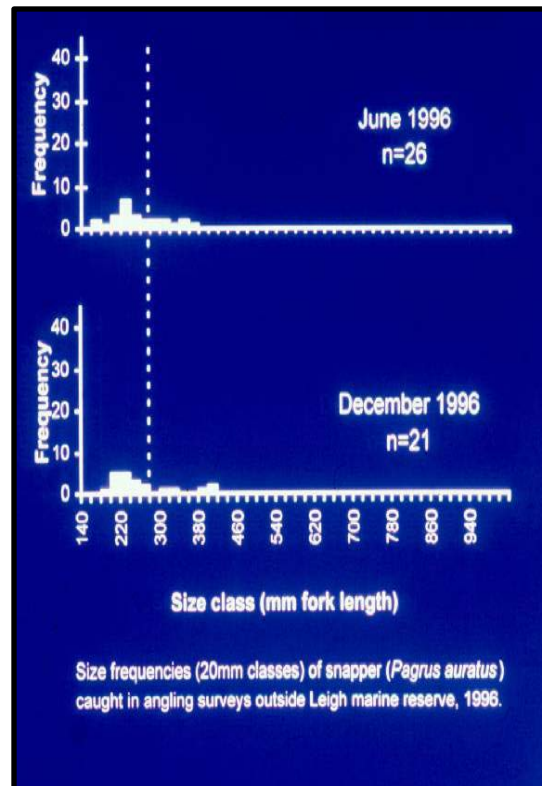
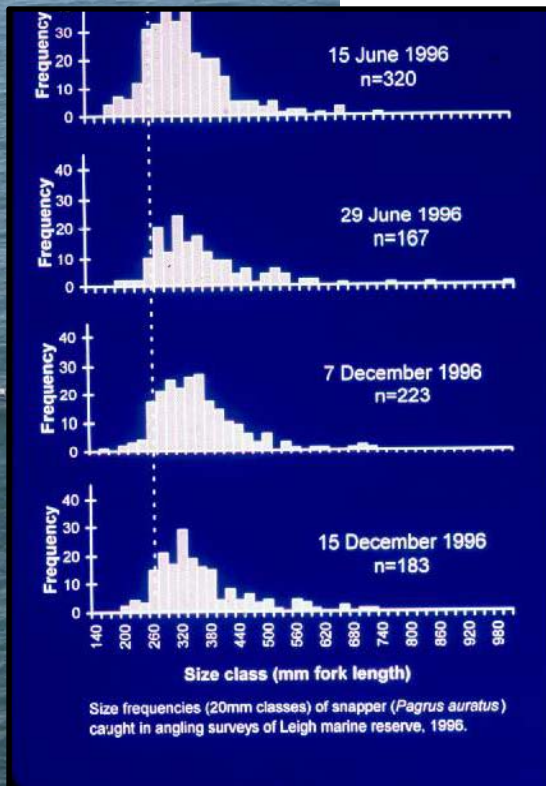


# 4.0 Why are we proposing it

## 4.1 Why – Better recreational fishing and more fish

- Comparison of **Snapper** within managed area vs. outside<sup>13</sup>



Less Snapper outside of Marine Reserve

Smaller Snapper outside of Marine Reserve

## 4.0 Why are we proposing it – example Matapouri Reef



Degraded Reef with no kelp forests

Caused by overfishing leading to reduced Snapper numbers

Which in turn leads to kina plagues, which in turn leads to no kelp

Outcome is no reef habitat for fish



## 4.0 Why are we proposing it

### 4.1 Why – Better recreational fishing and more fish

- Further scientific evidence supports the argument for management
  - **Reserve Effect** means marine species **migrate outside** of reserve into fishery<sup>14</sup>
  - **Fish recruitment** is enhanced downstream of marine reserves<sup>15</sup>
  - To improve fish stocks and fishing in the NMP the 10 – 15% **protected areas** are critically important in creating the Reserve Effect<sup>16</sup>
  - Reduced fishing pressure ultimately increases juvenile survivability and, over time, **increases fish catch**.<sup>17</sup>



