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Special
Edition



Blue Endeavour

IN THIS ISSUE

Meet the Blue Endeavour team

Grant Lovell on open ocean aquaculture

How Blue Endeavour will affect our company

WELCOME

Welcome to the September 2021 special edition of Salmon Tales, the New Zealand King Salmon newsletter.

Blue Endeavour is the name of our proposed open ocean farm. We have been working with our local community, the Marlborough District Council and key experts for four years to bring this exciting vision to life, with a hearing date set for October 2021 in Blenheim.

In this newsletter you'll find out more about what this project means for our company and for the future of New Zealand.

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GET IN TOUCH

You can find out more about Blue Endeavour on our website and social media channels. If you have any questions please get in touch, we'd love to hear from you.

Contact

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021 598 541

www.kingsalmon.co.nz/BlueEndeavour

Meet the Blue Endeavour team



GRANT ROSEWARNE
Chief Executive Officer

Grant is the executive sponsor for Blue Endeavour. A key driver for the project, Grant works at a strategic level with the Board and influential stakeholders to enable New Zealand King Salmon's vision for open ocean aquaculture in New Zealand.



GRANT LOVELL
General Manager Aquaculture

Grant is the Blue Endeavour project sponsor. An expert in aquaculture and growing King salmon, he is the lead for the overall strategic vision and delivery of the project. Read more from Grant on p6.



PAUL MCINTYRE
Sustainability & Stakeholder Manager

Paul looks after engagement with the Marlborough District Council and key stakeholders including iwi, local community and environmental groups. He also manages media and all internal and external communications for the Blue Endeavour project.



MARK PREECE
Seawater Manager

Mark is providing guidance around farm layout and operations for the resource consent process. He is also reviewing the technology required for the barge, nets, pens, feeding and cleaning systems.



ANDREJ KOPUSAR
Production Manager
Aquaculture

Andrej is looking after production planning for Blue Endeavour. This involves forecasting the number of smolt to be transferred, projecting feed requirements and planning for other key indicators during the salmon production cycle.



DAMIAN COTTON
Seawater Services Manager

Damian is scoping the requirements for the additional crew transport vessels needed for Blue Endeavour. He is also looking at nets and net cleaning systems.



ADRIAN KING
Senior Project Manager

Adrian is project manager for the infrastructure and build of Blue Endeavour. Working with a team of aquaculture specialists, Adrian is scoping what's required so if consent is approved we are ready to place orders for the necessary pens, barges and vessels.



ZANE CHORMAN
Project Implementation Manager

Zane is responsible for managing the design and build of a 850+ tonne offshore feed barge for Blue Endeavour, and a well-boat, a vessel designed specifically for the transport of live fish.

Blue Endeavour

NEW ZEALAND KING SALMON'S PROPOSED OPEN OCEAN FARM

Currently all salmon farms in New Zealand are inshore and close to land. We have spent four years researching and planning with experts to develop a salmon farm 7km away from land, in the open ocean. This is called Blue Endeavour.

IN SUMMARY

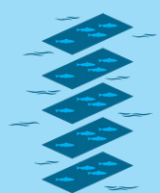
- A new open ocean salmon farm in the Cook Strait, the first of its kind in New Zealand
- Expansion of employment opportunities in Te Tau Ihu (Top of the South)
- Developed in conjunction with independent scientists to meet strict environmental standards
- A sustainable and low-impact method of producing healthy, nutritious protein
- A key contributor to achieving the Government's aquaculture strategy target of \$3 billion in revenue by 2030



7

km

NORTH OF THE OUTER
MARLBOROUGH SOUNDS



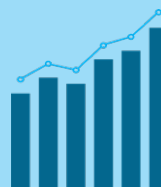
12

SURFACE HECTARES
OF FARM SPACE



10,000

TONNES OF SALMON
PRODUCED PER YEAR



\$200

MILLION REVENUE
PER YEAR

ABOUT THE FARM

THE FARM

The farm will have two blocks of pens, a northern block and a southern block. Each block will have ten flexible circular pens in a two by five pen layout, with a stationary barge for feed storage and accommodation. The combined surface area of the farm will be no larger than 12 hectares.

PHASED DEVELOPMENT

If approved, the plan is to develop Blue Endeavour in two phases. Phase one will be the southern block of pens and barge, covering less than 6 surface hectares. This will allow us to grow approximately 5,000 tonnes of King salmon per year. Phase two will be the northern block of pens and barge, with the intention of producing the same volume.

