

DRAFT

NELSON MARINA MASTERPLAN

PLANNING FOR THE MARINA'S FUTURE 2022 – 2037+







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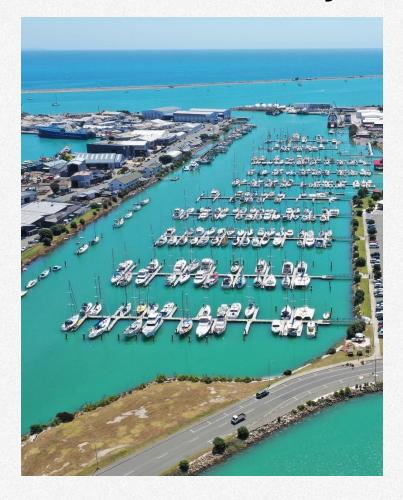
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WARDALE Marine industry consulting

Masterplan

Executive Summary



Masterplan Process

The first stage of the current marina master planning process was completed in 2021. This involved WARDALE reviewing previous planning work (refer to page 9) and preliminary consultation with the Marina Advisory Group and key user group representatives.

WARDALE then completed a supply and demand assessment for marine facilities in Nelson and other nearby regions. A brief summary of the findings of the supply and demand study are provided on pages 14 - 18.

The demand study informed the proposed development plans and options which WARDALE has included in this Masterplan document.

Masterplan Summary

The Masterplan includes:

- a new waterfront promenade for walking and cycling to welcome the community to the Marina and a revitalised pocket park;
- new café and food and beverage premises with views of the marina;

- reconfiguration of the public boat
 ramp area to address congestion and safer launching of powered vessels;
- possible location for a new Sea Sports
 Centre for clubs using non-powered
 vessels located at the northern end of
 Akersten Street;
- additional marina car parking;
- improved marina infrastructure;
- a dedicated fuel pier for the marina;
- a future-proofed and nationally competitive marina hardstand and new boat hoist to cater for the region's vessel maintenance needs;
- a new Marine Service Centre which will integrate with the expanded hardstand and support development of a marine industry cluster;
- reconfiguration of marina berths to meet excess demand for larger berths;
- plans for future marina extension to increase berth numbers to meet demand over a 40 year horizon; and
- long term plans for a dry stack for efficient storage of trailer vessels.













Masterplan Guide

Disclosure & Disclaimer

Disclaimer:

There are several projects within the Nelson Marina Masterplan that will require discussion, negotiation and agreement with Port Nelson Ltd if and when Nelson Marina decides to advance the project. Some projects will also require negotiation and agreement with tenants of the Port.

Masterplan Guide

- This Masterplan document uses aerial photography overlaid with 2D shapes to display master planning options and alternatives. All shapes are to scale and have been used to represent the options for the Marina.
- The aerial imagery used is the most recent highresolution imagery available for the Marina. The last page of this Masterplan shows the base image without any master planning concepts overlaid to represent the Marina as it is today.
- Where new concepts impact upon existing uses the underlying photo image is covered and overlaid but remains slightly transparent to indicate to the reader that there are existing features in these areas
- The Masterplan includes architectural visual renders of some of the proposed development outcomes from this master planning exercise. Architectural features and building materials used in these renders are those selected by WARDALE and may not represent those chosen by Nelson Marina should that project be advanced in the future. All renders are to the scale used in the accompanying layout plans.
- All images are copyrighted and should not be reproduced without the express permission of Nelson Marina or WARDALE Ltd.

WARDALE Ltd

WARDALE was first contracted by Nelson City Council in 2020 to complete a land-based development plan for Nelson Marina. The development plan scope of work was extended to include the water areas as Council recognised that master planning of the land could not be completed without considering the future uses and planning associated with the Marina's water space. This Masterplan is the accumulation of both pieces of master planning work.

This document references the demand study that WARDALE completed as an informative study to this master planning work. A presentation of the supply and demand study has been published by Nelson City Council and is available <a href="https://example.com/here.com/he

A summary of various components of the demand study are included in the first section of this Masterplan.

Disclosure:

WARDALE is involved with a number of waterfront projects where perceived or actual conflicts may exist. WARDALE manages conflicts associated with related projects by disclosure of any conflicts, but at all times maintaining confidentiality of any project specific components as required by the client.

In most instances, due to the involvement of local and central government agencies, project details are widely shared with the community and have wide public knowledge, resulting in very few details remaining confidential. In all instances WARDALE declares all potential conflicts and discusses these with its clients as and when required.







