



Report to:

**Venture Taranaki**

**ECONOMIC IMPACT OF THE  
PROPOSED PORT TARANAKI MARINA  
REDEVELOPMENT ON THE TARANAKI REGION  
ECONOMY**

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## Executive Summary

- The Port Taranaki marina development will see the establishment of 76 (10m, 12m and 20m) berths, commercial fishing facilities, a slipway to support the luxury yacht-building sector and the rehousing of Port Taranaki's company vessels.
- The marina redevelopment will be located at the Lee Breakwater at Port Taranaki, and provide facilities for recreational marina use, commercial fishing and Port Taranaki service vessels, as well as a slipway and syncrolift for yacht movements and superyacht builds/work.
- Onshore facilities will include a fuelling jetty, chandlery, syncrolift facilities, an administration office and chargeable carparking facility for 100 cars.
- Major stakeholders in the marina development at present are Port Taranaki, the New Plymouth District Council and Venture Taranaki.
- The marina development at Port Taranaki will cost approximately \$22.5 million to build. During construction, its total impact on regional GDP will be \$13.8 million, and it will create 159 new full-time jobs for one year.
- Each year, the marina will generate direct expenditure of around \$7.6 million. In total, this will contribute around \$4.8 million to regional GDP and 70 new full-time jobs.
- New Plymouth is the only major coastal town in New Zealand without a serviced marina, but is the only port on the western seaboard where boats do not have to cross a bar to enter.
- The nearest marinas located on the west coast of the North Island are at Manukau to the north and Paremata to the south.
- New Plymouth's port requires extra berthing facilities for service vessels, particularly as demand increases and security issues create complications in entering and exiting the main port berths.
- Demand for a marina appears to be strong, with community discussions over several years.

- The marina will provide regional infrastructure expected of a coastal city. It will encourage community and commercial use, and provide a safe haven for yachts and fishing vessels seeking shelter in rough weather.
- The main industries affected by a proposed marina are commercial fishing, boat-building, refit, refurbishment and repair, and tourism.
- There is potential for the commercial fishing sector based at the new marina to double in the next five years, including the introduction of Albacore Tuna vessels, which currently bypass Port Taranaki because of the lack of services and facilities.
- Approximately seven commercial fishing vessels are based at Port Taranaki, but a change in port usage could see the fishing fleet mothballed if alternative facilities are not made available. This would directly result in a loss of \$1.55 million in regional GDP and 15 full time jobs to the regional economy.
- An increase in tourists and visitors to the region, due to the new marina, is expected. It is estimated that the marina could directly attract additional visitors through international yachts, superyacht refit crew, and yachting and fishing tournament participants, equating to around \$800,000 in additional tourism spend. This will generate, in total, around \$590,000 in GDP and provide almost 13 full-time equivalent jobs to the regional economy.
- A marina could enable the introduction of a major yachting event to the region. This could generate around \$920,000 in additional expenditure, which would have a total impact on regional GDP of around \$690,000 and provide 15 full time jobs.
- Other users of the marina include the fishing and diving club, the local yacht club and the surf lifesaving club and local residents using the coastal walkway and swimming at Ngamotu beach.
- The marina will provide facilities and services for users, but also support infrastructure and activity along the coast, increase land values for marina land and residential properties in the area, and offer social benefits for distressed boats passing through.
- Port Taranaki's existing marina provides basic swing-line moorings for 50 vessels and some protection from the elements, but has no service facilities and is under-developed.

- Due to the lack of adequate facilities, many local boat owners moor their boats in other marinas including the Bay of Islands, Paremata and the Marlborough Sounds.
- The proposed redevelopment will provide protected berthing and marina facilities including fuelling, syncrolift and hard-top facilities.
- The facility will provide a base for the region's fishing fleet, along with a slipway built for launching large boats.
- Current tourism and retail facilities include two cafes, a hunting and fishing retail outlet and marine centre. A fish and chip shop, fish supply and other retail opportunities are in the pipeline.

# EIA of Proposed Port Taranaki Marina Redevelopment

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# 1 Introduction

This report aims to identify the economic impacts of the redevelopment of the marina on the Taranaki economy. The existing marina provides basic swing line mooring and some protection from the elements. There are no service facilities and the area is fairly under developed. The proposed redevelopment will provide protected berthing and marina facilities including fuelling, syncrolift and hard top facilities. The marina will also provide facilities for the region's fishing fleet. A further development will see a slipway built for launching large boats.

In total, the marina redevelopment is expected to provide an initial contribution to regional GDP of around \$13.78 million and one year's employment for 158.7 FTEs. The ongoing annual effect of the marina is likely to contribute a further \$4.83 million to regional GDP and a further 70.1 FTEs to regional employment.<sup>1</sup>

The amenity value of the facilities and services of the marina are also likely to provide a number of intangible benefits to the community. These include increased utility from users, supporting infrastructure and activity along the coast, increased land values for marina land and residential properties in the vicinity, and social benefits for distressed boats passing through.

## *Development impact*

Table 1.1 shows the economic impacts of building the marina. These impacts are one-off and attributable to the construction and development costs over the life of the development project.

**Table 1.1 Marina development impacts**

<b>Development Activity</b>	<b>direct</b>	<b>total</b>
Output	\$22,494,654	\$35,541,553
Value Added (GDP)	\$7,873,129	\$13,777,976
Employment (FTEs)	95.0	158.7

It is expected that the marina development would cost around \$22.49 million to build. The direct impact of this amount on regional GDP is around \$7.87 million and on employment is 95 FTEs.

<sup>1</sup> Terminology on multipliers and measures are included in the appendix on p36.

By adding indirect and induced multipliers, the contribution to GDP increases to around \$13.78 million and to employment around 158.7 FTEs.

#### *Operational impact*

The next set of impacts is ongoing and attributable to the operation and existence of the marina and its facilities. These include the impact on the boatbuilding and repair industry, the commercial fishing industry, and increased tourists and visitors to the region. These impacts are presented in Table 1.2.

**Table 1.2 Marina ongoing annual impacts**

<b>Annual Operational Activity</b>	<b>direct</b>	<b>total</b>
Output	\$7,590,794	\$12,118,888
Value Added (GDP)	\$2,682,872	\$4,827,829
Employment (FTEs)	45.6	70.1

Once the marina and facilities are operational, around \$7.59 million of additional annual output can be directly attributed to it. The direct impact per annum on regional GDP is expected to be around \$2.68 million and on employment 45.6 FTEs.

Adding indirect and induced effects, the contribution to GDP increases to around \$4.83 million per annum and employment to 70.1 FTEs per annum.

We have also discussed the impacts of the commercial fishing industry ceasing as well as the impacts of a major yachting event being attracted to the region. Because there are a number of other factors that need to occur for these to eventuate we have not included them in the summary analysis. However, the impacts are significant and are dependent on the marina being redeveloped. As such, they are included in the body of the report and should be considered in the wider context.

#### *Intangible impacts*

While these are not directly measurable, there are also expected to be a number of intangible benefits. Being a coastal town, the marina will be a main access point to a range of marine activities. It will encourage and support the use of the coastal walkway, which has been identified as a key amenity for the region.

There are a number of recreation club members that currently use the existing marina area. These include the fishing and diving club, the yacht club and the surf lifesaving club. There are a similar number of residents again that are not part of the clubs but use the marina for

recreational purposes. A quality facility will not only improve the utility of existing users, but also encourage more people from the community to enjoy it.

