

Shaping the Port's future

Future Development: 34 hectares of reclaimed land and new container vessel berth

Canterbury freight volumes are forecast to more than double in the next 30 years – and Lyttelton Port is shaping its services to be ready to efficiently manage future growth.

LPC has been granted resource consent to dredge the harbour shipping channel to increase the draught for vessels wanting to access the Port. This will enable larger ships to call, and ensure South Island importers and exporters continue to have unmatched access to world wide markets.

Resource consent has also been granted to expand the Container Terminal land area to cater for growing Canterbury imports and exports.

The Port is critical for industries at the heart of Canterbury's economy - agriculture, manufacturing, construction, forestry and fishing. With a \$264 million annual increase in agribusiness production resulting from the Central Plains Water irrigation project, LPC is making sure it is ready to manage the resulting freight volume growth.

“The dredging programme is vital for the Port to meet predicted freight growth.”

– LPC Chief Executive Peter Davie

The channel deepening work will occur in two stages. Stage one will allow vessels with a 13.3 metre draught to call at Lyttelton. Completion of stage two will allow unrestricted sailing for 14.5 metre draught vessels across all tides.

Chairman of the International Container Lines Committee (ICLC), which represents most major container carriers calling at New Zealand, Mark Scott, says it is vital Lyttelton has the capacity for larger ships. “Shipping companies are making decisions now on where these large ships will call in New Zealand and the

dredging programme gives certainty Lyttelton Port is a major player.”

Mark says container vessels currently visiting Lyttelton commonly carry 4,500-5,000 Twenty foot equivalent units (TEUs), and that will increase to 5,500-6,500 TEUs with larger vessels. “However it is quite conceivable that with the dredging of the channel vessels carrying 8,000-9,000 TEUs will be able to call at Lyttelton,” he says.

Mike Knowles, Chair of the New Zealand Shippers Council, says Lyttelton is the major port in the South Island and it is essential it gears up to accommodate the larger ships that want to come here. “It will allow the Port to remain competitive for international shipping lines” he says.

Peter Davie said the overall dredging programme, which will start in August and last about 11 weeks, would be the country's biggest.

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“At the same time we will expand our reclamation at Te Awaparahi Bay by 24 hectares, which includes the construction of a new 700 metre container wharf. Last year the existing reclamation at Te Awaparahi Bay reached 10 hectares. This is part of LPC's long term plans to move operations to the east, away from the local community. The additional reclamation will facilitate this shift.

“We are focused on future proofing our Port. We are committed to having a facility that meets customer needs for the future and supports the lifestyle of everyone in Canterbury,” says Peter Davie.

Take a look at this video about the Port's future focus:
<https://vimeo.com/262267309>

Strong interest in Te Ana Marina as hospitality hub

Strong interest from local and national breweries, the seafood industry and an award-winning restaurateur could see Te Ana Marina's Woolstore development become the newest hospitality hub in Christchurch.

Lyttelton Port Company (LPC) has completed the development of Canterbury's only walk-on floating marina.

Meanwhile, adjacent to the waterfront, the existing *Woolstore* building is being strengthened, upgraded and refurbished for commercial development. Many of the unique characteristics of the original building are being retained. It now accommodates the marina's administration offices, berth-holder amenities and public washroom facilities. The *Woolstore* also offers 720 square metres of ground floor space in a range of flexible tenancy sizes up to a maximum of 400 square metres in any one tenancy.

Craig Edwards of commercial real estate firm Knight Frank said growing interest from local business operators clearly indicated the *Woolstore* could be a people-focused hospitality hub.

"The strong feedback we have received from the market is that the *Woolstore* will be a quality hospitality venue, not a retail strip," he said.

"We're not going to end up with a butcher, a pharmacy and a pet store. It's going to have a unique hospitality feel."

Te Ana Marina is LPC's first step toward regenerating the Inner Harbour as a vibrant community-focused destination with connections to the Lyttelton township. LPC owns and manages the 170-berth marina and associated commercial facilities.

Knight Frank recently completed a preliminary appraisal of rental values for spaces available at the *Woolstore* and canvassed a wide range of potential occupiers to evaluate interest.



The Woolstore at Te Ana Marina

"Rental rates at Te Ana are expected to be competitive and attractive to business operators," said Mr Edwards.

