



National Marine Park for Northland

Scoping and Review Report

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Executive Summary

Northland Regional Council has received a proposal to establish a marine park on the east coast between Cape Brett and Whangarei Heads, incorporating the Poor Knights Islands. This report describes the findings of an initial review of the proposal concept by experts in economics, marine ecology, resource and environmental planning and legislation. The purpose of the review is to outline the 'pros' and 'cons' of the marine park concept and to provide guidance on the potential scope of issues that a business case would need to address to robustly test the viability of a Northland marine park.

Aspects of the proposed rationale to support the concept were not supported by robust evidence, and the means by which the goals of the marine park concept would be achieved were not clearly identified in the conceptual proposal. However, the proponents of the park concept have succeeded in formulating a positive idea and approach. They believe that creating a marine park with associated activity rules would generate environmental benefits including growth in fish-stocks/biodiversity and an increased awareness and interest in the broader coastal resource. This in turn would drive recreation and tourism opportunities and growth which would flow through to economic and social benefits for the local and regional community. Based on these goals, the marine park concept has considerable merit.

A key finding of this review is the importance of establishing no-take marine reserves and other types of protected areas in the park. A carefully located network of marine protected areas would increase biodiversity and fish-stocks. The ability to promote the park and drive growth in tourism and recreation activities, including sustaining growth in recreational fishing, will be dependent on the success of the protected areas in delivering (over time) a material increase in biodiversity and amenity. The ecological and economic benefits arising from the marine park are therefore connected – one will not be achieved without the other.

The scope of assessment required to develop a business case for a Northland marine park is broad. Building an evidence base which clearly defines the current uses and values of the park area and identifies what uses are adversely impacting on the ecological health of the coastal and marine environment, including the scale of those impacts and where they are manifest, will form the foundation of the business case. Mapping of the coastal habitats has already been completed for this coastline and this is a significant advantage in the process of establishing the 'base case' against which the modelling of marine protected area options can be conducted; the effects of any relevant activity interventions (controls) and management options can be compared; and economic costs and benefits can be determined.

Defining appropriate marine and potentially landward boundaries for the marine park will be a key assessment area. Consideration should be given to environmental, cultural, social and economic values and opportunities. Consultation with relevant stakeholders will also be essential to inform the process of developing, evaluating and refining options for the marine park, including operational and administrative options.

This report includes initial recommendations for an implementation pathway for a marine park. Although currently there is no 'Marine Park Act', the Marine Reserves Act, Resource Management Act and Fisheries Act and Regulations enable marine park type concepts to be realised. Special legislation, like the Hauraki Gulf Marine Park Act, is also possible. In the first instance though, planning undertaken within the context of a wider Northland east coast 'spatial plan', as part of the Regional Coastal Plan or Regional Policy Statement is considered to be appropriate.

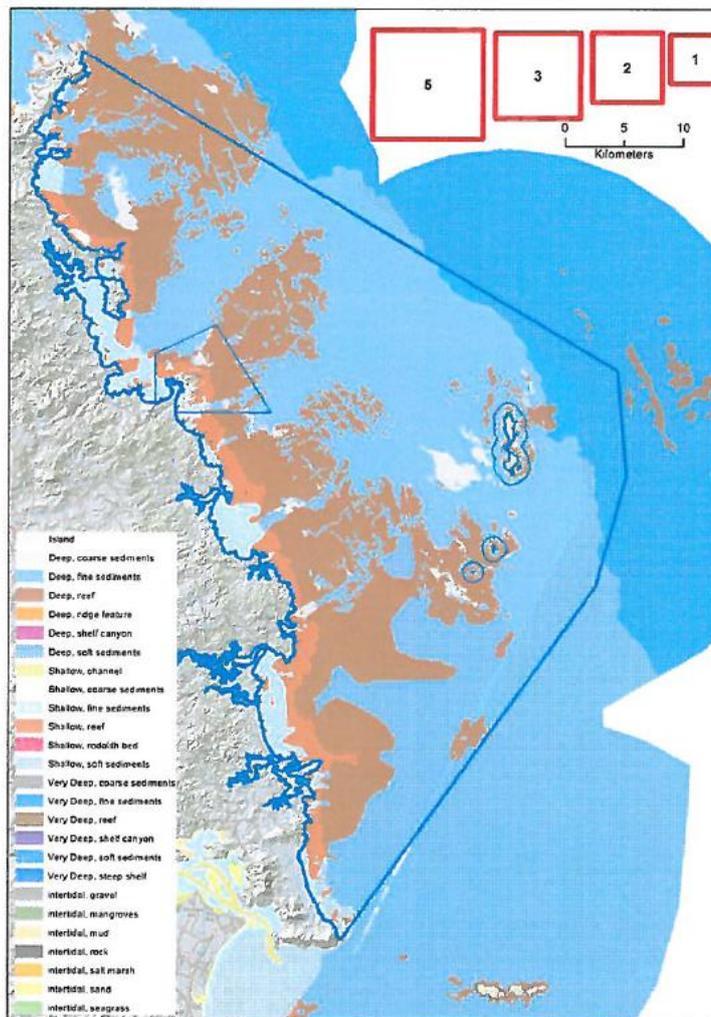
Based on this review, it is recommended that the Council proceeds with a business case assessment. This work would inform and aid future decision making about the park and also function as an action plan to guide potential future implementation. It will need to be appropriately resourced and any recommendations made in the business case will need to be based on a clear evaluation framework, relevant case studies, sound science and good stakeholder engagement. This will be critical for the success of any future marine park in Northland.

1 Introduction

1.1 Background

The Northland Regional Council (Council) has received a proposal requesting support to establish a ‘national marine park’ extending from Whangarei Heads in the south to Cape Brett in the north, and extending out to sea to include the Poor Knights Islands (Figure 1.1). The proposed park is envisaged as covering an area of approximately 1,800 square km. It is envisaged to increase fish stocks and enhance biodiversity and, in doing so, boost the recreational and tourism component of the Northland economy. The proponents of the park seek to exclude commercial fishing, limit catch levels on recreational fishing and establish some areas (5% gross¹) as ‘no-take’ (reserve) areas, but otherwise have no constraints on aquaculture or customary rights for Maori.

Figure 1.1 Proposed Boundaries of the National Marine Park



¹ This is the latest figure for gross no-take area at the time of this review.

The outcomes sought from the park proposal appear to align with some of the Council's Long Term Plan 2012-2022 objectives. These include maintaining and improving the quality of Northland's environment; promoting awareness, appreciation and pride in Northland's heritage, landforms, freshwater and marine environments; increasing economic performance and quality of living through investment; and encouraging sustainable access and use of the environment. However, the proposal being of a high-level aspirational nature contains limited evidence to substantiate some of its objectives and in turn those in the Long Term Plan. The evidence is something the Council seeks to test in order to make a more informed decision on whether to support and progress the proposal further.

Based on the initial merits of the park proposal as a concept, the Council established a 'Working Group'. Among other outcomes, the Working Group carried out an initial review of the proposal, sought additional information, met with representatives of some key stakeholders (DoC and MPI/Fisheries), and identified a number of relevant issues that "will hinder its progress towards becoming a national marine park". One of the key opportunities that the Working Group saw in the proposal was the potential to "enhance Northland's reputation, to promote it on national and international stages and to potentially deliver significant environmental, economic, cultural and social benefits". The Working Group noted that the park would incorporate a number of iconic and special places including the "Poor Knights Marine Reserve, the Mimiwhangata Marine Park, world-class diving spots and coastal attractions such as the Ngunguru Sand Spit".

A key recommendation of the Working Group was for the Council to fund a more detailed investigation of the proposed marine park to see if a 'business case' can be developed. This is the impetus for this phase one scoping report. The Council has contracted a consortium comprising Market Economics Ltd (M.E), Vince Kerr & Associates, Poynter & Associates Environmental Ltd, Andrew Stewart Ltd and Robert Makgill (Barrister) to conduct a scoping and review exercise of the proposal and to provide preliminary recommendations on viability and how a 'business case' assessment could be developed.

1.2 Review Approach

The consortium has read all existing information produced by the 'proponents' and the Working Group, met with Council staff, and carried out a high level evaluation of the material in accordance with each organisation's area(s) of expertise, run a workshop to discuss review findings and prepared this report which consolidates findings and recommendations.

The key areas of expertise that the consortium provides are:

- Economic, recreation and tourism analysis
- Marine and resource management legislation
- Marine ecology, biodiversity and habitat modelling
- Environmental and statutory planning

- Northland and marine park area knowledge

The aim of the evaluation exercise was to review the information that had been supplied² (including its adequacy), identify key gaps in information/thinking, provide some guidance on how further evidence to test the proposal (including gaps) could be developed, and contribute expertise to identifying relevant issues, constraints and opportunities. A key consideration was how the pros and cons / potential effects of the proposed marine park aligned with its objectives.