The marina is located along the coastal walkway, which is a significant amenity for the New Plymouth and Taranaki community. The development of the marina will provide a further focal point for the walkway. It will encourage further use of the walkway as well as benefit existing users by providing an amenity area that they can enjoy. The coastal walkway will also contribute to the success of the marina by providing access and potential customers for the retail outlets.

Marina developments around the country have had positive impacts on land values, both within the marina but also for residential properties close to the marina. A successful marina in New Plymouth can therefore also be expected to have positive impacts on land values in the immediate vicinity.

New Plymouth is the only major coastal town in New Zealand without a serviced marina. New Plymouth is also situated in the middle of the west coast of the North Island. It is the only port on that coast where you do not have to cross a bar to get in. This suggests a number of benefits.

The marina will provide a further piece of regional infrastructure expected of a coastal city of its size. It is a useful infrastructure investment that will encourage community and commercial engagement. It can also provide a social service by providing a safe haven for yachts and fishing vessels seeking shelter in rough weather.

## 2 Approach

The purpose of this economic impact assessment (EIA) is to quantify direct and indirect benefits, including the multiplier effect, of the proposed redevelopment of the Port Taranaki marina (industrial and recreational facilities), which is located at the lee breakwater of the Port, on Ocean View Parade in New Plymouth.

The EIA provides an analysis of expected benefits that can satisfy core sponsors and enable them to make informed decisions about the project. These benefits include the cost of the development, and the ongoing operational benefits directly and indirectly associated with the marina.

The main industries affected by the marina are commercial fishing; boatbuilding, refit, refurbishment and repair; and tourism. There are also social and cultural benefits to the community who currently use and/or those who would potentially use the marina and the associated infrastructure<sup>2</sup>.

The marina redevelopment study is the first stage of a two stage project. Stage 2 will be a full EIA assessing the economic impact of Port Taranaki in its entirety on the Taranaki region – progression of stage 2 will take place in the next financial year. As such, the Port benefits from the marina are not being included in this report.

### 2.1 Background

The marina redevelopment would take place on the lee breakwater of Port Taranaki. At present there is a small jetty with berthing for around 12 boats, around 50 swing moorings and a trailer launch ramp. There are no service or amenity facilities.

The proposed development would provide for recreational marina facilities, commercial fishing facilities, Port Taranaki service vessel facilities, slipway and syncrolift facilities for yacht movements and superyacht builds/work. On-shore facilities will include a fuelling jetty, chandlery, syncrolift facilities, an administration office and a chargeable car-parking facility providing an additional 100 car parks.

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<sup>2</sup> Such as the coastal walkway, Ngamotu Beach and Sugar Loaf Islands.

Specifically the redevelopment would consist of:

Recreational berths	11 x 20m berths 28 x 12m berths (+16 in stage two) 37 x 10m berths (+14 in stage two)
Commercial fishing operations	8 x 16m commercial fishing berths included in proposed plan to cater for current operations and,  Expansion of current operations  Additional operations
Expansion of luxury yacht building sector as result of slipway development	Increased size of build capability  Ability to undertake large scale repair and refurbishing work on super-yachts  Black boat work
Rehousing of Port Taranaki company vessels	Tugs and pilot boats

There is expected to be increased activity associated with yacht users/owners – both directly on vessel and indirectly through the vessels being housed and used locally. As well there is likely to be increased business for local retailers on Ocean View Parade sites via increased attraction of people (domestic and tourist) to the area.

There are likely to be benefits to the boat building and commercial fishing industries as well as a possible increase in tourism that can be directly related to the developments.

The report will look at the potential economic benefits in each of these areas. It will also look at the range of community benefits (cultural and social) that may arise from the marina project.

Additional revenue is also expected to be generated through the ability to make alternate use of Port Taranaki facilities freed up with the relocation to the new marina of their company vessels and commercial fishing vessels. There is also an ability to service these vessels using the syncrolift facility. Note, however, that this analysis does not take into account benefits to the port, including the re-housing of company vessels, the alternate use of port facilities freed up, or the ability to service port vessels.

## 2.2 Financial viability

An economic impact assessment is usually considered alongside some semblance of a business case that identifies the financial viability of the project. In this case, there is not yet a business case available for the project elements. These are being progressed concurrently. In the interim, it is assumed that the proposed development, in its current form, is financially viable.

Meetings with affected and interested parties gave us some insight into the viability of the redevelopment.

Discussions held with groups involved in each of the three components tend to agree that the specific components are necessary. In particular, the slipway and the breakwater berthing for port service vehicles and fishing boats are necessary from a business perspective. The financial viability of the marina is less certain, and discussion into how the marina can be developed and operated has not been completed. However, the general response has been that there is demand for berths both domestically for long-term mooring and from a casual berthing for visitors. It is likely, that if appropriate marina operation models are explored that it can cover operational and development costs.

A further difficulty in determining financial viability and funding is the overlapping benefits from the three components. The berthing breakwater will benefit all four user groups, although the marina development does not require berthing facilities on it. The slipway will mainly benefit the boat building sector, although both the Port and the marina will receive some benefit from having the facility available.

The fishing industry will require access to berthing and unload facilities, especially if they are required to move out of the main port berths.

The marina will benefit both the yachting and fishing fraternities and will also provide amenity value to the community. The boatbuilding industry will also benefit from having increased boating facilities aligned to their industry.<sup>3</sup>

Therefore apportioning costs and benefits, and consequently contributions to the redevelopment, is difficult and subject to negotiation. The benefits of the slipway and berthing

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<sup>3</sup> The boatbuilding industry, particularly at the higher end luxury market, is often around perception. A marina suggests that the area is geared around boatbuilding and can provide the necessary services and comforts required by both yacht owners and their crew. More importantly, the lack of a marina suggests that the area is not really industry focused. These perceptions may play a key role in in yacht owners' and crews' decisions to either build or refit/repair yachts in the region.

breakwater can be directly attributed to Port Taranaki, Fitzroy Yachts and the fishing industry. For the marina component, the benefits accrue mainly to the users (yachties and fishers and retailers) but also benefit Fitzroy Yachts, Port Taranaki and the fishing industry to a certain extent. There are also wider benefits (economic and social) to the community. The development costs for the marina are unlikely to be able to be met by the fishing, yachting, diving and retail community.<sup>4</sup> However, the range of groups affected suggests that there is potential, if necessary, to spread the development costs wider.

### **2.3 Economic impact analysis**

The methodology involves being able to estimate additional expenditure within the region. In this case additional expenditure is made up from:

- developing the marina;
- ongoing income from the redevelopment; and
- commercial users (including tourism) of the marina.

Based on this expenditure we can apply multiplier analysis to work out the direct value added (GDP) and employment benefits (Full Time Equivalents (FTEs)) and then the upstream and downstream effects.

There are also intangible benefits from the marina redevelopment. This includes the social and cultural benefits of the marina to the local community.

### **2.4 Determining output**

Output is what is generated, in dollar terms from the activity or infrastructure. In the marina redevelopment case, there is a one-off output generated from its construction and then ongoing new output or increased output as a result of the marina.

Port Taranaki provided information on the cost of building the marina. They also provided lease rentals from the marina land.