## 4.0 Why are we proposing it

### 4.1 Why – Commercial Fishing is not important to Tutukaka

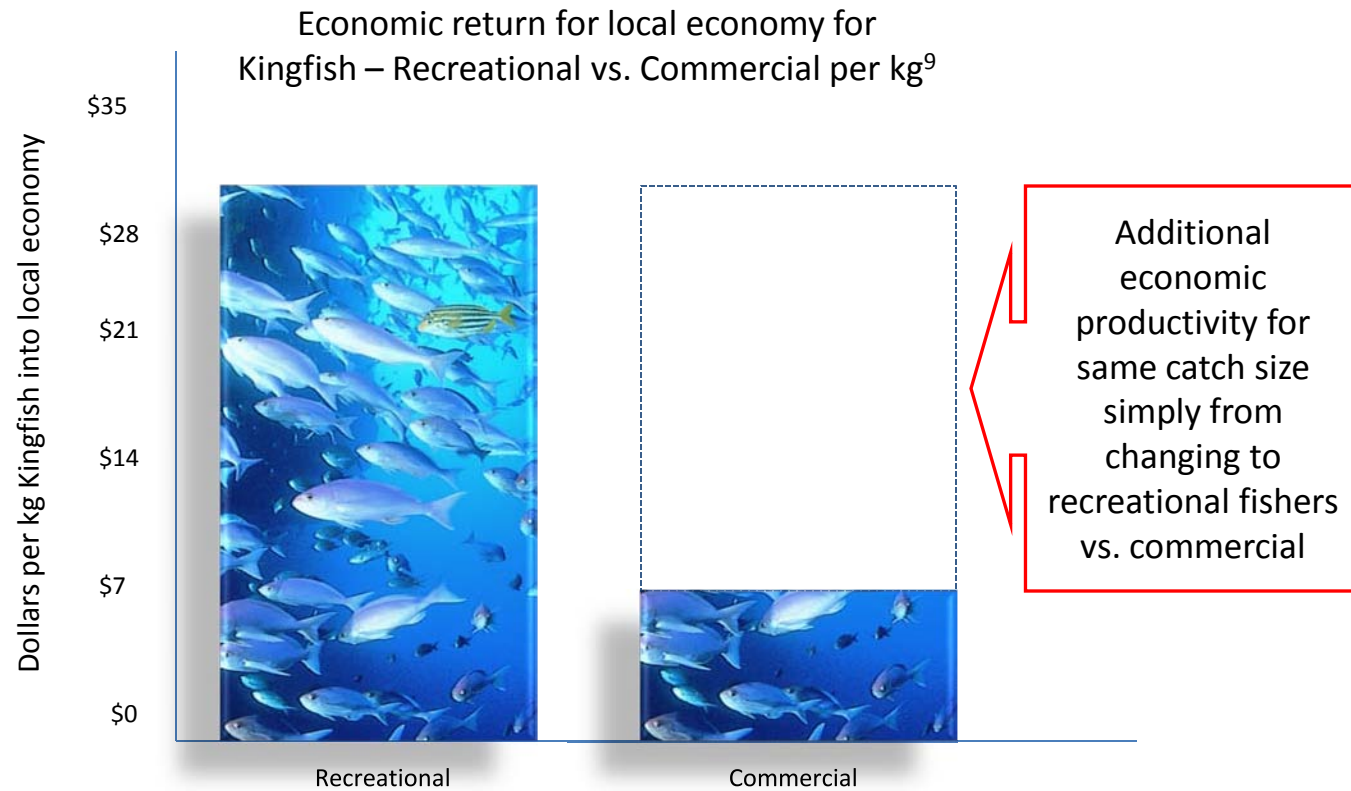
- Ocean Fishing in **all of Northland contributes 0.59%** of regional GDP (\$18.6m)<sup>18</sup>
- Ocean Fishing in **all of Northland employs 0.64%** of population (290 people)<sup>18</sup>
- Inshore fisheries (<200m depth) make up only 9% of fish catch<sup>9</sup>
- NMP comprises 15% of Northland's Inshore fishery<sup>19</sup>
- NMP will impact commercial fishing in Northland by:

- |                        |                         |
|------------------------|-------------------------|
| - Lost revenue         | \$250,000 <sup>20</sup> |
| - Displaced employment | 4 jobs <sup>21</sup>    |

## 4.0 Why are we proposing it

### 4.1 Why – Economics of recreational vs. commercial fishing

- Recreational fishing returns **4x** the money per kg<sup>9</sup>





## 4.0 Why are we proposing it

### 4.1 Why – Importance of Tourism to Northland

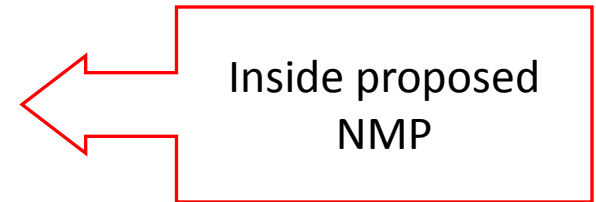
- By comparison to fishing, tourism contributes **\$657 million** to Northland's regional GDP
- Tourism contributes **13.1% of Northland's GDP**
- **35x** the GDP contribution to fishing
- Employs **one in ten** people
- **Growth** rate of 4% p.a.

## 4.0 Why are we proposing it

### 4.1 Why – Improved regional economic outcomes

- Northland has four key tourist attractions:

- Poor Knights Islands



- Tane Mahuta

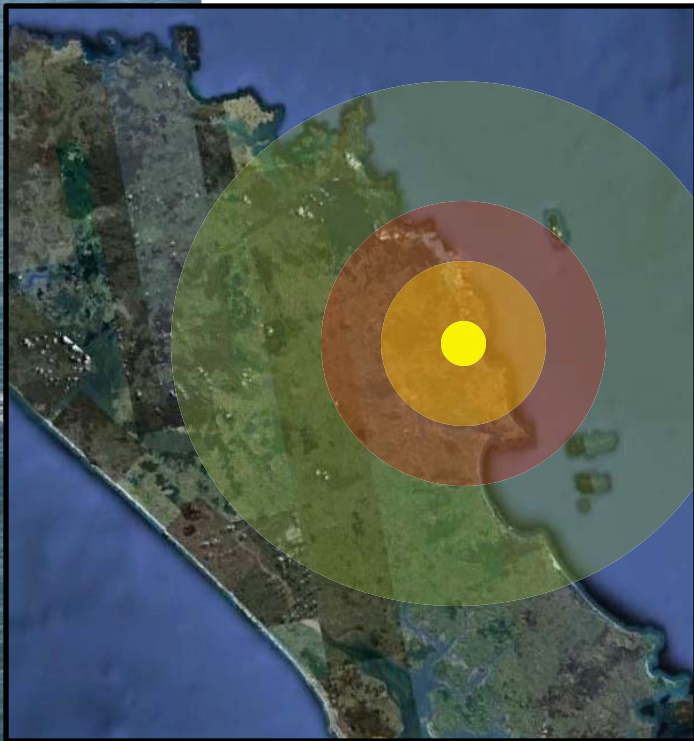
- Cape Reinga

- Bay of Islands

## 4.0 Why are we proposing it

### 4.1 Why – Tourism is important to Tutukaka

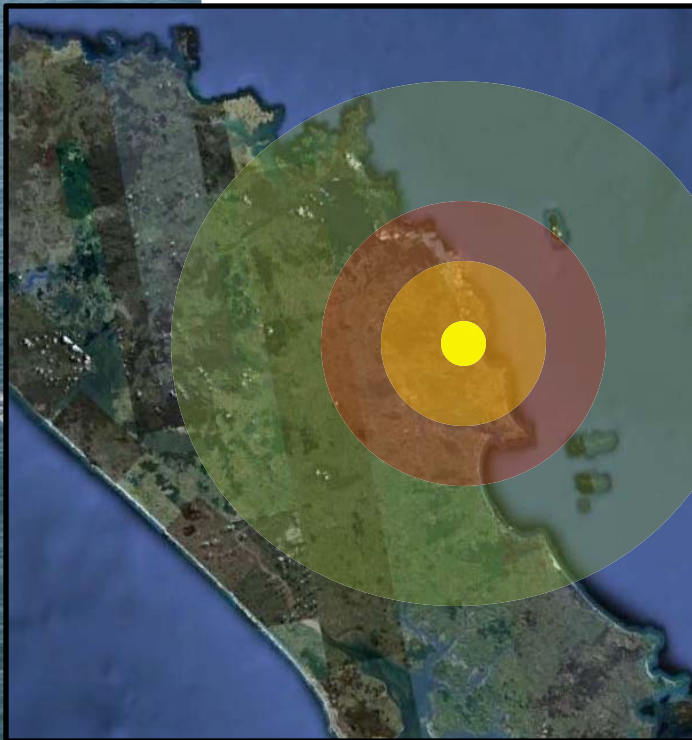
- 83% of visitors to Tutukaka Coast are **Foreign** or from **Auckland**.<sup>23</sup>
- **Twice the national average** of Foreign visitors due to internationally significant attractions.<sup>23</sup>
- 88% of visitors stay overnight and average **4 nights accommodation**.<sup>23</sup>
- 21% of visitors **fish** and 42% **scuba dive**.<sup>23</sup>
- 48% visit the **Poor Knights Islands**.<sup>23</sup>



## 4.0 Why are we proposing it

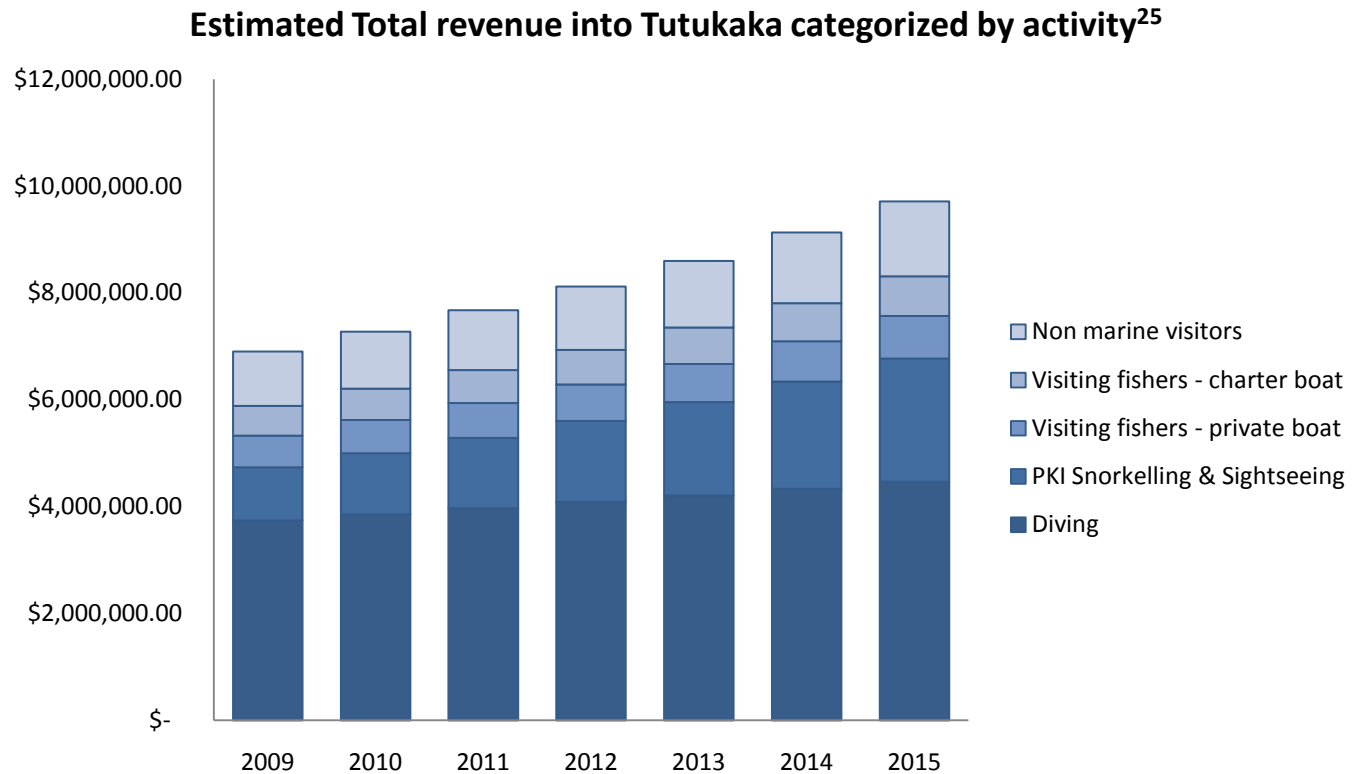
### 4.1 Why –Tourism is important to Tutukaka