The approach was guided by the following assumptions:

- The appropriateness of the extent (boundaries) and scale of the proposed marine park should be considered.
- The pros and cons of this proposal should be assessed against a 'do-nothing' option and other variations (scenarios) of the proposal, as opposed to a comparative analysis of other proposed or potential marine protected areas in Northland.
- While the proposal is referred to as a 'marine park', as distinct from a 'marine protected area' and a 'marine reserve', the appropriateness of the 'marine park' concept as promoted to date should be considered.
- The net additional extent and location of 'no-take' areas is not confirmed in the proposal (although indicated at 5% gross) and this should be a key area of consideration.
- The status/role of the marine park as 'national' or otherwise should be considered.
- The appropriateness of the 'total ban on commercial fishing' should be considered.
- The appropriateness of the 'reduction in recreational fishing bag limit' should be considered.

1.3 Report Structure

Section 2 of this report provides an overview of the proposal and the underlying concept. It includes the consortium's assessment of the overall coverage and quality of the information provided in the proposal. The findings and recommendations of the scoping and review exercise have been organised according to a number of key issues. These are discussed in turn in Section 3. Section 4 provides a summary of recommendations and identifies the next steps in terms of the Phase 2 in-depth assessments required and the expected outline for a 'full' business case.

² This included the documents prepared by the proponent, documentation by the working group and council staff and any feedback that was documented after preliminary consultation by the proponent.

2 The Marine Park Concept

The proposal for a national marine park on Northland's east coast is well grounded in terms of the uniqueness of the Poor Knights and Tutukaka area³, a clear desire to protect and enhance its ecological values and create sustainable economic growth opportunities for both the local community and wider region.

The local community effort that went into establishing the marine reserve around the Poor Knights Island and the success of that reserve in terms of social, environmental, economic and cultural outcomes is indicative of the passion and motivation that underlies this current proposal which seeks to build and expand on that success.

2.1 The Opportunity

The Tutukaka coastline and the Poor Knights Islands comprise a diverse mix of coastal landforms from sweeping sandy bays to protected rocky coves and is deserving of its reputation regionally, nationally and internationally. The area is sparsely populated with small settlements spread along the length of the coast and local job opportunities are limited. Parts of the coastline are not easily accessed, although the remoteness of some areas contributes to their value and appeal.

The coastline and Poor Knights Islands provides opportunities for passive and active recreation, including diving and recreational boating and fishing and has a distinct appeal as a tourist destination. Marine based recreation is already a key component of Northland's tourism 'product' and enhancing tourism opportunities in this part of the coast would add depth to the Northland tourism experience.

The location of the coastline – between the main metropolitan area of Whangarei (the gateway to Northland) and the established Bay of Islands tourism hub – is a factor that contributes positively to potential domestic and international tourism growth. Northland's east coast also has an 'established' visitor promotions network that can be used to promote a marine park concept. The proximity of Whangarei is a factor that contributes positively to potential growth in recreational use by Northland residents.

The Tutukaka coastline and the Poor Knights Islands are a significant recreational and tourism attraction which in turn supports economic activity. The attributes and features of the coastal environment suggest that there is potential to grow both activities *if* the area could enhance/promote its reputation. The relevant issue therefore is how best to deliver sustainable recreational and tourism growth: i.e. what mechanism would drive that growth? What would be effective in delivering a material change above the status quo?

³ For the purpose of this report 'Tutukaka coastline' refers to the coastline from Cape Brett down to Whangarei Heads and not just the area in the immediate vicinity of Tutukaka.

The proponents believe that creating a marine park (with associated activity rules) would generate environmental benefits (growth in fish-stocks/biodiversity and increased awareness and interest in the broader coastal resource) which in turn will drive recreation and tourism opportunities/growth which will flow through to economic and social benefits to the local and regional community.

The robustness (validity) of this proposal in delivering those opportunities/effects and the potential costs (including opportunity costs) of doing so is the subject of this expert review.

2.2 The Proposal – Goals and Potential Benefits

The proponents have succeeded in formulating a positive idea and approach and have brought to light some very important issues and potential alternative management arrangements. The goals of the proposed marine park have merit in and of themselves:

- Increase fish stocks, biodiversity and enhance habitat.
- Cater for all recreational interest, including multi-user groups.
- Improve economic returns locally and to the region.

2.3 The Evidence Provided – Quality and Gaps

2.3.1 The high level logic behind the marine park

The information provided on the proposal can be described as ‘high level’ – in keeping with its national/regional marine park ‘concept’ focus and purpose. To support the goals identified above, the proposal sought to build a case around:

1. The decline in national/regional fish stocks and the impact of commercial fishing and the Quota Management System (QMS) on them,
2. The under-representation of marine protected areas in Northland,
3. The effectiveness of marine protected areas to replenish fish stocks (including outside of the protected areas) and increase biodiversity, which will help sustain the resource in the long term,
4. The benefits to recreational fishers and marine based tourism from improved fish stocks,
5. The economic and social benefits arising from recreational fishing and tourism activity will be region wide and more than ‘offset’ the costs to commercial fishing.

While the proposal goals have merit, our review has raised some concerns with certain aspects of this argument which provides the rationale for the marine park and associated activity restrictions. The argument is a simple one, but not supported by robust evidence –

generally or as it applies in the defined park area. The limitations of the evidential base provided in the proposal are discussed further below and in Section 3.

On the other hand, other aspects of the argument/rationale behind activity restrictions that might be given effect under the umbrella of a marine park can be largely supported on a first principles basis⁴. For example:

- It can be verified that inshore fish and crayfish populations are suppressed as a consequence of recreational harvest.
- It is indisputable that recreational fishing pressure has increased and will continue to increase. The fishery is part of the ecosystem function not separate to it. Therefore restoring ecological functions (i.e. facilitating the return of an area/s to its natural state through full reserve protection) will have a positive effect on biodiversity and ecosystem 'health/ resilience.
- It is also very likely that in the longer term, or perhaps even the short term (5 years say from a protected area/s regime being implemented), there will be benefits to the recreational harvester. The greater the scale of the protected area (or 'areas' in the case of a network of reserves), the greater the biodiversity benefits including those outside of the protected area boundaries.
- The logical conclusion is that without intervention that reduces the pressure and allows the 'stock' to recover, then the trend will be either maintained at its current highly impacted level or in the case of crayfish stocks, more likely trend downward even further.
- Intervention could occur via a number of routes which are not mutually exclusive.
- There is probably limited potential for the marine park to create negative recreational fishery or ecological effects.

Other broader positives to come from the proposal include:

- The reports highlight that the proposal is well 'connected' to the Regional Policy Statement, Regional Coastal Plan and Whangarei District Plan. The consistency of the proposal with the Whangarei Coastal Management Strategy and related structure plan areas along the east coast is also well set out⁵.
- The reports to date set out reasonably well how the park would 'fit' with the existing Poor Knights marine reserve and Mimiwhangata marine park, along with others areas that could be regulated in the future by other means (e.g. customary management tools like mataitai).
- The proposal is 'viable' from a purely planning perspective as there are no RMA or other similar 'obstacles' to it. Should some form of 'special' legislation be

⁴ That is, generally agreed or accepted truths, values, or views held by society at large.

⁵ The NZ Coastal Policy Statement is cited, but of limited relevance.

required the current government has shown an 'appetite for change' in this and other related planning areas.

- The Mimiwhangata marine park is based around 'special' legislation (Fisheries Regulations). The Hauraki Gulf Marine Park Act is a more recent 'working model' and the associated Hauraki Gulf Forum is starting to gain traction and make a difference.
- The Poor Knights marine reserve and Mimiwhangata marine park are good 'building' blocks, although small in area compared to the proposed park and with the latter yet to deliver evidence of ecological benefits.

2.3.2 Data inadequacies

The consortium considers that the 'base' evidence to support the proposed park has some limitations in terms of further key stakeholder engagement and deliberative action. While some aspects of the proposal can be supported according to first principles (particularly the development of additional no-take reserves in the study area), the concept (including the area chosen) needs to be more clearly supported with comprehensive analysis by relevant experts, particularly in regards to the context of fisheries interventions and management.

The 'science' behind certain aspects of the park concept needs to be more compelling to encourage and support an initial decision to change the status quo (ultimately a political decision). The science also needs to more clearly demonstrate that there will be economic benefits to the region (or at least Northland's east coast), even if they will take time to be clearly evident. This is important because there will be both initial set-up and on-going administration, maintenance and monitoring costs associated with a national/regional marine park.

The key areas where the consortium considers that the science (evidence) needs to be substantially improved are:

Recreational fishing

- Data on the categories of recreational fishing use and/or the fish resources that support them within the proposed park need to be identified.
- There are proposed restrictions on existing fishing, but information on the current pressure on resources, and the potential benefit / cost effectiveness for intervention and likely response, is required.
- There is no technical support for proposed changes to daily limits on fish, crayfish and shellfish take and therefore no way to know if they would be useful or not at the levels suggested to build biomass and support future recreational take.
- As there are existing national mechanisms by which each of these fisheries resources are managed now, the weaknesses and strengths of existing mechanisms need to be analysed to be clear how local rules might apply in a marine park and sit alongside or integrate with these mechanisms.

Biodiversity, biomass and ecosystem function

- There is limited data on how these ecological attributes might be affected by way of reference to other New Zealand marine reserves/marine parks.
- Other than a passing reference to the Great Barrier Reef situation, analysis of similar park management regimes elsewhere (e.g. Australia) that support these fundamental elements is required (i.e. existing templates for 'marine parks' and successes/failures).