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<sup>4</sup> Although a business case for working out ongoing financial costs and potential avenues for funding has not yet been completed, there are several examples of marinas around New Zealand that are funded through the sale and rental of berths.

Because the redevelopment is in its early stages, we have had to estimate the expected output generated by the operations of the Marina. The estimates were based on an analysis of berth charges of other marinas around New Zealand.

Slipway costs and estimates of increased output generated by the slipway and the marina on the boatbuilding and refurbishment industry were determined in discussion with Fitzroy Yachts. Commercial fishing outputs were determined in discussion with Egmont Seafoods Limited (ESL).

Tourism outputs were determined in discussion with the Tourism Manager in Venture Taranaki, the Fishing and Underwater Club, the New Plymouth Yacht Club (NPYC), keel yacht and fishing boat owners, and tourism and retail operations in the existing marina.

In the course of discussions we also discussed the more intangible economic benefits to the region and the social benefits to the community. We spoke specifically with the Fishing and Underwater Club and the NPYC.

### **3 Economic Benefits**

Redevelopment of the marina can be expected to generate a significant increase in expenditure from a number of sources. This includes the development costs of actually building the marina and then the operational expenditure generated from the marina. There are also increases in expenditure in a number of industries associated with the marina that can be directly attributed to the redevelopment.

Meetings with a range of stakeholders confirmed the three main areas that would be impacted by the development.

1. Port operations - changes within the port meant that there is a need to move both their service vessels and the fishing vessels from the main berths.
2. Commercial operations - potential changes in the size of yachts being manufactured, as well as potential growth within the Fitzroy Yacht business means that a slipway will be required to launch the finished vessels and ensure the competitiveness and viability of Fitzroy Yachts. Similarly, the move of fishing vessels from the main port berths means that additional berthing is crucial to the survival and growth of the fishing industry in the region. The development of the marina would support a small number of retail businesses and tourism operations.
3. Recreational – There are currently no marina facilities in the region, with the nearest marinas on the west coast of the north island being at Manukau to the north and Paremata, Wellington to the south. A marina would provide an area for yacht owners and fishing enthusiasts to exercise their passion. There are some economic benefits from increased visitors for recreational and sport fishing. A marina would also contribute to the amenity value of the area and form a necessary part of the coastal experience of the local community.

#### **3.1 Development benefits**

Expenditure is made up of the infrastructure investment to develop the marina. It also consists of any infrastructure investment that is a result of the marina being developed.

Information provided by the architect suggests that the marina, in its current design, could cost around \$18.5 million to build<sup>5</sup>. A discussion with Fitzroy Yachts suggests that a slipway and related services could cost around \$4 million to build. We have combined these figures to estimate the output, value added and employment generated by the building of the marina. These are presented in Table 3.1.

**Table 3.1 Marina development**

<b>Development Activity</b>	<b>direct</b>	<b>total</b>
Output	\$22,494,654	\$35,541,553
Value Added (GDP)	\$7,873,129	\$13,777,976
Employment (FTEs)	95.0	158.7

The development in its entirety is expected to contribute around \$22.49 million in output. Including indirect and induced multipliers increases this amount to around \$35.54 million.

Looking at the contribution to GDP the direct output of \$22.49 million will generate around \$7.87 million of value added. Adding indirect and induced effects the contribution to GDP increases to \$13.78 million.

Direct output will result in the employment equivalent of 95 FTEs for one year. Adding indirect and induced effects increases the employment contribution equivalent to 158.7 FTEs for one year.

### 3.2 Operational and user benefits

There are ongoing economic activities from the development of the marina. These include the operation of the marina itself, the activity generated in the commercial fishing sector, increased tourism through visiting yachties and fishermen, and increased boatbuilding, repair, refit and refurbishment work. The benefits are therefore annual.

**Table 3.2 Sum of annual operational activity multipliers**

<b>Annual Operational Activity</b>	<b>direct</b>	<b>total</b>
Output	\$7,590,794	\$12,118,888
Value Added (GDP)	\$2,682,872	\$4,827,829
Employment (FTEs)	45.6	70.1

<sup>5</sup> Some of these costs can be attributed to the needs of Port Taranaki, particularly the fixed breakwater and the fuel and service berth. The impacts on Port Taranaki are not being considered and so there is an overestimation of output apportioned to the marina redevelopment. However, the project in its entirety needs to be built and so we have included the total cost of the development. The operational output is, however, limited to the marina activities.

Combining the activity from marina operations, boatbuilding, commercial fishing and tourism suggests an additional output of around \$7.59 million each year. Including indirect and induced effects increases output generated to around \$12.12 million.

The direct contribution to regional GDP is around \$2.68 million. Including indirect and induced effects increases the GDP contribution to around \$4.83 million.

The marina redevelopment is likely to directly result in 45.6 FTEs annually. This will increase to 70.1 FTEs after considering indirect and induced effects.

The calculation and impact of the individual operational activities is discussed further below.

### **3.2.1 Port operations**

The slipway and berthing facilities created on the breakwater can be looked at purely from a business need perspective. The port needs extra berthing facilities for its service vessels, particularly as the demand on its main berths increase and security issues create complications in entering and exiting the main berths of the port.

The economic impact of the redevelopment on port operations is not being considered as part of this assessment. However, we believe that it is important to note that there will be benefits to the port arising out of this project.

### **3.2.2 Marina operations**

There is no information on the operating cost of the marina. Output in this case has therefore been generated by looking at the mooring charges of other marinas around New Zealand<sup>6</sup>. The average annual mooring cost for the different sized berths has then been multiplied by the number of berths expected to be available in the proposed Marina.

Stage one of the project would include 76 yacht berths ranging in size from 10 metres to 20 metres. It would also include eight 20 metre berths for the fishing fleet. Stage two of the redevelopment would see a further 30 berths added (14 x 10m and 16 x 12m). The expenditure generated by these stage two berths has not been included in the final assessment although we mention it in this section for completeness and comparison.

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<sup>6</sup> This assumes that berthage fees cover the cost of operating the marina, which may or may not be the case, depending upon the ownership structure of the Marina.

We have used the average berthing cost from marinas in the Marlborough Sounds and Auckland, which may overestimate the amount that can be charged. However, we have not included operational expenditure in the marina, such as use of facilities including fuel jetty, syncrolift facilities, communication etc. This provides a reasonable estimation of the net operational expenditure. We have also assumed that all berths are fully leased. The multipliers are set out in Table 3.3.

**Table 3.3 Marina annual operation multipliers**

<b>Marina Operations Multipliers</b>	<b>direct</b>	<b>total</b>
Output	\$335,801	\$517,134
Value Added (GDP)	\$167,901	\$265,283
Employment (FTEs)	2.3	3.3

Based on the 76 available berths in the first stage of development, the direct output has been estimated at around \$336,000. Including indirect and induced effects, the output increases to around \$517,000.

The contribution to GDP from this output is around \$168,000. Including indirect and induced effects would increase the contribution to around \$265,000.

The direct contribution to employment is 2.3 FTEs annually. Including indirect and induced effects would increase the number of FTEs to 3.3.

The operations cost does not include the cost of berthing the inshore fishing fleet, for which there are 8 x 20m berths. This is because the current fleet is already paying to berth at the main harbour in which case the income would not be considered additional (although if they were paying higher fees then the difference would be considered additional).

