

September 18, 2003

Submission to the Kaipara Harbour Sustainable Fisheries Management Group

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Northland Conservancy, Department of Conservation

Prepared by Vince Kerr

The Kaipara Harbour Sustainable Fisheries Group has completed a very important body of work for the future of the Kaipara fisheries. The Department would like to acknowledge this tremendous effort especially the way the group has worked to bring many vested interests together to contribute positively in the process. The stated aims of the group are a crucially important matter. The process by which this report has been completed is an example to the entire region that dealing with these issues effectively is possible.

In our submission we wish to comment on the relation of conservation issues and practice to the discussion and recommendations that you have produced. We would like to stress in making this submission that we understand and respect the fact that work of the group was focused on fisheries management and identified fisheries management objectives. We offer these comments to assist the group to consider conservation and ecological perspectives alongside the fisheries management processes you are involved in.

Referring to the three questions posed by the Ministry of Fisheries, (1) examine the case for a separate Quota Management Area for the harbour, 2) appropriate Codes of Practice, and 3) the role for local area closures on the harbour), it is notable that the need for marine reserves as part of the system and the possible benefits of marine reserves seems not be mentioned or considered, although part of the concept could have been included in your "closures" discussion.

We would like to suggest that the consideration of marine reserves as a management tool in the Kaipara is relevant and would have added some valuable ways of thinking and an expanded set of objectives to this report. We suggest that there are important conservation issues for the whole system that are not adequately addressed by the three starting questions your group accepted.

We accept and praise the work of the group and its recommendations relating to the first two questions of the brief, (Management of QMA and Codes of Practice). A lot of hard work has been done and your recommendations seem well argued and will hopefully reduce the serial depletion of exploited species that has been experienced. The case for consideration of the marine reserve option in this context is based on the following considerations that take a broader view of the ecology of the harbour.

Your recommendations are exclusively aimed at catch management and restrictions. This is of course the standard presently adopted approach to fisheries management. However this ignores the benefits that can be gained by combining your approach, (catch restriction) with restriction on fishing in a spatial sense, i.e. the retirement of areas from fishing. This approach is being practiced increasingly internationally. It is worth noting that spatial closures were part of many traditional fisheries management systems even when there were still natural large 'refuges' offshore, which of course no longer exist today. Spatial zoning and closures basically allow part of the system and the full range of biodiversity in the system to restore productivity and diversity to its fullest possible state. This approach simply put creates refuges and nursery areas to offset the **known and unknown present and future impacts of fishing**. Recent examples of spatial closures have also shown that productivity in the 'more natural' state of the closed area is so high that overall the loss of fished area is more than made up by the affects of a healthier system and the enhanced production of the closed area.

In New Zealand spatial closure is made possible in a number of mechanisms in the Fisheries Act, however as your group discussed known examples of the use of the Fisheries Act have been problematic and they typically are limited in time, to specific fish stocks etc. In future we can expect the Fisheries Act to be interpreted in new ways and spatial closures and marine zoning to address ecological and biodiversity concerns can be expected. The other mechanisms to consider to achieve spatial closures is the Marine Reserve Act, administered by the Department of Conservation.

Marine reserves would allow a way to examine **how long and to what extent specific habitats and species take to recover from overfishing**. (*Note: that under proper use of MSY, some 80% of snapper and something similar for other species are removed. In this sense this is not technically "overfishing", but from an ecological point of view it has major harmful effects downstream in the food chain.*) It is not easy and it may be impossible to learn about these processes if fishing is continued in 100 % of the harbour, even if in a carefully controlled manner. The issue is that taken species by species, as varying habitat zones of the harbour or as a whole system there has been and remains considerable 'stress' on the system. There is also an increasing list of non-fishing environmental stresses such as sedimentation. Only by having some of the system in total protection will we be able to understand what recovery is in today's situation. (*Note: You may want to include this in a discussion of what sustainability is.*) This understanding is required to guide any management decision on how much of the fishery you wish to exploit, either on the basis of catch or spatially.

It is logical to expect that the degree of overfishing has created a series of affects on a wide range of **non-target marine species and habitats** in the harbour. There are numerous documented examples of this 'trophic cascade' effect following the reduction of predators from a marine environment. Top predators in the marine system, like snapper have wide ranging affects on the various organisms beneath them in food chains or webs. This starts with the organisms they feed on directly who may dramatically increase when snapper are reduced by fishing. Then other parts of the system are affected by the change in the snapper prey species. The serious loss of algal forest on our East

Coast and the ecological consequence of the demise of this valuable nursery habitat has been shown to be a result of snapper and crayfish fishing pressure. With current knowledge it is not possible to measure all these affects or whether the new management regime recommended will ultimately lead to a restored harbour system. Establishment of marine reserves allows these processes to be observed in a natural state which can inform management decisions.

Lastly there is another perspective on the consideration of marine reserves in the Kaipara system which we would like to offer. This is simply that people generally want to know that there are some places where the marine environment and all its complexity is preserved in its natural state. This is reflected in the New Zealand Biodiversity Strategy and frequently included in definitions of sustainability. In increasing numbers, people want to go and see and experience these natural areas in the sea, spawning new industries and opportunities based on conservation and restoration. In the sea we are now where we were on land 150 years ago, when city green areas were planned, national parks were envisioned and the beginnings of our current Conservation Estate were fought for and protected. Few people now would regret the wisdom and value of having 18% of our land protected for their biodiversity and ecological value. The marine environment is roughly 10 times more complex and diverse than our best forest ecosystem. Recovery potential of marine ecosystem will surprise. The marine environment is also well connected, with natural larval distribution, ocean currents and planktonic life style stages still functional in the ocean system. On land ecosystems are often highly fragmented affecting their potential for recovery. All this means in the ocean conservation, we have to do very little for tremendous gains – mainly restrict fishing and reduce sedimentation/pollution. The results of conservation in the sea will be dramatic and create far more opportunities for communities in Northland than a system managed for fishing alone.

Northland Conservancy is currently involved in a number of Northland communities assisting groups to plan for future marine management in their areas. We also have a comprehensive investigation of protection option projects underway at Mimiwhangata and are doing work in marine classification and design of protected areas on a regional level.

We would welcome the opportunity to support your group in the future to formulate and achieve conservation objectives for the Kaipara Harbour.

Regards

A handwritten signature in black ink, appearing to read 'Vincent Kerr', written in a cursive style.

Vince Kerr
Marine Conservation Consultant

For Northland Conservancy, Department of Conservation