"It's well worth the investment for business owners, particularly given the value of the location and facility. We envisage that tenants will mostly be locally-owned established businesses. They're passionate people who have a clear point of difference in the market. Franchise businesses and larger hospitality operators, especially expanding craft beer brewers, have been very positive. We've also made good headway with some experts within the marine brokerage industry."

LPC Marketing Manager Simon Munt said it's the perfect time for businesses to invest and complete their fit-outs in preparation for a spring opening.

"There's ample opportunity for businesses to create truly unique spaces because the development is still very much a blank canvas. We want to co-ordinate our activities to attract the right mix of operators to ensure a vibrant and successful portside commercial development.

"Every ground floor tenant will have expansive views over the marina and will benefit from a captive audience of marina users as well as a pedestrian link connecting Te Ana Marina to Lyttelton."

Mr Munt said Te Ana Marina would become a thriving business area attracting locals and visitors with the considerable convenience of on-site parking.

"We are pleased to be hosting visiting boats which call in and use the marina on a casual berth hire basis. Before the marina was built these visitors may have bypassed Lyttelton," said Mr Munt.

Lyttelton Harbour Business Association Chairman Rob De Thier said increased exposure to new markets generated by the Port's various developments was "encouraging for the Lyttelton business community."

"We are already experiencing the overflow of foot traffic from the arrival of major international cruise ships this year, and it's not just passengers, it's the crew members as well," he said.

In a similar fashion, Te Ana Marina tripled its capacity to accommodate yachts and other pleasure crafts, which Mr De Thier has no doubt will "generate more foot traffic" in Lyttelton's town centre.

"Through our discussions with the Port, we really wanted to ensure there was a strong connection between the business community in Lyttelton and Te Ana Marina. The Port has always been very supportive of this vision and we look forward to continuing our work with LPC to ensure this eventuates," he said. "Te Ana Marina will have a positive impact on Lyttelton's economy. It's a great resource that beautifies the whole area."

For Te Ana Marina berth holder and yacht owner Viki Moore,

the building's delicate nod to history is a welcome touch.

"Lyttelton has a vibrant maritime past and it's nice to see the Te Ana Marina incorporate the historical fabric of the area," she said. "It's so important to retain our history, especially in Christchurch, because so much has been destroyed and demolished. Some of the landscaping around Te Ana Marina already includes what looks like sections of old timber piles and exposed rail lines, which really adds local character."

"The Woolstore will be a brilliant public space that we've never had before. It's going to be a great community asset and something that we can all be proud of, not just sailors, but the people of Lyttelton and the wider Canterbury region."

– Rob De Thier

More than 140 berths, housing various boats from powerboats, to mono-hull yachts, catamarans and launches, have already been leased at Te Ana Marina and boat owners are encouraged to contact Te Ana Marina should they wish to license a berth.

Take a look at this short time-lapse video of the construction of Te Ana Marina:
<https://vimeo.com/274422635>

First stage of channel deepening project begins soon

One of the world's largest dredges, the *Fairway*, will sail into Lyttelton Harbour in August as the Port's channel deepening project gets underway.

Lyttelton Port Company was granted resource consent in March 2018 to dredge the harbour shipping channel to increase its draught.

The 230 metre-long *Fairway* will collect silty clay from the seabed of the harbour, as it works to widen the navigation channel by 20 metres and deepen it to allow vessels with a 13.3 metre draught to call at Lyttelton.

The first stage of work will see the *Fairway* lengthen the channel by 2.5km.