An additional 30 berths are planned for the stage two developments. This will consist of 14 more 10m berths and 16 more 12 metre berths. These additional berths would increase the marina operations output by around \$120,000 annually. The multipliers including the stage two developments are presented in Table 3.4

**Table 3.4 Marina annual operation multipliers including stage two development**

<b>Marina Operations Multipliers</b>	<b>direct</b>	<b>total</b>
Output	\$455,248	\$701,082
Value Added (GDP)	\$227,624	\$359,646
Employment (FTEs)	3.1	4.5

With the stage two development and including indirect and induced effects, the contribution to GDP would increase to around \$360,000 and the number of FTEs would increase to 4.5.

### **3.2.3 Commercial fishing**

With developments and changes expected by the port means, fishing vessels are likely to require berthing facilities outside of the main port berths. Without access to berthing and service facilities, the fisheries industry would struggle to survive in the region and could close down.

Better berthing and service facilities could see new entrants into the fisheries industry both in the fishing and the processing sectors. With the appropriate marina redevelopments, there is potential for the commercial fishing sector to double over the next five years.

The marina redevelopment will provide needed mooring and servicing to the existing fishing fleet but also to the transient offshore vessels that fish Albacore Tuna off the west coast of the North Island. Currently, there is a significant Albacore Tuna fishery off the Taranaki coast. These transient vessels currently bypass Taranaki (which is coincidentally the closest port) because of the lack of services and facilities there. Better access could see the fishery industry doubling its processing of tuna.

ESL is the only licensed export fish pack-house on the west coast of the North Island from Wellington to Auckland. They are strategically positioned to service inshore fishing vessels from Onehunga to Wanganui. ESL has consolidated operations, moving out of the frozen food distribution business to focus on processing and is now able to expand its processing operations. This requires more local vessels to provide stock, but also depends on the ability to attract the transient Albacore Tuna fleet. ESL has suggested that having facilities for an inshore commercial fishing fleet could result in a doubling of landings and sales over a five year period.

In terms of immediate effects, the development could result in an additional 400 to 500 tonnes of fish landed. This includes the addition of an extra fulltime vessel and the ability to service the transient Albacore Tuna fleet.

Table 3.5 presents the commercial fishing multipliers. It is presented in three tables: the benefits of additional fishing; the benefits of additional processing; and the combined, total benefit to the fishing industry from fishing and processing.

**Table 3.5 Additional annual commercial fishing multipliers**

<b>Additional Commercial Fishing</b>	<b>direct</b>	<b>total</b>
Output	\$400,000	\$608,000
Value Added (GDP)	\$132,000	\$232,320
Employment (FTEs)	1.5	2.5
<b>Additional Processing</b>		
Output	\$600,000	\$870,000
Value Added (GDP)	\$186,000	\$305,040
Employment (FTEs)	1.4	2.7
<b>Fishing Industry (total)</b>		
Output	\$1,000,000	\$1,478,000
Value Added (GDP)	\$318,000	\$537,360
Employment (FTEs)	2.9	5.1

Multipliers are split between commercial fishing and processing. It is likely that, with the marina facilities there could be an additional \$400,000 in fishing output and an additional \$600,000 in processing output. This gives a total increase in direct output of around \$1 million. Adding indirect and induced effects increases output to around \$1.48 million.

The direct contribution to GDP in the Taranaki region would be \$318,000. Adding indirect and induced effects increases GDP contribution to around \$537,000.

The additional employment generated by the marina in the fishing industry would be equivalent to 2.9 FTEs. This would increase to 5.1 FTEs with indirect and induced effects.

*Potential loss of fishing industry*

The marina development is necessary to moor the existing fishing fleet as the main port berths are likely to be taken up with other activities. There are currently around seven commercial vessel (all onshore fishing). Without the development and if the main port berths are made off-limits or access reduced, it is possible that the fishing fleet could be mothballed as there is nowhere else to moor. This will have a flow-on effect to the seafood processing industry, which may also have to close.

While we have not included this outcome as part of the economic impact assessment, there is a possibility that the fishing industry would close down in the Taranaki region. Table 3.6 looks at the potential loss in output, GDP and employment if this occurred.

**Table 3.6 Impact of loss of commercial fishing industry**

<b>Existing Commercial Fishing</b>	<b>direct</b>	<b>total</b>
Output	\$3,000,000	\$4,560,000
Value Added (GDP)	\$990,000	\$1,742,400
Employment (FTEs)	11.1	18.6
<b>Existing Processing</b>		
Output	\$1,800,000	\$2,610,000
Value Added (GDP)	\$558,000	\$915,120
Employment (FTEs)	4.2	8.0
<b>Existing Fishing Industry (total)</b>		
Output	\$4,800,000	\$7,170,000
Value Added (GDP)	\$1,548,000	\$2,657,520
Employment (FTEs)	15.3	26.5

If the industry were to close down, then there would be a direct loss to the regional economy of around \$1.55 million in GDP and 15.3 FTEs. Taking into account indirect and induced effects, the loss to the regional economy would be around \$2.66 million in GDP and 26.5 FTEs.

#### **3.2.4 Boat building and refits/repairs and refurbishments**

The industrial development in the area, namely Fitzroy Yachts, requires slipway facilities as it builds larger boats. Currently superyachts are launched using the port cranes. However, the size of current and new boats means they will be too heavy to launch using the port cranes. Further the effect on port operations from damage to one of their cranes is quite high. While a crane can be ordered in, these are not available locally and the cost is significant.

In terms of growth, a slipway would encourage new markets in areas such as refits and repairs for the superyacht industry as well as for other vessels. This could result in additional growth for the boatbuilding and related industries. Fitzroy Yachts currently has a good line of enquiries for yacht building projects. Similarly, Tasman Marine could significantly increase its repair and refit business. Having a slipway and a marina would support the industry in getting more enquiries but also in terms of competitiveness and range of services.

The boatbuilding industry is an amalgam of a number of industries. It can be likened to building a mansion - but floating, and requires input from a number of industries such as joinery, electrical, electronic, painting, fabrication, and mechanical. Many of these industries and skills are available in the Taranaki region. Generally, the cost of a superyacht can be split evenly between labour costs and material costs.

There is currently capability and capacity to undertake superyacht construction. Marina redevelopments, particularly the slipway and syncrolift, will encourage boat refits and repairs, for which the capability and capacity is there but the necessary infrastructure to support it is lacking.

The marina will increase the supply of yachts seeking refit/repair. The marina will play some role in the decision-making process for boat owners/designers to build their boats in the Taranaki region. Similarly, a marina will contribute to the decisions of boat owners and crews to repair or refit their boats in the region.

The boatbuilding analysis is based on existing players in the industry. However, it is very possible that the facilities could encourage further entrants into the boatbuilding industry in the region. The contribution of new entrants has not been considered in this analysis. Therefore, the impacts from the boatbuilding industry identified in this report are conservative.

Table 3.7 presents the aggregate of all boatbuilding and repair possibilities combining superyacht construction, superyacht refurbishment/refit/repair, light commercial refit/repair, and black boat<sup>7</sup> work.

**Table 3.7 Sum of boatbuilding industry multipliers**

<b>Boatbuilding and Repair</b>	<b>direct</b>	<b>total</b>
Output	\$5,450,000	\$8,938,000
Value Added (GDP)	\$1,798,500	\$3,435,135
Employment (FTEs)	30.5	48.8

The total direct output from the boatbuilding and repair sector is estimated at around \$5.45 million. Adding indirect and induced effects increases output to around \$8.94 million.

