Waiariki Aquaculture Development

Generate Investment Ready Information Memorandums

Guiding Principles

Iwi-owned and led	Scale matters	Our Four Pou
		• Economics • Environment • Social • Culture

Priority Options

Up to $NZ1.5 Billion new Regional GDP

Priority Aquaculture Opportunities for Ngā Iwi in Te Waiariki

Based on the opportunities assessment mahi to date, five species* stand out as good aquaculture prospects for Ngā Iwi:

- **Offshore Greenshell Mussels | Kutai**
- **Offshore Ecklonia Seaweed | Rimurimu**
- **Offshore Yellowtail Kingfish |Warehenga**
- **Land-based Yellowtail Kingfish | Warehenga and**
- **Scallops**

Business Cases were constructed for each of the options. The high-level financials are presented here.

* Plus New Zealand Scallop | Tupa – candidate for offshore pilot.

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Offshore Greenshell Mussels

- **Opportunity is:**
  - Mussel farms allocated off the coast of Ōpōtiki / Te Kaha modelled at a size of **500, 2,000 and 5,000 hectares,** which may provide a harvest of approximately **1,200, 4,770 and 11,900 greenweight tonnes per annum** respectively**.** Spat caught on-site from natural productivity (wild) and supplied by the *Te Huata* mussel hatchery in Te Kaha. Raw product processed at the Te Whakatōhea factory located in Ōpōtiki (toll charge per tonne greenweight of $1800).

- **Costs are:**

Scenario:	**500ha**	**2,000ha**	**5,000ha**
• Capex:	$13.6m	$25.8m	$55.2m
• Growout Opex (p.a.):	$0.98m	$3.63m	$8.93m
• Sales/processing Opex (p.a.):	$2.57m	$10.2m	$25.7m

- **Revenue is:**

Scenario:	**500ha**	**2,000ha**	**5,000ha**
• Annual return (IRR)	3%	9%	11%

- **Jobs supported* (base case – 2,000 ha):**
  - During establishment (one offs) = **348** On-going employment supported = **240**.

- **Potential economic impact**:**

• **2,000 ha scenario**	**Total = $142m**	**Establishment = $30m**	**Ongoing = $112m**
• 500 ha scenario	Total = $46m		
• 5,000 ha scenario	Total = $335m		

*Employment expressed as Modified Employment Counts (MECs) - employee counts and working proprietors. Includes induced employment impacts.

**Direct, indirect & induced value-added impacts @4% discount rate.

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Offshore Ecklonia Seaweed

- **Opportunity is:**
  - Seaweed farms allocated off the coast of Ōpōtiki / Te Kaha modelled at a size of **250, 500 and 1,000 hectares,** which may provide a harvest of approximately **1,400, 2,800 and 5,625 greenweight tonnes per annum,** respectively**.** Seaweed spat to be supplied by a newly constructed hatchery in eastern BoP. Raw product air dried on coastal land near to point of harvest.
- **Costs are:**

Scenario:	250ha	500ha	1,000ha
• Capex:	$12.8m	$20.3m	$39.2m
• Growout Opex (p.a.):	$480k	$960k	$1.9m
• Sales/processing Opex (p.a.):	$1.3m	$2.7m	$5.37m

- **Revenue is:**

Scenario:	250ha	500ha	1,000ha
• Annual return (IRR)	3%	5%	5%

- **Jobs created* (base case – 500 ha):**
  - During establishment (one offs) = **193** On-going employment supported = **149**
- **Potential economic impact**:**
  - **500 ha scenario** **Total = $94m** **Establishment = $22m** **Ongoing = $72m**
  - 250 ha scenario Total = $55m
  - 1,000 ha scenario Total = $180m

*Employment expressed as Modified Employment Counts (MECs) - employee counts and working proprietors. Includes induced employment impacts.

**Direct, indirect & induced value-added impacts @4% discount rate.

Offshore Yellowtail Kingfish

- **Opportunity is:**
  - Offshore marine finfish farm operating in the open ocean off the coast of Ōpōtiki / Te Kaha, producing **4,000 greenweight tonnes of yellowtail kingfish per annum**. This will provide year-round (48 weeks) supply. The farming operation would require 16 sea cages (holding two separate year classes), each capable of holding 500t of fish; spatial requirement could be somewhere in the range of 30 hectares for each of the separate year classes. Juveniles supplied by land-based hatchery (~1.5 million fish per annum). Product processed into gilled and gutted whole fish (head on) at the Te Whakatōhea factory located in Ōpōtiki (toll of $2,875 per gross tonne).

- **Costs are:**

Scenario:	**4,000t**
• Capex:	$75.2m
• Hatchery & Growout Opex (p.a.):	$36m
• Sales/processing Opex (p.a.):	$14.8m

- **Revenue is:**

Scenario:	**4,000t**	
• Annual return (IRR)	7%	(If an increase in price of 20% can be achieved, the **annual return increases from 7% to 16%)**

- **Jobs created*:**
  - During establishment (one offs) = **827** On-going employment supported = **924**.

- **Potential economic impact**:**
  - **4,000t scenario:** **Total = $534m** **Establishment = $99m** **Ongoing = $435m**

*Employment expressed as Modified Employment Counts (MECs) - employee counts and working proprietors. Includes induced employment impacts.