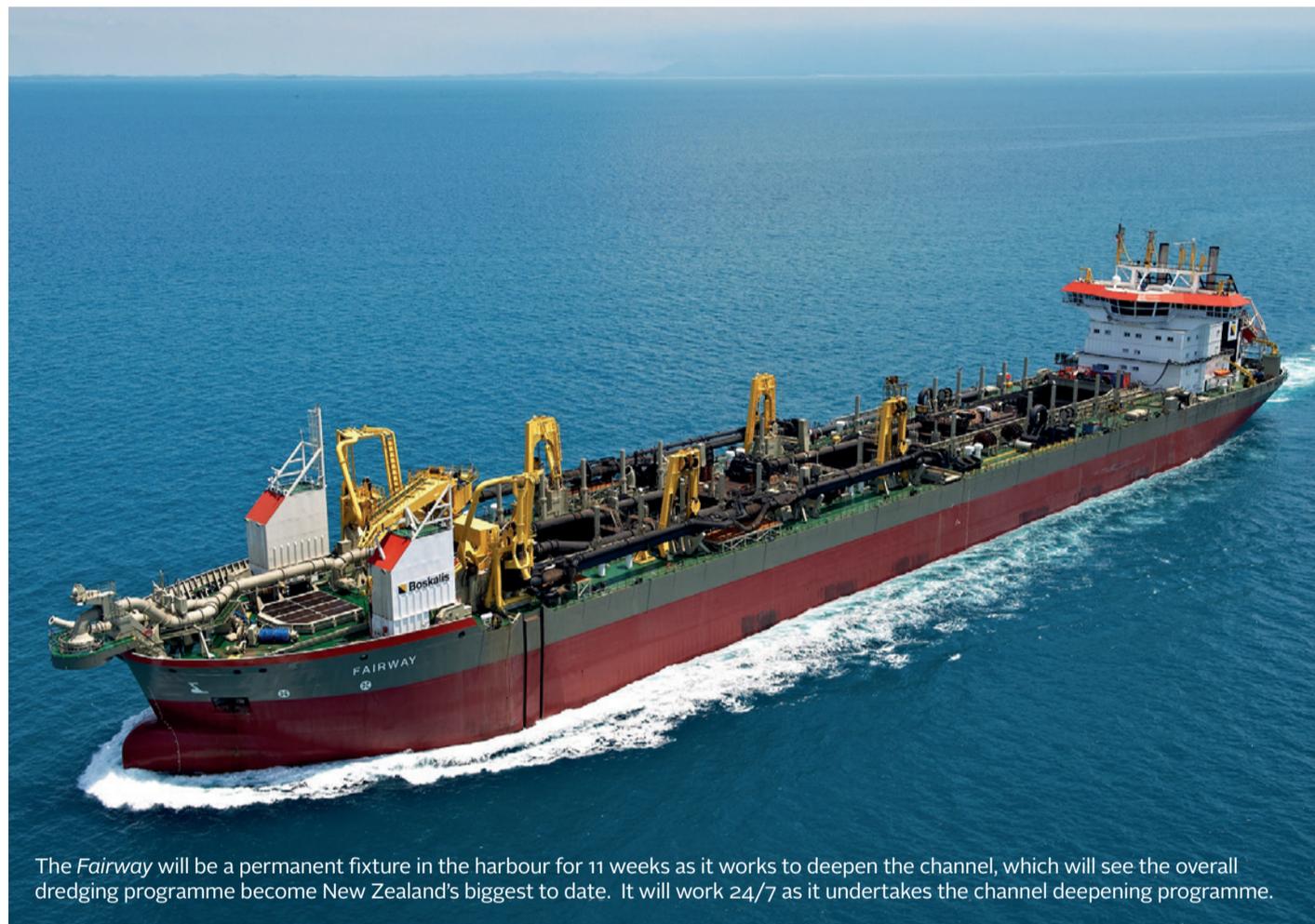
The channel deepening, which will allow bigger ships to access the Port, will provide Canterbury's importers and exporters the best possible and most cost effective international shipping solutions.

The initial stage of the dredging programme has been awarded to Netherlands-based contractor Royal Boskalis Westminster N.V. – a global operator with more than 100 years' experience. Built in 1997, the *Fairway* is one of Boskalis' 30 trailing suction hopper dredgers.

The *Fairway* will make its journey from Mumbai, India, after completing its latest project – and make a stop in Singapore for a thorough clean before heading to Lyttelton Harbour. The Cawthron Institute has worked with LPC and Boskalis to develop a biosecurity plan.

In Singapore, it will go into a dry dock to be water blasted and have its antifoul refreshed. The interior spaces will be cleaned and flushed with fresh water. After being inspected, it will sail directly to New Zealand.

Cawthron Biosecurity Team Leader Oli Floerl says, "LPC has been very pro-active in making sure this dredge has minimal biosecurity



The *Fairway* will be a permanent fixture in the harbour for 11 weeks as it works to deepen the channel, which will see the overall dredging programme become New Zealand's biggest to date. It will work 24/7 as it undertakes the channel deepening programme.

risk." The *Fairway's* journey to Lyttelton Harbour can be tracked here: www.marinetraffic.com

In anticipation of the channel deepening, LPC has already implemented the largest environmental monitoring programme ever undertaken for a New Zealand dredging project.

Environment Canterbury is satisfied that LPC's plans balance what is best for the environment, the community, and the growing regional economy.