The direct contribution of this to Taranaki GDP is around \$1.80 million, increasing to around \$3.44 million after indirect and induced effects are included.

The direct effect on employment is 30.5 FTEs rising to 48.8 FTEs after including indirect and induced effects.

### *Superyacht building*

For this assessment we have used fairly conservative estimates of the impact of the marina on additional activity. In the case of superyachts, we suggest that the redevelopment could

<sup>7</sup> Black boat refers to commercial vessels such as fishing boats, oil tenders and tugboats.

form up to five percent of the owner's decision to build in the Taranaki. Fitzroy Yachts currently employs around 130 FTEs. This could increase to around 180 FTEs depending on whether they secure some further contracts. The estimate for superyacht building is therefore based on the slipway/marina contributing a five percent chance toward generating an output of around \$45 million a year. The multipliers for the impact on superyacht building are presented in Table 3.8.

**Table 3.8 Superyacht building multipliers**

<b>Superyacht Builds</b>	<b>direct</b>	<b>total</b>
Output	\$2,250,000	\$3,690,000
Value Added (GDP)	\$742,500	\$1,418,175
Employment (FTEs)	12.6	20.1

Direct output attributable to the marina and slipway is estimated at \$2.25 million. Adding indirect and induced effects increases the net output to \$3.69 million.

The direct contribution to regional GDP is around \$743,000, rising to around \$1.42 million after including indirect and induced effects.

The direct impact on employment is 12.6 FTEs. Adding indirect and induced effects increases employment to 20.1 FTEs.

#### *Superyacht refits*

In the case of refit and repair work, the redevelopment is essential to attracting any work. Therefore the additional activity is more significant. Our assessment is based on attracting around \$5 million of work annually. This appears easily achievable as a single superyacht refurbishment or refit could be worth anywhere up to \$5 million. The \$5 million estimate is based on 2-3 smaller jobs a year. We have suggested, again conservatively, that 50 percent of this work would be due to the marina redevelopment<sup>8</sup>. The impacts of superyacht refit/repair/refurbishment are presented in Table 3.9.

**Table 3.9 Superyacht refit/refurb/repair multipliers**

<b>Superyacht Refit/Repair/Refurb</b>	<b>direct</b>	<b>total</b>
Output	\$2,500,000	\$4,100,000
Value Added (GDP)	\$825,000	\$1,575,750
Employment (FTEs)	14.0	22.4

<sup>8</sup> You could argue that, without the marina, there would be no work and so the total output should be around \$4 million.

Taking into account the indirect and induced effects, a \$2.50 million increase in direct output would result in total output of \$4.10 million, total contribution to regional GDP of around \$1.58 million and total employment of 22.4 FTEs each year.

*Small commercial and black boat repairs*

There are also likely to be a number of smaller boat repairs/refits in the vicinity of \$20,000 - \$100,000 each. These are likely to be keel yachts and recreational fishing boats. Assuming around ten boats a year being repaired through the marina suggests a direct output of around \$500,000. Similarly, discussions have suggested that existing businesses could do around \$200,000 a year in black boat work. This work would be directly attributable to the marina and service facilities. The multiplier effects are presented in Table 3.10.

**Table 3.10 Light commercial and black boat refit/refurb/repair multipliers**

<b>Light Commercial and Black Boat</b>	<b>direct</b>	<b>total</b>
Output	\$700,000	\$1,148,000
Value Added (GDP)	\$231,000	\$441,210
Employment (FTEs)	3.9	6.3

The marina would have a direct impact on output of \$700,000. Adding indirect and induced effects would increase total output to around \$1.15 million.

The direct contribution on Taranaki's GDP would be \$231,000, rising to \$441,000 after including indirect and induced effects.

The direct contribution to employment would be 3.9 FTEs per annum, rising to 6.3 FTEs per annum after accounting for indirect and induced effects.

**3.2.5 Tourism and retail**

The marina has the potential to attract further tourists (or visitors) to the region. It is another activity/amenity that is consistent and aligned with the other tourist attractions in the region. It is also an amenity that can be a catalyst for significant tourist events, for example, a yacht race or national yachting events. This is consistent with other successful events in the region such as the 'round the mountain' cycle race and the surf lifesaving championships.

*Businesses in the marina area*

There are a number of retail and tourism businesses either operating or proposed for the marina area. There is a tourism operator with an attached bistro, some retail outlets and boat charters.

Chaddy's Charters does daily trips from the current marina out to the Ngamotu/Sugar Loaf 'Islands' and carries around 17,000 passengers a year. The overwhelming majority of these are tourists from outside the region or from overseas. Chaddy's also has a bar/bistro on the marina. A Ngamotu/Sugar Loaf Islands information centre, outlining the history of the area and marine reserve, is located on the marina as well.

There is a Hunting & Fishing retail outlet and Tasman Marine which provides marine services including sales, charters and repairs. Sales in Tasman Marine could increase significantly, especially in chandlery and boat repair.

A café is being built in front of the Hunting and Fishing outlet, and another café is proposed further around the marina. Similarly a fish and chip shop and fish supply is being proposed and the paua building (that is currently vacant) can be converted or rebuilt to provide further retail opportunities. These businesses will benefit significantly from increased foot traffic as a result of the marina redevelopment.

There are also several boat sheds with individual compartments rented out.

The area is currently very underdeveloped and appears industrial in nature. The area is the present southern destination of the coastal walkway, where it appears to peter out. The marina re-development, along with the proposed retail developments, is likely to improve the amenity value of the area and support existing and new businesses.

Other improvements, including road access and development of other land for commercial use, can add significantly to the business, tourism and community amenity value of the area.

#### *Tourism impacts*

The marina can be expected to directly attract additional tourists to the region in three different ways. Tourist on yachts, crews from boats getting refitted/refurbished/repared, and competitors and their families at national yachting and fishing tournaments. There is also potential for staging events tied to the marina, such as a major yachting race.

Retail benefits are not considered separately. Tourism expenditure incorporates retail spend. Similarly, additional sales from local customers are a diversion rather than an addition to expenditure.

The process for determining the economic impact involves identifying the number of additional nights spent in the region due to the marina redevelopment and multiplying this by

the average daily spend in the Taranaki region<sup>9</sup>. The calculations for determining the additional tourists attracted by the marina are presented in Table 3.11.

**Table 3.11 Identification of additional tourists and expenditure**

<b>Tourism impacts</b>	<b>visits</b>	<b>length of stay</b>	<b>visitors</b>	<b>days</b>	<b>additional expenditure</b>
international yachties	110	7	2.5	1,925	\$291,395
superyacht refit crew	2	75	5	563	\$85,148
yachting and fishing comps	666	4.6	varies	3,059	\$428,449
<b>Total</b>	<b>777.6</b>			<b>5,547</b>	<b>\$804,993</b>

The analysis estimates that there will be a total of 780 additional visitors staying a total of around 5,550 days. This results in additional tourism spend of around \$805,000 per annum (which is equivalent to the direct output).

Expenditure is split into the four major tourist based industries of accommodation (30%), bars, restaurants & cafes (30%), retail trade (30%), and travel/other (10%) and multipliers are determined. The sums of these are presented in Table 3.12.