- New Zealanders come to fish.<sup>23</sup>
- Quarter of all fishers charter a boat.<sup>23</sup>
- Foreigners come to scuba dive.<sup>23</sup>
- Marine activities extremely/ important to 80% of visitors.<sup>23</sup>
- ¾ of business get >50% turnover from tourism.<sup>23</sup>



## 4.0 Why are we proposing it

### 4.1 Why – Tourism is important to Tutukaka

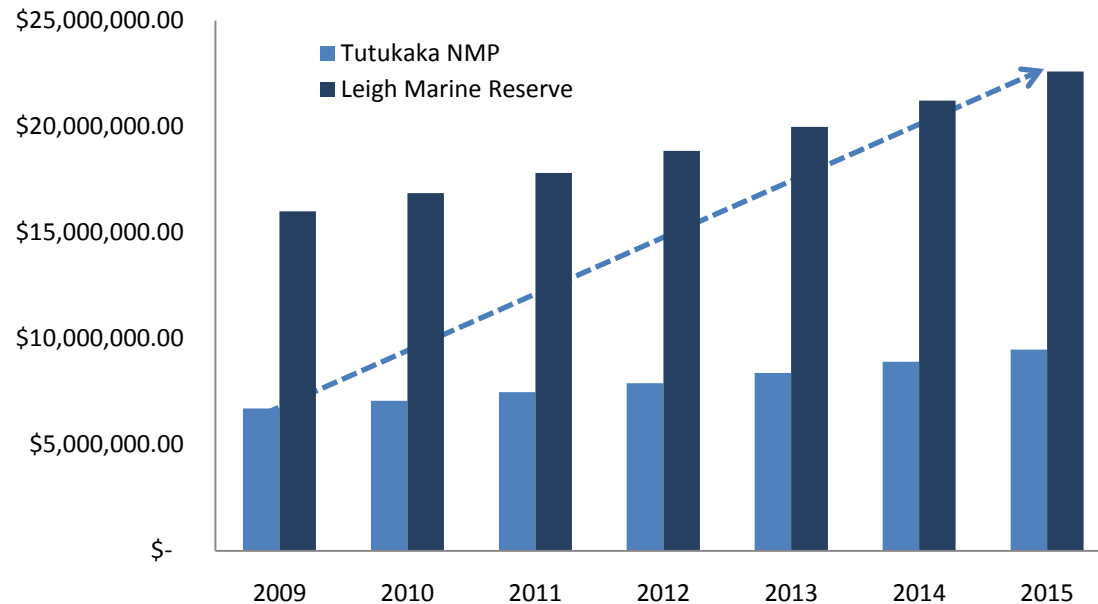


- Multiplier effect **doubles** above numbers at 50% recirculation

## 4.0 Why are we proposing it

### 4.1 Why – Leigh Marine Reserve as economic target

Estimated Tutukaka revenue growth and what could be achieved if catch up to Leigh Marine Reserve economics<sup>26</sup>