TRANSFER

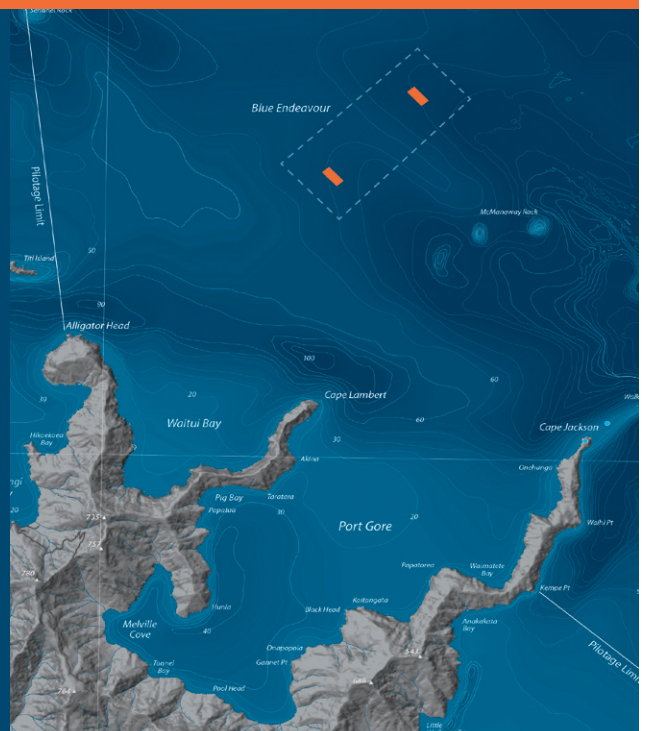
Smolt will likely be transferred to Blue Endeavour on a well-boat, a specially designed vessel with a tank for the transport of live fish. When fish are ready to be harvested, it is likely they will be transferred back to our inshore farms where harvest will take place.

FEEDING

Fish will be fed through a series of pipes located at or near the surface of the water using a system of either air blowers or water pumps. Feed monitoring will be undertaken to ensure fish are satiated and to minimise waste, with underwater cameras used for every pen.

FARM LOCATION

- The proposed location for the Blue Endeavour farm is in the Cook Strait, approximately 7km north of Cape Lambert, where there is a typical depth of between 70-100m.
- Cook strait has cold clean water with strong currents, making it the ideal location to farm King salmon.
- Although we have applied for a 1000-hectare area, we will only be farming a tiny fraction of this space, less than 12 surface hectares in total.
- There is nothing to prevent fishing, boating or any other water-based activity occurring within the site as long as it doesn't interfere with the farm structures or operations. Public access will be available to approximately 98% of the space referenced in our application.
- The pens and mooring system have been designed to withstand high energy conditions. Pens will be kept in place using a mooring grid system attached to the seabed through multiple anchors.



HOW WILL OUR PROPOSAL AFFECT THE ENVIRONMENT?

SITE LOCATION

We researched temperature, wave heights, current and other key environmental factors to confirm the suitability of the site. Monitoring data shows that the Cook Strait provides ideal conditions for farming King salmon.

WATER AND SEABED QUALITY

The cool, deep and clean waters of the Cook Strait provide strong offshore currents with high flow. We have extensively investigated the site and will introduce stringent management plans relating to the seabed and water column.

INDEPENDENTLY AUDITED

Like our inshore farms, Blue Endeavour will be monitored by independent experts on behalf of the Marlborough District Council to ensure it is operated in accordance with best practice. We will also voluntarily undergo regular audits by external third parties.

MARINE MAMMALS AND SEABIRDS

We will have management controls and plans in place to guide appropriate interaction with marine wildlife, with our main focus being seals, bird life and other marine mammals. We've also used acoustic monitoring equipment to make sure we're aware of the main whale and dolphin species present in the area.



Example 1 This image shows how phase one of Blue Endeavour is likely to look from the surface.

WHAT WILL BLUE ENDEAVOUR MEAN FOR NEW ZEALAND?

THE FIRST OPEN OCEAN SALMON FARM

Currently in New Zealand all salmon farms are inshore and close to land. Open ocean farms are located in deeper, less sheltered waters with stronger currents, several kilometres away from land. Open ocean salmon farms are operating successfully in Australia, Europe, America and China. If approved, Blue Endeavour will be New Zealand's first open ocean salmon farm.

