

Proposal for two marine reserves and a scientific reserve in the Bay of Islands: Results of community consultation

Fish Forever

by Vince Kerr,¹ Catherine Langford,² and Dean Wright³



October 2014

¹ Email: vince@kerrandassociates.co.nz

² Email: langford.ink@gmail.com

³ Email: dean@deanwright.co.nz

Contents

Contents	2
1. Summary of report	3
2. The consultation process	3
2.1 Fish Forever	3
2.2 The proposed reserve sites	3
2.3 The Community Consultation Document	4
2.4 Submissions received	5
3. Analysis of submissions	6
3.1 Overview of results	6
3.2 Question by question	7
3.3 'Mark the chart' submissions	16
4. Discussion	17
4.1 Level of community awareness	17
4.2 Self-selecting	18
4.3 Number of responses	18
4.4 Consistency with other survey results	18
4.5 Location of submitters	19
4.6 Customary tools	19
4.7 Perceived benefits	19
5. Conclusion	20
6. Acknowledgement	20
7. References	21
8. Appendix	21

Citation:

Kerr, V.C., Langford, C., Wright, D., 2014. Proposal for two marine reserves and a scientific reserve in the Bay of Islands: results of community consultation. Prepared for and published by Fish Forever, Bay of Islands Maritime Park Inc.

ISBN 978-0-473-30301-3

1. Summary of report

Fish Forever, a local community group, is proposing two marine reserves and one scientific reserve for the Bay of Islands. The proposal was publicly launched in May 2014, through a [Community Consultation Document](#) that invited public submissions over a six-week period. Throughout the submission period, Fish Forever publicised the proposal and engaged with as many locals and stakeholders as possible.

This report presents the results of that community consultation process.

From over 1,300 submissions received, the overwhelming impression is of active community support for the proposal – both in general, and in the specific areas proposed. This clear mandate is vital to moving the proposal process forward.

The submissions also clarify the key areas of community concern about the proposals. These concerns focus on the relationship between marine reserves and other protective measures, like fisheries and customary management regulations, which need to be taken into account in long-term conservation planning for the Bay.

2. The consultation process

2.1 Fish Forever

In 2010, the Bay of Islands Maritime Park Inc made a commitment to pursue a marine reserve campaign for the Bay of Islands. After a number of well-attended public meetings, Fish Forever was launched as a working group of Bay of Islands Maritime Park Inc: a community initiative guided by an established local organisation. Fish Forever's objective is to establish a representative network of marine reserves encompassing 10% of the enclosed waters of the Bay of Islands.

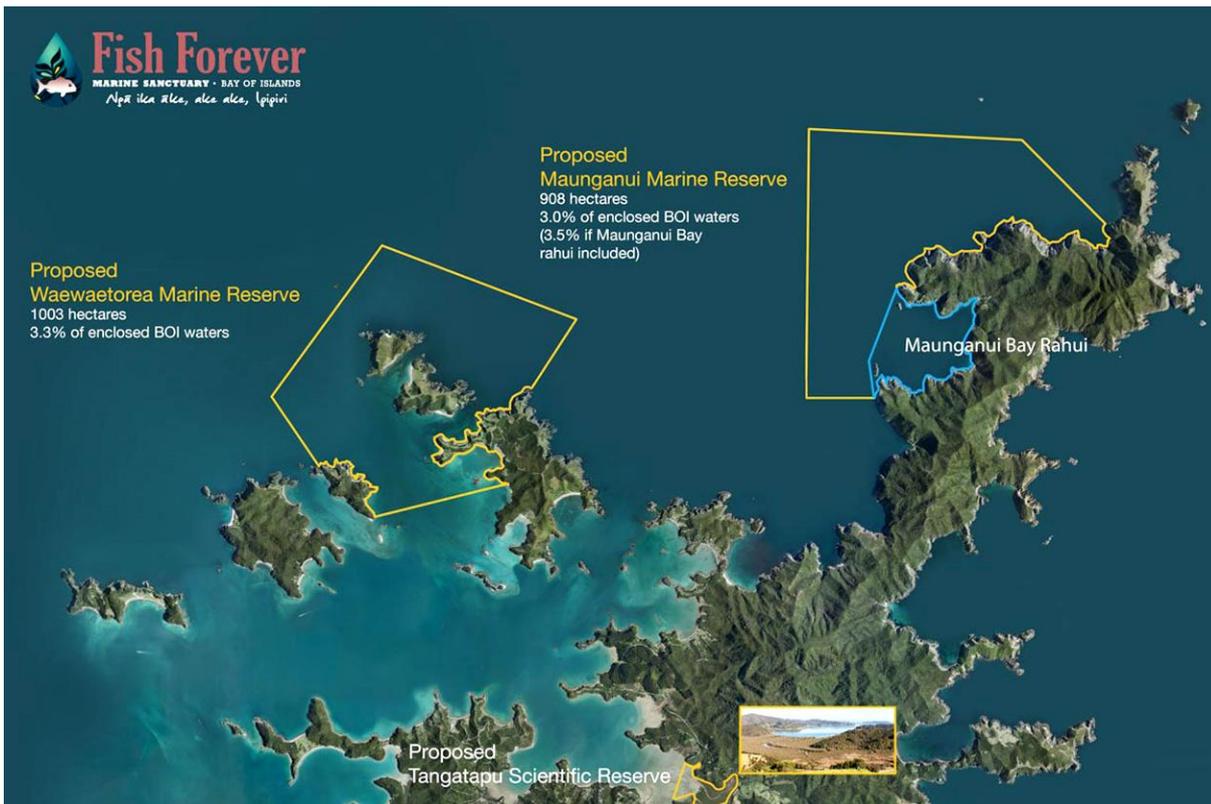
An important note: Fish Forever supports the development of a full range of marine conservation measures for the Bay of Islands, not just marine reserves. The group is committed to engaging with the communities of the Bay of Islands to achieve local solutions to the complex problems and threats faced by our marine environment. However, it is Fish Forever's core belief that marine reserves form a crucial part of the solution.

2.2 The proposed reserve sites

Over the last four years, Fish Forever has carried out extensive consultation with the Bay of Islands community. This work is summarised on page 26 of the Community Consultation Document. As a result, two candidate marine reserve sites and one scientific reserve site have been identified.

All three candidate reserve sites are located in the eastern Bay of Islands. One of the two marine reserve sites is around Okahu, Waewaetorea and the northwest Urupukapuka Islands. The other is at Maunganui Bay extending north east to Ohututea (Pig Gully).