- NMP could act as a driver for **step-change** economic growth
- Multiplier effect **doubles** above numbers at 50% recirculation

## 4.0 Why are we proposing it

### 4.1 Why – Pedigree

- NMP would include **significant assets**<sup>22</sup>

	International Significance	National Significance
- Poor Knights Islands	✓	
- Diving	✓	
- Game fishing	✓	
- Ship wrecks		✓
- Surfing		✓
- Beaches		✓
- Estuary		✓
- Marina		✓
- Recreational fishing		✓

- Allow region to **maximise economic benefit** from NMP



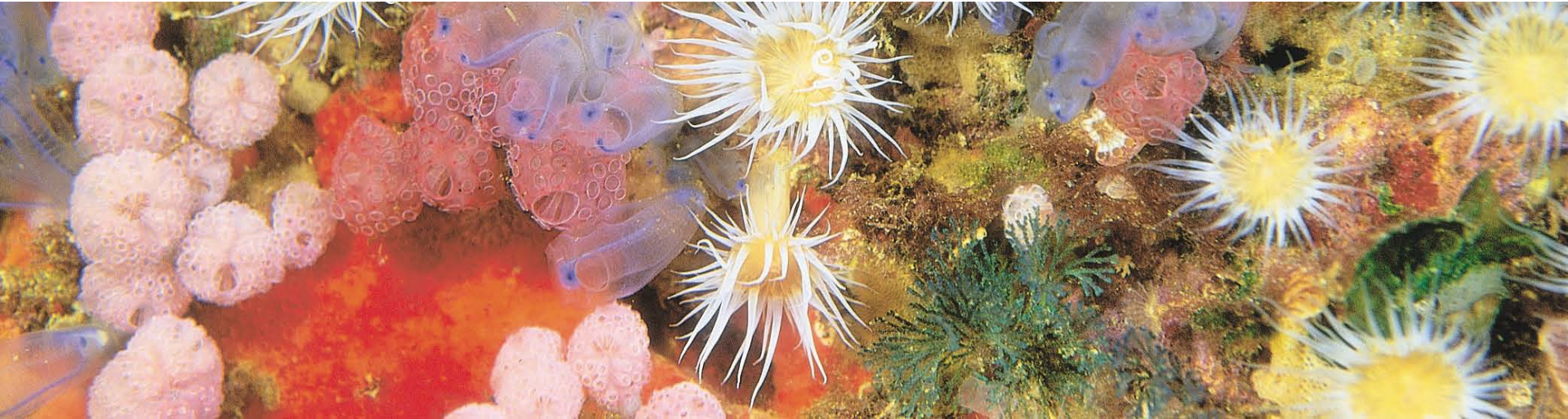
## 4.0 Why we are proposing it

### 4.2 Summary

- **Improve sustainability** and management of resource
- Increase size and number of fish for **recreational fishers**
- Increase number, size and things to see for **non take users**
- Increase local **economic benefit** from marine tourism
- **Win:Win** for all users except commercial fishers
- Commercial fishing will experience **minimal negative impact**

## 5.0 Who benefits

Concept presentation for key stakeholder leaders





## 5.0 Who benefits

- Local **recreational diving and fishing** community
- **Local economy** – both direct and indirect business
- Regional and National economy
- Researchers and conservationists
- Current and future **New Zealanders**
- Marine organisms and **environment**

