



*Looking south to
Kaiaora from Whangara*

Intertidal platform at Kaiaora

MARINE RESERVE

Marine reserves are specified areas of the territorial sea, seabed and foreshore managed for scientific study and to preserve the marine habitat in its natural state. Reserves may be established in areas that contain underwater scenery, natural features, or marine life of such distinctive quality, or so typical, beautiful or unique that their continued preservation is in the national interest.

Te Tapuwae o Rongokako Marine Reserve is situated on the East Coast of the North Island of New Zealand, approximately 16 km north of Gisborne. It protects 2450 hectares of the marine environment between the Pouawa and Waiomoko Rivers (Figure 1). The marine reserve was established in 1999 as the result of many years of work by joint applicants, Ngati Konohi and the Department of Conservation. This was the first instance where tangata whenua have been applicants for the establishment of a marine reserve.

Ngati Konohi are tangata whenua of the area covered by the reserve. Their involvement in the process to establish the reserve stemmed from a desire to restore to their former condition traditional seafood harvesting areas that had become severely depleted of marine life. Following discussions with DOC staff and marine scientists and careful consideration of all the issues, the people of Ngati Konohi chose to become joint applicants with DOC in the application for a marine reserve. Appendix 2 outlines the detailed process undertaken by Ngati Konohi and DOC to establish Te Tapuwae of Rongokako Marine Reserve.

One way of recognising and providing for kaitiakitanga and partnership between Ngati Konohi and the Department of Conservation has been Te Tapuwae o Rongokako Marine Reserve Committee. This Committee was created to provide advice to DOC on a range of matters which affect the marine reserve and Ngati Konohi has a majority representation on the marine reserve committee.

Marine reserves are established with the expectation that they will continue indefinitely. However, as part of the marine reserve application Ngati Konohi requested that the process provide for a 'generational review' (a 25-year review period) to allow future generations of Ngati Konohi to assess the appropriateness of the marine reserve mechanism (Appendix 2).

A number of participants were very positive about establishing Te Tapuwae o Rongokako and commented that it was a kohanga that would allow the fish stock to establish and prosper. As some participants said:

The marine reserve was started to replenish the stock - transporting kaimoana, seaweed for kai, spillage to mataitai, parengo, micro-organisms, crayfish in crevices.

The marine reserve is currently in place and is an excellent tool for regeneration of national marine habitat, therefore of huge benefit to marine life.

A few people also expressed concerns with the length of time the marine reserve is in place (25 years) and thought there should be a review by Ngati Konohi after 10 years.

There were a number of concerns about the management of the reserve and comments made that while Ngati Konohi could provide advice through the marine reserve committee, DOC was making the final decisions. This again reinforced some concerns over the lack of tino rangatiratanga over the rohe moana.

We need more reserves, however we need to be in control of the marine reserves, we need to be in control of the management of the marine [environment].

It seems to me, we are being shut out of the control. I don't think, no matter how much intention is given, we will get control.

Joint application is not tino rangatiratanga until we have total control. We do not have tino rangatiratanga. DOC [should have] an advisory role not dictating.

However, a number of other people commented that Ngati Konohi do have the 'mana of the marine reserve', particularly through their direct access to the Minister of Conservation if they are not satisfied and that this is a form of tino rangatiratanga.

MATAITAI

Mataitai reserves are areas where the tangata whenua manage all non-commercial fishing by making bylaws. The bylaws must apply equally to all individuals. Mataitai reserves may only be applied for over traditional fishing grounds and must be areas of special significance to the tangata whenua. Generally there is no commercial fishing within mataitai reserves.

Ngati Konohi are currently developing a proposal for a mataitai reserve (Figure 1) to provide a sustainable customary resource of kaimoana for the Whitireia Marae and the Whangara community.

Although a few people interviewed for this research had some specialist knowledge of the Customary Fishing Regulations, most people stated that they did not have a clear understanding of the purpose of Mataitai. General comments from participants included:

The structures are not bad but tikanga and kawa are not represented in the structures.

We want legal and financial responsibilities/accountability defined for mataitai.

It sounds like another government system that we are slotted in and they put a Maori name on it to make it sound sweeter. If we were allowed to stipulate some rules and modify mataitai it would bring us closer to tino rangatiratanga.

*Looking at Whangara Island
from the Pakarae River*



I think taiapure and mataitai in its present state does not give tino rangatiratanga. If the management systems are modified to reflect what Ngati Konohi's vision are (autonomy, relationships, and self determination) then they will meet the visions and aspirations of the iwi.

However, a couple of people had thought about how a mataitai could be adopted by Ngati Konohi in their rohe moana and offered the following more specific suggestions:

As we have the marine reserve (kohanga/nursery) creating a mataitai can only benefit Ngati Konohi from the spill-out of kaimoana from the reserve.

Mataitai is a closed public take area and a useful tool for Ngati Konohi maintenance of gathering for recreational kai moana consumption. Mataitai would require to be policed by Ngati Konohi to ensure that recreational take from this area complies with recreational requirements.