Introduction

Overview

Background

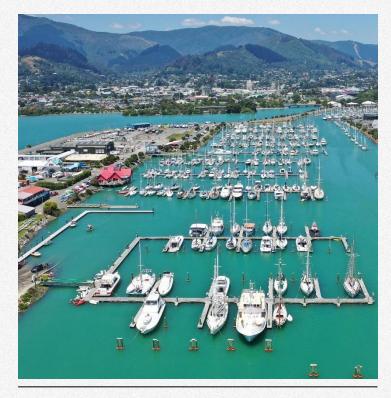
Marina Planning

Land Ownership

Project Location
Overview



Overview



Nelson Marina is the primary facility for sea-based recreation activities in the Nelson Region.

The Marina is one of the region's attractions which also include National Parks, beaches, arts, crafts, cafes, wine and outdoor activities.



Nelson Marina Overview

Nelson Marina is located within Nelson Haven and surrounded by the Akersten Street reclamation and Port Nelson. This provides sheltered berthage and vessel launching access to the popular recreational boating waters of Tasman Bay and the Marlborough Sounds. The Marina is centrally located and connects the nearby city to the sea, providing a popular destination for the public to walk and cycle along the water's edge.

Nelson Marina currently provides approximately 545 berths and 33 pile moorings for rental to long term tenants and visiting vessels along with supporting amenities. Living aboard a boat is permitted for restricted numbers.

The surrounding land area provides important marine infrastructure for the Nelson region including the major boat launching ramp and recreational vessel haul-out and hardstand. The precinct is also home to numerous yachting and sea sports clubs, boat storage facilities and other marine-related businesses such as boat sales.

Marina Ownership & Operation

Nelson City Council ("Council") owns the Marina and certain other land within the precinct (refer to page 11).

In July 2021 Council returned day to day management of the Marina to the Council. In January 2022 Council undertook a public consultation process on the future governance options to oversee management and investments in the Nelson Marina.

A Marina Advisory Group provides advice to Nelson Marina and Council.

Report Purpose

Council has engaged WARDALE Ltd to review previous planning work for the Marina and Akersten Street reclamation and prepare this integrated Masterplan document for the Marina covering both the on-land facilities and water space to coordinate the near term and future development of the precinct.





Background



Photo Credit: Nelson Regional Museum (Port 1960)

Background

In the early 1960s the original 38 berth "Old Boat Harbour" was constructed at the mouth of the Maitai River, from the Dixon Basin created in the area of reclaimed land. At this time the Maitai River flowed out what is now called the Dixon Channel where the Marina extension is located.

In the mid-1980s a 14 hectare reclamation extension was completed which diverted the Maitai River further east to allow the creation of the Akersten Street area. These works allowed for the expansion of the Marina, a three-lane boat ramp, and a combined club facility for the Iron Duke Sea Scouts, Talisman Sea Cadets, and the Nelson Rowing Club. This facility was opened in 1987, with the intention of encouraging locals to spend more leisure time on the water.

Recent Changes

Recent amenity improvements include the walkway under SH6 to the Rutherford Park as part of Council's City to Sea linkage, which has encouraged people to walk and cycle to the Marina. Ruby's coffee cart has proven to be a significant draw-card for locals and visitors, highlighting the potential scale of interest in the Marina as a general community recreation asset.

This Masterplan outlines a project to develop a Marina promenade connection to extend the City to Sea linkage from Rutherford Park and future developments in the Port Nelson owned precinct.





Previous Planning Work

There is a substantial body of previous planning work for the Marina and Akersten Street reclamation area dating back to the 1990s which has been reviewed by WARDALE, including the key documents listed here.

Council is currently updating its District Plan. The District Plan provisions relating to the Marina will be informed by the consultation being undertaken as part of this master planning process for the Marina.

Council Plans

- Asset Management Plan (2021 31)
- Sea Level Rise Inundation Forecast Maps (2021)
- Proposed Sea Sports Building (draft report, 2021)
- Hardstand Business Cases (2020)
- Maitai Walkway Route
- Nelson Future Access Project
- Tasman Boat Ramps Draft Business
 Case extract (Tasman Council, 2021)

Marina Advisory Group

- Brief for Marina-Focused Structure Plan for Nelson Marina (2020)
- Marina Concept Plan

Consultation

- Marina User Surveys (2021 and 2017)
- Council Long Term Plan Submissions (2021 and 2015)
- Maritime NZ On Water & Recreational Boating Surveys (2020)

Consultant Reports

- Hardstand Concept Design (Beca, 2020)
- Coastal Inundation Hazard report (Tonkin & Taylor, 2020)
- Asset Condition Assessments (RE Projects, 2019)
- Facilities in Tasman & Nelson for Biosecurity Risk Reduction (Lawless Edge, 2019)
- Nelson Marina Vessel Biofouling Management (Marine Biologic, 2018)
- Nelson Marina Strategy (SLR, 2017)
- Akersten Precinct Masterplan (Aurecon, 2010)
- Akersten Precinct: Strategic Framework (Aurecon, 2009)