## 6.0 How and When – the way forward

Concept presentation for key stakeholder leaders

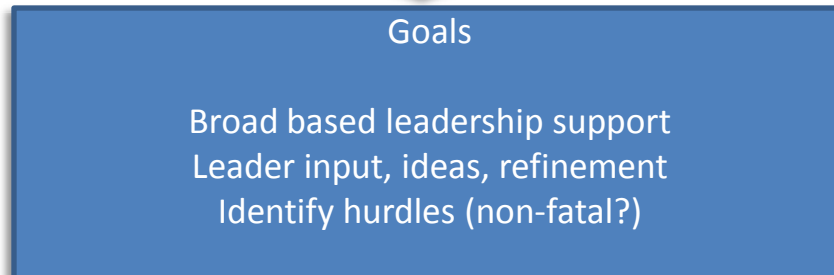
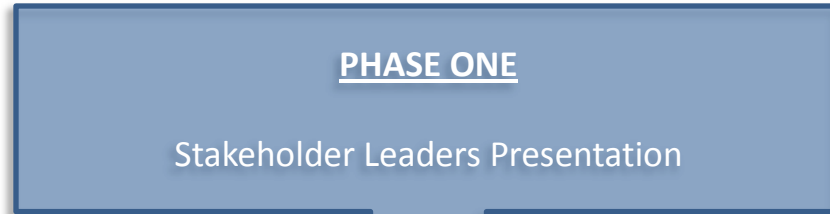


# 5.0 How and When – the way forward



Now

Six months



PHASE TWO

## 5.0 How and When – the way forward

Upon  
Phase One  
conclusion

As long as it  
takes

### PHASE TWO

Formal process commencement

### ACTIVITIES

NGO establishment and organisation  
Funding and resourcing  
Regulatory submissions  
Presentations and process flow  
Research and consultation

Start the hard long grind

### OUTCOME

National Marine Park for Northland



What should we do?





# This may help our decision making...

Are we really running out of fish?

We think this is the case but what if we're wrong?

Do we take action?

Within our control to influence the outcome

	Yes	No
Yes		
No		



## This may help our decision making...

Are we really running out of fish?

Do we take action?

	Yes	No
Yes	<ul style="list-style-type: none"><li>• Establish NMP</li><li>• Fishing jobs displaced</li><li>• Recreational catch limits reduced</li><li>• Costs to implement and manage</li></ul> <p><b>Saved fish from extinction in NMP</b></p>	
No	<ul style="list-style-type: none"><li>• Establish NMP</li><li>• Fishing jobs displaced</li><li>• Recreational catch limits reduced</li><li>• Costs to implement and manage</li></ul> <p><b>Explosion in fish numbers within NMP</b></p>	



## This may help our decision making...

Do we take action?

Are we really running out of fish?

	Yes	No
Yes		<ul style="list-style-type: none"><li>• Carry on as usual</li></ul> <p>Possible extinction of fish species in NMP and globally</p>
No		<ul style="list-style-type: none"><li>• Carry on as usual</li></ul> <p>Catch rates remain the same as they currently are</p>



## This may help our decision making...

		Do we take action?	
		Yes	No
Are we really running out of fish?	Yes	Saved fish from extinction in NMP	Possible extinction of fish species in NMP and globally
	No	Explosion in fish numbers within NMP	Catch rates remain the same as they currently are



## This may help our decision making...

If we take no action the implications are very serious if we are in fact running out of fish:

### EXTINCTION OF FISH

If we act but are wrong and we are not running out of fish then the implications are not serious at all:


### EXPLOSION OF FISH NUMBERS

Thus it is very clear – we must act as the consequences of getting it wrong, and not acting, are extremely serious.