To further support the Marine Reserve a Mataitai is envisaged that will cater for any spillage. It would extend from the northern side of the reserve to Pakarae. An important feature would be the responsibility that would be entrusted to Ngati Konohi to maintain, sustain, and care for marine life in the future.

TAIAPURE

Taiapure/locally managed sea areas are established under Part IX of the Fisheries Act 1996, where a committee nominated by the local Maori community may recommend the making of regulations to manage all types of fishing.

As was evident with the mataitai, although there had been previous discussions about taiapure prior to the establishment of the marine reserve, many people were unfamiliar with the concept of a taiapure and therefore only a few people responded to questions about it. A few people expressed concerns about a taiapure with comments that it would involve too many people and that it would not work in the rohe. One person commented:

I don't agree with taiapure. I would rather have mataitai. However, in terms of agreement over fishing between iwi and non-iwi something has to be put in place.

However, another person commented that the concept of taiapure could be looked at further down the track, as aquaculture management areas require identification and sites established.

A taiapure encompassing the rohe moana under the jurisdiction of the kaitiaki from Waihou Bay to Tatapuri heads and extending the whole extent of the 200 mile boundary would enable Ngati Konohi to ... help manage their fish stock and resources.

Some people had specialist knowledge of taiapure and were preparing a taiapure proposal. This proposal was being developed concurrently with the mataitai proposal to sit alongside the marine reserve. It is envisaged that the proposed taiapure and mataitai will give the kaitiaki the authority and resources to manage the rohe moana.

FISHING REGULATIONS

A number of people mentioned that they wanted to apply cultural methods to managing the rohe moana, and discussed the use of rahui. The tribal committee would have traditionally put a rahui in place. However, it was acknowledged that this would now be a problem as not everyone would obey it.

SUMMARY

Most participants did not have sufficient knowledge to provide an answer about the management systems. However, there were themes of 'concern', 'hope', and 'acceptance' in the responses. Ngati Konohi do want to participate in the development of management systems over the marine environment and there is acknowledgment that management systems like marine reserves, taiapure, and mataitai could provide assistance towards achieving their goals. However, many people within Ngati Konohi are currently going through a process of learning about these terms and the impacts on Maori and the marine environment and would prefer to take their time to learn the background to these systems before proceeding to place another management system over the marine environment. However, there was wide agreement that management systems applied over the marine environment need to relate back to the Treaty of Waitangi in order for iwi to retain control.

As well as considering these different management systems separately, it is also important to consider how they can work together in the rohe moana and who would have the authority or tino rangatiratanga over these systems. One person suggested there should be a management board which would have ultimate authority over the different marine management regimes, including commercial fishing in Ngati Konohi rohe moana.

Following these interviews, one proposal for how management systems could be used by Ngati Konohi was developed by the community research team (diagram on p.31). This proposal is discussed further with Ngati Konohi in the next stage of the research.

Environmental Tohu or Signs

An environmental tohu/sign tells us what state the environment is in and what might be happening over the short or longer term. The purpose of this environmental tohu project is to develop and document a process to identify and monitor tohu, signs that Maori could use to measure the health of the marine environment and the success of environmental management systems.

The purpose of this section is to provide a preliminary overview of the tohu or signs that were used traditionally, or that are currently used, by Ngati Konohi to tell them when the rohe moana is healthy or unhealthy. This will provide a basis on which to build the next stage of the work outlined in Appendix 3.

Some participants referred to the environment that they or their forebears had experienced in earlier times and considered that the state of the environment in the past was the benchmark that should be used when assessing the health of the rohe moana. As one participant said:

The past was the healthiest the marine environment was, therefore that would be the best indicator to use.

A number of people commented that they did not traditionally have signs as the rohe moana was always healthy and there was no pollution. Since the environment was not polluted some participants could not recall signs to indicate whether the marine environment was unhealthy.

Ngati Konohi participants identified two types of environmental signs; harvesting and planting signs and signs of environmental health. Another type of sign communicated cultural practice in the marine environment. For example, reference was made to placing a rahui over the moana in the event of death as a sign that it was not good to go in the sea.

There were a number of suggestions for contemporary signs used by Ngati Konohi to monitor the health of the rohe moana.

Ngati Konohi uses common sense signs to tell them when the marine environment is healthy or unhealthy. Common sense signs are “looks good, smells good, taste good the environment is healthy. Looks bad, smells bad, taste bad the environment is unhealthy. Kia ora”.

The environmental health signs suggested by participants can be defined in terms of colour, taste, touch, size, sight, smell, abundance and variety.



