

**ASSESSMENT OF ECONOMIC EFFECTS OF A PROPOSED PLAN CHANGE TO RATIONALIZE BOAT
MOORING FACILITIES IN WAIKAWA BAY**

**Mike Copeland
Brown, Copeland & Co Ltd**

**For
Port Marlborough NZ Ltd**

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1. INTRODUCTION

Background to Plan Change

1. There is growing demand for additional berthing and mooring facilities for recreational and commercial vessels within the Marlborough Sounds.
2. Port Marlborough NZ Ltd (PMNZ) has commercial wharfs and marinas at Havelock, Picton and Waikawa Bay that together cater for the storage of nearly 2,000 boats, including 1,250 marina berths as well as boatsheds and trailer compounds. There are 380 berths in the Havelock marina, which is 85% occupied¹. Both the Picton marina (with 209 berths primarily occupied by fishing fleets and large launches, including some super yachts) and Waikawa marina (with approximately 600 berths) are fully occupied and have substantial waiting lists. In addition there are number of privately owned swing mooring facilities at various locations within the Marlborough Sounds.
3. Within Waikawa Bay the demand for berthing and mooring facilities exceeds the available capacity. Historically, with respect to swing moorings, a first in first served approach has been adopted under the Resource Management Act (RMA) to allocate the available space but this approach has now reached its practical limits. There are a number of swing moorings within Waikawa Bay which do not have resource consent and many of the existing moorings overlap and conflict with neighbouring swing circles. In 2004, the Marlborough District Council facilitated a bulk application process whereby holders of existing swing moorings could collectively seek to legitimise their moorings to meet RMA requirements. As this consenting process progressed, it became evident that not all 186 applications for the inner part of Waikawa Bay could be physically accommodated in appropriately zoned areas without stretching mooring fields into impractical areas of very deep water, impacting negatively on visual and amenity values within the Bay.
4. The Waikawa Marina is fully occupied and has a waiting list for berths of over 300.² PMNZ has been exploring options for its expansion to provide for the existing and future needs of recreational boat owners. Current proposals are for the 600 (approx.) berth marina to be expanded by 250 berths as soon as possible³ and a by a further 250 berths some time later as demand requires. However such expansions will be dependent on suitable arrangements being achieved for existing swing moorings in Waikawa Bay and in some cases their relocation away from the areas zoned or identified for marina expansion.

¹ New increments of capacity have been added in the last two years and this had led to there currently being some spare capacity.

² Port Marlborough NZ Ltd Waikawa Bay Plan Change Assessment of Recreational Effects; Rob Greenaway & Associates; 21 August 2009.

³ Expected to be by October 2013 at the earliest, given the time for consenting and an expected construction time of eighteen months.

5. While demand for additional marina and mooring facilities is widely acknowledged, ad hoc use of space within Waikawa Bay has developed in the absence of adequate long-term transparent planning. A continuation of this approach is likely to lead to inefficient use of the limited water space resource and negatively impact on navigational safety and visual and amenity values. To reconcile and provide for the needs of a range of stakeholders, changes are proposed to the Marlborough Sounds Resource Management Plan which would enable more efficient long term management of water space in Waikawa Bay and balance the needs of boat owners with the needs of all other stakeholders.
6. The Plan Change proposed would create a new overlay for Waikawa Bay within the Coastal Marine 1 Zone that would:
 - Establish Moorings Management Areas in inner parts of Waikawa Bay. Swing moorings within these areas would either
 - (a) not require resource consent, instead being managed through a licensing system. Licences would be issued under a proposed new bylaw introduced under the Local Government Act that passes responsibility to the Moorings Area Manager for allocation and management of mooring space within the defined Moorings Management Areas, and administering the mooring licence process; or
 - (b) be provided for as a restricted discretionary activity within the Mooring Management Areas;
 - Retain the ability for existing or new swing moorings to be held outside the Moorings Management Areas through resource consent processes;
 - Provide for the special needs of mooring waka in an identified area near the Arapawa Maori Rowing Club;
 - Define a specific clear water amenity strip between low water and the nearest moored vessels to provide for increased recreational activity and visual amenity;
 - Provide access avenues to enable safe and convenient on-water access to and from the Waikawa Bay jetty and launching ramp;
 - Increase the size of the designated swimming area adjacent to the Waikawa Council Reserve;
 - Rezone as Marina Zone an area to the north west of the existing marina which has been identified by Port Marlborough for future extension of Waikawa Marina berth capacity. (It is noted that regardless of zoning designation, any proposed marina expansion would be required to obtain resource consent.)