While the *Fairway* is hard at work, a plume will be clearly visible from the dredge, but LPC Environmental Advisor Jared Pettersson says this is a normal aspect of the dredging process on the sea floor.

"Fine sediment will be stirred up on the sea floor during the dredging process, so we can expect to see a consistent plume during the works," Jared said.

"The environmental effects of the plume were evaluated during the consent process. It was found any environmental effects would be minimal and short term as the ecosystem is used to naturally occurring fluctuations in water clarity."

"We have implemented New Zealand's most robust real-time water quality

monitoring system that will ensure the proposed dredging does not result in adverse outcomes for the environment."

LPC achieved a mediated outcome with Ngai Tahu with regards to protecting the environmental and cultural values of Whakaraupō and Koukourārata.

As a result, LPC will cease dumping dredge spoil, from a previous consent, at Awaroa/Godley Head, Livingstone Bay, Breeze Bay and Mechanics Bay which are important breeding grounds for kaimoana.

The Company will pay Te Rūnanga o Koukourārata and Te Hapū o Ngāti Wheke fisheries enhancement funding that will be used on projects to enhance mahinga kai within Koukourārata and Whakaraupō (Lyttelton) harbours. There will be strict environmental limits for dredging and dumping spoil.

LPC Chief Executive Peter Davie has thanked Iwi for the positive and constructive way they approached mediation.

LPC's Harbour Watch website will provide real-time data as part of the Company's water-quality monitoring project.

How Dredging Works

A dredge has suction pipes that move slowly over the seabed, collecting silty clay like a giant vacuum

The mixture of silty clay and water is pumped into the hopper of the vessel

Dredging stops when the hopper is full, the dredge then releases the sediment to an agreed offshore site

The dredge will discharge the sediment through doors underneath the vessel

Data collected from 14 water-quality monitoring buoys placed in the harbour will be available 24/7 at www.lpcharbourwatch.co.nz

Plan to restore the health of Whakaraupo/Lyttelton Harbour



LPC Board Director Bill Dwyer at the Whakaraupo/Lyttelton Harbour plan launch.

An aspirational plan to restore the cultural and ecological health of Whakaraupo/Lyttelton Harbour is underway.

Whaka-Ora Healthy Harbour is the result of a commitment made by Environment Canterbury, Te Hapū o Ngāti Wheke, Te Rūnanga o Ngāi Tahu, Christchurch City Council, and the Lyttelton Port Company under the Lyttelton Port Recovery Plan 2015 to create a catchment management plan which would restore mahinga kai to Whakaraupō/Lyttelton Harbour.

The five parties signed a memorandum of understanding in August 2016 and

work on the plan began soon after with community consultation meetings to determine what the harbour communities wanted.

The final plan sets out an aspirational vision for the harbour and actions required to achieve that vision based on the principles of change-making, collaboration and providing a foundation that can be used for future generations.

Lyttelton Port Company Chief Executive Peter Davie said the launch of *Whaka-Ora Healthy Harbour* is an exciting milestone in the plan's long-term vision coming to fruition.

"We are proud to be working together with our partners and the community to ensure the health of the harbour for the future as we meet the requirements of both

commercial port users and the recreational users of the harbour.

"This coordinated approach will help support community aspirations so the harbour is maintained and protected for future generations to enjoy."

A korowai made of the feathers representing the kaitiaki (guardian) for each band in the plan has been wrapped around the document signifying its importance and the commitment made by the partners and community to fulfil the vision.

The plan, with the korowai, will move around the five partner organisations as a reminder of the commitment they have made.

Take a look at the Whaka-Ora Healthy Harbour video:
<https://vimeo.com/259084590>

Work starts on cruise ship berth

Preparation work is underway for the construction of the Port's new cruise berth – part of LPC's long-term plan to serve the region's future needs.

The next phase of works will see the pile driving begin in early July. Piling work will be intermittent, occur Monday to Saturday, and is expected to be completed by the 2020/2021 cruise season.

The piling will be closer to Lyttelton township than that done during the construction of the Cashin Quay 2 wharf in 2014/15. Therefore the piling noise will be more widely heard.

We understand the noise from pile driving will be an inconvenience to local residents. While the level of noise cannot be effectively mitigated, residents will be able to view regular updates to the planned piling times on LPC's harbour watch website www.lpcharbourwatch.co.nz.