Kaiora

Colour

- I could tell if a marine environment was clean/healthy by looking at the colour of the kina

Taste

- If the seafood tastes foul you know there is something wrong with the environment
- The kai doesn't quite taste as delicious as it usually is

Touch

- Kina shells are soft

Size

- When the tongue (kina) wasn't fat it was unhealthy and when it was fat it was healthy
- If the tongue of the kinas is big it's a good channel
- Fish species smaller than normal, for example pupu and koura

Sight

- Looks dirty, rubbish on the ground
- The appearance of the mussel
- Dirty water in moana and awa
- Film on water – like oil but not
- Pollution of waterways following rain and because of human beings
- Rocks not returned to original position

Smell

- Environment has its own natural smell which differs from place to place
- Loss of smell
- Shouldn't stink

Abundance

- More or less kaimoana
- Kai isn't where you usually know it is
- Easily/readily accessible, gather by touch or sight as opposed to use of scuba gear
- Abundance of bird life
- Loss of abundant natural state of fish species and aquatic life
- Kaimoana is getting harder to source
- Abundance of seaweed growth

Variety

- Loss of species variety

This work on tohu/signs will be developed further in the next stage of the community research project which involves developing, monitoring and reporting on Ngati Konohi's tohu for the rohe moana.

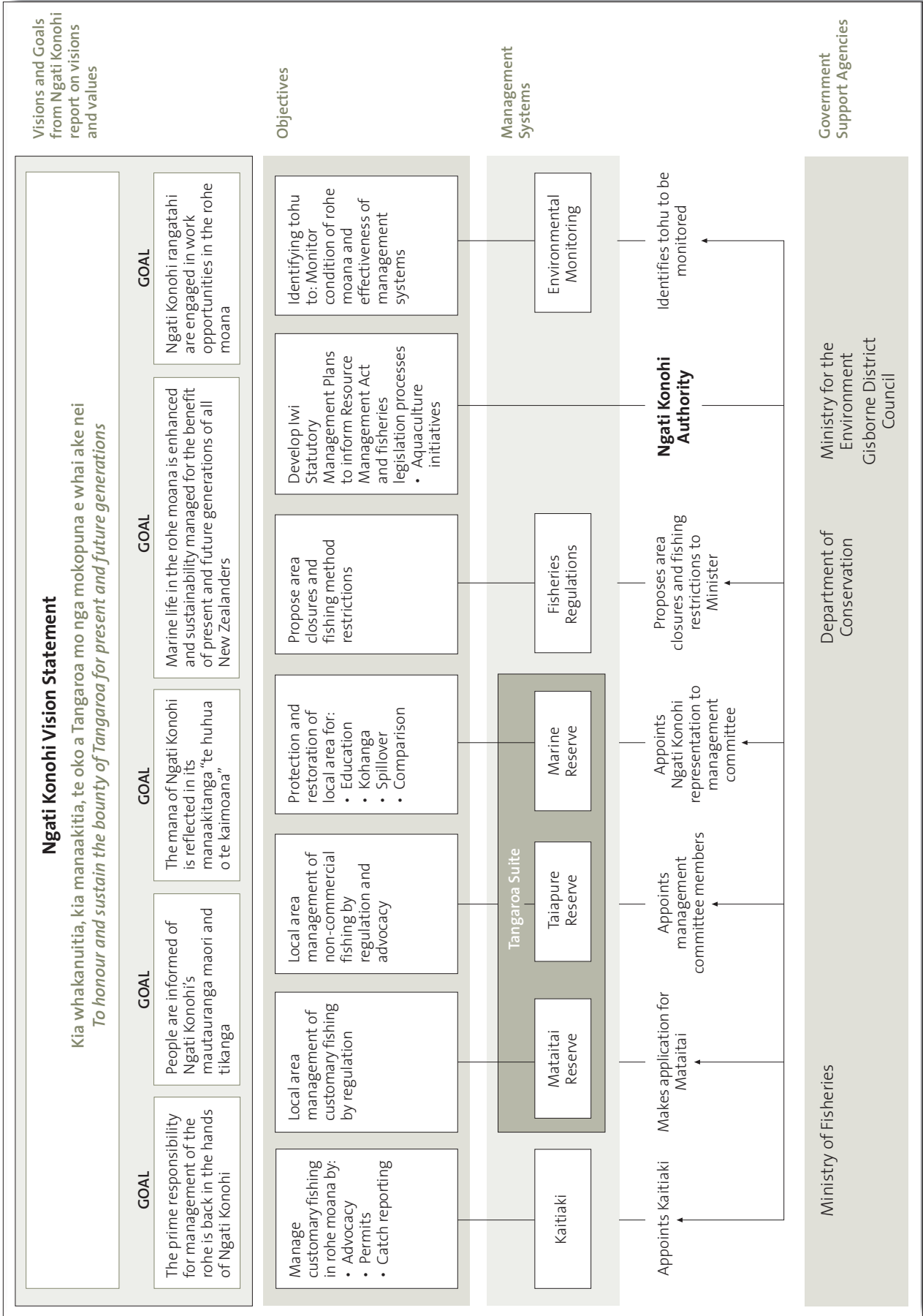
Conclusions

This report from the community research team has identified many of the goals and aspirations of Ngati Konohi for their rohe moana.

