendix Ten – Theses, Books and Papers with Relevance to the South Coast Area

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Anderson, O.F. 1988. A study on the distribution and abundance of three species of the tripterygiid fishes (*Forsterygion capito*, *Forsterygion varium* and *Notoclinops bucknilli*). B.Sc. Honours thesis, Victoria University of Wellington.

Arron ES & Lewis KB (1993). Wellington south coast substrates. Miscellaneous Series No. 69, 1: 15,000. New Zealand Oceanographic Institute.

Ball, A.G. 1984. Timer complexity in development of paua (*Haliotis iris*) zygotes. B.Sc. Honours thesis, Victoria University of Wellington.

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Berben, Peter H. 1981. The biology of the opalfish *Hemerocetes monopterygius* (Bloch and Schneider) in Wellington Harbour, New Zealand. Thesis. Zoology. M.Sc. (Hons.).

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Brett, A.L.R. 1989. The effect of artificial photoperiods on the growth rate of juvenile spiny lobsters, *Jasus edwardsii* (Hutton). Diploma of Applied Science thesis, Victoria University of Wellington.

Brodie JW(1966) Cook Strait bathymetry. Coastal chart series 1: 200,000 at latitude 41o. New Zealand Oceanographic Institute.

Bullen, L. 1991. Shell selection, occupation and availability in *Pagurus novazelandiae* Dana and *Pagurus traversi* Filhol (Decapoda: Anomura: Paguridae). B.Sc. Honours thesis, Victoria University of Wellington.

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Appendix Eleven – Letter to Maori Land Court

The Registrar
Maori Land Court
PO Box 7178
Wanganui

January 12, 2000

Dear Sir/Madam:

Re: Notification of owners of Maori land affected by proposed South Coast Marine Reserve.

I am writing to request your assistance to identify any owners of Maori land who may be affected by the establishment of a marine reserve on Wellington's south coast.

Under Section 5 (10) of the Marine Reserves Act 1971, the applicant for a reserve is required to notify any owners of Maori land nominated by the Registrar of the Maori Land Court.

Under Section 5 (d) (i) All persons owning any estate or interest in land in or adjoining the proposed reserve (to a distance of not more than 100 metres from the foreshore) shall be notified of the proposal.

Enclosed with this letter are maps showing the boundaries of the proposed reserve, and the description of the boundaries from the application document.

If you require any further information, I can be contacted at the following address.

Your sincerely,

Andrew Cutler
On behalf of the Wellington South Coast
Marine Reserve Coalition
c/- PO Box 4183
Wellington

Appendix Twelve – Marine Reserve Response Form

Taputeranga Marine Reserve

C/- South Coast Marine Reserve

Coalition

PO Box 4183

Wellington

New Zealand



82)

Name / Iwi / Group: _____

Address: _____

**Taputeranga
Marine Reserve
Application**

Submission Form

Your Submission: _____

Please give your reasons for supporting or opposing the proposal. You may attach extra information if you wish. Send your submission to the following address:

Taputeranga Marine Reserve
C/- South Coast Marine Reserve Coalition
PO Box 4183
Wellington
New Zealand

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Citation: The South Coast Marine Reserve Coalition and The Royal Forest and Bird Protection Society (2000), Taputeranga Marine Reserve Application, Wellington. ISBN 0-9597851-7-5.

Disclaimer: While every effort has been made to ensure the accuracy of the information contained in this report, The South Coast Marine Reserve Coalition and The Royal Forest and Bird Protection Society (Inc). make no warranty as to the accuracy, completeness, or usefulness for any particular purpose of the information contained herein; and accepts no liability for errors or fact or opinion in this report.

Acknowledgements

Many people and organisations have contributed to the lengthy process of developing this application. The applicants would like to thank:

Members of the South Coast Marine Reserve Coalition 1991–2000:

Andrew Cutler, Colin Ryder, Jonathan Gardner, David Allen, Julie Bellhouse, Redmer Yska, Chris Edkins, Trevor Butler, Trevor Willis, Bruce Grimwood, Chris Mathieson, Fiona Wilson, Jeff Sheerin, Penny Elliott, Tim Walshe.

Others who have assisted with this application:

Morris Love, Liz Mellish, Ray Ahipene Mercer, Ihaia Puketapu, Bruce Dix, Terry Lynch, Kathy Walls, Henricus Peters, Barry Weeber, Wayne Hastie, Rob Forlong, David Gordon, Roger Lane, Judie O'Connell, Captain Michael Pryce, David Mackie.

Members of recreational and commercial fishing and diving groups who discussed the proposal with the applicants:

Max Heatherington, Malcolm Blair, Jim Mikoz, Richard Cade, Daryl Sykes, Neville Smith, Alan Jenkins.

Organisations that have assisted with this application:

Wellington Branch and National Office of The Royal Forest and Bird Protection Society of New Zealand (Inc), Te Runanganui o Taranaki Whanui Ki Te Upoko o Te Ika a Maui, The Wellington Tenth Trust, Wellington Conservancy of the Department of Conservation, Wellington City Council, Wellington Regional Council, Anglian Water International (NZ) Ltd, Victoria University of Wellington, Magills Bar and Restaurant, Karori Wildlife Sanctuary Trust (Inc).

We would also like to record our thanks to the families of those involved with this application, and to friends, colleagues and supporters who assisted in ways too numerous to count.

Photographs courtesy of:

Jonathan Gardner and Joanne Long.