No take marine reserves and/or other marine protected areas

- The arbitrary target of 5% marine reserves within the marine park has no ecological basis, other than a reasonable presumption that anything is better than the current situation (which is 0.2% for Northland).
- The ecological benefits accruing within existing marine reserves (Leigh and Poor Knights for example) need to be identified in light of the current state of scientific and anecdotal information in order to illustrate what might be expected within the proposed park area from a network of marine reserves and/or other protected areas (full or partial).

Aquaculture

- The future potential of aquaculture within the park area would need to be identified.

Boundary definition

- An evidence base for the definition of the marine park boundaries is required. This evidence should address scientific analysis, regulatory considerations; iwi/hapu interests and other societal factors. The possible inclusion of public reserve land should also be considered (e.g. the Mimiwhangata marine park), as this may facilitate public access and other advantages.

Economic effects

- Evidence of how (through which mechanisms and processes) a marine park would deliver the growth in economic benefits to the Northland region is required. The effects (positive and negative) of the park on marine tourism, recreational fishing and commercial fishing needs to be 'drilled down' to a more 'local' or park area context. This further work should outline how the proposal is expected to deliver economic growth through increased day visits, increased over-night visits, increased tourism products, higher value tourism products, increased retail spend and the like.
- Robust analysis of the value of recreational fishing and marine tourism relative to commercial fishing both currently and according to the changes proposed is required.

- The current comparative analysis of economic effects/impacts arising in other locations (e.g. Goat Island Marine Reserve) would need to be more robust.

2.3.3 Data gaps

In addition to improving the quality of the evidence base that was covered in the scope of the current proposal, there are a range of matters that were not touched on but would need to be addressed in a comprehensive business case assessment going forward. These include:

Recreational fishing

- There would need to be a clear statement of goals/objectives for recreationally harvested seafood, perhaps at a species specific level. Without this there would be ambiguity about what is intended, how it is to be achieved and over what time frames, how it is to be measured and how it relates to other recreational targets as expressed currently (e.g. in the FMA1 fishery area).
- There is information available from surveys of recreational fishing activity and catch effort in the coastal section of interest. That information needs to be accessed, reviewed and interpreted in terms of what it might say about wetfish (and crayfish resources if anything), the pressure on those resources and the need or otherwise for local rules. This is required for the 'base science' that would underpin any claim for catch restrictions (no take/daily catch and/or size limits) and the response to those measures and/or for any spatial management approach of the resources.
- Evaluation would be needed as to the on-going commitment to the research and data collection that would be required as a minimum to provide verification of the outcomes set as targets at the outset, including who might undertake and pay for it.

Biodiversity, biomass and ecosystem function

- There would need to be a clear statement of goals/objectives for these elements too.
- There appears to be a significant amount of published and archived information now available on the habitats, and biodiversity along the coast. This information would need to be accessed, reviewed and interpreted in order to describe the collective ecosystem picture at appropriate scales: where are the typical, representative and special zones; what is the ecological connection between different areas; why would any particular area warrant consideration for reserve status or otherwise special management; how does this relate to international best practice and current and proposed Government policy.

No take marine reserve(s) and/ or other marine protected areas

- There is a large body of published research (within New Zealand and overseas) on the positive effects of 'no take' marine reserves and marine protected areas.

These include such things as increasing biomass, productivity, biodiversity, fisheries, (and economics and tourism) within and beyond their boundaries. This published material indicates that the current legislative purpose for marine reserves in New Zealand, (i.e. to facilitate scientific research), is too narrow and out-dated. A more detailed analysis of the purpose of marine reserves would need to be undertaken in a Phase 2 business case.

- This information would need to be reviewed firstly with a view to refining what area thresholds should be aimed for, given a range of reserve and other protection level scenarios. The default position in terms of the minimum % could be taken as the 10% target already reflected in Government's MPA policy.

Commercial fishing

- A business case would need to identify (by species) what the tonnages of catch in the proposal area are as compared to the statistical area or stock tonnages.
- *If* commercial fishing was to stop in the proposed park area, the potential outcome of the same overall tonnages from the statistical area or fish stock still being harvested commercially would need to be assessed. This is relevant as the park may be no better off because the overall fish stock remained the same. In this scenario the area fished commercially is reduced but the quota level for the fish stock in question remains the same. Many of the prized recreational species, such as kahawai, snapper and kingfish, have highly mobile as well as locally residential behaviour modes and would regularly move back and forth across the park boundaries. Such issues would need to be explored.

Administrative structure and costs

- The administrative structure and costs associated with a marine park, based on say the Hauraki Gulf Marine Park, other overseas examples, joint or co-management with conservation, fisheries and iwi interests would need to be identified .

Economic effects

- A business case would need to quantify tourism and commercial fishing in relation to other sectors of the local and regional economy in terms of contributions to social and economic wellbeing (i.e., employment and contributions to GDP/Value Added). This would help set the local and wider economic context.
- Analysis of current visitors to the Tutukaka Coast, existing Marine Park (Mimiwhangata), Poor Knights reserve and where they are coming from is required as part of a base case. Visitor origin is critical to net additional economic impacts.
- Either a formal economic impact assessment (EIA) or cost-benefit analysis (CBA) to address the potential effect of a marine park on the district or regional economy

would be required. A robust approach for economic/growth projections is also essential.

- The scope of the economic argument should not be limited to tourism and commercial fishing. Other effects of such a marine park have economic implications that should be accounted for (including but not limited to operational, administrative and potential acquisition costs).
- A business case would need to investigate possible constraints to economic growth such as physical infrastructure, commercial zoned land, residential growth areas. Although poor roads, boat ramps already at capacity, no space for new commercial businesses, and no spare moorings or marina berths, are outside of the operational scope of a marine park they can be a significant constraint to economic growth opportunities.
- It would be important for the scope of controls for a proposed marine park to consider more than just potential limits to commercial fishing and recreational fishing, and creation of no-take reserves. There are other extractive resource uses which may be contrary to the goals of a marine park and would be in conflict with the objectives and purpose of any marine reserve areas. Dredging and mining (both onshore and offshore) are two relevant examples, but there may be other uses of the coastal marine area that need to be considered. The costs of restricting other opportunities would need to be factored into any economic analysis.

The above list identifies the key 'gaps' but may not be complete. They have arisen in the context of evaluating the scope of the current proposal but a significantly modified proposal may require a different scope of evidence.

3 Key Issues

This section provides more in-depth discussion of key issues that were identified in the review exercise.

3.1 Establishing a Base Case

Any marine park needs to be based on a clear understanding of the current resource and ecological/habitat pressures on the area under consideration and what needs to change to significantly improve things.

In order to develop a preferred management regime for a marine park (or a network of marine reserves) robust data is first required that specifically identifies the current pressures on marine resources and ecosystems within the coastal area in question. If proposed interventions and management options/controls are not a response to real (and preferably quantified) pressures on, and limitations experienced by, the marine resource, then there is a potential that changes will be largely cosmetic and ineffectual in achieving the goals of a marine park.

3.1.1 Recreational fishing effects

Without wishing to engage in the debate on the relative merits of commercial and recreational take in fisheries management, it is important to note that changes to daily bag limits for recreational fishing may be necessary. The recently released SNA1 document indicates that under current pressure, and with a view to restoring the snapper biomass to a B_{40} over the next 20 years (i.e. 40% of the virgin un-fished biomass), a daily bag limit of 3 fish may be required (down from the present 9). This suggests that higher bag limits have proportionately less or no ability to restore the stock.

Arbitrarily imposing a 5 per day limit for snapper (for example) in the marine park, as has been promoted for discussion, may have little or at worst no impact. There is some risk that if the latter occurs, then perceptions and the marketing exercise supporting a marine park may create more, rather than less pressure on some components of the ecology (e.g. wetfish, crayfish, shellfish).

There is also evidence from research undertaken at Mimiwhangata that in shallow reef areas where commercial fishing has ceased and recreational fishing continues, habitat degradation has continued due to the constant pressure of recreation fishing and local populations of recreational species have not recovered. This type of evidence needs to be factored into any potential restrictions on recreational fishing.

Confounding the determination of impacts of recreational fishing is the implications of growth in this sector which is well documented by MPI. This factor is not mentioned in the park proposal but is a significant concern.

Recreational fishing and take is growing strongly for Northland's east coast and is roughly trending in parallel with population growth. The implications of this growth are profound if the starting assumption is that there is currently too many fish taken or significant impacts locally in proximity to population centres, boat ramps and popular fishing sites. The park proposal is silent on this 'burning' issue and has the potential to establish a system that is designed to fail. A growing concern for regions like Northland is that the total take by recreational fishers is not controlled, as it is by commercial fishers. It is indirectly affected by bag limits, but in a growth scenario there has to be concerns about future impacts, especially if the impacts are localised as they are in this case.

It is therefore important that any marine park restrictions on recreational fishing, whether they seek to limit catch or the locations than can be fished (or both), are well-grounded in science. They should not be contrary to wider fisheries management initiatives and should be based on careful analysis of recreational fishing effort and catch (by species and location specifically within the study area), and based on information about the current state of recreational species.