The proposed site for a scientific reserve is a mangrove/salt marsh area, Tangatapu, which represents another key habitat in the Bay of Islands. A wetland restoration project is already well under way nearby, with considerable local backing.



Location of Fish Forever’s proposed marine reserves and scientific reserve

2.3 The Community Consultation Document

Fish Forever’s Community Consultation Document, proposing the establishment of all three reserves, was released on 1 May 2014 and open for submission until 13 June 2014. As well as outlining the characteristics of the three sites, the proposal highlights the urgent need for marine protection in the Bay of Islands and the need to raise awareness of the specific benefits of marine reserves.

The proposal was launched at an evening event which was aimed at local and regional media representatives and local business and government representatives. A press release went out to national media on the same evening.

A submission form accompanied the consultation document, with questions designed to gauge people's positions with regard to reserves in general and, more specifically, to Fish Forever's reserve proposals. The submission form also invited people to provide detailed feedback about the candidate and other possible sites, to assist in finalising proposed boundaries.

The document called for public submissions over a six-week period. During that period, Fish Forever made an effort to contact key stakeholder groups and offered to speak to any other local group.

Three hundred colour copies of the consultation document were printed and distributed at meetings and around the community, to key local groups and nodes of high community traffic such as libraries, schools, information centres, cafes, and bars. Fish Forever also instigated an online communication campaign, using extensive email networks and social media, to ensure widespread penetration in the Bay of Islands community and beyond. People were encouraged to go to the Fish Forever website, www.fishforever.org.nz, where they could download the consultation document, read supporting information, and complete an online submission. There was also a 'mark the chart' online mapping option presented on the website, enabling people to mark where in the Bay of Islands they would like to see marine reserves located.

2.4 Submissions received

In total, 1,349 submissions were received: 1,175 on Fish Forever submission forms (grouped submissions from school children were not included); five individually written letters; and 169 form letters. The form letters were on two templates, one completed by members of the Ngati Kuta and Patukeha hapū (134) and the other distributed by the Bay of Islands Swordfish Club (35). 116 people 'marked the chart' online.

Half of the submission responses were from the Bay of Islands community. A further 15% and 14% respectively were from other parts of Northland or Auckland.

Not all submitters responded to all questions. For example, while both sets of form letters provided a yes/no answer to the specific reserve proposals, neither answered any of the other questions contained in the submission form. The analysis of the responses to each question in this report is therefore based on the numbers of submitters who responded to that question.

The 134 form letter submissions from the hapū were received late. Since Fish Forever's aim is to engage constructively with hapū and all local stakeholders, these late submissions were accepted and have been taken into account in this report where applicable.

It should be noted that submitters were not asked to indicate an ethnicity or hapū affiliation. As a result, it is not possible to identify the proportion of individual responses submitted by Māori and/or members of local hapū.

Most submissions were recorded online, and automatically entered into an Excel database. Written submissions were manually processed into the same Excel database, and totals for all questions were then automatically generated.

There were three open-ended text based questions on the submission form. These responses were manually coded to a list of the most common responses.

The names and addresses of submitters remain confidential.

3. Analysis of submissions

3.1 Overview of results

The results of the consultation process demonstrate widespread support for the proposed marine and scientific reserves.

Of the submitters, 98% approve of marine reserves in the Bay of Islands, and 87% support a network of marine reserves in New Zealand. When asked what percentage of the Bay of Islands they would like to see protected in marine reserves, 91% of submitters provided an answer in the range of 10-50%.

A limited number of submissions, principally from hapū and recreational fishing interests, do not support marine reserves in the Bay of Islands, preferring the use of customary management tools and/or fisheries regulations to enhance fish stocks in the Bay.

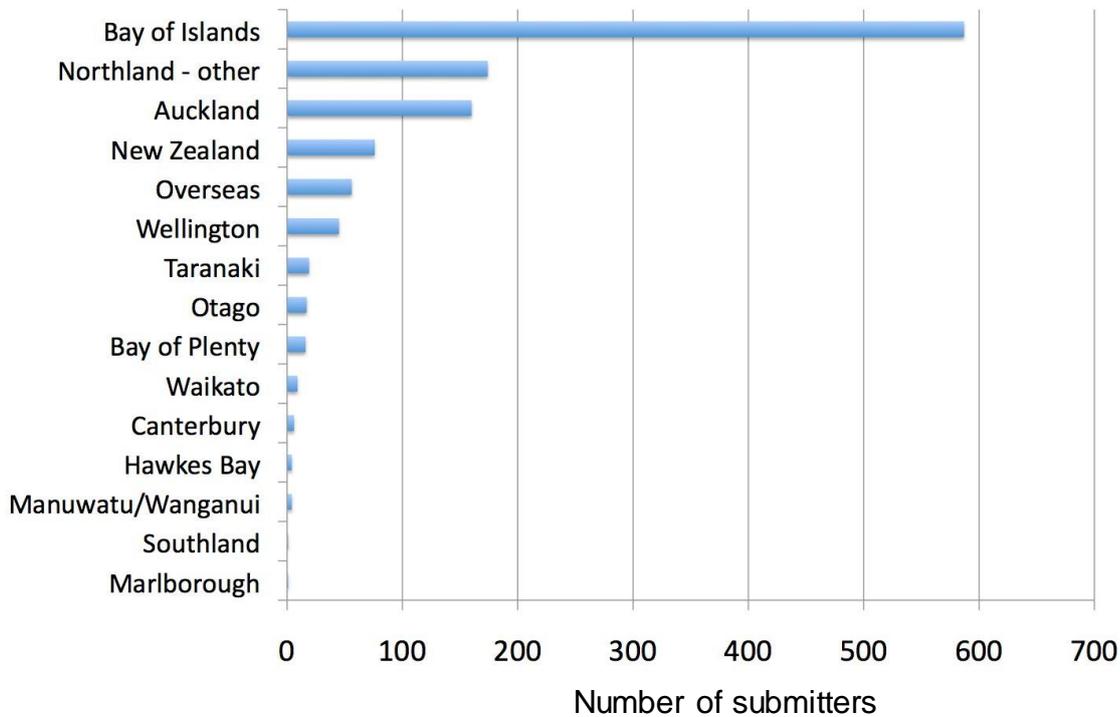
Support for the specific proposed sites stands at 81% (including form letters), or 93% (excluding form letters). Almost all of the submissions which express opposition to the current reserve proposals were received as form letters. The 134 form letters from hapū members state that the Fish Forever proposal is in direct conflict with the hapū's Moana Management Plan, two Waitangi Tribunal Claims, and their submission relating to (what used to be) the Foreshore and Seabed Act. The 35 form letters promoted by the Bay of Islands Swordfish Club call for the use of customary and fishery management tools as a preferred way to manage the Bay of Islands fish stocks, and show little interest in marine biodiversity protection.