**Direct, indirect & induced value-added impacts @4% discount rate.

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Land-Based Yellowtail Kingfish

- **Opportunity is:**
  - Land-based farm likely located near Ōpōtiki. Farm will utilise Recirculating Aquaculture System (RAS) technology and will produce **4,000 greenweight tonnes of yellowtail kingfish per annum** (year-round supply, ~48 weeks). RAS hatchery located onsite will supply juveniles (~1.5 million per annum). Kingfish product will be processed into gilled and gutted whole fish (head on) at the Te Whakatōhea factory in Ōpōtiki (toll of $2,875 per gross tonne).
- **Costs are:**

Scenario:	**4,000t**
• Capex:	$90.8m
• Hatchery & Growout Opex (p.a.):	$34m
• Sales/processing Opex (p.a.):	$14.8m

- **Revenue is:**

Scenario:	**4,000t**	
• Annual return (IRR)	10%	(If an increase in price of 20% can be achieved, the **annual return increases from 10% to 17%)**

- **Jobs created*:**
  - During establishment (one offs) = **840** On-going employment supported = **801**.
- **Potential economic impact**:**
  - **4,000t scenario:** **Total = $633m** **Establishment = $94m** **Ongoing = $538m**

*Employment expressed as Modified Employment Counts (MECs) - employee counts and working proprietors. Includes induced employment impacts.

**Direct, indirect & induced value-added impacts @4% discount rate.

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Scallop Farming Pilot

An opportunity exists to address the supply shortfall with **premium, sustainably farmed (non-dredged) New Zealand scallop**, for sale into the domestic food service and retail sector.

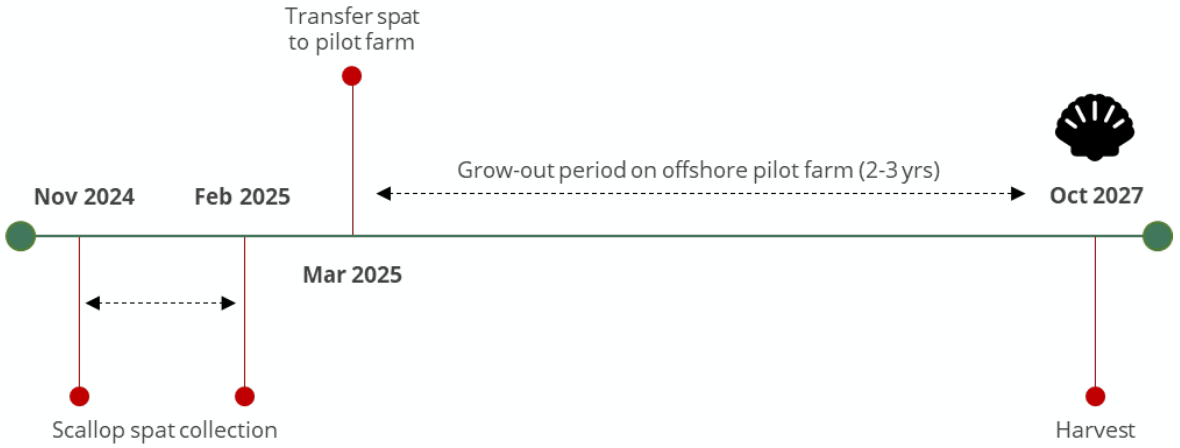
While the scallop farming opportunity is not yet fully understood (hence being excluded from the modelling), there are several positive signs in terms of the farming approach as well as favourable market conditions that warrant further exploration of the opportunity. It is recommended that interested iwi explore the offshore scallop farming opportunity through a pilot. This will give BoP iwi greater certainty regarding the technical & economic feasibility.

Cost estimate:

- $150,000 - $200,000

Potential partners:

- Nissui
- Potentially Cawthron Institute.



*Indicative timeframe only

Paua Farming

- RAS with MoanaNZ

Workforce development

Up to 2,000 new whanau jobs

Key Findings

- >2,000 new whanau jobs at maturity
- As part of the business case, an effective workforce development strategy will be developed for a large-scale Māori aquaculture industry in Te Waiariki.
- We have signed a Memorandum of Understanding (MOU) with ToiOhomai (Bay of Plenty Polytechnic) to develop a five Year Workforce development Plan that outlines the limitations, risks, and opportunities in developing a local workforce in the Bay of Plenty, designed and led by Māori.
- The strategy will be designed to nurture local talent/skills and outline education to employment pathways to ‘higher value’ employment within the region.
- It will include the role of partnerships and knowledge transfer, including international skillsets.

Science, Research and Technology

Short, Medium and Long Term Strategy

New Science and Research Co-operation with Europe

New MOU

- Cawthron
- Plant and Food
- Scion
- NIWA
- University of Waikato
- Univeristy of Otago

New Global Free Trade Agreements

Access to new large Markets of the world for Maori premium products

Key points for Maori seafood

- Removal of 16 percent tariff for Maori seafood to United Kingdom
- Access to the $NZ17 trillion EU Market
- Negotiations underway for IPEF (US) 40 percent of Global GDP
- China remains a valuable market for Maori seafood

Global Trade and Māori
A National Discussion

Bringing together the country's top political leaders and the heavyweights of Māori business to discuss how Māori can capitalise on the ground-breaking UK and EU free trade agreements.

SAVE THE DATE

Venue: Parliament
(Hall to be confirmed)

Date: Tuesday, 11 October 2022

Time: 9.00am – 5.00pm

What happens next?

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Waiariki Iwi Aquaculture Project Plan
2022 - 2023