Only once this 'base' information is established, can the impact and effectiveness of any controls on recreational fishing be measured (including what impact more fishers might have on the fish stocks irrespective of reduced bag limits for example). A sound evidence base for recreational fishing restrictions is critical given the size, passion and resources of the recreational fishing community.

3.1.2 Commercial fishing effects

Equally, any restrictions proposed in a marine park/reserve on commercial fishing (methods/ locations/ catch) need a sound evidence base. The current proposal for example, makes strong assertions about the impacts and effects of commercial fishing as part of the rationale for the marine park. Some of these assertions are poorly evidenced and this review exercise highlights the importance of robust research on them. A summary of review findings on this specific issue follows:

Commercial fishing and recreational fishing

- 1. Global fish stocks are in serious decline due to current fisheries management – this argument is used to infer that the NZ QMS fisheries management system is similarly failing.*

Two issues here need examination. The first, is the claim accurate and a fair representation of the global picture? The second, which is more important, is this claim relevant to the situation in New Zealand and is it relevant to this proposal?

Taking the first question: The global information cited in the proposal is essentially very limited and to a degree out of date. There is no question that in the Northern Hemisphere poorly regulated overfishing has devastated many fisheries and contributed to the rather gloomy global fishing picture. It does not logically follow, however, that this means that a well implemented fisheries management system is doomed to fail.

The two fisheries examples, the Atlantic cod and the Pacific Northwest salmon, referred to in the proposal are a case in point. It is correct that the Atlantic cod (Grand Banks fish stock) has struggled to recover, but the context in this example is the extreme degree of overfishing that brought about this collapse. Essentially when the Grand Banks was finally fished down to less than 10% of its virgin biomass, intensive fishing pressure remained for something like a further decade. This was not by design in a fisheries management sense, but rather due to political factors and international jurisdiction challenges. The other part of this story that is not presented is that scallops recovered well from the closure of the fishery and rock lobster similarly did well in this region. In both cases the reason can be attributed to differences in the species ecology and the effectiveness of the fisheries management regime applied.

The second example is the Pacific salmon. Here the story is far more complex than what is presented in the proposal. To summarise Alaska salmon stocks are now managed at a 50% virgin biomass level target. The regime now in place for these stocks is believed to be working and sustainable. Gear restrictions, fishing period, and boat numbers are the main methods used which parallel but are not exactly the same as the NZ QMS system. Given the long history of fishing pressure in the Northern Hemisphere, and this fishery in particular, the situation in Alaska must be seen as at least a partial success.

The salmon fisheries in British Columbia, and further south in Washington and Oregon, are not doing as well as in Alaska with the more southern fisheries in the worst condition, some bordering on total collapse. Are these examples evidence that current fisheries management systems are failing? It is probably fairer to say that current fisheries management theory and managers are struggling to rebuild or restore these stocks to a healthy and sustainable level due to the full range of adverse factors that have affected these fisheries for over 100 years. The list of historic challenges and abuse to these fisheries is long, including: habitat loss, pollution, genetic dilution from fish farming and hatchery production, disease outbreaks and broad scale overfishing over decades which were all unregulated when viewed by today's standards.

To summarise, it is a healthy thing to debate the theory of fisheries management in the context of global figures and examples, but theoretical debate does not lead to a conclusion that present forms of fisheries management are doomed to fail. It is a very complex matter with a very large body of literature to interpret. The end result is that regardless of the conclusion there will be a counter argument presented. It is suggested that a healthier approach is to focus on learning from failures and successes and to maximise improvements in fisheries management and conservation working together on an on-going basis.

The second part of the global argument is that because there are failures in fisheries management globally the NZ QMS system is doomed to fail or is failing now. The two examples discussed above should serve to suggest that each international fishery case is different and that political landscape, management regime and intensity of fishing all contribute to fishery outcomes. As a result even if the global argument is made that fisheries management systems are failing it is not a logical assertion that the NZ system will fail and the proposal offers no explanation for making this assertion.

2. Failure of NZ QMS system

The essential problem with global arguments is the generalization that the NZ fisheries are comparable with failing Northern Hemisphere fisheries. While there are examples in NZ that parallel these failures they are typically a result of largely unregulated over fishing prior to the establishment of the QMS system. There are admittedly some high profile examples where information has been lacking and mistakes have been made or political will has been insufficient to implement sustainability measures like quota restrictions, but this is all part of the modern world we live in. Fisheries management information will at times be lacking, there will be mistakes in judgement and there will be from time to time poor political choices made. It is important here to look at progress the QMS has made and importantly what disasters it has prevented had it not been put in place.

The current case of the Snapper¹ stock and sustainability measures supports findings that are contrary to those found under the proposal. In the 1960's to 1970's bulk fishing of snapper in the Northeast of New Zealand rapidly developed. Snapper stocks were fished down to near 10% of original biomass. With the establishment of the QMS system a goal for the allocation of quota was set at a level estimated to achieve a stock level of 23% over time. In 1997 commercial quota was reduced to try to progress recovery of the stock. Current estimates are between 19-23% which represents recovery from very low levels, a partial success it could be argued.

In addition fisheries managers are recommending a new interpretation of the target level at 40% of virgin biomass which is a result of a continuing review of the ecology of snapper and theory behind these fisheries models. This is a significant change in approach. The current consultation is looking at how further reductions in take can come about to achieve this rebuild of the snapper stock.

The snapper example described above seems to make a case that for at least the Snapper¹ stock the NZ situation is in fact different than the global norm. 1) Devastation of the stock from unregulated fishing was avoided, and 2) rebuilding of the stock to something that can be argued to be a sustainable level is progressing. Is it enough? Is it fast enough? Does it take into account the full range of ecological considerations? What about all the other species? What are the impacts on key habitats? All of these further questions will remain subjects of intense scrutiny and debate but it is suggested that the argument that the QMS system is a failure is simply not supported by the facts.

3. Extent of commercial fishing in the proposal zone is limited

The current proposal makes the claim that commercial fishing is not important to Tutukaka and Northland. The figures offered in the proposal all stem from one report. This was a high level economic summary of amalgamated fishing industry figures dated 2000. For all figures used in the proposal it was assumed that it was reasonable to simply use the overall dollar return in the report for Northland and divide this by the spatial area fraction of the proposal area as compared to the greater Northland inshore spatial area. This approach is flawed and inadequate. It assumes that all areas of Northland are fished equally for all species and by all methods each year.

A cursory glance at fishing statistics on NABIS (the MPI online information database) shows that this is far from accurate. No attempt is made by the current proposal to document actual fishing in a spatial sense in the proposal area. A second problem is that no attempt was made by the proposers to analyse fishing or potential fishing in the proposal area by method or by species. This information does exist and would be required to be considered by MPI as part of the process of evaluating a proposal such as this.

There is a further fundamental issue not addressed in the current proposal. Once current fishing is described by species and spatial area there is also an issue of fishers holding quota in the fisheries management area (MA1) who haven't fished in the proposed Park area recently but would object to losing the potential to fish there in the future. Their argument is that the proposed Park would restrict the value of their quota holding and represent an opportunity cost to them or devaluation of the capital value of their quota holding.

MPI in considering a significant reduction in spatial area available to commercial fishing would have to answer this objection from quota holders. A step such as this would have to be justified in terms of the powers vested in the Fisheries Act. It is possible to make this argument on the grounds of desired sustainability measures or overall benefits to NZ economic and/or social, but these arguments would need to be well constructed when put up against the established quota holder's property right.

4. Economic return for commercial fishing in proposal area is low

The analysis of commercial fishing's economic return is based on the same single report and flawed assumption discussed above. In its current form it may be useful to produce a 'ball park figure' but the assumptions upon which it is based on are tenuous at best, thus the claims must be regarded with caution.

5. Transition to no commercial fishing can be facilitated by use of a 'grandfather clause'

The current proposal makes only one mention of the issue of compensation for any losses to commercial fishers arising from exclusion from the proposal area. It states that local commercial fishers could be allowed to delay the wind-up of fishing in the proposed Park area. There is no definition of what 'local commercial fishers' mean and no explanation of why they would be favoured over other 'commercial fishers'. While this is a worthwhile idea for staging the transition for fishers over time, the rationale for having two types of fishers treated differently would have to be explained. The concept of a grandfathering approach would most likely be considered well short of fair compensation for their loss by fishers.

6. Removing commercial fishing pressure allows fish stocks to recover

The current proposal makes several statements that the fishery in the proposed park would improve from the banning of all commercial fishing. There is no direct evidence offered to support this claim. There are potential problems with this claim that require more detailed investigation.

This review exercise has highlighted that without careful base case analysis, the rationale of a proposal can be easily eroded. The impact of getting the rationale wrong, particularly in

terms of effects on key stakeholders, would jeopardise the ability to progress a proposal irrespective of the merits of the overall goals.

3.1.3 The relevance of a base case for monitoring

Establishing a base case on the resource status, use and pressures is also important to enable effects arising from a marine park to be monitored over time to ensure that the controls (e.g. marine reserves) and mechanisms/management actions (fishing rules/restrictions) are collectively achieving the goals and objectives of the park.