It is worth noting in this regard that Fish Forever has previously worked with the two Rawhiti hapū, Patukeha and Ngati Kuta, by supporting their customary management projects including the Rahui established under section 186A of the Fisheries Act at Maunganui Bay. Fish Forever remains interested in exploring how fisheries customary management tools and regulations can be integrated with marine reserves to create a suite of sufficiently protective measures which take into account the concerns revealed in this consultation process.

3.2 Question by question

Question 1

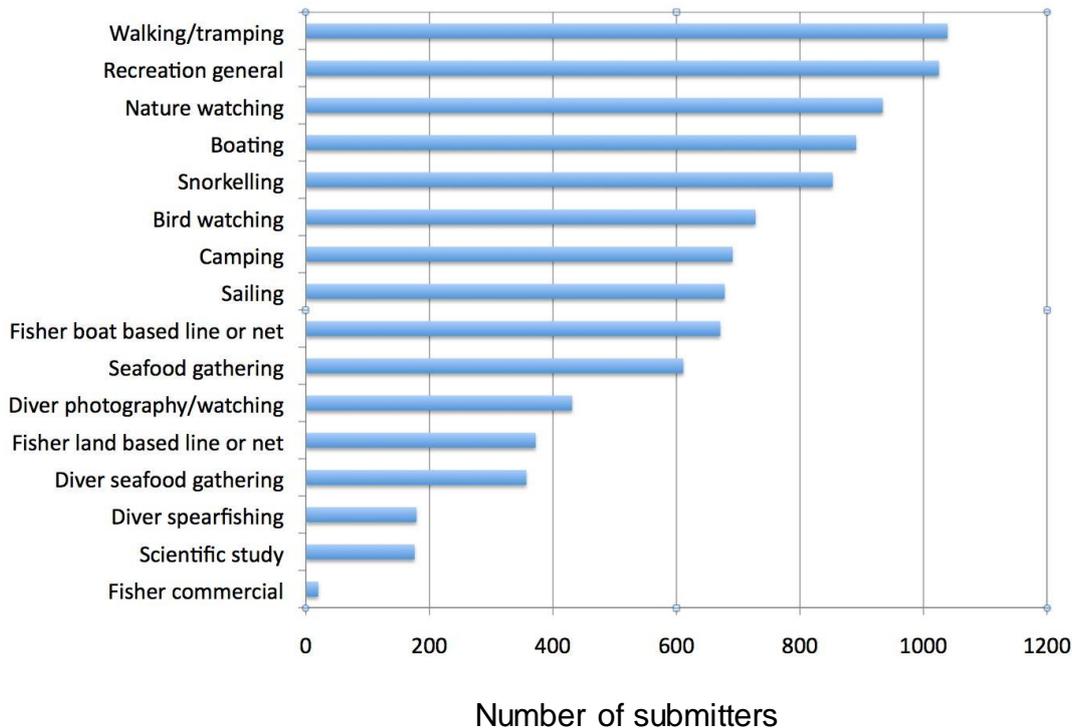
I permanently reside in _____



50% of submitters come from the Bay of Islands. An additional 29% are 'local' in a broader sense: from other parts of Northland or Auckland. The remaining 21% of submitters are from other parts of New Zealand and overseas, and may have an interest in marine protection generally and/or a particular interest in the Bay.

Question 2

Describe the activities you enjoy in the Bay of Islands



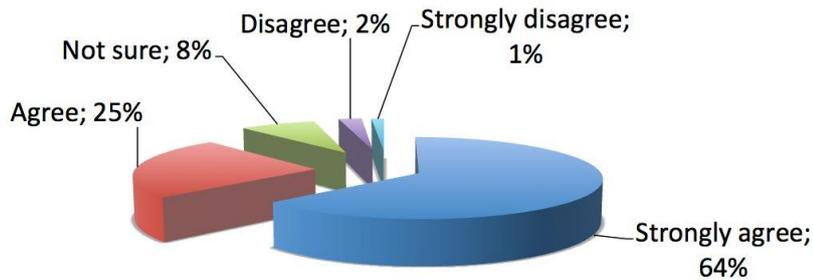
For this question multiple responses were allowed, recognising that individuals engage in multiple activities and have diverse interests. The graph shows the number of people who identify as engaging in each activity. While significant numbers of respondents engage in extractive (eg fishing) activities, the eight most popular activities are non-extractive. 'Walking and tramping' is the most popular activity, selected by over 1,000 submitters. The most popular fishing-related activity (boat-based, line or net) was selected by just under 700 submitters.

Question 3

Marine life and fish populations are declining in the Bay of Islands

strongly agree / agree / not sure / disagree / strongly disagree

Marine life and fish populations are declining in the Bay of Islands



Almost 90% of the 1,159 submitters who responded to this question strongly agree or agree that marine life and fish populations in the Bay of Islands are declining.

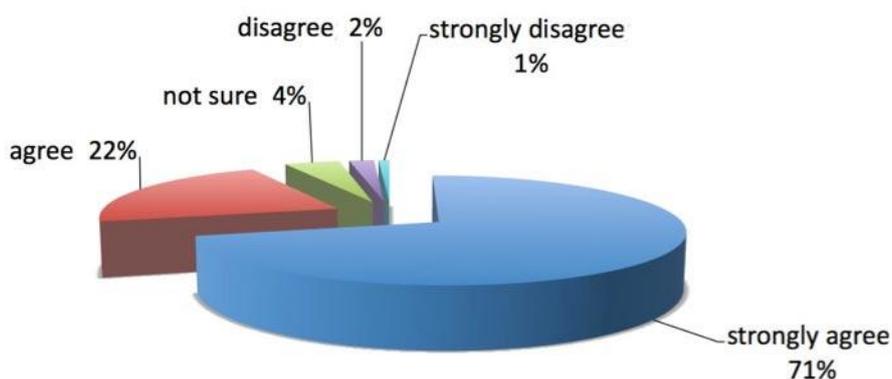
Question 4

Overfishing is a concern for the Bay of Islands

strongly agree / agree / not sure

/disagree /strongly disagree

Overfishing is a concern for the Bay of Islands



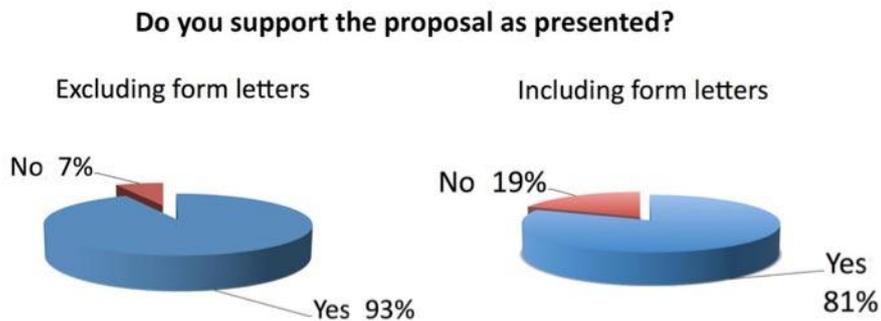
More than 90% of the 1,158 submitters who responded to this question strongly agree or agree that overfishing in the Bay of Islands is a concern.