Purpose of this Report

7. The purpose of this report is to assess the economic effects of the proposed Plan Change. The economic effects are principally those arising from the increased economic activity as a consequence of the construction and operation of the expanded Waikawa Marina. However the proposed Plan Change will also bring improvements in economic efficiency through

more productive use of coastal land and water space in Waikawa Bay and reduced processing costs for the allocation of water space.

Report Format

8. The next section of this report considers the relevance of economic matters in considering a Plan Change under the RMA. Section 3 identifies the economic benefits flowing from the proposed Plan Change, whilst Section 4 considers potential economic costs. The report's conclusions are contained in Section 5.

2. ECONOMICS AND THE RMA

Community Economic Wellbeing

9. Economic considerations are intertwined with the concept of the sustainable management of natural and physical resources, which is embodied in the RMA. In particular, Part II section 5(2) refers to enabling "*people and communities to provide for their ... economic ... well being*" as part of the meaning of "*sustainable management*", the promotion of which is the purpose of the RMA.
10. As well as indicating the relevance of economic effects in considerations under the RMA, this section also refers to "*people and communities*" (emphasis added), which highlights that in assessing the impacts of a proposal it is the impacts on the community and not just the applicant or particular individuals or organizations, that must be taken into account. This is underpinned by the definition of "*environment*" which also extends to include people and communities.

Economic Efficiency

11. Part II section 7(b) of the RMA notes that in achieving the purpose of the Act, all persons "*shall have particular regard to ... the efficient use and development of natural and physical resources*" which include the economic concept of efficiency⁴. Economic efficiency can be defined as:

*"the effectiveness of resource allocation in the economy as a whole such that outputs of goods and services fully reflect consumer preferences for these goods and services as well as individual goods and services being produced at minimum cost through appropriate mixes of factor inputs"*⁵.

⁴ See, for example, in *Marlborough Ridge Ltd v Marlborough District Council* [1998] NZRMA 73, the Court noted that all aspects of efficiency are "*economic*" by definition because economics is about the use of resources generally.

⁵ Pass, Christopher and Lowes, Bryan, 1993, *Collins Dictionary of Economics* (2nd edition), Harper Collins, page 148.

12. More generally economic efficiency can be considered in terms of:

- Maximising the value of outputs divided by the cost of inputs;
- Maximising the value of outputs for a given cost of inputs;
- Minimising the cost of inputs for a given value of outputs; and
- Minimising waste.

Viewpoint

13. An essential first step in carrying out an evaluation of the positive and negative economic effects of a development project is to define the appropriate viewpoint that is to be adopted. This helps to define which economic effects are relevant to the analysis. Typically a district or wider regional viewpoint is adopted and sometimes even a nationwide viewpoint might be considered appropriate.⁶ For the proposed Plan Change the Marlborough region is generally the relevant community of interest, but this report also considers the economic effects from the narrower Waikawa perspective.

Economic Basis for Controls on the Allocation and Use of Land and Water Space

14. An analysis of the financial costs and benefits of proposed expansions of the Waikawa Marina will be undertaken by PMNZ in terms of their financial impacts on the company. This will cover the expected revenues, capital costs and operating costs of the marina expansions from its commercial perspective. Before PMNZ will be willing to invest in marina expansions it will require that the expected financial returns exceed the expected financial costs. This is consistent with the efficient use of resources. Also in meeting the demand for marina berths the proposed marina expansions will meet the needs of boat owners.

15. However, not covered in any financial cost benefit analysis are the so-called externalities – i.e. those side effects of the production process, which affect third parties, other than the buyer and seller. A range of economic externalities arising from the possible expansions of the Waikawa Marina are discussed later in this report.