Consenting

- Marina Consent (1997)
- Hardstand Consents





Zoning Provisions

OPEN SPACE RECREATION Scheduled Site (SEE Chapter 3 Assumed MHV/S and Landward ndary of the CMA (SEE Note 2)

Source: Nelson Resource Management Plan

Nelson City Council
Te Kaunihera o Whakatū

The zoning of the reclamation is mainly Port Industrial and is subject to the Port Effects Control overlay (to restrict reverse sensitivity issues). Within this area, the part shown in red is covered by the activities permitted under Schedule M (Marina Schedule) of the Nelson Resource Management Plan. The zoning provisions relating to the Akersten Street reclamation are summarised in the table below.

Council may review existing planning provisions for the Marina based upon this Masterplan document.

Activity	Schedule M	Industrial Land
Marine Industries	<u>Permitted:</u> Storage, building and repair of boats up to 30m in length	<u>Permitted</u>
Tourism	<u>Discretionary:</u> Other than for recreational purposes which are related to the Marina. Tourism activities are not permitted.	Permitted: if related directly to or supports Port Area / Coastal marine Area (CMA) e.g. aquarium, saltwater baths, maritime museum
Recreation (Built)	Permitted if related to the Marina e.g. clubrooms and Marina facilities	Permitted if related directly to or support for the Port Area / CMA
Recreation (Open Space)	<u>Discretionary</u>	Permitted if related directly to or support for the Port Area / CMA
Commercial / Retail	Permitted: Restaurants, food outlets and liquor license premises, and sale of boats and marine accessories.	Permitted if office or retail is ancillary to industrial activity. Retail limited to small scale (100m²), unless ancillary to industrial use. E.g. Fish market is ancillary to a fish processing business, but not as a standalone business.
Living	<u>Discretionary</u>	Permitted if ancillary to industrial activity <u>Discretionary:</u> Hotel / commercial accommodation

Source: Nelson Marina Strategy, 2017





Land Ownership

The main land owners within the Marina's Akersten Street reclamation are Council, Port Nelson and Talley's. There are other small private land holdings.



All buildings in the above image of the central Marina are privately held.

The plan below provides insight into the existing land ownership across the Akersten Street reclamation.









Land Ownership

The land area scope for this Masterplan has included Council-owned Marina land and some areas of Port Nelson land where future development opportunities could be discussed with the Port if they have master planning benefits for the Marina.

The area of reclamation shown in the photo below has not been considered for Marina uses as part of this Masterplan due to the 'subject to claim' status noted in the land ownership map on the previous page.









Water Space Based Projects

Project Location Overview

Marina Wide Services:

Electrical & Water Services Supply

Security, Health & Safety

page 20

Recycling, Stormwater, **Marina Water Quality**

Energy Efficiency & Sustainability

Western Basin Redevelopment

Marina Wide Berth Reconfigurations

Western Edge Berth Reconfigurations

Marina Wide Berth Reconfigurations

Reconfiguration

Boat Ramp Area

Fuel Pier Development **Nelson Marina Extension (Berths)**



Land Based Projects

Marina Café Development

Trailer Boat Storage

Upgrade

Marina Hardstand

Development

Promenade

Parking **Improvements**

Pocket Park Reestablishment **Sports Centre**





Marina Supply & Demand Study



There is excess demand for marina berths in Nelson and the wider region, which is expected to continue to grow over time



Vessels extending beyond the marina berth size.



Introduction

The WARDALE supply and demand study region covered Nelson and the nearby regions of Tasman, Marlborough and Wellington. The report was completed in March 2021. The key findings are briefly summarised in this section.

A copy of the full WARDALE Supply and Demand report is available upon request or online <u>here</u>.

Marina Berths

All marinas in the study region were effectively full, with marina berth waitlists at most facilities. The study concluded that planned development at other regional marinas is unlikely to be sufficient to meet demand over time.

The industry trend of larger vessel sizes and Nelson Marina's lack of berth availability is resulting in larger boats being squeezed into smaller berths. It is also forcing some local vessels to fill other marinas e.g. Havelock.

Nelson's excess marina berth demand was most prominent in the 12 – 14m vessel size range. Pile moorings were not favoured, with consistent vacancy. The majority of berths were being rented by Nelson and Tasman locals.

Nelson Marina berth pricing was relatively attractive. Only inferior standard marinas at Evans Bay and Motueka were cheaper.

WARDALE assessed existing demand for berths at Nelson Marina exceeded existing supply by about 28.

NZMARINE estimates yacht and launch numbers will grow at ~0.8% p.a., supported by population growth. This implies excess demand for Nelson Marina berths could increase to in the order of 185 by 2050.