The processes necessary for monitoring the effects of the marine park would be a key consideration within the business case for any comprehensive Phase 2 proposal. Any process should address when the monitoring would be required, how and where it would be undertaken, and by whom.

3.2 Ecological and Economic Goals

Economic benefits associated with tourism growth in particular are only likely to be realised if a marine park proposal first delivers material ecological benefits.

In terms of economic outcomes arising from a proposed marine park, the relevant question is what positive impact would a proposal have on tourism (and recreation), along the Tutukaka coast (or region) over and above current levels and projected status-quo growth, given that:

- a proposal will not create 'new' iconic destinations (i.e., the physical features of the environment are not changed, although the 'health' of it is expected to improve);
- the Tutukaka coast is already a popular place for holiday homes, day visits from within the region, and domestic and international tourism;
- the Tutukaka coast is already popular for recreation including fishing, charter fishing and diving; and
- marine based tourism and recreation is strongly correlated with the seasons (with a peak in summer and low in winter).

A proposal's economic effect comes down to the potential impact of 'marketing/bundling of existing attractions' and the potential increase in fish stocks/biomass (which will occur gradually) which may drive recreational fishing activity, dive activity and other passive and active uses of the marine and coastal area. Determining the net economic effect is therefore the key issue for evaluating the potential economic merits of a proposal. That is, net to the Tutukaka coast, but also net to the region overall, as a redistribution of activity from elsewhere in Northland is not a net gain to the economy.

The economic assessment of a proposal must take account of the cost of any improvements to land based capacity required to accommodate growth stimulated by the proposal, as well as the opportunity costs of other economic activities that may also need to be banned from (or restricted) within the park's boundaries. The greater the scope of activities that are excluded, the greater the risk that the positive benefits of potential tourism and recreation growth may not result in a net economic gain. The economic effects of the proposed park are considerably more complex than the current proposal suggests.

It is also relevant to consider the spatial distribution of economic impacts. It would appear that Tutukaka is best positioned to capitalise on potential tourism opportunities compared with the other sizeable settlements along the coast, given its existing infrastructure. However, providing business and employment opportunities in some of the smaller communities may have more significant economic and social benefits relative to the current situation. A proposal in which the 'beneficiaries' are more widespread may gain greater support.

One way in which other communities north and south of Tutukaka could help get 'a piece of the action' would be to ensure that any marine reserve sites that are proposed are spread along the length of the coast, thus enhancing their accessibility⁶. Of course it may not be practical to compete with the critical mass at Tutukaka and it would need to be assessed as to whether diluting the tourism activity over many coastal locations makes economic sense.

A significant growth in tourism may put additional pressures on the coastal environment and may result in changes to the 'character' of the coastal settlements in particular that may be resisted by some who value their current amenity over and above opportunities for growth in economic and social wellbeing. Care must be taken not to adversely impact on the aspects/features of the Tutukaka Coast that make it attractive for residents and tourists. For example, at what point would the 'busyness' of the Poor Knights Reserve in peak season start putting people off?

Key drivers for maximising economic impacts/benefits (net growth) for a marine park proposal include (but are not limited to):

- Growth in the number of domestic visitors (from outside Northland) and international visitors;
- Increasing visitor length of stay;
- Increasing the opportunities for visitors to spend money while visiting;
- Investment/funding from outside the region;
- Potential establishment of a marine research facility/centre;
- Growth capacity of physical and social infrastructure;

⁶ The ultimate location of marine reserves will depend on an ecological analysis of suitable sites to protect and the ability of those sites to function as an effective network.

- Minimising the costs to excluded existing or future users (especially commercial fishing);
- Minimising operational costs;
- Effective marketing/branding combined with a material improvement in amenity for marine tourism and recreation activities.

The proposal that achieves the most points from the above list will have the greatest economic benefits. This is not to say that all of these would be achievable in a proposal.

The last one – a material improvement in amenity for marine tourism and recreation - is key. A proposal that does not deliver a tangible environmental gain (i.e. an increase in biodiversity and fish stocks arising from the creation of no-take reserves) will not gain adequate credibility/authenticity with tourists, despite the marketing, and status quo growth projections would be the likely outcome.

Assuming that the ecological goals can be realised, the location of areas where plentiful fish/marine life can be found/experienced directly influences economic benefits. It is likely that 'reserve' areas are where greater biodiversity can be sustained (there is considerable scientific evidence that this is the case). However, reserves located offshore can only be visited by boats, and isolated coastal reserves may attract little or no visitors. On the contrary, coastal reserves that are easily accessed by shore based visitors (for swimming, snorkelling, glass bottom boat tourism) can be very popular and generate extra direct expenditure if there are commercial activities nearby to capitalise on the recreational attractions (e.g. Goat Island).

Overall, anecdotal evidence demonstrates that the ability of a proposal to deliver direct (and flow-on) economic benefits is dependent on also achieving measurable positive environmental/ ecological outcomes. Whether those economic benefits outweigh economic costs will depend on what activities need to be excluded/prohibited/limited in order to achieve environmental benefits and the scale of other administrative, enforcement and procedural costs.

Alternatives to consider

The LTP has a goal of improving economic performance, raising the standard of living and reducing economic disparity. Tourism is an important sector in the Northland economy that sustains considerable employment. However, growing tourism activity (quantum and higher value tourism) in the Tutukaka Coast area may also be achievable through other mechanisms and investments by the Regional and District Councils (other than the proposal) such as increasing commercial and/or residential zoning, increasing moorings and/or marina berths, adding boat ramps, improving public facilities and roading along the coast. Further investment in tourism marketing could generate an economic effect. (Note, such investment may be required in addition to the proposal if economic opportunities from a marine park are to be realised/maximised). Similarly, investment in other economic strategies, sectors or opportunities may deliver a better economic return to the region's community.

Therefore council needs to decide if its interest in this proposal is only as an economic activity or as a triple/quadruple bottom line.

3.3 Key Stakeholder Support

The future success of the marine park proposal will depend on the extent to which the current conservation, fishing, iwi and recreational interests are involved in its establishment and future administration.

The park proponents have discussed the proposal with a number of key Northland business and conservation organisations. However the extent of consultation with commercial fishing interests, iwi/hapu, recreation and conservation groups and land owners is less clear. Going forward more detailed consultation, including records of all issues raised and solutions identified, will be important.

Iwi: Ngatiwai are the principal iwi with mana moana interests for the central and southern portions of the proposed Park. In the North from Cape Brett to Taupiri just south of Whangamumu the two Rawhiti hapu, Ngati Kuta and Patukeha, share mana moana with the Ngatiwai hapu of the Whangaruru (Ngatiwai Iwi). The rohe boundary of the Rawhiti hapu is formally established as a rohe moana under the Kaimoana Fishing Regulations (Fisheries Act). The Rawhiti hapu have strong affiliations with the Ngapuhi Iwi as well as with Ngatiwai. There are further inland based hapu who also have an interest in this coastline. Ngatiwai have commissioned a preliminary response report from fisheries consultants.

Commercial fishing: The information provided to date indicates limited commercial fishing interest in the proposed park area. However this could change in the future as 'pressures' increase in other more accessible areas. A comprehensive consultation programme with commercial fishing interests would be necessary to progress a formal proposal.

Department of Conservation: DoC has been consulted. However the nature of the feedback, and relationship of the proposal to the Northland Conservation Management Strategy (CMS) 1999 and the current review process, is not apparent. Sections of the current CMS relating to coastal habitats, priority areas, legal protection of marine areas, marine reserves management and water based facilities, contain useful, if somewhat dated, information and directives. DoC is currently reviewing the CMS and associated public submissions with a new strategy expected in late 2013 or early 2014.

Recreational fishers: Recreational fishers are key stakeholders, not only because of the significance of the fish resource but because as a group, they are large, passionate, reasonably well organised and have strong well informed and knowledgeable advocates for their views. Having said this, the general public and some fishers may have strong perceptions but have limited knowledge of the current state of some fisheries (e.g. snapper). It is important that the marine park proposal is advanced alongside the current SNA1 and other central government initiatives. The Council and/or park proponents will need to engage with sector interests across the board so that the objectives and reasoning for the marine park proposal are clearly conveyed.

Consultation process: Of the wide range of users of the coastal marine environment (as well as the community at large who may not 'use' but nonetheless 'value' this particular coastline or the coastal environment generally) it is fair to say that most will be very interested in a concept like the one proposed. Based on surveys of public opinion it is likely that New Zealanders regionally and nationally will take a strong positive interest in the conservation and biodiversity issues and benefits proposed (i.e. support the goals).

Council can expect strong, often narrow, agendas to be forcefully argued. There will be other players (in addition to those groups identified above) who will likely be interested in primary involvement in any process which eventuates. International best practice clearly states that stakeholder involvement in all phases of the planning process is one of the most important ingredients to success.

3.4 The Extent of the Marine Park and its Boundaries

Are the proposed marine park boundaries generally appropriate?

All marine reserves created under the Marine Reserves Act have clearly defined boundaries. Any marine park created under this Act or other special legislation will be subject to fairly rigorous scrutiny of both its extent and boundaries.