3. ECONOMIC BENEFITS OF PROPOSED PLAN CHANGE

Additional Economic Impacts

16. Marina Construction Impacts. PMNZ has provided an estimated capital cost for the first expansion of the existing Waikawa marina of \$16 million, to be spent over the eighteen month period, April 2012 to October 2013. The second expansion is estimated to cost a

⁶ For example, there was an inference that the consideration of “Project Aqua” and other Waitaki River water allocation cases by a central government appointed body was to broaden the viewpoint from a local district or regional level to a wider national level.

similar amount, to be spent over an eighteen month period, at some time in the future to meet expected demand.

17. It is estimated that between 40 to 90% of construction costs for each of the marina expansions – i.e. between \$6.4 million and \$14.4 million or between \$4.3 million and \$9.6 million per annum over an eighteen month period - will be spent within the Marlborough District. The reason for the broad range for the local content of capital costs is that under one scenario most of the marina componentry as well as the civil works will be sourced locally. Under a second scenario only the civil works would be sourced locally and the componentry would be supplied from outside the region.
18. The main industry groups to benefit within the local economy will be quarries; trucking, barging and other transport providers; building, electrical, painting and general contractors; civil engineering consultants; landscapers; marine service providers; construction material suppliers; and accommodation and hospitality providers.
19. Using factors from a model⁷ of the Marlborough District economy it is estimated that the average additional direct employment for each expansion will be between 22 and 50, with estimated wages and salaries paid of between \$1.0 million and \$2.3 million per annum over the eighteen month construction period (expected to be April 2012 to October 2013 for the first expansion).
20. These increases in expenditure, employment and income are the direct economic impacts of the construction of the two marina expansions. In addition to these direct economic impacts there are indirect impacts arising from:
 - The effects on suppliers of goods and services provided to the site from within the region (i.e. the “forward and backward linkage” effects); and
 - The supply of goods and services to employees at the site and to those engaged in supplying goods and services to the site (i.e. the “induced” effects).
21. Multipliers can be estimated to gauge the size of these indirect effects. The size of the multipliers is a function of the extent to which the local economy is self-sufficient in the provision of a full range of goods and services and the region’s proximity to alternative sources of supply. Butcher Partners Ltd has provided some expenditure, employment and income multipliers for the non-residential construction industry in Marlborough of 1.82, 1.81 and 1.76 respectively. These imply that the direct plus indirect economic impacts of each of the two construction phases of the marina expansion are as follows:

⁷ Provided by G V Butcher Partners Ltd

<u>For Each Marina Expansion (over 18 month period)</u>	<u>Direct Plus Indirect Impact</u>
Expenditure	\$7.8 m to \$17.5 m per annum
Employment	40 to 91 jobs
Household Income	\$1.7 m to \$5.3 m per annum

22. Additional Local Expenditure by New Berth Occupiers. Data has been collected on the expenditure patterns of existing occupiers of berths in the PMNZ's marinas at Havelock, Picton and Waikawa.⁸ The data cover expenditure incurred looking after boats (storage, marina and mooring fees, boat repairs and maintenance, slipping and hard stand and new boat equipment purchases) and expenditure associated with using boats (car running costs, off-boat accommodation, boat fuel and oil, groceries and provisions, other shopping and restaurants and bars).
23. To estimate the economic impacts of future expansions of the Waikawa Marina the expenditure data pertaining to Waikawa berth occupiers for non-Marlborough residents has been used, since this gives an indication of the additional expenditure brought into the local economy as a result of the proposed expansions to the Waikawa Marina. It has been assumed that 50% of the berths in each of the Waikawa marina expansions will be occupied by boats owned by non-Marlborough residents. This is approximately the current mix of the Waikawa marina berth occupiers.⁹ The current waiting list for berths at Waikawa indicates 67% are non-Marlborough residents. However a number of these persons already use the Marlborough Sounds for boating in conjunction with swing moorings in the Marlborough Sounds, berths within Picton or Havelock marinas, re-launching their boat from trailers for each Marlborough Sounds excursion or sea journeys from outside of Marlborough. Using the approximate current split of Marlborough and non-Marlborough berth holders of 50% is a conservative approach to estimating the additional expenditure brought into the district from expansions of the Waikawa Marina.
24. The average 2008 expenditure figure for Non-Marlborough residents for total expenditure in looking after their boats is \$12,729.¹⁰ This is based on 192 survey respondents¹¹. However 117 respondents suggested that 2008 was not a typical year and estimated average expenditure in a typical year of \$9,190. Conservatively this lesser figure has been used in the analysis. Respondents to the survey estimated 89% of this expenditure - \$8,179 – is spent within the Marlborough region.