Question 5

Do you support the proposal as presented?

yes / no

For this core question two charts are presented below, the first omitting form letters.



A total of 1,095 people responded positively to this question, demonstrating very high levels of support for Fish Forever’s current proposal.

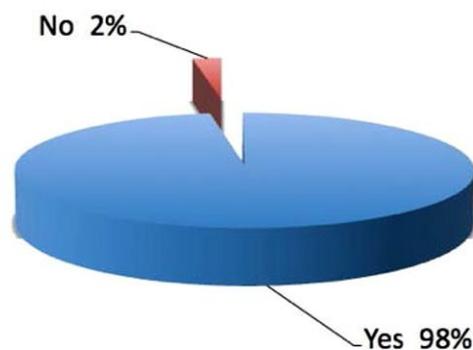
All 169 form letters received (on the two templates described above) express opposition to the proposal in its current form.

Question 6:

Do you approve of having marine reserves in the Bay of Islands?

yes /no

Do you approve of marine reserves in the Bay of Islands?



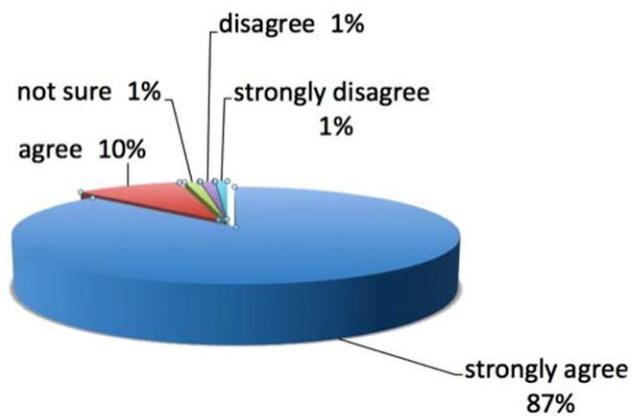
The 98% approval rate here speaks for itself.

Question 7

Establishing a network of marine reserves in NZ is a good idea

strongly agree / agree / not sure /disagree /strongly disagree

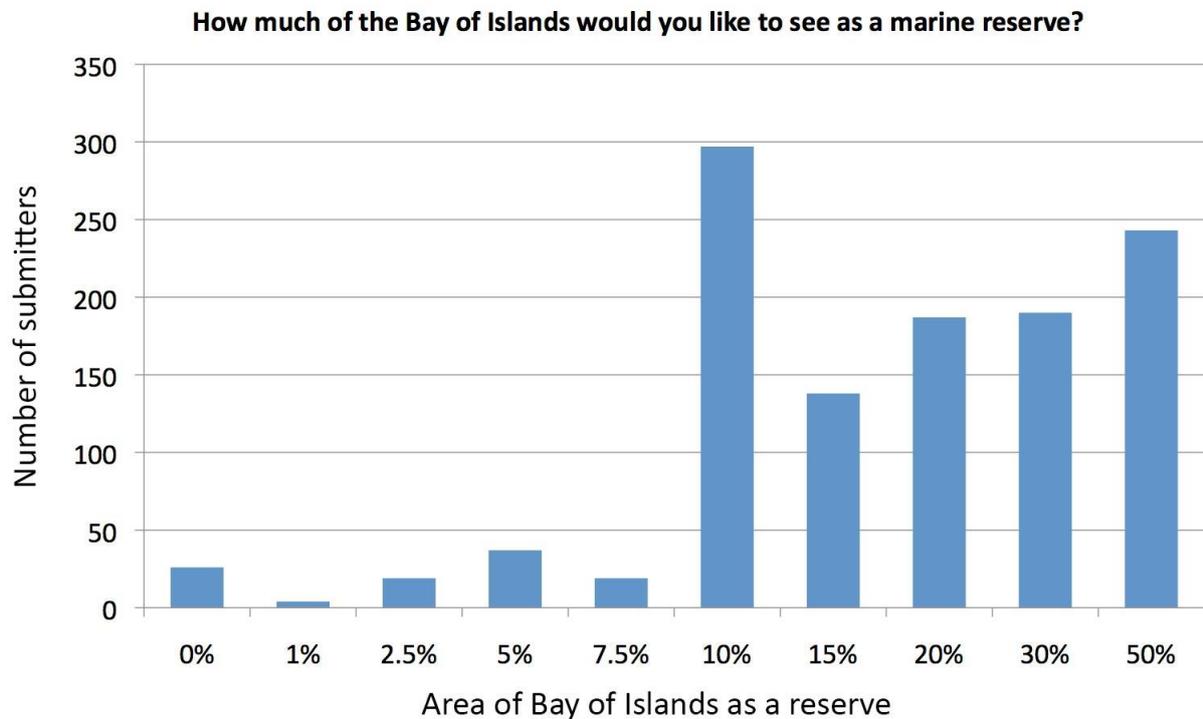
Establishing a network of marine reserves in New Zealand is a good idea



Support for the establishment of a network of marine reserves in New Zealand is also extremely high, at 97%, almost matching support for the establishment of reserves in the Bay. The 1% “unsure” result may be attributable to uncertainty about the scientific concept of a network and/or the implications of a nationwide approach.