Thank you



## 6.0 Source notes

- 
- <sup>1</sup>The Age (4 March 2010) **EU proposes Blue Fin Tuna ban**
- <sup>2</sup>Williams, J. (1991) **Pacific Salmon at the Crossroads: Stocks at Risk from California, Oregon, Idaho, and Washington** Fisheries 1991; 16: 4-21
- <sup>3</sup>Pauley, D. Et al (1998) **Fishing down marine food webs** Science 1998; 279 no. 5352: 860-863
- <sup>4</sup>Harris, M. (1998) **Lament for an Ocean: The collapse of the Atlantic Cod Fishery: A true crime story** McClelland & Stewart
- <sup>5</sup>Murphy, R. (2010) **The end of the line** Arcane Pictures
- <sup>6</sup>Sundquist, B. (2009) **Fishery degradation: A global perspective, 9<sup>th</sup> Edition** [web published <http://home.windstream.net/bsundquist1/fi0.html>]
- <sup>7</sup>Clarkson, B. et al (2005) **A review of the first five years of the New Zealand biodiversity strategy** Department of Conservation
- <sup>8</sup>Ministry for the Environment [<http://www.mfe.govt.nz/environmental-reporting/oceans/protected-areas/classification-regions/>]
- <sup>9</sup>Jan Beredsen, H. (\_\_\_\_) **Discussion document: The creation of a new marine park around the Northern Coast** [not published]
- <sup>10</sup>Churchouse, N. (9 March 2010) **Fishing limit decisions “guesswork”** The Dominion Post
- <sup>11</sup>Colmar Brunton (March 2007) **NZ Seafood Council Omnibus Recreational Fishing Survey**
- <sup>12</sup>Ministry of Fisheries (2009) **Auckland and Kermadec Fishery Management Area Recreational Fishing Rules** New Zealand Government
- <sup>13</sup>Ballentine, W. (2002) **Marine Reserves: The New Zealand Experience** Leigh Marine Laboratory, University of Auckland
- <sup>14</sup>Pelc, R. Et al (2009) **Quantifying larval export from South African marine reserves** Marine Ecology Progress Series 394:65-78
- <sup>15</sup>Cudney-Bueno, R. Et al (2009) **Rapid effects of marine reserves via larval dispersal** PLoS One
- <sup>16</sup>Babcock, R. CSIRO Marine and Atmospheric Research, Cleveland Queensland: Interpreted from quote: "The reserve effect is contingent on increases in the biomass of the parent stock in a reserve" sourced from: MPA News Vol. 11, No. 4 (01-02 2010)
- <sup>17</sup>Grainger, R. and Garcia, S. (1996) **Chronicles of Marine Fishery Landings (1950-1994): Trend Analysis and Fisheries Potential** FAO Fisheries Technical Paper 359 p. 48.
- <sup>18</sup>McDermott Fairgray Group Ltd (2000) **Economic Impact Assessment for NZ Regions: Appendix 1** New Zealand Seafood Council
- <sup>19</sup>NMP is proposed at 1,800 km<sup>2</sup>. North Eastern MCBR is 11,608 km<sup>2</sup>. We have used the North Eastern MCBR as a proxy to represent Northland's inshore fishery area. Thus NMP = 15% of Northland's inshore fishery.
- <sup>20</sup>Calculated as \$18.6m Ocean fishing contribution for Northland GDP multiplied by 9% to represent GDP from inshore fisheries multiplied by 15% being the percentage size of the NMP to total inshore fishery area.
- <sup>21</sup>Calculated as 290 jobs from Ocean fishing in Northland multiplies by 9% to represent jobs from inshore fisheries multiplied by 15% being the percentage size of the NMP to total inshore fishery area.
- <sup>22</sup>Whangarei Tourism Trust (2008) **2008 – 2011 Whangarei Tourism Strategic Plan**
- <sup>23</sup>The New Zealand Tourism Research Institute (2009) **Marine Tourism, Fisheries and Community: Creating barometers of economic change** Auckland University of Technology
- <sup>24</sup>Estimate based on Happy Hooker 5 hour charge rate with four passengers and other spend data from note 23 using Table 9 pg 52.
- <sup>25</sup>Internal projections based on a number of sources
- <sup>26</sup>Jeroen Jongejans (2010) **Smart and sustainable use of the marine environment: Economic value of marine reserves** [PowerPoint presentation]