SUPPORT FOR THE GOVERNMENT AQUACULTURE STRATEGY

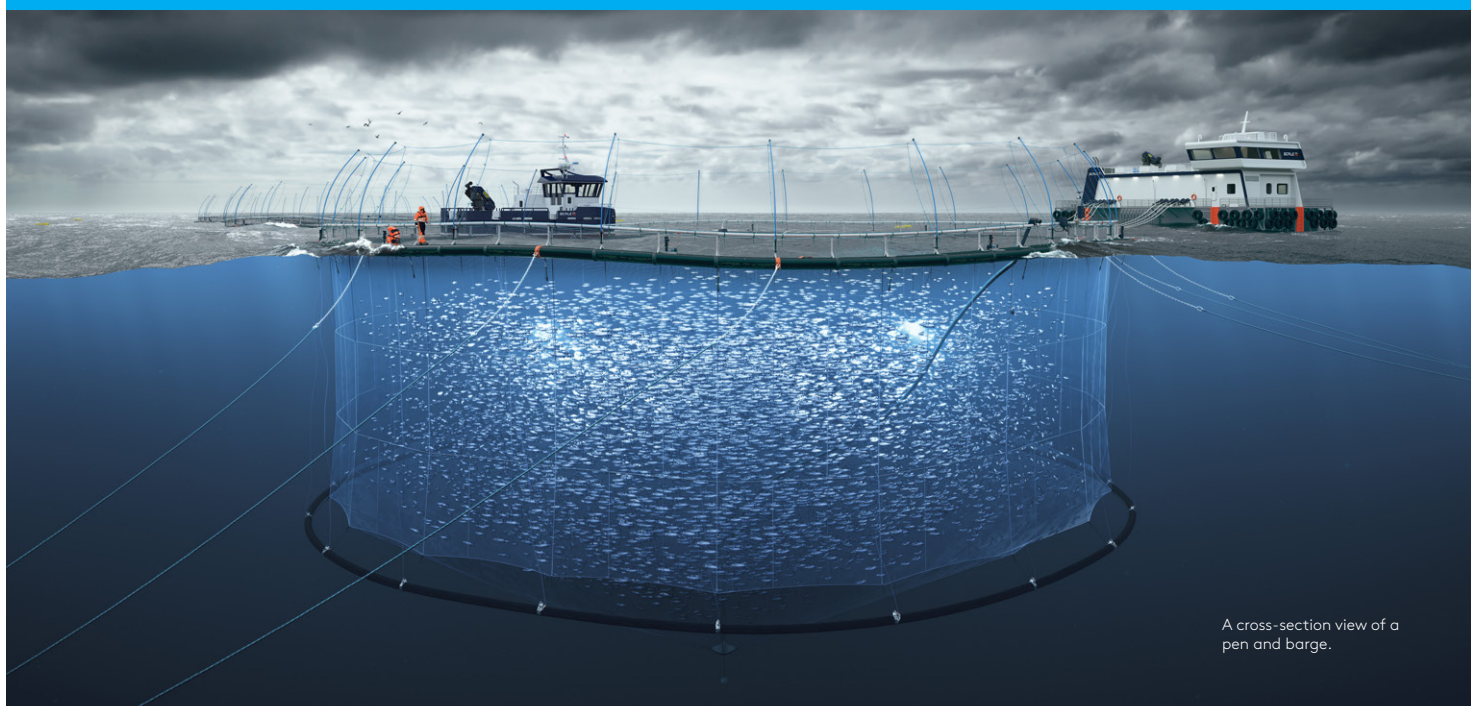
In New Zealand aquaculture is considered a growth industry with a bright future, so much so that the Government launched an Aquaculture Strategy in 2019 with a target of generating \$3 billion by 2035 from the current \$650 million a year. This target has recently been brought forward to 2030 with open ocean finfish farming named as a key contributor.

EXPANSION OF JOB OPPORTUNITIES

If approved, Blue Endeavour will create hundreds of new job opportunities in Te Tau Ihu (Top of the South), both within New Zealand King Salmon and supporting industries. At full capacity, Blue Endeavour alone will produce 10,000 tonnes of King Salmon per year. This considerable increase in production will have knock on benefits for our processing and supply chain partners.

A SUSTAINABLE SOURCE OF PROTEIN

Demand for seafood continues to grow and aquaculture has been recognised as one of the most sustainable ways to produce protein. New Zealand's marine estate is more than 15 times the size of our land area, yet we are farming just 0.01% of it. With over 400 million hectares of ocean space on our doorstep, farming a tiny proportion of our ocean could provide a significant source of nutritious, low-impact food for the future.



A cross-section view of a pen and barge.

A portrait of Grant Lovell, a middle-aged man with short, light brown hair, smiling at the camera. He is wearing a dark blue blazer over a light-colored, patterned button-down shirt. The background is a plain, light grey.

GRANT LOVELL

GENERAL MANAGER AQUACULTURE

Grant first joined New Zealand King Salmon in 1997 as hatchery technician at our Tentburn freshwater facility. He has more than 20 years' experience in the aquaculture industry and has held senior positions across both freshwater and seawater operations. For Grant, open ocean aquaculture is the future of salmon farming in New Zealand.

"Open ocean farming gets me excited. The ability to open a new farm in the open ocean with cutting-edge technology – it's really exciting and it's leading us into the next chapter of our company. That's where our future lies, and Blue Endeavour is the first step towards our future."