Question 8: **How much of the Bay of Islands would you like to see as a marine reserve?**

0% / 1% / 2.5% / 5% / 7.5% / 10% / 15% / 20% / 30% / 50%



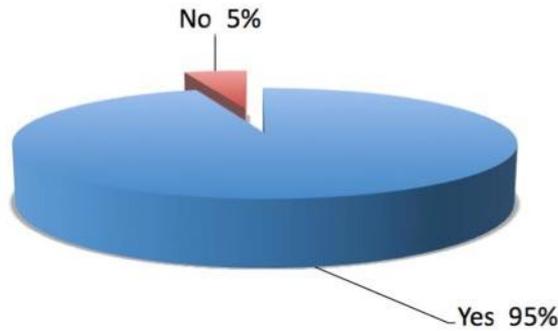
The responses to this question show clear support for protecting a higher percentage of the Bay of Islands in marine reserves than Fish Forever has actually proposed. More than half (53%) of submitters support protecting 20% or more of the Bay; more than a quarter consider that 10% would be appropriate. By comparison, the areas proposed for protection by Fish Forever cover less than 7%.

Question 9

Would you visit a marine reserve in the Bay of Islands once it was established?

yes/no

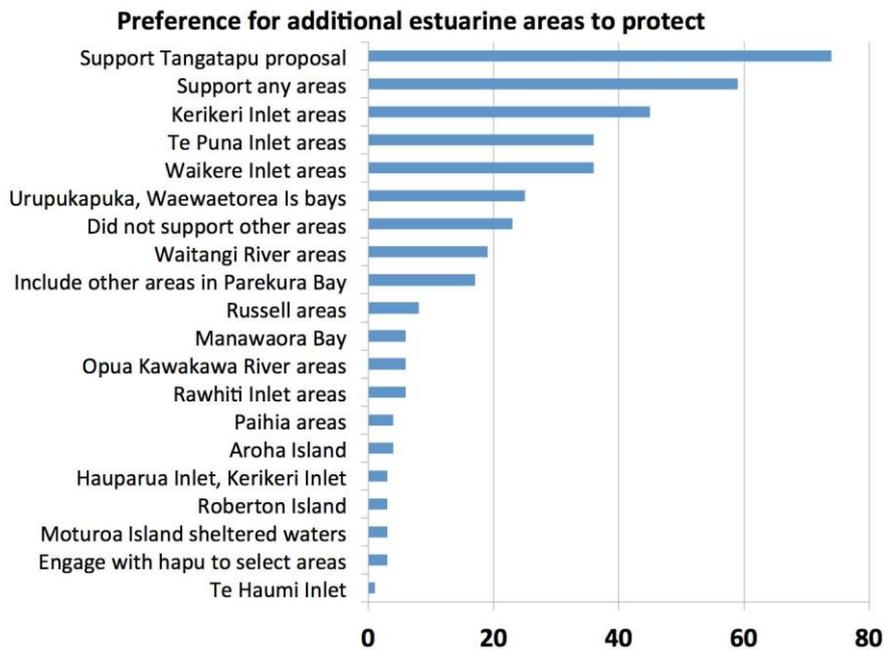
Would you visit a marine reserve in the Bay of Islands once it was established?



95% of submitters say they would visit a marine reserve in the Bay of Islands. Even allowing for the general popularity of the Bay as a recreational/tourist destination, that is an extremely high figure for a hypothetical/proposed marine reserve.

Question 10:

What estuary/sheltered water area would you like to see protected as a marine reserve in the Bay of Islands?

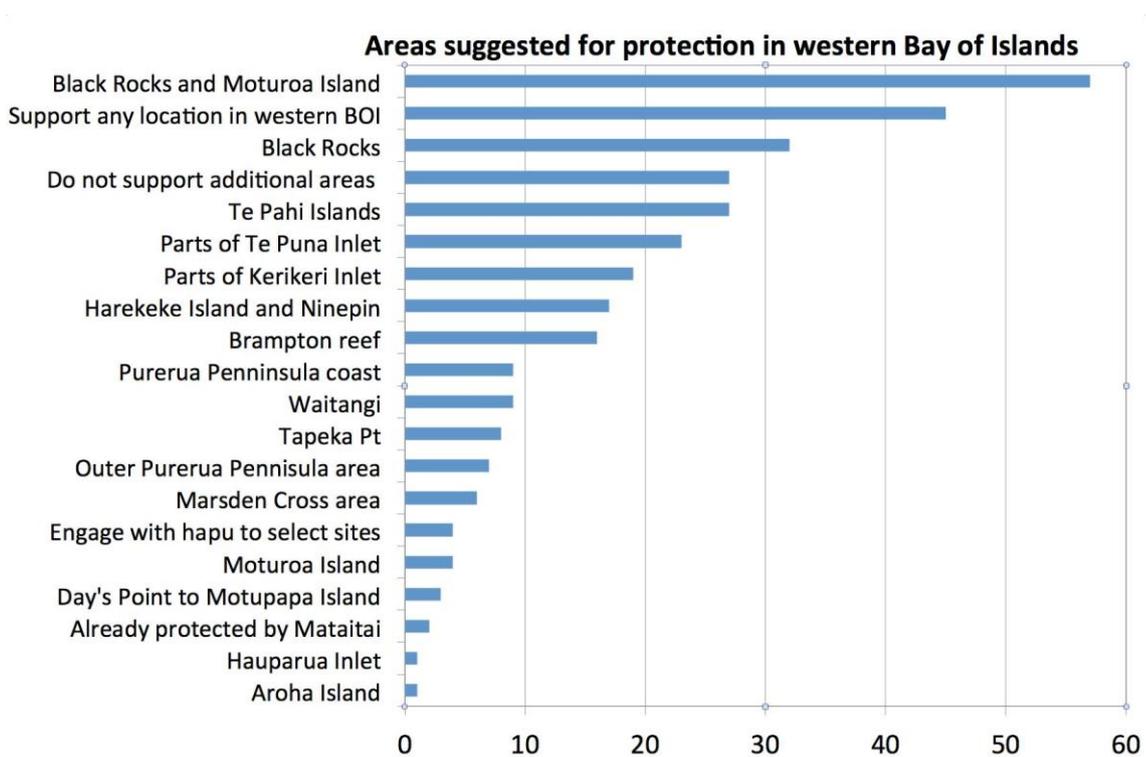


449 submitters answered this question, with some people identifying more than one location. 473 responses in total were coded and counted. 92 responses did not refer to alternative candidate areas for protection and thus could not be coded.

The largest number of responses supports the creation of a marine reserve in the Tangatapu site that has been proposed as a scientific reserve. The second most common response indicates that any proposal to protect an estuarine area would be supported. Virtually all the estuarine areas in the Bay of Islands are mentioned, with a focus on the main inlets (Waikare-Waikino, Waitangi, Kerikeri and Te Puna), as might be expected. Most submitters refer to the selection of suitable sites within these inlets rather than the entire inlet. It is also worth noting that a number of submitters propose sheltered bays around islands as preferred sites for protection.