⁸ See Port Marlborough NZ Ltd Marina Berth Holders and Wait List Survey 2009; Appendix 1 to Port Marlborough NZ Ltd Waikawa Bay Plan Change Assessment of Recreation Effects; Rob Greenaway & Associates; 21 August 2009 (Rob Greenaway & Associates report).

⁹ The current mix is 48% local Marlborough residents and 52% non-Marlborough residents – see Table 4, Appendix 1, Rob Greenaway & Associates report.

¹⁰ See Table 27, Appendix 1, Rob Greenaway & Associates Report.

¹¹ See Table 28, Appendix 1, Rob Greenaway & Associates Report.

25. Expenditure associated with using boats by this group of survey respondents averaged \$4,923, of which 84% or \$4,135 is estimated on average to be spent within Marlborough. This gives a total of \$12,314 per berth holder spent each year within the local economy.
26. On the basis of 50% of the new berths in expansions of the Waikawa Marina being occupied by Non-Marlborough residents, each expansion will bring an injection of \$1.5 million (125 x \$12,314) of additional expenditure per annum to the local Marlborough economy.¹²
27. Associated with this additional expenditure are increases in employment and household income. Using factors based on data supplied by Butcher Partners Ltd¹³, the increases in direct employment and household income are 7 full time equivalent (FTE) jobs and \$0.29 million per annum respectively for each marina expansion. Weighted average multipliers (1.37 for expenditure, 1.44 for employment and 1.47 for household income) have been used to determine the direct plus indirect economic impacts for each of the two proposed marina expansions:

<u>For Each Marina Expansion</u>	<u>Direct Plus Indirect Impact</u>
Expenditure	\$2.1 m per annum
Employment	10 jobs
Household Income	\$0.4 m per annum

28. Had the 2008 reported average expenditure in looking after boats of \$12,729 been used instead of the expected lower annual average figure of \$9,190, the results would have been approximately 27% higher – i.e. additional expenditure in the Marlborough economy of \$2.7 million, additional employment of 13 jobs and additional household income of \$0.5 million.
29. These direct plus indirect economic impacts appear to be very conservatively estimated. A separate exercise undertaken by PMNZ's marinas manager identified incremental employment of 41 FTE positions as a consequence of the first extension and a further 33 FTE positions as a consequence of the second marina expansion. The data was collected by the marinas manager by personal communication with Waikawa Marina businesses and those registered with PMNZ as 'registered tradespersons' authorised to operate on a commercial basis at Port Marlborough facilities. Boat brokers with existing staff of 8 expected 1 additional employee would be required with each of the two expansions; boat repairers based at Waikawa with existing staff of 70 would increase staff numbers by 23 after the first expansion and 18 after the second expansion; boat repairers based outside of Waikawa with existing staff of 21 would increase staff numbers by 10 after each of the expansions; the

¹² Using a figure of \$12,729 for the average total expenditure on looking after boats instead of the more conservative \$9,190 figure, implies an injection of \$1.9 million per annum into the local Marlborough economy from each Waikawa Marina expansion.

¹³ Butcher Partners Ltd has provided data for each of the expenditure categories and a weighted average has been taken.

hospitality industry in Waikawa currently with 14 FTE positions would increase staff numbers by 3 after the first expansion and 2 after the second expansion; the boat charter industry at Waikawa with 10 current positions would increase staff numbers by 2 after each expansion; and similarly Port Marlborough currently with 10 staff would increase staff numbers by 2 after each expansion.