One of the key components in the development of a salmon farm in the open ocean is site selection, says Grant. "Blue Endeavour is a very unique site, situated north of the Marlborough Sounds. We've got protection from the southerlies which is really important because that's where the large New Zealand storms come from. We're only really exposed to the nor-west which is an unusual storm event. This is a great site."

"We've worked closely with a lot of independent scientists, particularly the Cawthron Institute, who have been doing extensive modelling in regard to our potential footprint and benthic impact. It's not just the environment, it's the things in the environment. We're very confident that we'll be able to farm here without having any negative impact."

How will Blue Endeavour work with New Zealand King Salmon's inshore farms?

Our inshore farming operations will continue, says Grant, however we plan to link them closely to Blue Endeavour. At this stage it's likely that a couple of our existing inshore farms will return to nursery sites. Smolt will be transferred from the hatchery to the inshore farms where they'll grow to 1-1.5kg. They'll then be transferred out to Blue Endeavour to grow out to harvest size. "That's making great utilisation of those inshore farms, and really good utilisation of Blue Endeavour as well. It keeps our growth cycle at Blue Endeavour to under a year. We really see that there's going to be a nice little

integration between our current inshore operation and our offshore operation."

A sustainable food solution

Open ocean aquaculture is one of the most sustainable ways to produce high-quality and nutritious protein. "Because of the large water body and the currents that go through there, the environmental footprint is going to be very minimal. Another key part is that it's three dimensional – in the ocean we're able to farm throughout the water column. It allows you to create a highly desirable product utilising much less space than on land. That's critical for a growing population and critical for the environment going forward."

It will also mean benefits for fish health too, Grant says. "Moving into the open ocean you start to get those offshore currents; we're exposing the fish to cooler water all year round. That's going to be great from a fish health perspective, it's going to be great biologically for the fish."

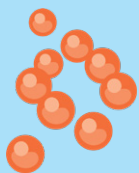
Independently verified

Like our inshore farms, Blue Endeavour will be required to follow strict management plans and will undergo regular independent audits to verify operations. "We have a large number of consent conditions we have to adhere to, and these are monitored every year by the Marlborough District Council. It's really important that we live up to those standards. Outside of that, we also do voluntary accreditation." We are the first company in New Zealand to achieve a four star rating for Best Aquaculture Practices, a benchmark we will look to achieve at Blue Endeavour too, alongside 'Best Choice' from the Monterey Bay Aquarium Seafood Watch Programme.

Grant believes Blue Endeavour will pave the way for growth in the aquaculture industry in New Zealand. "Open ocean is absolutely the future of salmon farming. The Government's 2030 goal is fantastic, and it's a clear signal to us that they're right behind open ocean aquaculture. Those are real positives and that gives you confidence to keep developing and keep pushing."

WHAT WILL BLUE ENDEAVOUR MEAN FOR OUR TEAMS?

If approved, Blue Endeavour will be developed in two phases. Phase one will be the southern block of pens and barge, designed to integrate with our existing operations. Phase one of Blue Endeavour will be absorbed by our existing team members across our current sites. See below for more detail around how Blue Endeavour will affect each of New Zealand King Salmon's divisions.



FRESHWATER

Blue Endeavour will maximise our current freshwater capacity for both smolt and broodstock. The first feeding facility at Tentburn will supply the additional smolt required for Blue Endeavour, an increase from the current 3 million to 4 million smolt.



PROCESSING

Our Nelson-based processing facilities have existing capacity to absorb the additional volume generated by phase one of Blue Endeavour. However, we will likely see shift pattern changes across this division.



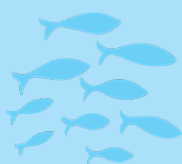
SEAWATER

We will employ and thoroughly train a dedicated open ocean team to fulfil operations at the Blue Endeavour site. However, Blue Endeavour has been carefully designed so that the majority of operations can be controlled remotely.



SALES, BRANDS, SUSTAINABILITY & NEW PRODUCT DEVELOPMENT

Our sales, brands and NPD teams will have more salmon to sell, market and potentially develop into new products. An increase in our farming footprint and methods will result in increased diversity for the sustainability team.



AQUACULTURE SUPPORT

It is likely that we will expand our current support teams to service the Blue Endeavour site. We will see increased vessel activity with additional crew transport and we will need a dedicated net cleaning boat for Blue Endeavour.



CORPORATE SERVICES

Based at our Beatty St office in Nelson, this division comprises finance and people and culture. These teams are well-placed to support the increased production and operational changes that the Blue Endeavour farm will bring.



SUPPLY CHAIN

Our supply chain division is well-equipped to deal with the Blue Endeavour operations and the increased volume of salmon that Blue Endeavour will produce.



OMEGA INNOVATIONS

An increase in salmon volume will result in more availability of remaining raw materials for the Omega Innovations division to divert into high-value products.