Nelson has 40 liveaboards, which is relatively high versus other marinas. Liveaboards assist with security, however they can increase car parking demands and impact water quality if pump out rules are not adhered to.







Nelson Marina hardstand and haulout for boat maintenance.



Overflow boat trailer parking on Akersten Street.



Hardstand and Haul-out

Nelson Marina's hardstand yard pricing is above market, resulting in customers travelling to other facilities.

The Marina lost its Port of First Arrival ("PoFA") status in 2018 due to the hardstand not meeting biosecurity standards. Overall, vessels in the Marina have relatively high levels of fouling.

The consent granted for the Marina development required 80 bays of hardstand area. This was later varied to require 3,500m2 of hardstand area (which equates to ~14 bays).

There is regional undersupply of hardstand bays with Nelson/Tasman region short of ~30 bays. Nelson & Motueka are the main alternatives for adding capacity, but Motueka's plans are uncertain.

Marine service providers have indicated demand for sheds at Nelson Marina to provide shelter from weather and wind.

Nelson Marina's boat hoist is reportedly one of the oldest in NZ and is scheduled for replacement.

Boat Ramp

The Nelson/Tasman region only has three major sheltered all tide boat ramps. The study noted the lack of viable alternative locations for major new boat ramps in the region. The trend towards older, less experienced boat owners is likely to increase demand for convenient safe boat ramp access.

Nelson Marina provides the main boat launching ramp for Nelson. The boat ramp's shared location with rowing and sea sports users and Piers A and B in the centre of the Marina creates congestion and parking issues. Trailer parking overflows onto Akersten Street during peaks and lack of car parking compliance and enforcement exacerbates congestion.

Conflicting vessel types (powered vs non-powered) sharing the public boat ramp and marina fairway access causes congestion and safety issues.

Nelson Marina's boat ramp fee of \$5 is below regional peers.







Nelson Marina trailer boat storage yard



Nelson Marina existing piers layout



Car Parking

The 1997 Nelson Marina resource consent contained a ratio of car parks to marina berths of 0.75. The Marinas Standard Guideline AS 3962, recommends a total of 0.7 car parks per marina berth.

At the time of the demand study the ratio at Nelson Marina was calculated to be 0.63 car parks per berth (including some adjacent road parks). This implied a shortfall of 71 car parks.

The study noted the lack of dedicated marina car parking resulting in berth holders having to compete with nearby business and public uses.

Shortfalls in available car parking were more evident in certain parts of the Marina, for example:

- Piers L to P with 209 berths and only 66 shared car parks (ratio 0.32);
- Boat ramp car parking insufficient at peak times (impacts Piers A and B);
- Parking for Piers C, D & E insufficient at peak times (ratio 0.45).

Improved enforcement is required to support supply initiatives.

Trailer Boat Storage

The region's marinas provide trailer boat storage for over 900 boats on a commercial basis. Boat storage sheds are experiencing good demand across the region, with facilities at capacity.

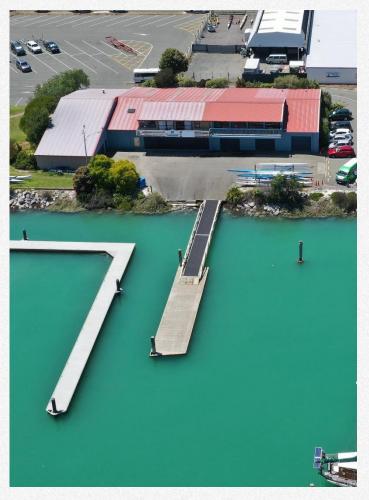
Nelson Marina's trailer boat storage compound has 60 spaces. Occupancy consistently exceeds 90% and there was a small but growing waitlist of 14. Most boats in the Nelson Marina compound are 6m to 9m.

The study confirmed an expectation of strong growth in demand for land-based storage space for trailer boats given urban intensification and population growth.

Nelson Marina's pricing for its trailer boat storage yard is below regional marinas and does not vary by size.







Sea Sports

The Sea Sports Alliance Group has 9 member clubs with about 470 active users of the Nelson Marina facilities. The study noted the strong growth in participant numbers in the order of 60% growth over 5 years. Clubs generally do not have capacity to meet the needs of their growing membership.

Clubs indicated demand for storage of 200 vessels, peak use of 50 car parks and 20 bike parks.

The Sea Sports Alliance Group has been working with Council regarding options for a new joint Sea Sports Centre.

Fuel Berth

The majority of berth holders carry fuel cans to manually fill vessels which raises safety and environmental concerns. Some users refuel at Talley's berth or the Port Nelson NPD berth. The potential to improve fuel berth capacity at the NPD berth was identified and Port Nelson is open to discuss options.