30. These estimates will not have taken into account the assumed 50% of berths being occupied by Marlborough residents, which results only in a diversion of expenditure within the local economy, rather than additional expenditure. However even adjusting for this, the employment impacts suggested by this survey are more than double those estimated above, once indirect effects have been taken into account.
31. PMNZ staff have indicated that the first marina capacity expansion is likely to lead to a threshold step increase in landside boat servicing facilities such that a wider offering of boat servicing will be available locally. It is likely that investments will be made in facilities enabling the local servicing of large boats which otherwise would have gone out of the area for servicing and even the attraction of large boats from other areas being attracted to Waikawa bay for servicing. The presumption is that the marina expansion will act as a catalyst to achieve a boat servicing industry at Waikawa Bay with greater “critical mass” and this has led to the larger additional employment numbers being reported in the PMNZ survey.
32. Limitations of Economic Impacts Data. As indicators of levels of economic activity, economic impacts in terms of expenditure, income and employment are not in themselves measures of improvements in economic wellbeing or economic efficiency. However governments (national, regional and district) seek to attract and retain businesses and events to enhance, or maintain, levels of economic activity. This is because there are economic welfare enhancing benefits associated with increased levels of economic activity. These relate to one or more of:
 - Increased economies of scale. Businesses and public sector agencies are able to provide increased amounts of outputs with lower unit costs, hence increasing profitability or lowering prices;
 - Increased competition. Increases in the demand for goods and services allows a greater number of providers of goods and services to enter markets and there are efficiency benefits from increased levels of competition;
 - Reduced unemployment and underemployment¹⁴ of resources. To the extent resources (including labour) would be otherwise unemployed or underemployed, increases in economic activity can bring efficiency benefits when there is a

¹⁴ Underemployment differs from unemployment in that resources are employed but not at their maximum worth; e.g. in the case of labour, it can be employed at a higher skill and/or productivity level, reflected in higher wage rates.

reduction in unemployment and underemployment. The extent of such gains is of course a function of the extent of underutilized resources within the local economy at the time and the match of resource requirements of a project and those resources unemployed or underemployed within the local economy; and

- Increased quality of central government provided services. Sometimes the quality of services provided by central government such as education and health care are a function of population levels and the quality of such services in a community can be increased if increased economic activity maintains or enhances population levels.

33. In the case of the proposed expansions to the Waikawa Marina a number of these types of efficiency improvements can be anticipated. In particular the marina expansions will greatly assist the Waikawa settlement to attain 'critical mass' such that it is able to provide a greater range of goods and services to local residents and visitors. In particular the Waikawa based providers of marine services are likely to benefit from economies of scale and agglomeration economies (i.e. the benefits for businesses in being located near to one another), whilst it may also be possible for local customers to benefit from some instances of increased competition. To a lesser extent PMNZ will benefit from economies of scale with respect to its ownership and management of an expanded Waikawa Marina.

34. Also berth occupiers at the Waikawa Marina (and perhaps residents of Waikawa generally) will benefit to the extent that expansion of economic activity within Waikawa leads to additional providers of goods and services and therefore more competitive prices and higher service levels.

Increased Land Value Effects

35. The expansion of the Waikawa Marina is likely to lead to increases in the value of land in Waikawa – both for commercial land reflecting expectations of increased profitability for businesses located in close proximity to the marina and for residential land reflecting the increased demand for residential sections and dwellings by berth occupiers. These increases in land values are not additional economic benefits but are reflective of the benefits identified elsewhere in this report.

More Efficient Use of Water Space

36. Clearly the available supply of water space for berthing or mooring recreational vessels within Waikawa Bay is limited, whilst there is currently excess demand in that there is a waiting list of over 300 for marina berths and many of the existing swing moorings in the Bay overlap and conflict with neighbouring swing circles.