The findings suggest that Ngati Konohi want to have a role in marine management and some people within Ngati Konohi are clear about the benefit of these systems and how they can be integrated to meet the identified goals. However, many other participants are not familiar with the different marine management systems and have some concerns about whether they will provide for tino rangatiratanga. It is clear that there needs to be further discussion and clarification within Ngati Konohi, before any decisions are made as to how these different management systems can meet the identified goals.

Finally, the report has also provided a preliminary overview of the tohu that were used traditionally, or that are currently used, by Ngati Konohi to tell them when the rohe moana is healthy or unhealthy. This work on tohu is developed further in the next stage of the community research project which involves developing, monitoring and reporting on Ngati Konohi's tohu for the rohe moana.

Ngati Konohi vision, goals and aspirations for their rohe moana, and the mechanisms identified which could contribute to the delivery of their goals, are summarised opposite.



Resources

Department of Conservation www.doc.govt.nz

Ministry for the Environment www.mfe.govt.nz

Ministry of Fisheries www.fish.govt.nz

Te Momo, F. 2003: Ngati Konohi – objectives, interests and expectations for marine management: Volume 1 report; volume 2 collection of field data. Unpublished report prepared for the Ngati Konohi, Department of Conservation and Ministry for the Environment community research team.

Ngati Kere, Department of Conservation, and Ministry for the Environment, 2005. Maori methods and indicators for marine protection – Ngati Kere interests and expectations for the rohe moana, 65 p. Available from DOC Science & Technical Publishing, Wellington.

Appendices

APPENDIX 1: INTELLECTUAL PROPERTY PROTOCOL

The Department of Conservation and the Ministry for the Environment recognise that customary and traditional knowledge used in this project remains the property of Ngati Konohi.

With this in mind we wish to ensure that Ngati Konohi's interests and ownership of information are protected.

The Crown has certain responsibilities when it comes to information. All information that is held by the Crown is considered official information and is managed under the requirements of the Official Information Act 1982.

The Official Information Act is an Act that makes information held by government agencies available to the public on request unless the information is, for example, deemed confidential or privileged in which case it may be withheld.

The Act identifies reasons for a government agency to withhold information from the public. A number of the reasons identified in the Act for not making information available to the public are relevant to this project for example:

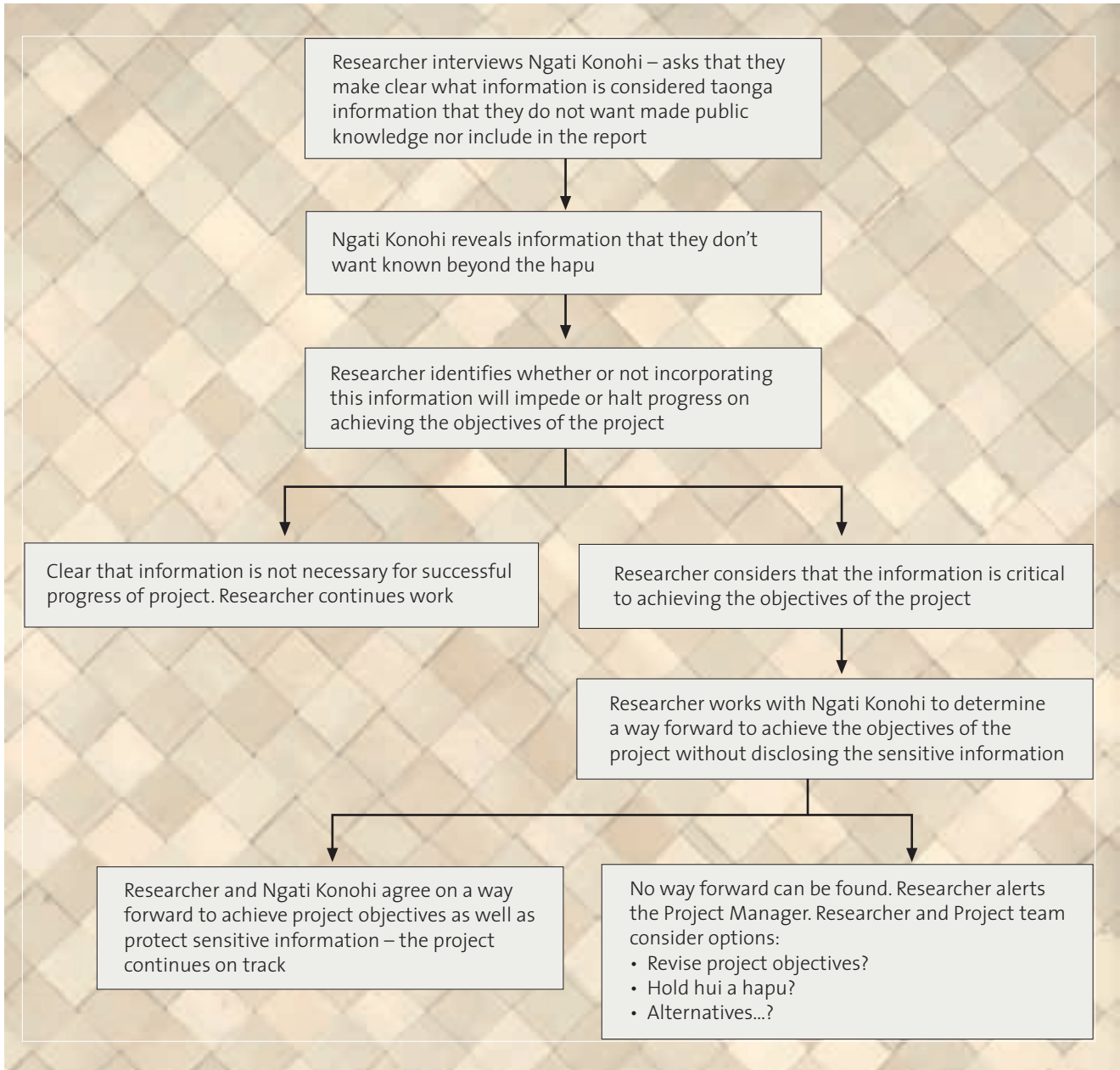
- Protecting the privacy of people
- Where releasing the information would prevent the supply of similar information, or information from the same source, where it's in the public interest that work in that area continue.