Storage

The study forecast the potential for racking vessels and a dry stack building in the future, once boat trailer storage on-grade is no longer feasible. It also identified that there is good demand for storage sheds at other regional facilities. Additional dinghy storage is also required at Nelson Marina.

Private Development

Some private developers proposed to purchase Council land on the reclamation for commercial development including residential apartments and a marine industry facility. A concept plan for a major extension of the Marina at the northern end was also proposed for private development.

WARDALE advised that Council ownership of land within the Akersten Street reclamation should be retained long-term as a strategic asset for the city.









Marina Services & Environmental

Security, Health and Safety

Waste & Environmental

Sustanability

Sea Level Rise

Fuel Pier Development



Health & Safety, Security, Electrical



Health and Safety – one project underway and expected to be completed later in 2022 is the installation of non-slip material on all marina pier timber walkways. Previous slip events and user feedback has concluded that the application of a fibre reinforced non-slip sheeting to the piers is the best solution.

Future procurement of new pontoons for the Marina will be considerate of the need to minimise slips. This Masterplan includes a number of priority projects. Some are expected to commence in the current 2022 financial year and most others will commence after business case approval and inclusion in future annual plan funding rounds.

Some projects like the proposed security gate upgrade project will result in security gates being incorporated into various separate projects, with the entire roll-out being competed over multiple years.





Security – improvements to the security of boats at the Marina in the near term will include the installation of additional CCTV cameras.

A gradual roll out of security gates controlling access to the floating marina piers is proposed as part of various projects within this Masterplan, with individual gates providing access to one or two adjoining piers. There is an option for gates to be open during the day to allow public access. Examples of security gates are included in the Promenade visual renders on pages 34 and 35.

Electrical & Water Services Supply -

this Masterplan includes recognition of the need to upgrade electrical supplies to vessels, particularly as the size of the vessels increases along with the associated increases in electricity demand. The upgrade of marina services pedestals like those pictured above will include LED pier lighting, potable water and electricity supply. Electricity and water will be smart metered and oncharged on a user pays basis.







Waste & Environmental



Waste and Recycling – all waste from users at the Marina should be disposed of in a professional manner. This includes traditional landfill waste as well as recycling services. The potential to also recycle green waste, oil and batteries will be investigated.

Future recycling enclosures will be strategically located around the Marina, behind appropriate compounds away from the water's edge. The above image shows the first repurposing of screening from the airport to enclose waste compounds at the Marina.

This Masterplan recommends a strategic target for the Marina to become a Clean Marina under the New Zealand Marina Operators Association environmental framework. To be awarded such recognition the Marina will need to focus on its environmental plan with a focus on changes and controls delivered over a number of years.





Stormwater – this Masterplan recommends that all land-based projects within the plan include a requirement for stormwater reuse and processing. Where there is excess water, then the water only enters the Marina basin after water processing which may include passive water treatment methods such as the use of rain gardens or inground specialist filtering of water.

For high-risk areas, stormwater should be regularly tested and active treatment solutions should be installed as areas of the Marina are developed.



Marina Water Quality – water quality can be enhanced with the management and control of waste being disposed of in the Marina. This plan includes the inclusion of a sewerage pump-out system in as many new berths as possible, with priority for such systems to be retrofitted to marina piers where concentrations of live aboard customers are berthed. The Keco system shown above is one of many specialist systems available to remove sewerage waste from vessels.







Parking Facilities & Energy Efficiency

This Masterplan recognises the importance of future-proofing the Marina to provide for the transition to more sustainable energy sources and alternative transport modes.



Electric Vehicles – charging stations for electric vehicles will be added within parking areas in the Marina to support the transition to electric vehicles and reduced greenhouse gas emissions.



Alternative Transport Modes – bike racks will be added within parking areas and an improved cycleway and promenade through the Marina will encourage walking and cycling and reduced greenhouse gas emissions.

Opportunities exist for placement of hire cycles, or hourly hire of electric vehicles.



Energy Efficiency – solar panels will be added to buildings to generate renewable energy and reduce greenhouse gas emissions.

Lighting at the Marina that is not already energy efficient will be upgraded to LED to reduce consumption.







Sustainability Policy



The individual business cases for the projects in this Masterplan will contain sustainability initiatives and set clearly defined sustainable development targets.

This Masterplan recognises Council's objective to demonstrate leadership in sustainability across the region to deliver an improved quality of life for the current and future residents of Nelson.

The projects in this Masterplan will adhere to Council's <u>Sustainability Policy</u>. Key principles relevant to Nelson Marina include:

- Optimising the efficient use of resources and minimising waste generation;
- Implementing sustainable procurement procedures taking account of whole of life costs;
- Minimising adverse impacts on the environment or the local community;
- Increasing the use of renewable resources;
- Reducing greenhouse gas emissions; and
- Taking positive actions promoting continual improvement in sustainability performance.