The use of management areas or zones to define the spatial extent of different activities in land and water areas for different purposes (including protection) is also well established under the Resource Management Act. The Council's Regional Coastal Plan (RCP) divides the region's coastal marine area (CMA) into six 'marine management areas'. There are also water quality and other 'overlays' in the RCP. Some of the marine management areas are confined in area and have been developed with significant community input (e.g. the Marine 4 (Mooring) areas).

Any marine park needs to have clearly defined boundaries in order to provide certainty to the community as to where certain objectives, policies and rules apply and where they do not. There are two components of the proposed marine park that need to be considered including: (a) seaward extent and boundary; and (b) landward boundary. Each is discussed below in turn.

3.4.1 Seaward Extent and Boundaries

The currently proposed boundary for the marine park has a northern and southern apex which incorporates the coastline (broadly running in a north-south direction), which 'faces' the Poor Knights Islands. Put another way, the Poor Knights Island is the key feature of the sea view from this part of the coast. Although this rationale has some appeal from a marketing perspective, the extent of the park warrants more detailed ecological and/or fisheries consideration if it is to be promoted on this basis.

From an ecological perspective the marine park boundaries should include all, or most, of the significant marine habitat features like islands, headlands, pinnacles, and major reef

structures. If the major reefs of these special places have a surrounding 'buffer' area of soft sediment bottom habitat it is preferable that they are also included. This is because the edge and buffer areas around reefs are biodiversity 'hotspots'. Reef associated species use these soft sediment buffer areas as important supplemental feeding areas. Species specialised in feeding in soft bottom areas use the reef edges for protection from predators, as shelter and as rest areas. Another group of species made up of plankton feeders congregate over reef edges to take advantage of 'up dwellings' of current created by the rough topography of the reef. Pelagic predators regular visit these 'hotspot' areas to take advantage of feeding opportunities and they become significant from a biodiversity viewpoint.

The biodiversity 'hotspots' are often highly favoured fishing spots, or they can become the most productive of all marine reserves, which is the case with the Poor Knights Marine Reserve. In relation to the marine park boundaries, whatever management provision is employed, it is crucial that these 'hotspot' areas are treated as a whole from a habitat/ecological perspective, and not with a line bisecting the integral habitats.

The current proposal has north and south boundary lines running out to sea from Cape Brett and Bream Head respectively. It is presumed that these boundaries were seen as practical. Both headlands are prominent landscape features of the coastline and well known to all navigators. Commercial and recreational craft navigation is an important matter to consider when setting marine park or other protected area boundaries.

The ecological importance of the two headlands and their associated reefs do not appear to have been fully considered. The coastal reefs around the two headlands represent some of the finest in Northland due to their extensive nature and the strong currents generated by their headland configuration⁷. The quality of these habitats is reflected in high fish community diversity compared to other Northland coastal sites⁸.

The northern and southern boundaries of the park should be evaluated more in ecological terms as both Cape Brett and Bream Head are terrestrial conservation reserves rated at the top of Northland's coastal reserves network. The current proposal also does not appear to rationalise the park boundaries in relation to impacts of closing or restricting commercial fishing. There is a strong ecological argument that this should be a further consideration of park boundaries. Commercial fishing is largely carried out in specific spatial patterns that are largely known and recorded as data held by MPI. It is possible to carry out this sort of analysis which should lead to a more defensible park boundary and better outcome in terms of negotiations with commercial fishing interests. Commercial fishing interests are best engaged early on to add their direct input into the boundary setting process.

3.4.2 Landward Boundary

The marine park proposal as it stands is confined to the CMA, i.e. foreshore, seabed and waters below mean high water springs. This idea is 'consistent' with the current Marine Reserves Act (MRA). However, a Northland marine park is likely ultimately to require

⁷ Kerr, 2010 & Morrison 2005.

⁸ Brook, 2002.

significant changes to the MRA, or even new legislation, and wider consideration of adjacent land areas is appropriate (especially reserves that provide access to the water).

The Tutukaka coastline has nine significant estuary and or harbour zones. Some of those provide important recreational shellfisheries and are discrete ecosystems, which are also connected to the nearby coastal systems. These systems are under their own pressures from sedimentation (land use); recreational harvest; and water quality (sediment nutrients and bacteriological contamination). It is relevant to consider whether the marine park boundary should include any of these systems.

There are also notable DoC 'reserves' (land based) at several points along the coast, such as Matapouri/Whale Bay, Mimiwhangata, Whangaruru and Bream Head. The proposed park boundaries also border the Ngunguru Sandspit recently acquired by DoC. The current focus of the marine park appears to be on enhanced fishing and diving (marine based recreation), rather than wider 'recreational' experiences, including those on land.

The current Mimiwhangata marine park covers both land and water areas. The Poor Knights marine reserve also surrounds the DoC managed island reserves that are home to some significant fauna and flora.

The Hauraki Gulf Marine Park, also covers several offshore islands (including Cuvier, Little Barrier, Mokohinau, and Rangitoto), administered by DoC, along with a few land areas formerly owned by the Royal Forest and Bird Protection Society and private individuals. The associated Hauraki Gulf Marine Park Act highlights the importance of whole catchment management and places some land use planning obligations on the Auckland Council and people developing land in the adjacent catchments.

A discrete CMA based marine park is expected to be easier to promote. A marine park that included land areas, other than those simply in DoC or Council ownership, is likely to raise more competing and overlapping resource management issues. Nonetheless, a coherent rationale for a purely CMA based marine park is required in order to garner key stakeholder and wider public support for the proposal. The fact that the proposed marine park borders several important land based conservation areas and reserves administered by DoC (the Hauraki Gulf Maritime Park includes some land areas) means that the potential landward extent of any marine park requires further consideration.

3.5 Legislative Practicalities

Formal creation of a Northland marine park will ultimately require either significant changes to existing legislation or special purpose legislation. The enactment of legislation will be time consuming. Nevertheless, there are opportunities to initially implement the proposal through Resource Management Act (RMA) policy statements and plans and the Marine Reserves Act (MRA). Such steps can be designed to provide a pathway to the enactment of legislation at a later date.

The proponents of the Northland marine park envisage that it should serve three principal purposes including: (a) protection of habitat and restoration of biodiversity; (b) public access and recreation; and (c) local and regional economic development. There is not at present any single statute, or combination of statutes, that would enable the creation of a marine park that met all of those criteria.

The existing legislative framework governing the marine environment does not prevent the establishment of a marine park. Indeed, the purpose provisions of various enactments are consistent with elements of the marine park concept (e.g. sustainable management s.5 RMA, and scientific research s.3 MRA). However, for various reasons those Acts lack the jurisdictional teeth necessary for the creation and implementation of the type of marine park under consideration.

All fishing activities are exempt from sustainable management under the RMA (including protection of areas from fishing activities). That means that while regional plans can make provision for objectives, policies and rules in respect of a broad range of activities within the coastal marine area (e.g. recreation and commercial activities), such provisions cannot extend to fishing or the protection of fisheries.

The s.3 purpose of the MRA is broadly worded to encompass the preservation of areas as marine reserves “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”. However, this is qualified by the requirement that marine reserves are preserved “for the scientific study of marine life”, and not for purposes such as recreation or economic development. While a decision to grant a marine reserve can take into account such things as recreation and tourism opportunities as matters of public interest, the principal purpose of a reserve must be to serve scientific study.

The lack of a comprehensive legislative framework for general purpose marine reserves means that implementation of a proposed Northland marine park is likely to ultimately require legislative change or special purpose legislation. It is unclear what appetite, if any, central government presently has for legislative change. The Marine Reserves Bill has gathered dust since it was introduced to the house in 2002, and would now likely need significant changes before reintroduction, if that were to occur.

A special purpose bill designed to regulate a geographically defined area has several advantages over a more general bill, including: (a) its narrower application means it is likely to be less contentious; and (b) it can be drafted to address regionally specific goals (e.g. protection of marine biodiversity as an end in itself, and for the purposes of recreation and/or economic development).

The most relevant example of such special purpose legislation is the Hauraki Gulf Marine Park Act 2000, which establishes the Hauraki Gulf Marine Park (HGMPA) and Hauraki Gulf Forum. The purpose of the Hauraki Gulf Marine Park under s.32 is essentially to protect and recognise the international and national significance of the land and resources within the park, and to enable the people and communities to benefit from and enjoy the use of the park.

A feature of the Act is the establishment the Hauraki Gulf Forum to integrate management and to promote conservation in a sustainable manner. The Forum has a membership of 21 persons who represent the Minister of Conservation and local authorities of the greater region, and includes six representatives of tangata whenua (Maori tribes of the Gulf) appointed by the Minister.

Although the HGMPA provides a useful touchstone of what a regionally focused piece of marine park legislation might look like, its management objectives are very high level, and, it does not make any provision for direct management of activities/effects within the gulf. Clearly any legislation designed to govern a Northland marine park would need to make provision for the management of a broad range of activities/effects within the park area in order to ensure that the goals of the marine park could be achieved (and where necessary enforced).