**Table 3.12 Sum of annual tourism multipliers**

<b>Tourism</b>	<b>direct</b>	<b>total</b>
Output	\$804,993	\$1,185,754
Value Added (GDP)	\$398,471	\$590,052
Employment (FTEs)	10.0	12.8

Total increase in tourism output due to the marina is estimated at around \$805,000. Including indirect and induced effects increases this to around \$1.19 million.

The direct impact on regional GDP of this output is around \$398,000. This increases to around \$590,000 after accounting for indirect and induced effects.

The direct employment impact of tourism is 10 FTEs per annum, increasing to 12.8 FTEs per annum with indirect and induced effects.

The remainder of this section discusses how we arrived at the expenditure for each of the tourist/visitor areas.

<sup>9</sup> Average visitor spend has been determined from the Tourism Research Council's New Zealand Regional Tourism Forecasts for the Taranaki Regional Tourism Organisation. Average daily spend is \$150 for international overnight visits and \$141 for domestic overnight visits.

### *International yachties*

Discussions with New Zealand Customs officials suggest that around 550 cruising yachts visit New Zealand each year. These yachts enter New Zealand between October and December and then leave between May to June. On average there are around 2-3 crew on board each boat. These figures are fairly consistent with information received from one of the interviews where it was suggested that around 700 cruising yachts visited New Zealand each year staying six months.

It has been suggested to us that these boats tend to visit around six areas through New Zealand, staying in each marina for around a month. Around 90 percent of the yachts tend to start in the far north (Opuia), cruise down the east coast and then leave New Zealand from Nelson. There is a possibility that some of these yachts would visit New Plymouth on their way out of New Zealand.

We have based our estimate on around twenty percent of the total number of yachts visiting New Plymouth for a shorter than average period<sup>10</sup> of around seven days. Each yacht is estimated to have a crew of 2.5. This suggests around 1,925 visitor days. As these visitors tend to live on their boats, their daily expenditure would be lower than for the average international visitor, although they would still visit tourist attractions and restaurants, retail etc. Therefore, we have used the average domestic daily expenditure, which suggests a total spend of around \$291,000.

It has also been suggested that around 90 percent of domestic registered yachts travelling between Nelson and the Far North go down the west coast of the North Island due to better winds and tides. While we have not considered this source due to a lack of hard information on the number of yachts, there is significant potential for a number of these yachts to pause in New Plymouth for a period before continuing their journey. This would add to the tourism spend.

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<sup>10</sup> This estimate accounts for the fact that New Plymouth is not renowned as a yachtie stopover but also takes into consideration an increased marketing effort by Venture Taranaki to increase awareness and encourage stopovers.

### *Superyacht crews*

The estimate here is for an average of two superyacht refits a year. Each superyacht would have a skeleton crew of around five, who would stay an average of three months. Around three quarters of those days are likely to be spent in the Taranaki region. This suggests around 560 visitor days with additional tourist spend in the Taranaki region of around \$85,000.

### *Fishing tournaments*

The Fishing Club hosts three major fishing tournaments each year. The largest tournament attracts around 190 boats and 580 anglers, with around 30 percent of these being from outside the region. The West Coast One Base tournament attracts around 160 boats and 450 anglers with a similar share of out of town participants. The National tournament attracts around 130 boats and around 330 anglers, of which around 20 percent are from outside the region. We have assumed that every second angler will bring their family along for the tournament weekend.

The facilities provided by the marina could see the participation in the three main tournaments from those outside the region increasing by around 20 percent. For example, those with boats too big to tow currently would not participate due to the lack of facilities. Based on previous years' attendance, this suggests an extra 90 tourists from outside the region staying an average of two days for a total of 180 visitor days. This suggests an estimated additional spend of around \$25,000.

*[Note that there are also a number of recreational fishermen that would come to the region for a long weekend's fishing if the facilities were available. A boat and its crew could realistically expect to spend around \$1,500 per weekend. Due to lack of robust information we have not included this impact into our estimates.]*

There are also eight other local tournaments that attract around 60 boats and 200 anglers. These are largely locals.

### *Yachting competitions*

Improved marina facilities could impact on the number of visitors to the region through increasing the number and attendance at national yachting competitions.

The sea off Port Taranaki is excellent for competitive sailing and the NPYC hosts several national competitions. These competitions bring competitors and their families from all over New Zealand to New Plymouth for the duration of these contests. In recent years the club

has hosted the A Division Catamaran National and World Championships, and this year the P Class Tanner and Tauranga Cup regattas and the Starling National Championships.

The club also runs the Moolloollabba Solo race. The numbers dwindled from a peak of around 26 in the 1970s to around two last year. However, this year's event is oversubscribed, with 20 applicants for 15 positions. The current constraint on numbers is the moorings available for entrants. The marina redevelopment would allow the event to expand. The oversubscription also suggests that there is potential to hold significant yachting competitions in the Taranaki region. These events will be assisted by having the marina infrastructure.

While the region already has some success in attracting yachting events to the region, a marina would be another, fairly significant draw card or key factor in decisions on where to hold a national or international yachting event. We reasonably expect that the marina could be responsible for a decision to hold one event a year in the region.

Our impact assessment is based on the numbers that attended the recent Starling nationals. This event attracted around 180 entries of which around 160 were from outside the region. Competitors were aged 15-19 and so tended to bring their families with them for the event. All stayed for around five to seven days over the Christmas period. This suggests that a national yachting event of this size could generate new expenditure of around \$400,000.

#### *Major events strategy – yachting event*

If the marina were redeveloped it could play a significant role in an events strategy. For example, it could enable the region to introduce a major yachting event. This would generate a significant number of visitors to the region (both competitors and spectators). As well as the visitor spend, there would also be additional spend on items such as supplies and maintenance.

We have included the potential impact of an event to provide an idea of the contribution to the regional economy. Because of the range of other factors necessary to generate an event such as this we have not included the numbers in the official impact analysis.

Our event is based on 100 yachts, each with a crew of around seven staying a week leading up to the event. Around 80 percent of entries would be from outside the Taranaki region. Each yacht would spend around \$2,000 within the region on supplies and maintenance. A further 500 spectators would come into the region for the weekend to watch the event.

Based on the average daily spend of domestic tourists, and each entry spending around \$2,000 on supplies and maintenance, the event would directly generate economic output of around \$924,000. Table 3.13 shows the economic impacts of an event of the size described above.

**Table 3.13 Major yachting event (possible)**

<b>Tourism</b>	<b>direct</b>	<b>total</b>
Output	\$924,061	\$1,372,542
Value Added (GDP)	\$464,410	\$690,789
Employment (FTEs)	11.4	14.5

The event could directly generate around \$924,000 in expenditure. This would result in GDP to the region of around \$464,000 and employment for 11.4 FTEs for one year. Adding indirect and induced effects the event would generate expenditure of around \$1.37 million, GDP of around \$691,000 and employment of 14.5 FTEs for one year.

There would be other spin-offs of such an event on the region. For example, it will increase awareness of the area as a yacht friendly area, encouraging further visits. Possible television coverage would provide marketing for the region, also encourage further visits. Appropriate sub-events could be run around the event showcasing the region and its opportunities. For example, it could showcase the region's boatbuilding industry or tourist attractions.

### **3.3 Intangible benefits**

The marina redevelopment will form a destination or starting point along the coastal walkway. Ambiance, as well as hospitality amenities will add to the leisure activities of the community and encourage even greater use of the existing coastal walkway. It will also provide access to coastal leisure activities that are currently not available in the region.