If anyone requested information relating to the project, which had been identified by Ngati Konohi as being sensitive and not for public release, then DOC or MfE would give consideration to the provisions of S.9 of the Act relating to declining the release of the information.

However, the Ombudsman (a parliamentary officer) makes the final recommendation whether information that a government agency or Minister of the Crown has declined to release to the public should actually be made available. If a complaint was made to the Ombudsman that DOC and MfE were refusing to release information, and the Ombudsman decided that this information should be released then DOC and MfE would have little choice but to make the information available.

Because DOC and MfE are bound by the Act we would like to ensure that appropriate processes are in place to protect sensitive information that Ngati Konohi do not want made public. The system outlined below is based on appointing a qualified researcher who is tangata whenua and has the confidence of the hapu to identify and appropriately manage sensitive information.

Ngati Konohi, DOC and MfE will have joint copyright over the final reports, and each will have the right to use the reports without prior consultation with the others.



APPENDIX 2: PROCESS TO ESTABLISH TE TAPUWAE O RONGOKAKO MARINE RESERVE

The following is a summary of the process undertaken by Ngati Konohi and DOC to establish Te Tapuwae o Rongokako Marine Reserve. It does not include the consultation process that took place with other groups such as commercial and recreational fishers, environmental groups, beach users and members of the public. A summary of the full consultation process relating to all groups is available in the application document published by DOC's East Coast Hawke's Bay Conservancy in June 1998.

PRE-STATUTORY PROCESS

July 1989

A group known as "The Gisborne Marine Users Group" (representing Lottin Point Mariners Association, Gisborne Tatapouri Sports Fishing Club, Gisborne Surfcasters Association Inc, NZ Land Based Game Fishing Club, Gisborne Underwater Club Inc) proposed three East Coast sites for investigation as marine reserves. These sites were Lottin Point, Pouawa [Kaiora] and Kaiti Beach. In response the Department of Conservation undertook preliminary investigations and community consultation at each site.

Summer 1989

Ngati Konohi representative, Heta Matete approached the Department's Regional Conservator, Bruce Jeffries, to seek help with the restoration of marine life at Kaiora which was suffering serious depletion.

March 1990

Department staff met with representatives of Ngati Konohi, B5 and Whitiwhiti Maori Blocks to discuss a marine reserve investigation. Agreement was reached to consult with Ngati Konohi, and support was given for a marine reserve investigation to proceed and for a hui to be held at Whangara.

September 1990

A hui was held with Ngati Konohi, marine biologist Dr Bill Ballantine of Auckland University, and DOC staff. Regional Conservator Bruce Jeffries stressed that consultation with the hapu was integral to the investigation process and that Ngati Konohi support for the investigation process was essential if the work was to proceed. Support was given by Ngati Konohi to initiate a marine reserve investigation at Kaiora and a Ngati Konohi/DOC Task Force was established.

November 1990-91

A detailed survey of the extent and distribution of marine habitats and marine species was undertaken at Kaiora. A beach user survey was also conducted.

March 1991

Jack and Nohoroa Haapu asked the Department to investigate mechanisms for a joint application and management of the marine reserve with tangata whenua.

November 1991

A Kaiora Marine Reserve survey and discussion document was presented to Ngati Konohi at Whangara and then released for public comment.

October 1992

A hui was held with Ngati Konohi at Whangara to discuss Ngati Konohi's submission on the discussion document. A decision was made to put the application process on hold while issues raised by Ngati Konohi in their submission on the discussion document were addressed.

1992 -95

A number of hui were held with Ngati Konohi over this period to discuss issues relating to the marine reserve application and in that time a wide variety of related issues were identified and considered.