The Hauraki Gulf Forum provides a useful governance model that might be adapted for the purposes of a Northland marine park. Provision for representatives of tangata whenua under any governance model would both serve to acknowledge the rights conferred under the principles of the Treaty of Waitangi, and as an avenue for discussion concerning the integration of rights conferred under other marine legislation. This includes legislation such as the Marine and Coastal Area (Takutai Moana) Act 2011 and the Fisheries Act 1996, which respectively codify customary interests and enable the creation of taiapure and mataitai (i.e. commercial and non-commercial local fisheries and customary fishing). It is noted that taiapure and mataitai have important 'food gathering', 'cultural', and 'spiritual' (as well as fisheries) functions which will need to be considered during the creation of any marine park.

Consideration would need to be given to whether the Ministry of Business, Innovation and Employment should be represented on any future forum given that the proposal is intended to facilitate economic growth (e.g. Ministers of Tourism and Economic Development). Similar consideration would be needed in respect to relevant stakeholder groups (e.g. recreation, tourism and business).

To date the Government has shown a preference for working with planning forums that have grown from community initiatives, as opposed to forcing top-down Government lead processes. It is, therefore, reasonable to assume the Government will support the establishment of a regional or sub-regional forum in Northland if it makes adequate provision for stakeholder interests and public participation.

It is important to recognise that any form of legislative change is a time consuming process. There are several stages that a bill must pass before becoming an Act of Parliament (incl. introduction, three readings, select committee and whole of house debate). Each stage is subject to public debate and scrutiny. Drafting and gaining support for a bill also takes significant time .

However, if the Council were to support a Northland marine park, initial steps towards implementation could be taken under existing legislation (i.e. the RMA and MRA). Introducing objectives and policies supporting a marine park into the Northland Regional

Policy Statement (RPS) and/or Regional Coastal Plan (RCP) would be a useful starting point⁹. Although the RPS has recently been reviewed, changes or variations can be made at any time. In any case, the RCP was made operative in 2004 and is shortly due for a ten year review. Notification of a change/variation to either the RPS or RCP would enable the Council to gauge public support and opposition for the proposal (and the grounds for same) prior to embarking on a more costly course of work.

The RPS and/or RCP could in turn serve as the starting point for the identification of a network of marine reserves under the MRA that could serve to protect those parts of the marine park with the highest biological, scenic or natural value. Clearly these areas would need to be principally protected “for the scientific study of marine life”. This should not prove to be problematic in terms of protecting high value areas, as their value generally equates with scientific interest. Ancillary benefits such as recreation, tourism and regional growth could in turn be used to demonstrate public interest as supporting considerations for reserve approval.

Northland is in a favoured position in terms of implementing a planning process to create a network of marine reserves. It has the highest value coastal area nationally in terms of marine biodiversity¹⁰. The economic values are also arguably very high. Information systems supporting marine planning in Northland are advanced when compared with other parts of the country. Through various research and survey projects carried out by LINZ, NIWA, Oceans 20:20 programs and DOC, there is now a comprehensive marine habitat map of Northland’s east coast¹¹. No other region in the country has this level of mapping completed in preparation for marine protected area/marine reserve planning. It is a first step required to do systematic design of marine protection options.

The Ministry of Fisheries (MFish) and DoC Marine Protected Areas Classification Protection Standard & Implementation Guidelines (February 2008) promote a biogeographic region approach, involving community based Marine Protection Planning Forums (MPPF’s) and a network of marine reserves covering different ecosystem and habitat types. Section 3 of the guidelines outlines an ecosystem and habitat classification approach and protection area design guidelines that could be usefully applied to identify the network of marine reserves in a Northland marine park.

Once a clear set of objectives and policies are in place under the RMA, and a network of potential reserves has been identified (if not approved) under the MRA, work could commence on the introduction of legislation that enabled integrated management of protection, recreation and economic growth across the wider marine park area. New legislation could either augment existing planning and reserve measures, or seek to put in place an entirely new legislative regime for the marine park.

⁹ The RPS may be the more appropriate starting point given its focus on regionally significant issues, and its application both above and below mean high water springs (i.e. if the park is to have a landward component).).

¹⁰ Morrison, M., 2005a. An information review of the natural marine features and ecology of Northland. NIWA client report for Department of Conservation, May 2005. 162p

¹¹ <http://www.doc.govt.nz/publications/conservation/marine-and-coastal/marine-protected-areas/marine-habitat-map-of-northland-mangawhai-to-ahipara/>

4 Summary & Recommendations

A marine park along part of the Bay of Islands – Whangarei Harbour section of Northland's east coast is expected to have ecological, economic and recreational benefits based on a preliminary review of relevant research published in New Zealand and overseas. However the proposed park's objectives, extent and form need to be thoroughly evaluated (e.g. key stakeholder engagement) to robustly determine the likely benefits and costs. Also the pathway by which it is achieved needs careful strategic analysis.

The Phase 1 investigations covered in this report are of a preliminary nature only and a more detailed (Phase 2) business case for a marine park is recommended. This section draws on the preceding preliminary findings and outlines a recommended approach to developing a Northland marine park. The focus of this approach is on a 'process' for creating a marine park rather than a specific proposal or a specified outcome.

4.1 Key Findings

The review gives rise to several key findings:

1. The idea of a marine park along part of Northland's east coast that includes the iconic Poor Knights Islands marine reserve and other notable areas, like Mimiwhangata, has considerable merit;
2. The current marine park proposal which is focussed on improved recreational fisheries across a relatively large area of water space 'cuts across' the current MPI SNA1 initiative and is expected to face some related criticism;
3. A marine park that has a wider set of goals encompassing the cultural, ecological, recreational and scenic benefits of a well-managed water space is likely to attract wider community support;
4. There has been considerable effort put into (and value derived from) the community consultation that has been undertaken to date. However, wider consultation, particularly with commercial and recreational fishing groups, iwi and the Department of Conservation will be required;
5. If the proposal was to proceed, the proposed seaward boundaries, particularly where they join the coast will need to be adjusted. The extent of the park, including whether it should include significant coastal reserves and other protected land areas, like the Hauraki Gulf Marine Park does, warrants more detailed consideration;
6. Currently there is no 'Marine Park Act', but the Marine Reserves Act, Resource Management Act and Fisheries Act and Regulations can help 'marine park' type concepts to be realised (albeit individually these Acts lack the jurisdictional teeth necessary for the creation and implementation of the type of marine park under

consideration). Special legislation, like the Hauraki Park Marine Park Act, is also possible, although would involve significant time and central government buy in.

7. The future planning of the marine park is best undertaken within the context of a wider Northland east coast 'spatial plan'. This spatial plan could be part of the Regional Coastal Plan (if the park is purely marine based) and/or the Regional Policy Statement (if the park is expected to have a landward component);
8. The 'spatial plan' is expected to establish the necessary evidential base for the park in terms of its benefits and costs and establish a clear set of marine park goals.
9. From an ecological perspective the benefits are likely to be greatest from a marine park that is made up from a strategically located and diverse network of marine reserves and protected areas;
10. Habitat mapping in the coastal environment is the first step in the systematic design of marine protected areas. Northland is well advanced, compared to other regions, and the proposed park area is within the area that has already been mapped.
11. The economic benefits of a 'bottom up' built network of marine protected areas within a wider marine park are likely to be easier to demonstrate than a 'top down' proposal, as information already exists, or can be obtained, on the current protected areas. There is very little 'across the board' data on commercial and recreational fishing and other activities within the proposed park area and this information will be harder to gather;
12. The Council is the best placed organisation to 'drive' future planning of the marine park, as it has the regional environmental and economic mandate and can bring together the different stakeholder interests.

4.2 Planning for a Future Marine Park

The proposed marine park already contains a marine reserve (Poor Knights) and a marine park (Mimiwhangata). They could be 'building blocks' for a much larger east coast marine park. The MFish and DoC guidelines on ecosystem/habitat classification and protection areas are able to be used to identify a number of possible additional marine protected areas with different scientific, cultural, recreational and scenic attributes or values that in turn form part of a larger Northland marine park. This progressive, step-by-step 'grass roots' process could involve different communities along the east coast and discrete additions to the current protected areas. This bottom-up type approach is expected to be easier to establish and in turn manage than a top-down approach like the current marine park proposal. This is because the present top-down approach is based on a number of 'fisheries management' concerns and objectives which are not robust and/or clearly within the ambit of the Council's jurisdiction.

The adoption of more widely based 'environmental' (cultural, ecological, recreational and scenic) objectives for the park is expected to draw more community support. Also by focussing more on these objectives the Council would be in a better position to drive the necessary marine (and possibly land) park planning process through its RMA functions. The

RMA enables the Council to undertake spatial planning of marine parks and other similar initiatives through the RPS and RCP. The RPS could also be used to guide district plans and other regional plans if the park was to have, at some stage, a landward component.

A key aspect of the proposed bottom-up marine spatial planning approach is the ability to cater for different communities (either geographic, cultural or interest based) using a range (albeit somewhat limited) of different types of 'protected areas', under the Fisheries or Marine Reserves Act. They could be scientific based marine reserves under the MRA like around the Poor Knights Islands, 'culturally' based customary management tools like mataitai under the Fisheries Act, or other forms of 'protected areas' that may arise in the future through these or other Acts.