Building resilience is also a key consideration relevant to the Marina.







Sustainability Initiatives

Sustainability initiatives within this Masterplan include:

- Upgrading pedestals to enable smart metering of electricity and water usage to incentivise reduced consumption (page 20);
- Providing sewage pumpout to berths to improve water quality (page 21);
- The goal for Nelson Marina to become a Clean Marina under the New Zealand Marina Operators Association environmental framework (page 21);
- Sustainable reuse of screens from the airport for recycling enclosures (page 21);
- Investigating the potential to also recycle green waste, oil and batteries (page 21);
- Design and materials choice including selecting low emissions building materials;
- Land based projects incorporating upgraded stormwater treatment including rain gardens or inground specialist filtering (page 21);
- Measuring the carbon footprint of the Marina so that initiatives to reduce emissions can be tracked:

- Providing electric vehicle charging stations and bike racks within parking areas to support more sustainable transport modes and reduced emissions (page 22);
- Adding solar panels to building roofs to generate renewable energy (page 22);
- Preparing for sea level rise and inundation risk by increasing building floor heights (page 25);
- Building a dedicated fuel pier for the Marina to address the current practice of using cannisters to fuel vessels and the associated spill risk. The potential to supply biofuel at the fuel pier will be investigated (pages 26 - 27);
- Improved promenade and cycleway to encourage walking and cycling to reduce greenhouse gas emissions (pages 32 - 35);
- Integrating the Marine Centre with an expanded hardstand to promote a marine cluster for local vessel servicing, thereby reducing travel requirements (pages 40-45);
- Hardstand water collection and treatment infrastructure upgrade to enhance water quality and biosecurity standards in the Marina (pages 43 - 45);
- Investigating the potential reuse of Piers N and O from the Western Basin Redevelopment as part of the Western Edge Reconfiguration project (page 57);
- Decommissioning the inspection grid to prevent non-compliant vessel works polluting the marine environment and encourage use of the hardstand (page 60);
- Dredging to remove historic contaminants from the seabed (pages 53, 60); and
- Optimising existing water space through pier reconfiguration projects to align with current demand prior to any expansion of the Marina (pages 52 67).





WARDALE marine industry consulting

Marina Development Sea Level Rise & Inundation



Present Day – investigations by Council across the City confirm that only small pockets of Nelson city are prone to coastal inundation in 2022.

The image above confirms that only some specialist features at the neighbouring port are prone to Sea Level Rise in 2022. Currently the Marina reclamation land area is of a sufficient height to not be prone to coastal inundation.

This Masterplan recognises the studies completed by Council to understand the current and future effects of Sea Level Rise and the resulting coastal inundation on the Akersten Street reclamation and the land areas of the Marina.

Each project within this Masterplan will be required to consider these inundation studies for each Masterplan project as Council is currently applying the <u>Inundation Practice Note (IPN)</u> in relation to new developments. Such mitigation will include delivering new projects with finished ground and floor levels at least 500mm above the existing levels. Floating marina berths mitigate risk within the water space.



An increase of 0.5 metres – modelling indicates that a half metre rise in sea level will impact a number of areas of the Marina.

The image above shows the extent of the land areas inundated which impacts all berth holder car parking areas and Akersten Street along the eastern seawall of the reclamation and the road linkage to the city.



An increase of 1.0 metre – the image above shows that a 1.0 metre increase in sea level will result in almost all areas within the Marina reclamation land area being inundated. Most of Port Nelson and many other areas of the city would also be inundated under this scenario.







Fuel Pier Development

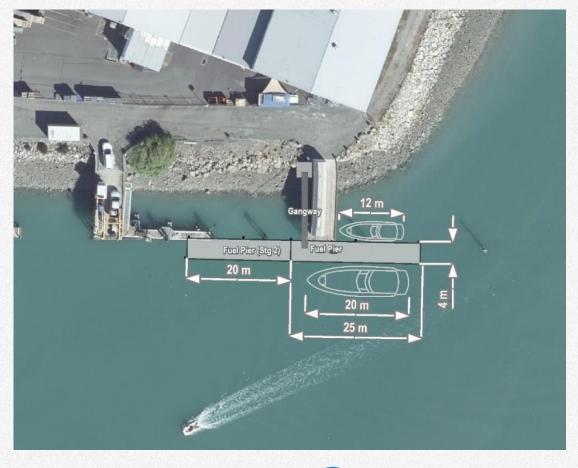


Multiple sites were considered for a fuel pier at the Marina, with this location on the western edge being preferred.