- The concept of utilising the marine reserve as a kohanga for marine species to support customary fishing (through spillover) in a Mātaitai and /or Taiapure Reserve to be established in adjacent areas within the rohe moana of Ngati Konohi.
- The issue of how the Marine Reserve Act was limited in its provision for Kaitiakitanga and partnership with the Crown in the management of the reserve.
- The issue of consultation between the Crown and Ngati Konohi in respect of the marine reserve was clarified. The relationship was identified as being with the treaty partner Ngati Konohi iwi-hapu rather than with the Maori land incorporations Whitiwhiti and Whangara B5.
- Ngati Konohi halted the consultation process and withdrew their support for the proposal which DOC accepted. Three months later Ngati Konohi advised DOC they wished to re-start the process and support the proposal.
- The concept of "nil take-no exceptions" in the reserve was thoroughly explored and supported.
- Ngati Konohi's entitlements under the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 were explored as was the recognition that making an application for a marine reserve in their rohe moana was an exercise of Ngati Konohi tino rangitiratanga.
- The issue of providing for future generations to review the appropriateness of the marine protection mechanism was identified as important.
- Opportunities for education, recreation and tourism were identified.

July 1995

Ngati Konohi wrote to the Minister of Conservation seeking support to resolve two outstanding issues of concern to them. Firstly, that kaitiakitanga and partnership be better provided for through the establishment of a marine reserve advisory committee with membership weighted in favour of iwi, and secondly: that the process provide for a "generational review" (a 25-year review period) to allow future generations of Ngati Konohi to assess the appropriateness of the marine reserve mechanism.

September 1995

The Minister of Conservation agreed that in this instance a Section 56 advisory committee with membership weighted in favour of iwi was appropriate and better provided for kaitiakitanga and partnership. He advised that it is possible to request the Crown to undertake a formal review of a marine reserve at any time and suggested that the Marine Reserve Committee could, via its planning processes, initiate a generational review on a regular basis.

May 1996

Ngati Konohi hui a iwi at Whangara Marae discussed the Minister's letter and reviewed the marine reserve proposal. Having the Minister of Conservation agree that a joint management committee and 25-year "generational review" were appropriate for this marine reserve proposal, satisfied remaining reservations that Ngati Konohi had, to the extent that they were prepared to be joint applicant. There was a unanimous resolution to support in principle a joint application for a marine reserve at Kaiora.

1996-98

Ngati Konohi and DOC continued to work together to prepare an application to the Director-General of Conservation. Ongoing consultation with interested groups and the public continued. Ngati Konohi changed the name of the proposed marine reserve from Kaiora to Te Tapuwae o Rongokako to acknowledge an ancestor of East Coast tradition.

June 1998

An application to establish Te Tapuwae o Rongokako Marine Reserve was made to the Director-General of Conservation.

STATUTORY PROCESS

The statutory process for establishing a marine reserve is included as Appendix 1 in the application document. As part of the process, an independent review of procedure by consultants Montgomery Watson, was provided for the Minister of Conservation.

The Minister of Conservation announced his decision not to uphold any of the objections regarding the marine reserve application on 4 July 1999 and sought the concurrence of the Ministers of Fisheries and Transport. The Minister of Transport announced his concurrence on 18 August 1999 and the Associate Minister for Food, Fibre, Biosecurity and Border Control announced his concurrence on 6 September 1999.

The Marine Reserve (Te Tapuwae o Rongokako) Order 1999 was notified in the NZ Gazette on 14 October 1999 and Te Tapuwae o Rongokako Marine Reserve came into effect 28 days later, on 11 November 1999.

CHECKING THE PROCESS

The process of establishing Te Tapuwae o Rongokako Marine Reserve has been closely examined by independent groups on three occasions. The independent report prepared by consultants Montgomery Watson and a judicial review following an appeal by the CRA3 Industry Association both approved of the process followed in establishing the marine reserve.

The third examination, and one that directly relates to Ngati Konohi's understanding of how the marine reserve would affect local fishing practices, was covered in a report by the Ministry of Fisheries when concurrence was sought. The Ministry was required to examine the effect the proposed marine reserve would have on Treaty principles and fisheries settlement provisions. Ministry of Fisheries staff reported that they were satisfied that Ngati Konohi were aware that within the area proposed as a marine reserve, they would no longer be able to:

- exercise customary fishing rights
- manage customary fishing through the nomination of tangata kaitiakitanga/tiaki
- manage non-commercial fishing under mataitai
- take fish for commercial purposes following the allocation of commercial fishing assets by the Treaty of Waitangi Fisheries Commission

Ngati Konohi assured Ministry of Fisheries staff that they were aware of their rights under the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 and had already appointed tangata kaitiaki for their rohe moana. They explained that they had chosen to exercise their tino rangitiratanga by utilising the provisions of the Marine Reserves Act 1971 to protect the marine life at Kaiora. Ngati Konohi also advised the Ministry that they may exercise their rights under The Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 to apply for a Mataitai Reserve to manage customary fishing within an area immediately north of the proposed reserve and believed a marine reserve would support this management option.