We are mindful of the effect underwater noise from piling can



Artist's impression: Cruise ship at new cruise berth to be built at Lyttelton Port

have on dolphins. This was a key reason for the wharf being redesigned during the past few months. Reducing the size of the wharf has significantly reduced underwater noise levels. A marine piling management plan will be in place to further manage potential risks to Hector's dolphins from the piling activities.

The new design does not require resource consent to construct the wharf, as it is within the regulations of the Lyttelton Port Recovery Plan. We have applied for consent to allow the larger cruise ships to moor at the wharf, and to undertake minor dredging.

A 'Port Talk' will be held on Saturday, 30 June (10am-1pm) at LPC's 'Port Talk' site corner of Oxford and London Streets in Lyttelton.
If you have any questions please contact us at questions@lpc.co.nz



Photo by Ron Crosby, LPC Reefer Care Officer

Just another day

These are just a couple of the many great photos taken by our staff that capture how special Lyttelton Harbour and the Port can be.

The top photo was taken by LPC Reefer Care Officer Ron Crosby, and below is a beautiful dawn shot by LPC Pilot Chris Coleman.

Many LPC staff enjoy taking photos of the environment in which they work. Their photos capture times when just another day turns into something quite special.

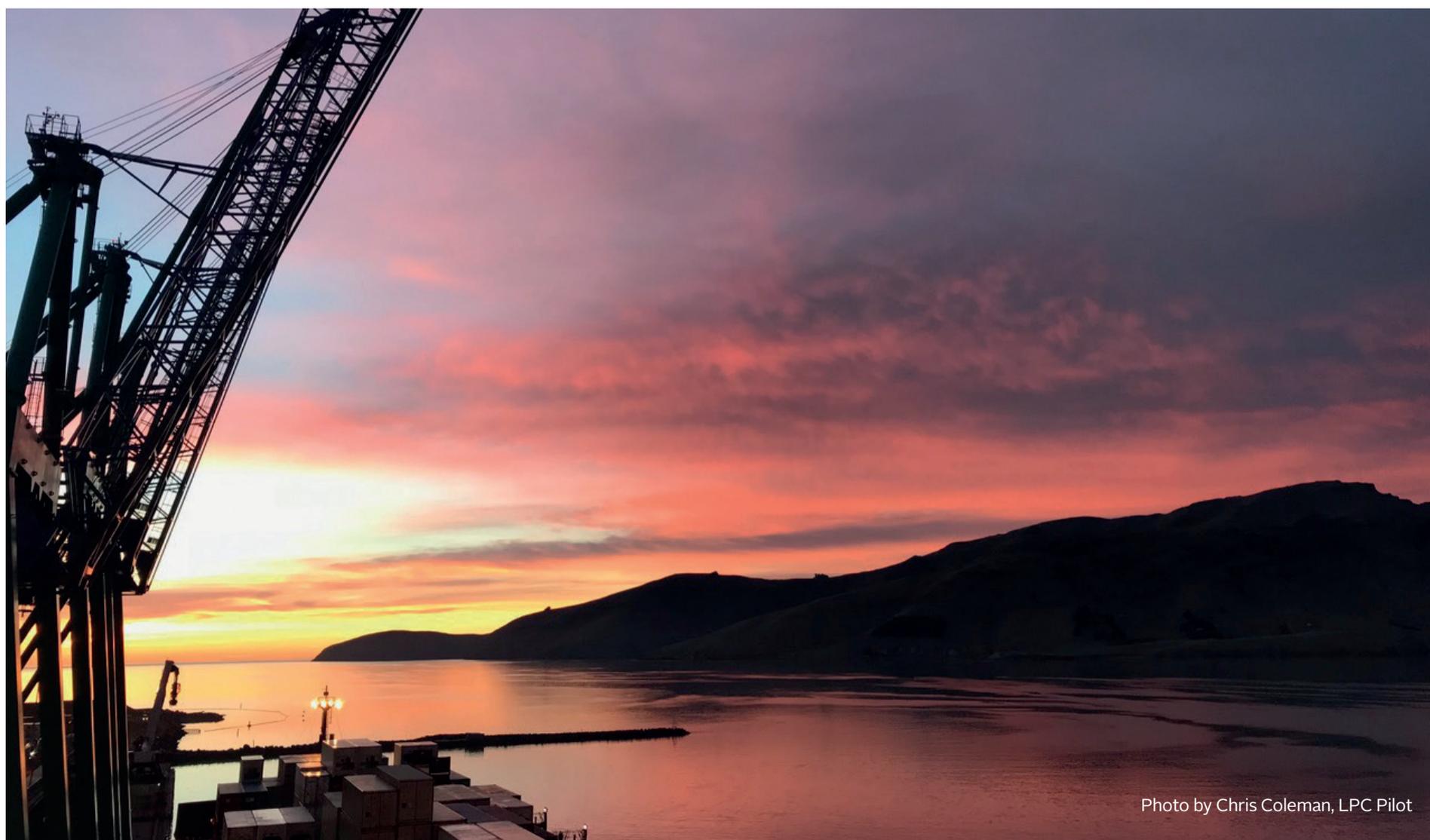


Photo by Chris Coleman, LPC Pilot

New research on Hector's dolphins in Lyttelton Harbour

LPC funded research is providing new data about Hector's dolphins, with researchers using acoustics to understand more about them and how they move around Lyttelton Harbour.

Using four acoustic monitoring buoys, LPC, with the help of Styles Group and Vision Environment, has been able to collect more than a year's worth of data on Hector's dolphin movements around the Harbour - day and night, in fair weather and storms.

"The acoustic monitors are like a microphone under the sea," says Researcher Dr Deanna Clement. "They listen to the frequencies that Hector's dolphins tend to echolocate at, which are really high. Boats tend to be low range frequencies and other dolphins are mid range. Hector's dolphins' high-frequency sounds are perfect for the naturally cloudy waters of Lyttelton Harbour.

"Those sounds bounce around really well in that kind of water - and that's probably why they live there," Dr Clement says. "The cloudy water suits them and it's harder for their competitors or their predators. So it's perfect, in terms of their little niche."

Hector's dolphins are masters of echo-location, or understanding their world by bouncing sound.



Dr Deanna Clement, middle, has been studying Hector's dolphins in Lyttelton Harbour.

"In a dolphin's mind, images are more formed from what they hear rather than what they see."

– Researcher Dr Deanna Clement

They are incredibly good at it. They learn fast and can differentiate between even subtle objects.