Disclaimer:

This is one of several projects within this Masterplan that would require discussion, negotiation and agreement with Port Nelson if and when Nelson Marina decided to advance the project.

Demand exists for a dedicated floating pontoon fuel pier to service marina vessels. The concept below suggests adding a pontoon to the existing fuel storage facility on the western side of the Marina on Port Nelson land. This would allow marina-based vessels the opportunity to take on fuel at a purpose-built facility removing the need and risks associated with customers refilling their vessels via cannisters. The potential to supply biofuel to vessels will be investigated.









Marina Services Fuel Pier Render

A visual render of the inclusion of a floating pontoon at the NPD facility with capacity for two large vessels utilising the inside and outside of a new pontoon.

Note – this visual render includes a second stage pontoon added to the south of the first (with a small boat moored). This stage 2 extension is also shown on the plan drawing on the previous page. Alternatively, the pontoon could be extended at the other end following the angle of the neighbouring Port Nelson revetment wall.











Land Area Masterplan Components

Sea Sports Centre Marine Centre

Public Promenade Marina Hardstand

<u>Pocket Park</u> <u>Boat Hoist Upgrade</u>

Marina Café Trailer Boat Storage

Parking Improvements Future Dry Stack



Nelson Sea Sports Centre

This Masterplan proposes that the existing sea sports facility adjacent the boat ramp be re-established as a new dedicated Sea Sports Centre on a larger site in a new location. This provides the needed capacity for rapid growth in sea sports users. It also removes the conflicts with other uses in the busy boat ramp area and unlocks the **Boat Ramp Area Reconfiguration** opportunity. A location analysis has identified the northern end of the reclamation in the buildings shown below as the preferred location.



Disclaimer:

This is one of several projects within this Masterplan that requires discussion, negotiation and agreement with Port Nelson if and when Nelson Marina and the Council decide to advance the project in this location and will be subject to further community consultation.

Sea Sports Centre – A concept layout for a possible new Sea Sports Centre is shown below.









Nelson Sea Sports Components



Storage and Club Rooms – the concept layout includes utilisation of the existing large sheds to be repurposed as vessel storage areas. The existing sheds can be partitioned to provide more than sufficient space for current and future storage needs.

It is recommended that the office annex is demolished and replaced with a purpose built two storey club room, which could include all required communal and private spaces. Rigging yard space will surround the buildings.

The concepts described below are provided as a guide as to what could be achieved on the suggested site. Such a development would require discussion and agreement with Port Nelson in addition to a separate community consultation and approval process.



Launching Ramp and Floating Pontoons – the location enables a dedicated concrete launching ramp to be constructed alongside a variety of floating pontoons which will provide access to the boats after launch.

Floating pontoons will be required to have different freeboard to complement the type of boats using the facility for boarding and disembarking.

Sufficient area exists for multiple disciplines to be on site at the same time.



Sea Sports Parking, Promenade and Public Access – the concept plan provides dedicated parking behind the buildings in the neighbouring portion of the land block freeing up the front of the site for boat rigging.

It is proposed that the promenade is routed around the Sea Sports Centre to remove any conflicts whilst the facility is in use.







Nelson Sea Sports Concept Render

Nelson Sea Sports Centre – The render below shows how the possible new Sea Sports Centre could look as viewed from the east.









Public Promenade Improving Access



Southern Zone – this phase of the promenade would see an upgrade of the existing pathway along the side of Akersten Street and would link directly with the city and the port industrial zone to the west.

A key opportunity for Nelson is to open up the Marina by connecting the Marina to the City's existing quality walking and cycling network.

The plans below show the three main zones a public promenade (shown with a 5 metre wide to scale blue line) could take through the Marina.



Central Zone – an existing footpath connects through to Akersten Street in this zone but is less than ideal due to its narrow width and overhanging vehicles.

Land space exists in this area to accommodate a 4-5 metre wide land-based promenade between the existing marina car parks and the neighboring marina berths access gangways.

A concept render of a high-quality promenade with marina pier access is shown on pages 34 and 35.



within the northern zone provides the opportunity for a public promenade to pass the Marina office and then reach out and be constructed over the water between Pier E and continue to the public boat ramp finishing at the pocket park beside the boat ramp. The promenade would provide a quality viewing platform experience in this zone, particularly of the action at the boat ramp.







Public Promenade Improving Access

The key cycling and walking route can be extended down Akersten Street to the end of the reclamation, with improvements programmed to align with the proposed projects in this location including the Sea Sports Centre and any future Marina extension.



Eastern Linkage – the plan proposes that an improved walking and cycling link could be provided from the Marina boat ramp across to the eastern sea wall of the Akersten Street reclamation as shown above.

This connection would then allow users the opportunity to either return to the city or continue to the most northern end of the Akersten Street reclamation.