MANAGEMENT OF THE MARINE RESERVE

In April 2000, Te Tapuwae o Rongokako Marine Reserve Committee, consisting of up to nine members representing groups with key interests in the reserve, was created to provide advice to DOC on a range of matters. Ngati Konohi has a majority representation on the marine reserve committee.

The marine reserve committee identified issues to be addressed in an operational plan developed to provide guidance to DOC staff in management of the reserve. The plan provides an effective mechanism for the advice provided by the committee to influence the management of the reserve. It also reflects a diverse range of community views through the involvement of the committee.

SUMMARISING A DECADE OF DELIBERATION

In 1989, Ngati Konohi sought help from the Department of Conservation to restore a severely depleted local marine environment to the healthy state remembered by older members of the hapu. Over the years of hui, consultation and investigation since Ngati Konohi first approached DOC, a number of key themes have emerged.

- Protection of the local marine environment. In discussing the protection tools available, Ngati Konohi considered that a marine reserve was the best way they could achieve their objectives for a vital part of their rohe moana.
- Restoration of the marine environment to the way it was in the past so future generations can appreciate an essential part of their natural and cultural heritage. This is linked to the theme of kaitiakitanga with all that involves including, stopping pollution, providing a clean safe environment, teaching customary management practices, extending powers of kaitiaki and understanding the spiritual and physical value of the environment.
- The development of the marine reserve as a kohanga or nursery, an undisturbed environment where marine species have opportunities to grow in size and number and ultimately disperse outside the boundaries of the reserve.
- Ngati Konohi involvement in the management of the marine reserve through the marine reserve committee.

- A 25-year review of the marine reserve. Ngati Konohi were concerned to ensure that future generations would have the opportunity to make their own decisions about the worth of the marine reserve.
- Growing understanding and interest in using a range of tools for the management of the rohe moana of Ngati Konohi in an integrated way. The 'no take' marine reserve is seen as supporting other mechanisms such as mataitai, taiapure and managed customary fishing areas which are overseen by kaitiaki appointed under the Fisheries Act.
- Growing interest in opportunities provided by the reserve in education, recreation and tourism.
- Te Ira Tangaroa, a concept relating to the spiritual aspect of the sea, asserting the intrinsic value of all marine life, nurturing and enhancing the mauri of Kaiora.

APPENDIX 3: BACKGROUND ON MAORI ENVIRONMENTAL INDICATORS/TOHU

WHAT ARE TOHU?

Tohu are created by Maori to measure change in an environment. They can lead the community in sustaining their vision for their environment.

BACKGROUND

The Ministry for the Environment established an environmental indicators programme in 1993 primarily to:

- Report on the state or health of New Zealand's environment
- Measure the performance of our environmental policies and
- To better prioritise policy and improve environmental decision making

Maori have been involved in the programme since the beginning to assist us in developing indicators or signs relevant to Maori and Maori communities. A Maori Environmental Monitoring Group (MEMG) was established to provide input at a conceptual level and individual iwi-hapu have been involved in the development of Maori-specific indicators in the form of case studies.

The development of Maori indicators requires a different approach than other indicators. We have recognised that it is not possible to take the same national approach (one size fits all) that is used for more western science indicators such as biodiversity indicators. Individual iwi and hapu have their own values when it comes to looking after their environment. What is considered an important indicator for monitoring the health of the marine environment for one hapu may not be the same for another. This has resulted in the development of Maori indicators through case studies.

The main focus of the case studies has been to provide Maori at a local level with an opportunity to describe and share with others their knowledge, observations and management of the environment. The case studies also provide us with an opportunity to build relationships and develop a greater understanding of what is important to Maori when it comes to managing their environment.

OBJECTIVE OF MAORI MARINE TOHU PROJECT

To develop and document a process to identify and monitor tohu, signs that Maori could use to measure the health of the marine environment and the success of environmental management systems.

WHY NGATI KONOHI MIGHT WANT TO DEVELOP TOHU

Tohu help place a line in the sand for people to compare what they've got now with what they had in the past. What people think is in good health now might have been quite poor in the old days. Ngati Konohi may want to identify degradation or improvement in their environment that extends greater than your own lifespan (the reserve provides another point for comparison. You can compare what's there with what's outside). Over time, continued measurement of tohu allow you to see those changes of improvement or degradation.

Tohu can be used to integrate iwi and hapu values and customary management practices into the resource management system. Currently Maori values, expectations and aspirations for the marine environment are not reflected in statements that are made about the health of the environment. The results of monitoring using tohu can provide an avenue for traditional information on the health of the environment to be communicated to agencies that make decisions on the management of natural resources (e.g. regional councils). Decisions can then be made on whether the management methods that are currently in place or chosen are looking after Maori values.

WHY MfE AND DOC ARE INTERESTED IN TOHU

We are investigating ways by which Maori views can be reflected in what's said about the health of the environment at the regional and national level.

This project is one of the case studies the Ministry for the Environment is undertaking to develop Maori tohu and is part of a bigger project with an overall goal to test how a range of marine management regimes are able to meet conservation and iwi-hapu objectives. This project provides us with an opportunity to work with DOC, Ngati Kere and Ngati Konohi to achieve these overall goals.