Question 11

What area in the western Bay of Islands would you like to see protected as a marine reserve?



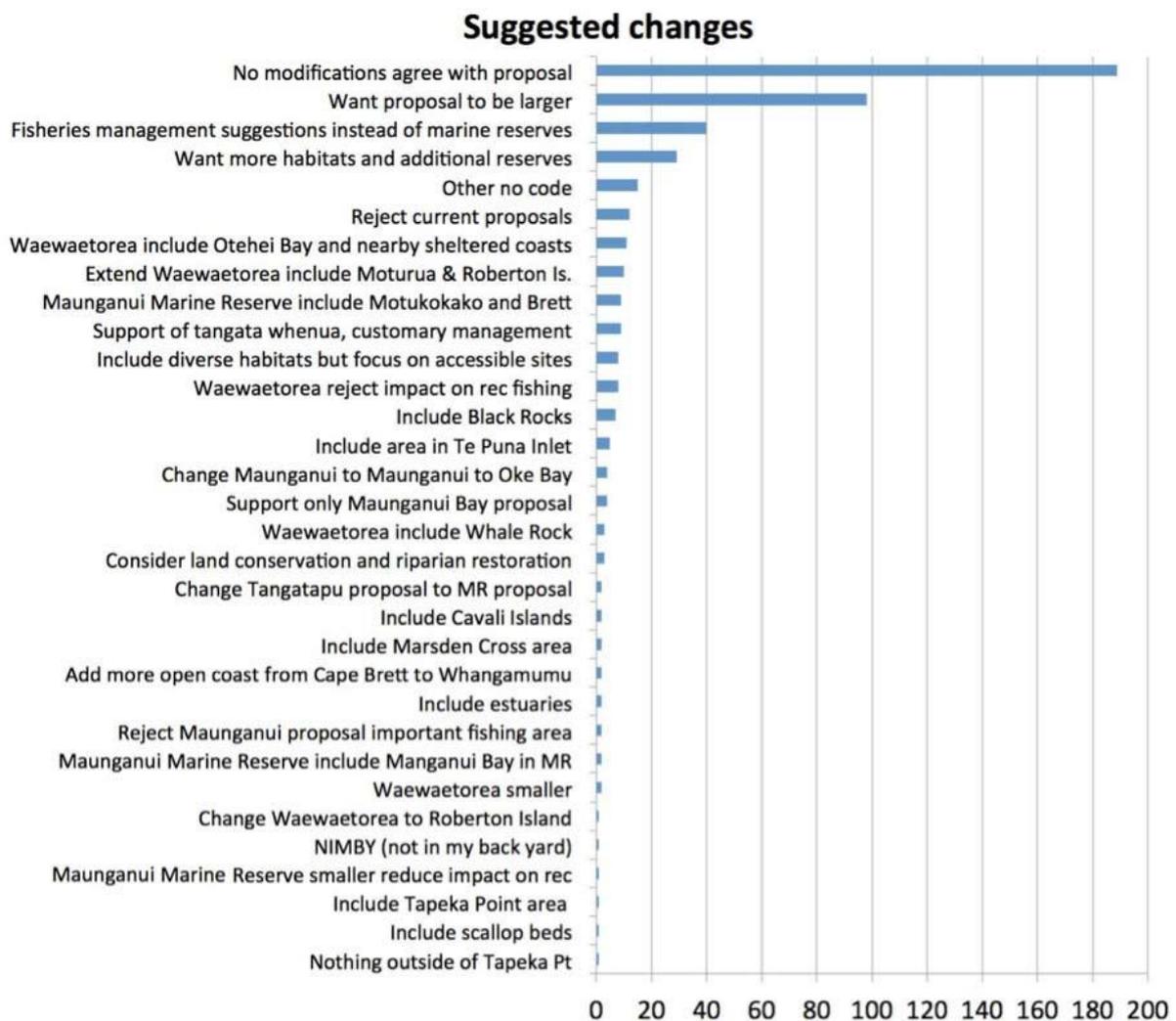
As noted above, the three currently proposed reserve areas are all in the eastern Bay of Islands. However, a wide range of sites in the western Bay were also identified by submitters as candidates for protection. Many of the 402 submitters who answered this question suggested several locations: 449 individual suggestions in total were coded and counted. 139 responses did not specify a candidate area for protection and thus were not coded.

Of the suggestions received, the stand-outs are the area around Black Rocks (almost a quarter of responses) and Moturoa Island. The next most popular suggestion involves various sections of shore from Te Pahi Islands out to Ninepin. Other areas of interest include sites in the Te Puna Inlet, Kerikeri Inlet, at Brampton Reef, and around Waitangi and at Tapeka Point.

13 respondents do not support any reserve sites in the western Bay of Islands. It is worth noting that several submitters expressed the view that the established Mataitai area already affords sufficient protection in this area by restricting commercial fishing. Another small number of submitters suggested that selection of sites should be done via engagement with local hapū. This is investigated in more detail in section 4.6 below.

Question 12

What modifications would you like to make to the proposal or proposed boundaries?