The marina is the current access point to the Ngamotu/Sugar Loaf Islands Marine Protected area. The marina is located close to Ngamotu Beach, which is used for a number of community activities. The marina is also the location of the clubrooms and storage facility for Surf Lifesaving Taranaki, New Plymouth Sports fishing and Underwater Club and the NPYC.

Taranaki has the only port on the west coast of the north island where you do not have to cross a bar to enter. This makes it a safe haven for vessels in the vicinity in the event of foul weather. However, without any effective shelter, mooring or service facilities, it cannot be used to shelter vessels in a storm.

New Plymouth is also one of the few coastal cities without a marina facility. A marina will therefore provide an additional and necessary piece of infrastructure of the city and the region.

### **3.3.1 User activity**

In terms of a marina for recreational activity, there appears to be a demand for one. The discussion around the need for a marina is not a new one, having been raised several times over many years. However, the complexities around developing a marina mean that it has always remained an idea of something that is needed.

The existing marina currently has line moorings for around 50 vessels and a ramp for launching trailer boats. There are several keel yachts and fishing boats dry docked. There are a small number of berths on the leeward breakwater, however, these are in poor condition and are still affected by adverse weather.

Due to the lack of adequate facilities, many non-trailer boat owners currently moor their boats in other marinas around the country including the Bay of Islands, Paremata and the Marlborough Sounds. Similarly, many yachties and fishermen that would berth or come to the region for fishing and leisure do not.

#### *Fishing and Underwater Club*

The New Plymouth Fishing and Underwater Club has its clubrooms and facilities on the existing marina. There are around 860 members in the fishing club and around 80 members in the underwater club. Discussions are underway to initiate a kayak affiliate to the club. All members use the current marina facilities.

The club appointed a full-time paid position in an effort to encourage growth in membership and an improvement in services. This has been in place since February 2006. The outcome has been positive with an increase in numbers seeking membership and increased use of the facilities.

It is estimated that the club membership makes up around 40 percent to 50 percent of the 'boaties' that use the marina. This suggests that there could be up to 860 'boaties' in total using the marina in its current state. Adding the families suggests around 1,700 people involved in fishing or diving benefiting from the marina.

The marina redevelopment and the improved services this would provide would benefit the club and its members significantly. It will also increase participation within the club, but also

at tournaments, where more competitors from outside the region are likely to attend. Members are excited by the prospect and would see it as a great benefit to their club and to the community.

#### *New Plymouth Yacht Club*

The NPYC would benefit from the marina in terms of increased membership and improved amenity for its existing members.

The NPYC is located on the western side of the wider breakwater area on Ngamotu Beach. The club uses the launching ramp on the east end of the lee breakwater to launch trailer yachts and rescue boats and leases storage sheds within the marina complex.

The NPYC is the largest on the west coast of the North Island. It has over 330 club members with a strong junior membership. The club provides learn to sail training for over 50 children each year.

Members sail mainly dinghy, catamaran and trailer boats. There are currently no keeler yachts in the club. Some members do own keeled yachts but keep them out of town as there is limited berthage and no cover from storms. It is likely that membership would increase if keeled yachts could be accommodated. Similarly just having a marina in the vicinity would increase membership. In other areas, yacht club members prefer to belong to clubs with marina facilities.

#### *Coastal walkway and leisure activities*

A quality marina and facilities would provide a defined reason to visit the location given that it includes retail outlets, dining facilities and potential, water related tourism activities around the marina. The ability to draw locals and visitors to the area would certainly increase tourism spend and potentially lengthen guests stay in the region.

The marina would also create a focal start/finish to the walkway given the hub of activity and proposed additional car parking. Additionally, activities directed at people using the walkway based at the marina should further help revenue growth.

The marina is located close to Ngamotu Beach, which is well patronised by the New Plymouth community and used for a range of activities including yachting, windsurfing, swimming, beach volleyball etc. There are direct synergies and complementarities between the two facilities which would attract and encourage further community use and benefit.

### **3.3.2 *Tourism and retail***

Apart from increases in the number of yachties, superyacht crew and tournament participants the net effect on tourism is difficult to define. The marina simply adds a further activity to what existing tourists can do in the region. The marina is aligned with other attractions in the region including the coastal walkway and the Ngamotu/Sugar Island marine reserve. Measuring the impact on tourism is difficult, but understanding how it fits into the wider regional tourism strategy suggests that it does make a contribution.

Retail activity is not expected to increase dramatically apart from the expenditure identified in the earlier tourism analysis (we have estimated that approximately 30 percent of tourism expenditure is on retail items). Existing businesses on the marina are not expecting large increases in sales as they are mainly destination type shops. However, several cafes are being developed and they will benefit from the increased foot traffic the marina will generate.

However, as discussed earlier in the report, by using the marina as an integral piece of infrastructure that can be used to attract or encourage events to the region, it can become a significant potential contributor to tourism attraction.

### **3.3.3 *Property values***

There is generally a direct correlation between marinas and house prices in the area. A marina is likely to improve the value of properties in the immediate vicinity. As well the value of the land on which the marina is built is likely to increase as well. If the marina is successful and there is excess demand for the berths, then the values of the berth leases, and the properties associated and connected to the marina, are likely to rise.

## 4 Conclusions

The economic impact analysis suggests a range of measurable and intangible impacts on the Taranaki region from the development and operation of the marina. The measurable impacts are expected to result in total GDP contribution of \$13.78 million in the development of the marina and then around \$4.83 million annually in ongoing GDP. The development is expected to contribute around 159 FTEs for a year and then around 70 FTEs per annum once it is operating.

There are a number of further impacts that cannot be measured. These include an increasing number of users of community amenities such as the Coastal Walkway, Ngamotu Beach and Marine Reserve, and existing water-based clubs. As well, existing marina users will get increased utility from having access to the marina redevelopment.

We consider that the marina will provide a key piece of infrastructure for both industry (including tourism) and the community. It is consistent and aligned with other tourist attractions and community amenities in the region and will support and encourage growth in significant industries.

### *Measurable impacts*

Table 4.1 summarises the output, GDP and FTE multipliers from the marina development and operations. The numbers are broken down into the development impacts and the operational impacts. Operational impacts are further disaggregated into the four main groups of marina operations, tourism, boat building and commercial fishing.

**Table 4.1 Summary of impacts**

	direct	total
	<i>Output</i>	
Marina Development	\$22,494,654	\$35,541,553
Marina Operations	\$335,801	\$517,134
Tourism	\$804,993	\$1,185,754
Boat Building	\$5,450,000	\$8,938,000
Fishing Industry	\$1,000,000	\$1,478,000
Marina Annual Contribution	\$7,590,794	\$12,118,888
	<i>Value Added (GDP)</i>	
Marina Development	\$7,873,129	\$13,777,976
Marina Operations	\$167,901	\$265,283
Tourism	\$398,471	\$590,052
Boat Building	\$1,798,500	\$3,435,135
Fishing Industry	\$318,000	\$537,360
Marina Annual Contribution	\$2,682,872	\$4,827,829
	<i>Employment (FTEs)</i>	
Marina Development	95.0	158.7
Marina Operations	2.3	3.3
Tourism	10.0	12.8
Boat Building	30.5	48.8
Fishing Industry	2.9	5.1
Marina Annual Contribution	45.6	70.1

We have taken a fairly conservative approach in estimating the economic benefits from the marina redevelopment. The table above does not include the benefits to the Port; operational benefits of stage two of the redevelopment; the potential loss to the region of the commercial fishing industry; or the impacts of a major yachting event. Including these would add significantly to the impact of the marina redevelopment.