This project will assist us to explain how Ngati Konohi identified what tohu they would use to describe the health of the environment so the procedure or process can be taken to other hapu and iwi. This will include describing how Ngati Konohi came to decide what tohu to use (traditional or not), how methods to measure the tohu are determined (traditional or western), and how you would test the tohu to ensure you are producing reliable information about the health of the environment. We also want to work out a way to report this information without disclosing information Ngati Konohi don't want going outside the hapu.

THINGS TO THINK ABOUT WHEN TALKING TO HAPU ABOUT TOHU THEY WOULD USE TO ASSESS THE HEALTH OF THEIR ROHE

Below are some example questions you could use when talking to the hapu about the signs they would use to assess the health of the rohe (you may wish to develop your own). These questions could also be kept in the back of your mind when listening to the korero from your archives.

- When thinking about the Mauri of your marine rohe what signs would tell you whether it is healthy or not?
- Can you think of ways to compare the health of the rohe now to how it used to be?
- What would prompt you to think that your marine rohe is improving / degrading or staying the same? What are signs of positive change in your rohe, what are signs of negative change?

Completion of the first research objective will identify Ngati Konohi's vision, goals and expectations for the marine environment. You can use tohu as a way to determine over time if Ngati Konohi is working toward achieving their vision, goals and expectations for the marine environment. Below are some examples of questions you may like to ask to assist in determining signs that could link back to your goals (again these are only examples, you might like to develop your own).

- What signs could you use to figure out whether you are getting closer to your goals?
- What would you look for to find out how healthy the kaimoana species are in your rohe?
- Apart from things you eat, are there other things that give you clues about how healthy your marine rohe is?
- What methods would you like to use to measure the health of your environment? Are there traditional methods you would like to use?

It is up to the project coordinators how to undertake this work. When thinking about indicators we don't want to restrict thinking to just the wet parts of the marine environment. We would encourage people to think about the marine environment holistically.

An example of a response to the above combination of questions

A sign that would tell me when my marine rohe is healthy is the amount of native vegetation on the sand dunes.

If the marine environment was in good shape the amount of native vegetation is plentiful, a large number of birds would be nesting in it and also there is no rubbish caught in the vegetation. Over the years I have seen the vegetation disappear and there are now fewer birds that nest in there. There has also been an increase in the amount of rubbish that gets caught up in the vegetation.

Things (tohu) that show me that the health of the marine rohe is improving is the increase in native vegetation compared to the nuisance species of plants (non-natives), there is less rubbish in the dunes and more birds are present at certain times of the years. The opposite occurs when the marine environment is degrading.

Some methods I'd like to use to measure the signs would be to measure the area of vegetation at the start of every season and figure out how much is native and how much is nuisance vegetation. I would also like to count the number of birds that nest during spring and the check every month or so how much rubbish is present in an area and what type of rubbish is there.

GLOSSARY OF MAORI WORDS

The following Maori words may occur throughout the text. The listed pagenummer indicates their first mention and explanation in context.

awa/river, channel, 15	mataitai/reserved sea area for marae use, 5
hapu/sub-tribe, 5	matauranga/knowledge, 10
hapuka/groper, 17	moana/sea, 22
harekeke/flax, 17	mokopuna/grandchildren, 14
hui/meeting, 8	Pakeha/non-Maori, 18
ika/fish, 17	pakeke/customs, 13
iwi/tribe, 5	parengo/seaweed, 17
Kahutia Te Rangi/ancestor of Ngati Konohi, 10	Pukehapopo/sacred hill of Ngati Konohi, 10
kai/feed, food, 18	pupu/periwinkle, 17
Kai Pupuri Mana/holders of authority, 6	rahui/embargo, 15
kaimoana/seafood, 10	rangatahi/modern youth, 13
kaipupuri mana/holders of authority, 9	rohe moana/coastal area, 15
kaitiaki/caretaker, trustee, 12	taiapure/locally managed sea area, 15
kaitiakitanga/sharing guardianship responsibility, 10	tamariki/children, 13
karakia/prayer, 19	Tangaroa/guardian of the sea, 17
kaumatua/elder, wise man, 8	tangata kaitiaki/caretakers of a given area, 5
kina/sea egg, sea urchin, 17	tangata whenua/local people, 14
kohanga/nursery, 20	tikanga/custom, 22
koura/crayfish, 17	tino rangatiratanga/autonomy, 9
kuia/old (wise) woman, 18	tio/oyster, 17
mahi/work, employment, 10	tohunga/priest, 19
makawe parengo/black, sweet seaweed, 17	tohu/signs, indicators, 28
mana/pride, strength, reputation, 11	waananga/learning, 13
manaaki/embracing each other, support, 10	wawataa/aspirations, 10
mango pare/hammerhead shark, 17	whanau/family, 15
manuhiri/visitors, 14	wharekai/eating house, dining room, 22
marae/meeting house, 12	whenua/land, 22