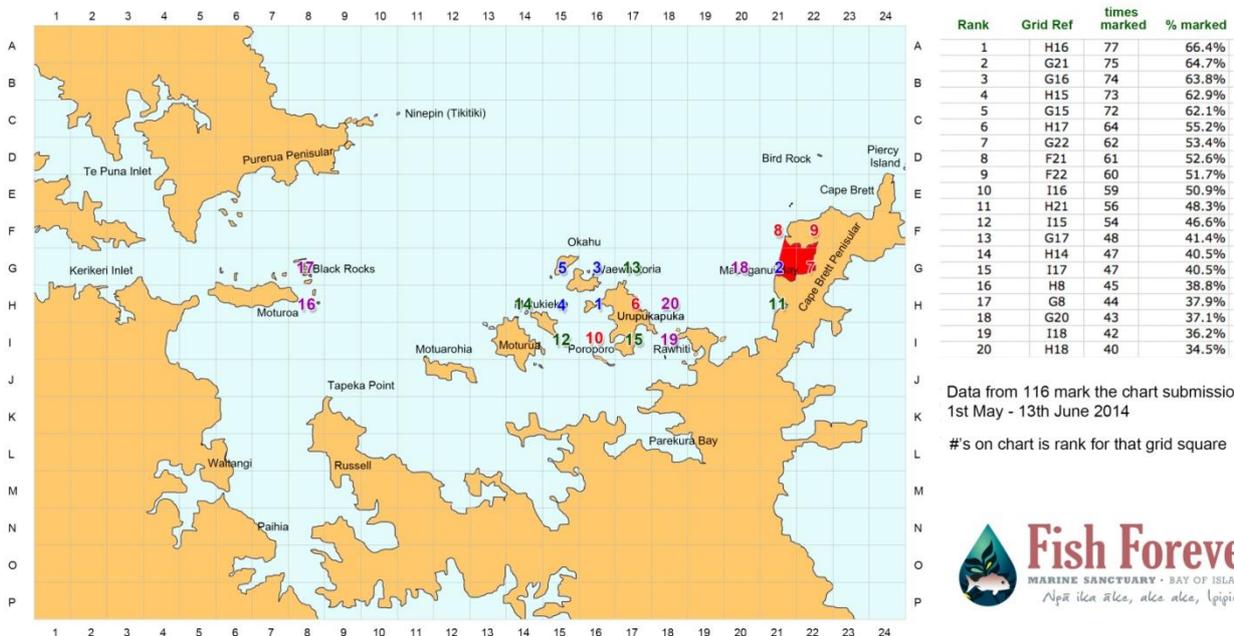


The list in the figure above reflects the most common wording of responses to this question, and was used as the basis for coding and tallying individual responses. 479 submitters answered the question, and 486 individual suggestions were coded.

Nearly half of the submitters support the Fish Forever proposal and have no desire for alteration of the boundaries. About a quarter of submitters want the proposed reserves to be bigger. (This figure needs to be seen in light of the responses to Question 8, in which the overwhelming majority of submitters expressed a preference for protecting a greater percentage of the Bay than Fish Forever has proposed.) By contrast, about 8% suggest that fisheries management approaches would be preferable to marine reserves. If we add the 169 form letters, the number of people suggesting fisheries management approaches instead of marine reserves goes up to 209. This figure makes up approximately 30% of all suggestions regarding modification of the current proposals.

While the numbers of people supporting each suggested modification are not large, the responses to this question do bring out the diversity of opinion on design and a number of worthwhile ideas on changes to the existing boundaries and consideration of alternative areas.

3.3 'Mark the chart' submissions



Data from "Mark the Chart" public submission period - 1st May - 13th June 2014

The Fish Forever online 'mark the chart' submission page uses a simple system whereby a user can select squares on a grid overlaid on a chart of the Bay of Islands to

illustrate where they would like to see marine reserves located. Numbers on the chart above represent ranking in order of preference, 1 being the highest.

During the current submission period, 116 people marked the chart. The areas around Urupukapuka, Waewaetorea, and Okahu Islands extending across the channel to Motukiekie Islands were the highest ranking locations, chosen by up to 77% of submitters. The next most desired location was Maunganui Bay, with 61% selecting this area. 40% of people selected areas near Rawhiti, while Black Rocks attracted 17%.

It is worth noting here that Fish Forever's 'mark the chart' system has been running since 2011. The results from the current submission period compare closely with previous results, which can be viewed at www.fishforever.org.nz.

4. Discussion

The results of this community consultation process suggest very strong local support, both for marine reserves in general and for the specific reserves in the Bay of Islands proposed by Fish Forever. However, in considering the significance of these results, it is important to have regard to limitations in the methodology adopted.

4.1 Level of community awareness

Fish Forever conducted the consultation and submission process to the best of its ability. That said, it is a largely volunteer group with limited resources, both in terms of time and finance. For example, only 300 colour copies of the consultation document could be printed for direct distribution.

In these circumstances, the decision to utilise traditional media to launch the campaign was a good one. There was extensive print media coverage, with all the local and regional media carrying stories (and in most cases multiple stories), most of which were either front page or positioned prominently. In some cases the newsprint stories were reproduced or picked up online, which helped ignite discussion and further dissemination. A number of radio interviews, including a piece on Radio New Zealand, gave further depth to the traditional media coverage.

Fish Forever also made good use of its purpose-built website. In addition to the consultation document and supporting information, the website provided an easily accessible online submission form which facilitated the transition from reading about the proposal to making an immediate submission. More than three-quarters of all submissions were received online. The website had consistent user traffic throughout the six-week submission period with 3,555 unique visits to the site. Fish Forever was able to use its Facebook page, local online community noticeboards, and paid online targeted advertising to broaden the reach of the proposal and direct interested people to the website.

During the submission period the Fish Forever team also met directly with local and regional government officials, community groups, and interested businesses in the Bay of Islands.

4.2 Self-selecting

A submission process such as this is inherently self-selecting, meaning that submitters were not selected from the population but made their own decision to respond. The results do not accordingly reflect randomised or other statistically sophisticated polling techniques. The degree to which the self-selecting nature of the consultation process introduces bias into the results cannot be quantified. At worst, it could mean that only one sector of the community (for example, those specifically interested in marine conservation) was motivated to respond, producing results which are not meaningfully representative of the community as a whole. However, while bias of various forms is a possibility, there is evidence that the submitters in this process represented a very wide range of user groups and stakeholders in the Bay. For example, when asked what activities they were involved in, submitters had six descriptions of fishing or harvesting marine life to choose from (with multiple choices possible). The numbers of submitters selecting each of these six activities ranged from just under 200 to just under 700.

4.3 Number of responses

The caveats above are balanced by the fact that the number of responses received (1,349) was very high for a community consultation process of this type, suggesting that the community was both well informed and well represented. It is significant here that this proposal had not yet reached the stage of a statutory application, but was simply being released for discussion. There are approximately 10,000 people living in the Bay of Islands area, including Kerikeri, Paihia, Russell and Opuia, and 158,700 people in the whole Northland region (2010 census).

4.4 Consistency with other survey results

Should the overwhelming level of community support expressed for this proposal give rise to concern that the results are skewed or unrepresentative? The results compiled by Fish Forever are similar to those from a statistically-based survey conducted at the national level. In 2005 and 2011 the World Wildlife Fund (WWF) contracted Colmar Brunton to survey the attitudes of New Zealanders towards marine protection and the use of marine reserves (WWF, 2011 and Eddy, 2014). The key findings are summarised as follows:

- Seven out of ten New Zealanders think their marine environment is under threat.
- 95% of New Zealanders overestimate the percentage of the marine environment currently protected in reserves. (Mean percentages thought to be protected: 23% in 2005, 31% in 2011. Actual area currently fully protected is less than 1%.)