The research shows that peak times for Hector's dolphins being in the Harbour might be feeding times - dawn and dusk. The research also shows there are fewer animals in

the Harbour in winter.

Hector's dolphins are an endangered species found only in New Zealand. They are distinctive because of their size. They measure about 1.5m when they are fully grown and have a distinctive round dorsal fin, which is often compared to the shape of a Mickey Mouse ear.

Dr Clement says Hector's dolphins are slow breeders. They don't start until they are around seven years old and they only produce one calf every two to three years. The subspecies, Maui dolphin, has dwindled to just 54 animals in the North Island, but South

Island Hector's dolphins are estimated to be around 15,000.

Banks Peninsula has the highest concentration of South Island Hector's dolphins, with an estimated population of between 3,000 to 6,000.

"Hector's dolphins eat just about anything, so long as it's the right size," Dr Clement says. "Dolphins don't rip their food up. They have to swallow it whole. So they often choose juvenile species or bait species like sprats. They'll eat squid, too. They're not picky."

The next step of the project will be to deploy hydrophones to record noise in the Harbour from recreational boats, ships and port activities. Overlapping this with the baseline data from the past 18 months will build a better picture of how Hector's dolphins respond to underwater noise.

Lyttelton hasn't been studied in as much detail as the rest of the Peninsula and Dr Clement hopes the research data will eventually assist in developing national guidelines for marine activities like pile driving that are specific to Hector's dolphins, but potentially applicable to other dolphin species as well.

Overseas standards exist, and are used here, but they may not be relevant to New Zealand marine mammal species.

"This is a way that all ports could line up and come together with a standard. That would be the ultimate," Dr Clement says.



Hector's dolphin by Manue Martinez

Port photos by Lyttelton locals to be collected in book

Lyttelton shopkeeper Maree Henry has a tiny photo stuck to the display shelf above her till bench.

It's a view of Lyttelton Port framed by a window. "I've been looking at this little photo for a long time and it got me thinking about our connection to the Port," she says. "There are lots of windows and lots of people looking out of them. I think we all feel a bit of ownership of the Port because it is part of our everyday lives."

This idea has sparked a book project, capturing views through the eyes (and windows) of Lyttelton residents. Maree is releasing 20 disposable cameras into the community through her shop, Henry Trading. Each camera is boxed with simple instructions: record your street and the angle of your view, make sure to include the window frame. Take one photo,

then pass it on. 480 photos should come back and from these she will make a book to sell at her shop. A test camera took a year to come back.