Each proposed 'protected area' could be largely promoted by the 'community of interest', who would need to demonstrate specific scientific, fisheries, cultural or other benefits of the proposal based on the legislative framework in place at the time. Regional benefits from individual initiatives are more likely to be derived if the wider 'marine park' is promulgated through an RMA based spatial plan. This is because spatial planning enables the cultural, scientific, recreation value (amongst others) of each protected area to be more effectively integrated. This wider spatial planning approach further provides a sound basis for priorities, staging and protected area location decisions.

A proposed marine spatial planning approach using the RPS, and/or RCP, also enables some detailed economic analysis to be undertaken of the different marine protected area options. This type of wider 'business case' analysis is not a significant part of the current marine protected areas legislation. Preliminary investigations indicate that showing sustained economic benefits to the region from a 'marine park' is likely to be easier if the 'new' smaller marine protected areas are strategically located with tourism and other economic potential in mind. Although there is some information available from the current Goat Island, Poor Knights and other New Zealand examples, along with some from overseas, the economic benefits have not been closely monitored, assessed or reported. The proposed park represents an opportunity to do this and to some extent 'lead' the country in this type of economic development and planning.

4.3 Establishing the Goals and Geography of the Marine Park

The first stage in the development of a Northland marine park is to establish the 'geography' of the park, in terms of its goals, extent, key proposed protected areas, mix of activities enabled in each, and the interfaces with other areas. This more detailed analysis would draw from the available cultural, scientific (ecological), scenic and other data bases.

The geographic exercise would include identification of the appropriate wider (seaward and potentially landward) boundary of the marine park and consideration of the nature and significance of important cultural sites, distinct ecosystems and natural features, and the inter-relationships between them (given that park management inevitably involves some prioritisation according to significance, together with the need for an holistic approach).

There are several reasons supporting a clearly delineated and staged approach to the creation of a Northland marine park.

Firstly, the creation of more marine reserves (and other types of protected areas) can be supported on first principles. However, other types of activities will require careful planning due to their potential to cause significant adverse effects. It will therefore be important to separate any steps taken to create an extended network of marine protected areas from other management interventions that may be taking place in support of the proposed park (e.g. the management of commercial and recreational fishing).

This is because the scientific 'success' of marine protected areas as opposed to other marine park initiatives does not require risk assessment. There is, for example, no need to monitor the effects of three marine reserves in order to determine whether a fourth or fifth is likely to have beneficial or adverse effects. In contrast, the management of fishery activities often requires a precautionary approach (e.g. adaptive management), as increased activity invariably carries greater risk.

Second, a review of published research shows that additional marine reserves (and other forms of protected areas) yield cumulative benefits for biodiversity and fish stocks. Increased biodiversity and fish stocks are in turn a prerequisite to any marine park that is intended to generate sustained economic benefits through increased recreation and tourism activity.

Third, while the suggested network of marine protected areas needs to be underpinned by a thorough understanding of the areas' fisheries and ecology it should have a wider perspective based around the current MFish and DoC guidelines. As outlined earlier 'scientific study' based marine reserves can have any form of 'marine life', 'natural feature' or 'underwater scenery' basis. It is noted that customary management tools like maitaitai have important food gathering, cultural, and spiritual (as well as fisheries) functions which will need to be considered during the creation of any marine park. Fisheries, ecology or other 'single' discipline approaches to the creation of a marine park are unlikely to deliver the tourism (economic and social) outcomes being sought by the proponents.

The marine park planning process is expected to follow the Marine Protection Planning Forum (MPPF) process in the MFish and DoC guidelines¹². This process could be implemented as follows:

1. Assess the merits of the available marine protection and management mechanisms under the Fisheries, Hauraki Gulf Marine Park, Marine Reserves and Resource Management Acts and the feasibility of special marine park legislation;
2. Investigate relevant information held on existing cultural, ecological, fisheries, recreational, scenic and other data bases for the proposed park area and scope out the likely costs of filling the information 'gaps';

¹² These guidelines have not been tested in a populous region of New Zealand yet. The government remains vague on their commitment to this process in regions such as Northland. However, the guidelines are a useful starting point for designing a process which will work for Northland.

3. Initiate a key stakeholder consultation process and fill the information 'gaps';
4. Identify potential key (strategic) marine protected areas and review the extent of the proposed marine park;
5. Consider whether the park should have any landward component and determine the likely boundaries;
6. Go back to key stakeholders and then initiate wider community consultation;
7. Undertake some technical modelling and evaluation of different marine park options (including economic benefits and costs) and seek key stakeholder consensus on the park framework, including management responsibility;
8. Develop a set of marine park goals, key management strategies and a likely time based implementation pathway;
9. Initiate a change to the Regional Policy Statement and/or Regional Coastal Plan;
10. Promote any legislative changes considered necessary.

While a network of marine protected areas stands out as a likely cornerstone of the park concept, the planning for other components of the park would occur in parallel. Ecosystems are interlinked so it is important to manage (in a spatial planning sense) the areas outside the network of marine reserves and other protected areas as well. In doing so, wider cultural, recreational and economic objectives of the marine park overall can be better met and integrated with the ecological objectives.

The main benefits of the recommended approach are:

- Legislatively sound and achievable. A marine park that is part of an RMA based spatial plan and built around a network of marine reserves and other protected areas is sound and achievable in a legislative sense;
- High profile if first marine reserve 'network' in New Zealand;
- Community driven yet strategically focused. The approach delivers a process for establishing a marine park in Northland (which can be implemented elsewhere in future) rather than a site specific proposal. The benefit is that the outcomes of the marine park (extent, form and function) will evolve through the process, responding firstly to key stakeholder and then wider community interests;
- Progressive and potentially high profile. The proposal is a progressive one that is not dependent on one single action (like an initial change in legislation) but still has the potential to raise significantly the profile of the Council and the region.

4.4 Developing a Business Case

We recommend that NRC proceed with a Phase 2 (Business Case) assessment for a Northland marine park. The business case will require a high level of data availability, data quality, technical competency and resource commitment.

The business case for a marine park will need to demonstrate both a sound ecological base and a sound economic base (covering both community and commercial aspects). These aspects of the business case are better enabled by comprehensive spatial planning. The spatial dimension is critical to evaluation of outcomes, and therefore to the merits of the business case itself, as spatial inter-relationships are fundamental to combined ecological and economic effects, as well as potential trade-offs between them.

In short, and we re-emphasize, a business case in this context is not just about economics and will require a sound evidence base both of quantitative and qualitative inputs which covers ecological and economic values as well as cultural and social outcomes, how these inter-relate, and the effects of different options for marine space use.

The following provides an outline for a business case report.

- Purpose Statement
- Aims and Objectives
- Evidence base to inform the business case – critical path. This work will involve some stakeholder consultation followed by further refinement of options and recommendations. Key assessments required:
 - Base case fisheries/ecological information of study area and adjacent areas
 - Assessment of current impacts and analysis of future trends in the proposed park area
 - Assessment of extent of park and its seaward and landward boundaries
 - Review of New Zealand and overseas marine parks/marine reserves
 - Marine reserve assessment and modelling of a range of spatial options
 - Assessment of socio-economic constraints, benefits and costs
 - Park management/governance framework, and operational costs, structures and options
 - Key Issues (including key stakeholders and perspectives)
- Options Evaluation – Multi Criteria Analysis (MCA)
 - A number of options may arise from the technical assessments. These can be evaluated in terms of how they meet Council's LTP objectives, and how

a park may be assessed according to the Council's evaluation criteria (including economic, environmental, social and cultural criteria) as well as methods to differentiate among options according to such things as "economic/environmental return on investment".

- Key trade-offs between the options are likely to relate to: (a) differing outcomes for employment, contribution to GDP, increase in biodiversity (etc.); and (b) how they accrue within different locations, which will in turn be affected by the weighting given to economic, cultural, social and environmental goals. From this analysis recommendations can be made on the target percentage area in full no-take reserves or other levels of 'protection' or special management. Such targets will thus be will be influenced by the full range of factors.
- These types of issues commonly need to be addressed in a comprehensive evaluation framework, for which the MCA process is often useful (MCA is now identified as the MfE's preferred evaluation tool).
- Stakeholder engagement requirements and strategy.
- Legislative process – critical path. This component of the business case will include assessment of options and a recommended implementation pathway of preferred options for Council.

Developing the business case will require consultation with stakeholders (including iwi) and we anticipate that NRC may be able to assist in this area. Most assessment work can be carried out by the consortium given the spread of our expertise, but some work may need to involve other consultants, and/or draw directly on Council resources and established communication/consultation structures. We can provide recommendations for additional expertise that may be required for Phase 2.

Once the key areas of work are completed, the team would present preliminary findings to NRC. All of the various components of assessment would then be drafted into a comprehensive business case report. Given that the report is expected to produce a large volume of technical information, care will be taken to ensure that key messages and recommendations are communicated clearly and concisely. The aim of the business case is to provide the evidence necessary to inform future decision making about the proposed park and to aid the decision making process with our expert recommendations and guidance. It will also function as an action plan to guide potential future implementation. The team would be available to do a final presentation to a wider audience (e.g. councillors) if required.