- On average New Zealanders would like to see 36% of the marine environment protected. 96% of New Zealanders – an overwhelming majority – think that a larger proportion of their oceans should be protected in marine reserves than is currently the case.
- Over 70% of New Zealanders think that it is reasonable to stop commercial and recreational fishing in marine reserves.

4.5 Location of submitters

When considering the establishment of marine reserves, it is worthwhile to ask who should decide? Whose opinion matters? An argument can be made that local communities should have the final say. Alternatively it can be argued that marine reserves are a matter of national significance, like national parks on land. For this reason, Fish Forever considered that it was important to locate submitters in terms of their permanent residence. Significantly, as noted above, half of all submitters *are* permanent residents of the Bay of Islands. However, this region is known for its seasonal population, with many people having a second residence here for the summer months only. Many others travel to the Bay of Islands regularly for the wealth of water activities available – fishing, sailing etc – and so may regard themselves as closely connected to the area despite not being permanent residents. This must be taken into consideration when analysing the geographical representativeness of the results.

4.6 Customary tools

A short note on customary tools as it relates to Question 11 (the possibility of protecting areas in the western Bay of Islands). While asking this open question was considered worthwhile to gauge the community's ideas on areas for protection, the creation of a marine reserve within an existing Mataitai cannot happen without the hapū Rohe Moana Committee's support. Since most of the areas suggested in response to this questionnaire lie within the current Mataitai boundary, the first step would be to work with hapū to explore the suggestions. If the no-take marine reserve tool was considered appropriate, the boundaries of the Mataitai could potentially be adjusted to accommodate it. The idea of managing the boundaries and adjacent areas of a marine reserve in harmony with the customary management Mataitai tool is considered by Fish Forever to be an attractive idea worthy of more discussion.

4.7 Perceived benefits

Submitters were not asked about their perception of the benefits of the proposed reserves. However, the responses provide clear indications that many people see significant economic and educational benefits arising from the proposed marine reserves. This view was virtually universal amongst business people consulted, especially people involved in the tourist sector. The only exception was some of the charter skippers involved with recreational fishing, who either expressed concern over loss of access to fishing areas or were generally opposed to the concept of reserves.

Among the views expressed within the business community was an awareness of the significant economic returns to communities in Tutukaka and Leigh based on the marine reserves already located there (see for example Hunt, 2008). It was often stated that the Bay of Islands had even greater potential due to its iconic status as a marine-oriented tourist destination, existing infrastructure, and natural attributes. While economic benefits are not the prime driver for creating marine reserves, they are certainly considered important in the Bay of Islands community, and seem to have influenced the level of support expressed for the current proposal.

5. Conclusion

Even allowing for the fact that respondents were self-selected, the sheer volume of responses to this community consultation process, combined with the extent of the support expressed, indicates that Fish Forever's objective of reserve creation is of great interest to and generally supported by the Bay of Islands community. Further, the three candidate reserve sites can be considered strong contenders from a community perspective.

It is noted that there are two distinct areas of alternative viewpoints to be addressed: some of the recreational fishing/game-fishing enthusiasts, and some members of the local hapū. Fish Forever acknowledges these views and will focus its efforts on generating good dialogue to make progress towards its vision of marine biodiversity protected within the context of a restored moana. Fish Forever believes that a representative network of fully protected areas is essential to achieving such a vision and that, with careful planning, reserves can complement various forms of management, including the use of customary tools and local fisheries regulations.

6. Acknowledgement

The Fish Forever team would like to thank, first and foremost, those people who made submissions. The response has been tremendous, both from the Bay of Islands community and beyond. Secondly, Fish Forever would like to thank those people and organisations who assisted with the organisation of meetings and communicated directly with their own "micro" communities. Again, there has been excellent engagement from many individuals and organisations. Thanks are due also to the reviewers of this report, John Booth, Chris Richmond, Jeremy Gibb and Jessica Kerr. Lastly, Fish Forever is indebted to all its sponsors, supporters, and membership, which have made this work possible.

7. References

Eddy, D. E., 2014. One hundred-fold difference between perceived and actual levels of marine protection in New Zealand. *Marine Policy* 46 (2014) 61-67.

Fish Forever, 2014. Proposal to protect 10% of the enclosed waters of the Bay of Islands with no-take marine reserves. Community Consultation Document, released 1 May 2014. Prepared for Fish Forever, a sub-group of the Bay of Islands Maritime Park Inc. Download link: <http://www.fishforever.org.nz/>

Hunt, L., 2008. Economic Impact Analysis of the Cape Rodney Okakari Point (Leigh) Marine Reserve on the Rodney District. Investigation number 4052. A report prepared for the Department of Conservation.

WWF, 2011. Measuring New Zealanders' attitudes towards their oceans and marine reserves. Colmar Brunton research published by WWF New Zealand, 26 May 2011.

8. Appendix

Submission Questions

Question 1: I permanently reside in _____

Question 2: Describe the activities you enjoy in the Bay of Islands

- a. Fisher boat based, line or net Yes/No
- b. Fisher land based, line or net Yes/No
- c. Fisher commercial Yes/No
- d. Seafood gathering Yes/No
- e. Diver seafood gathering Yes/No
- f. Diver spearfishing Yes/No
- g. Diver photography/watching Yes/No
- h. Snorkelling Yes/No
- i. Other (please specify)
- j. Scientific study Yes/No
- k. Nature watching Yes/No
- l. Bird watching Yes/No
- m. Beach walking/tramping/hiking Yes/No
- n. Boating Yes/No
- o. Sailing Yes/No
- p. Recreation general Yes/No
- q. Camping Yes/No

Question 3: Marine life and fish populations are declining in the Bay of Islands strongly agree / agree / not sure /disagree /strongly disagree

Question 4: Overfishing is a concern for the Bay of Islands strongly agree / agree / not sure /disagree /strongly disagree

Question 5: Do you support the proposal as presented? yes / no

Question 6: Do you approve of having marine reserves in the Bay of Islands? yes/no

Question 7: Establishing a network of marine reserves in NZ is a good idea strongly agree / agree / not sure /disagree /strongly disagree

Question 8: How much of the Bay of Islands would you like to see as a marine reserve?
0% / 1% / 2.5% / 5% / 7.5% / 10% / 15% / 20% /30% / 50%

Question 9: Would you visit a marine reserve in the Bay of Islands once it was established? yes/no

Question 10: What estuary/sheltered water area would you like to see protected as a marine reserve in the Bay of Islands?

Question 11: What area in the western Bay of Islands would you like to see protected as a marine reserve?

Question 12: What modification would you like to make to the proposal or proposed boundaries?