Maree says the Port is a defining feature of living in Lyttelton. "It cracks me up when people moan about the noise. Why would you live here if you got annoyed by a truck reversing beep or a clanging?"

"The shape of this place means we sit like an amphitheater looking into the Port. With the hillside, there are all these layers of homes and it means that each view is completely different."

For three years Maree has also taken a daily snapshot of the Port.



Maree Henry is releasing disposable cameras to her customers to take photos of the Port.



Some of the photos that have been taken of the Port by Lyttelton locals using the camera Maree Henry provided.

MidlandPort going from strength to strength

Our purpose is simple: Lyttelton Port exists to facilitate trade in Canterbury and the South Island - and our new Inland Port at Rolleston, MidlandPort, is making a vital contribution.

MidlandPort provides rail connectivity to Lyttelton and its unmatched access to worldwide markets for South Island exporters.

The facility is going from strength to strength, with container numbers continuing to steadily grow. Two trains run daily on the route with Lyttelton, and a third daily train will start soon. Already the train service provides extra capacity which takes up to 700 truck trips off the road route each week.

We have recently attracted another major freight company to use MidlandPort - Canterbury's largest warehousing and logistics operator, Move Logistics. It is leasing a purpose built warehouse to be constructed

on land next to Midland Port.

The Company says the investment will streamline its services, reduce freight movements, and save money on costs such as container transportation.

MidlandPort is improving container freight efficiency, travel time and costs for customers. It receives stores and consolidates containers and provides a distribution point for container transfer between trucks and trains.

With Rolleston being a key transport hub for Canterbury, MidlandPort is well positioned to effectively cater for the growth in production from the Central Plains Water Irrigation scheme which will increase agricultural output by an estimated \$264 million per year.

Latest LPC Sponsorships

LPC is committed to engaging with, and supporting, the Harbour Basin, the other communities in which it operates and the wider Canterbury region.

As part of this focus, every six months we review the sponsorship applications we have received and confirm those we will fund. In the latest round, LPC has renewed its sponsorship for the Lyttelton

Rugby Club junior teams, the annual fireworks display in the Lyttelton community's mid winter Festival of Lights, the Quail Island Ecological Restoration Trust and the Lyttelton Netball junior teams.



LPC also provides sponsorships in Rolleston and Selwyn where MidlandPort operates.

LPC sponsors the Lyttelton Rugby Club junior teams including the under 6 Pippis pictured here in their blue, yellow and white uniforms.

LPC key facts

Lyttelton is the South Island's largest port and international trade gateway.

We provide services for the fishing industry, fertiliser, gypsum, cement, non-containerised cargo and imported vehicles



We manage more than half the South Island's container volume including 70% of imports



We have over **500** staff

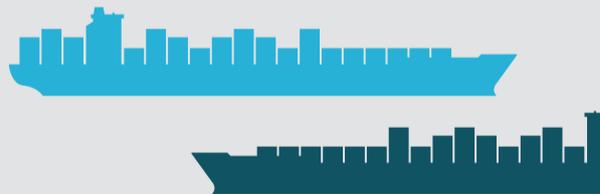
Resilient and committed **24/7**

We have two Inland Ports – MidlandPort (Rolleston) and CityDepot (Woolston)



We keep businesses running with supply of aviation fuel, diesel and other petroleum products

We service ships from 94 international ports and 39 countries and are connected to 14 container shipping lines and 9 shipping services



We are New Zealand's largest coal facility



We load and unload more than **400,000** TEUs of container cargo each year

We provide tugboats to manoeuvre vessels in and out of berths



We provide pilots to guide ships, staff to assist with berthing, casting off and security



We provide cargo handling and stevedoring services for refrigerated containers (reefers)



Free Port Tours

LPC runs free Port Tours by boat. The next tour you can book will be on Sunday 30 September. Following that there will be Port Tours on the last Sunday in October and in November.

The 90 minute tour departs from the Lyttelton Ferry Terminal at 1.30pm and includes the Inner Harbour, Te Ana Marina, Container Terminal operations and Te Awaparahi Bay reclamation.

If you'd like to take a free Port Tour please book by calling LPC reception on **(03) 328 8198**.

Pop into Port Talk

Our Information Centre 'Port Talk' on the corner of London and Oxford Streets in Lyttelton is open 11am to 1pm Fridays.

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