*Intangible impacts*

Intangible benefits generally accrue as social benefits to existing and new users in the community. As well there is a potential benefit on home owners in the vicinity from increasing property prices. There are also benefits from providing a safe haven for yachties and other vessels in foul weather (although these benefits obviously accrue wider than the region).

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## 5 Appendix

### 5.1 Consultation

The following people were consulted on the potential impacts of the redevelopment.

Bronwyn Clement	Port Taranaki
Peter Atkinson	Duffill Watts & King
Keith Mawson	Egmont Seafoods Limited
Peter White-Robinson	Fitzroy Yachts
Alan Melody	Recreational fishing boat owner, Marina Steering Group,
Murray Chong	Keel Yacht Owner, Marina Steering Group,
Dave Chadfield	Chaddy's Charters, Marina Steering Group
Wayne Fairhurst	Taranaki Hunting & Fishing, Café, and leaseholder
David Gibson	Tasman Marine
John Mitchell	New Plymouth Fishing and Diving Club
Michelle Jordan	Venture Taranaki
Paul Stancliffe-White	Venture Taranaki
Stuart Trundle	Venture Taranaki
Mark Hatch	New Plymouth Yacht Club

## 5.2 Multiplier analysis

A multiplier analysis uses multipliers derived from inter-industry input-output tables for the Taranaki region, and for New Zealand. The Taranaki regional input-output tables have been derived from the national input-output tables and other data by Butcher Partners, Canterbury - a recognised source for regional input-output tables and multipliers.<sup>11</sup>

Multipliers allowed us to identify the direct, indirect and induced effects in terms of output (GDP) and Full Time Equivalent (FTE) employment.

### *Measures*

**Gross Output Multipliers** – gross output is the value of production, built up through the national accounts as a measure, in most industries, of gross sales or turnover. This is expressed in \$ million at constant prices. Gross output is made up of the sum of:

- Compensation of employees (i.e. salaries and wages);
- Income from self employment;
- Depreciation;
- Profits;
- Indirect taxes less subsidies;
- Intermediate purchases of goods (other than stock in trade); and
- Intermediate purchases of services.

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<sup>11</sup> For a discussion on regional input output tables and the validity and reliability of the Butcher input output tables see *Statistics New Zealand (2003) Regional Input Output Study*.

**Value added multipliers** – value added multipliers measure the increase in output generated along the production chain, which, in aggregate, totals Gross Domestic Product (GDP). Value added is made up of the sum of:

- Compensation of employees (i.e. salaries and wages);
- Income from self employment;
- Depreciation;
- Profits; and
- Indirect taxes less subsidies.

**Employment Impact multipliers** – Employment impact multipliers determine the number of Full Time Equivalent (FTE) roles that are created for every \$1 million spent in an industry for one year. It provides a measure of total labour demand associated with Gross Output.

An FTE is the percentage of time an employee works represented as a decimal. A full-time position is 1.00; a part time position is 0.50.

*Direct, indirect and induced effects*

The underlying logic of multiplier analysis is relatively straightforward. An initial expenditure (**direct** effect) in an industry creates flows of expenditures that are magnified, or “multiplied”, as they flow on to the wider economy. This occurs in two ways:

1. The industry purchases materials and services from supplier firms, who in turn make further purchases from their suppliers. This generates an **indirect** effect.
2. Persons employed in the direct development and in firms supplying services earn income (mostly from wages and salaries, but also from profits) which, after tax is deducted, is then spent on consumption. There is also an allowance for some savings. These are the **induced** effects.

Hence, for any amount spent in an area (**direct** effect), the actual output generated from that spend is greater once the flow on activity generated (**indirect** and **induced** effects) is taken into account.

### *Leakages*

Generally the more developed, or self sufficient, an industry in a region is, the higher the multiplier effects. Conversely, the more reliant an industry is on supply inputs from outside the region, the lower the multipliers. These outside factors can be referred to as “leakages”.

To put this another way, if a house was purchased in Taranaki, and all the materials and labour were sourced in Taranaki, and all the materials and labour that went into making the housing materials were made in Taranaki and so forth, and then the labour spent their wages or salaries in Taranaki, again on goods or services produced solely in Taranaki, then all the multiplier effects would be captured by Taranaki. Where inputs or outputs come from outside Taranaki, leakages are said to exist, and the multiplier effect reduces.

#### **5.2.1 Limitations of multiplier analysis**

##### *Partial equilibrium analysis*

Multiplier analysis is only a “partial equilibrium” analysis, assessing the direct and indirect effects of the development being considered, without analysing the effects of the resources used on the wider national and regional economy.

In particular, it assumes that the supply of capital, productive inputs and labour can expand to meet the additional demand called forth by the initial injection and the flow on multiplier effects, without leading to resource constraints in other industries. These constraints would lead to price rises and resulting changes in overall patterns of production between industries.

To assess inter-industry impacts in full would require economic modelling within a “general equilibrium” framework. Applying such models becomes more relevant where the particular development is considered significant within the overall economy.

##### *Additionality*

Related to partial equilibrium, using multipliers for economic impact assessments assumes that the event is something that would not have been undertaken anyway and that it will not displace existing activity. That is, the event is additional to existing activity. If it does either of the above, then the economic impact is less than that determined by the multiplier and it would be necessary to subtract both the activity that would have occurred anyway and the displacement effect.

### *Impact*

Again related to “partial equilibrium”, multiplier analysis assumes that an event will not have an impact on relative prices. However, in a dynamic environment, it can be assumed that a large event would have an impact on demand and supply and hence prices. Hence, the larger the event and the more concentrated it is in a single industry or region, the more likely it is that the multipliers would give an inaccurate analysis of impacts. For example, if multiplier analysis was used to determine the effect of residential building construction nationally it would likely be inaccurate as residential building construction accounts for over 6 percent of GDP.

### *Aggregation*

Industries outlined in input output tables are aggregates of smaller sub-industries. Each sub industry has unique inputs and outputs. The higher the level of aggregation the less accurate these inputs and outputs become. Thus, if determining the multiplier effect of a very specific event using highly aggregated data, there will be a lower level of accuracy. Similarly if an event encompasses a range of industries and multipliers from a single industry are applied the accuracy levels will diminish.

### *Regions and boundaries*

The smaller or less defined a region and its boundaries the less accurate the multiplier analysis will be. Similarly, the easier it is to move across boundaries the less accurate the analysis will be. For example, at the national level the multipliers will be very accurate as it is easy to determine the inputs and outputs crossing through the New Zealand borders.

Similarly it would also be fairly easy to determine a north island/south island split. As smaller regions without obvious geographic boundaries are selected then a higher level of assumptions need to be made and the multipliers become less accurate. For example, an individual could work in the Auckland Region but live in the Waikato Region and spend a large proportion of his/her recreation money in the Bay of Plenty Region.

For any regional analysis the level of accuracy will have to be accepted. As a rule of thumb, the larger and more defined the region, the more accurate the analysis will be.