37. A report¹⁵ prepared by International Marina Consultants Pty Ltd for PMNZ identifies that marina berth capacity at approximately 80 boats per hectare is around ten times the spatial efficiency of swing moorings.¹⁶ The report concludes that, with the use of more efficient swing mooring systems and a rationalisation of mooring locations, Waikawa Bay provides adequate capacity for the proposed swing mooring applications as well as an expanded Marina Zone. The report also concludes that given the much greater spatial efficiency of marina berths over swing moorings, greater emphasis should be given to additional marina berth capacity than swing moorings for the best use of the water space resource.

Increased Efficiency from More Orderly and Safer Boat Movements within Waikawa Bay

38. The proposed Plan Change is intended to provide access avenues to enable safe and convenient on-water access to and from the Waikawa Bay jetty and launching ramp. Such enhancements are consistent with the efficient use of resources.

More Efficient Use of PMNZ's Assets

39. The expansions of the Waikawa Bay Marina is expected to result in PMNZ's land and other assets at Waikawa Bay being used more efficiently as a consequence of an increase in the demand for goods and services from local suppliers within Waikawa Bay. Therefore PMNZ will receive increased rental incomes and increased profits from its land and other assets. These increases in profits are reflective of improvements in resource use efficiency.

40. Generally such benefits are not considered part of any enhancement of "community economic wellbeing", since they accrue to a single firm rather than the broader community. However, since PMNZ is wholly owned by the Marlborough District Council increased profits for PMNZ flow through to the wider community. The Marlborough District Council has additional revenues with which to provide additional or improved community services and/or rate demands can be reduced.

A Reduction in Resource Consent Processing Costs

41. The proposed Plan Change is intended to replace the requirements for resource consents for existing and new swing moorings with a licensing system with the allocation and

¹⁵ Waikawa Bay Mooring Capacity Study; April 2008.

¹⁶ A similar conclusion is reached in another study (Issues and Needs - Boat Accommodation in Picton, Waikawa & Surrounding Areas; Prepared for Sounds Property Holdings Limited (wholly owned by PMNZ); Boffa Miskell; October 2007). This report states that the 185 existing swing moorings in Waikawa Bay occupy approximately 30.3 hectares of water space or roughly 1,638 m² of water space per boat. In comparison the Waikawa Marina occupies some 10.7 hectares of water space and accommodates 598 boats or roughly 180 m² of water space per boat. This means that, on average, a boat within the Waikawa Marina occupies only 10% of the water space used by a boat on a swing mooring.

management of mooring space passing to the Moorings Area Manager. This is expected to result in cost savings for both applicants and the Marlborough District Council. If the Bylaw does not proceed, such savings would be less, although a more streamlined resource consent process focused around the Mooring Management Areas would still result in efficiencies and savings.

4. ECONOMIC COSTS OF PROPOSED PLAN CHANGE

42. The proposed Plan Change in facilitating extensions to the Waikawa Marina may give rise to concerns on visual and amenity values within Waikawa and Waikawa Bay. Such effects are covered in other reports by consultants for the applicant.
43. However from the perspective of economic costs, it is unlikely that any such effects would result in negative impacts in terms of reductions in tourist numbers and spending. In fact the marina extensions are expected to contribute to significant increases in visitor numbers and therefore visitor spending within the Marlborough region.

5. CONCLUSIONS

44. The proposed plan change to rationalise boat mooring facilities in Waikawa Bay will enable the Waikawa and Marlborough communities to provide for their economic (and social) wellbeing and is consistent with the efficient use and development of natural and physical resources, in that:
 - (i) Each of the marina expansions, which would be enabled under the proposed plan change (through the rezoning and the changes to the Marina Zone provisions), will lead to significant increases in local expenditure, employment and incomes during their construction and operation;
 - (ii) There will be more efficient use of the limited available water space in Waikawa Bay;
 - (iii) More orderly and safer boat movements within Waikawa Bay will be provided for;
 - (iv) PMNZ land and other assets at Waikawa Bay will be used more efficiently with consequent benefits for Marlborough District Council ratepayers; and
 - (v) Requests for resource consents for existing and new swing moorings in the inner bay will either be replaced with a licensing system or more streamlined resource consent process, resulting in cost savings for both applicants and the Marlborough District Council.