Northern Link – an existing footpath connects through to Akersten Street in this zone however the roadway is narrowest at this point so improvements may be constrained by available land space.

The proposed route for the northern path would route around the rear of the proposed Sea Sports Centre to ensure reduction of conflicts during events.



Northern Zone – Council owns a strip of land along the northern face of the reclamation adjacent Port Nelson properties. The land area is sufficient to accommodate an upgraded and improved public promenade extension.

A Marina extension to the north would integrate with an upgraded promenade.







Public Promenade Central Zone

The render below has been developed in association with urban design experts, Landlab Ltd, which provides an indication of how a wide public promenade would be integrated with new and modern security gate houses providing access to the Marina piers.

This image provides a concept for Piers G, H, I or J and includes the additional parking bay between the berth holder parking and the proposed Marine Centre or the hardstand.









Public Promenade Northern Zone

A promenade design of this nature results in the proposed marina pier gates moving off the land and onto the promenade.

In these examples the marina pier gangways would

The render below has been developed in association with Landlab Ltd showing a wide public promenade cantilevered out over the rock revetment wall that runs between Pier E and the public boat ramp.







Pocket Park Re-establishment

Currently the grass area by the boat ramp is the only available place for clubs such as waka ama and canoe clubs to store their craft, so their relocation will result in the opportunity for the park to be revitalised with improved amenity for public enjoyment.



The proposed relocation and development of a new dedicated Sea Sports facility at the northern end of the Akersten Street reclamation provides the opportunity for all modes of recreational users to store equipment and have a home base for their sport. It also enables the return and reestablishment of the open public green space at the Marina as a pocket park adjacent to the boat ramp.

The promenade proposed in this Masterplan would terminate at the pocket park, with viewing available out over the boat ramp area. The existing sea sports building in this location is proposed to be redeveloped into a food and beverage premises with public and private ablutions facility included. These proposed changes are shown in the indicative render below.









Marina Café Development

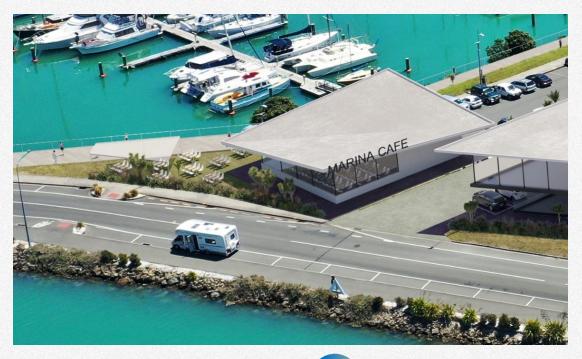
Parameter Annual Parame

The success of Ruby's, a pop-up coffee cart at the Marina (shown above), has reaffirmed users and the public's appetite for a café at the Marina.

This Masterplan proposes a standalone café development opportunity on the current site of the pop-up coffee cart. The site has unobstructed views out across the Marina and has existing walkway and future promenade access immediately out front.

The location would remove berth holder parking, which along with the car park entry, is proposed to be relocated behind the café development. The café would be conveniently located on Akersten Street allowing boat ramp users to stop on the way out or after their return with ample on street parking available.

As shown in the visual render below the café would be easily accessible from the neighbouring Marine Centre development, the Hardstand and close enough for people to walk from the main Port Nelson precinct.









Parking Improvements



Western Basin – the WARDALE supply and demand study confirmed that the Western Basin currently has insufficient parking for the existing number of marina berths. This Masterplan proposes to redevelop berths in this area which reduces berth numbers and improves the car parking ratio. The parking within the area is proposed to be reconfigured to increase spaces. Improved car parking management will remove non-marina users from marina parking areas which should already be marina berth holder exclusive areas.

One of the key services for any marina is sufficient parking for all types of users. This Masterplan has recognised this, with new parking areas being provided as new activities are introduced to the precinct. The plan includes relocating parking to areas away from future high quality public areas such as the promenade and food and beverage offerings.



Central Marina Area - this

Masterplan recognises that insufficient parking exists at the Marina currently, so the plan looks to correct the historic conflicts in the use of parking by making provision for additional new parking areas to reduce congestion in the central Marina and also seeks to add capacity adjacent to all new proposed activities in this area.

The development of a café adjacent to Pier J will require the relocation of the main car parking entry and some berth holder parks.



Northern Marina Area – the demand study showed that parking availability in the north of the Marina was insufficient. This Masterplan provides new berth holder parking adjacent the marina office and also dedicated parking for hardstand users as the hardstand expands in the future.





Parking Improvements



Public Boat Ramp Parking – on busy days the parking at the boat ramp is at capacity, both for cars and empty trailers and guests in cars. This results in overflow parking of boat trailers and vehicles on both sides of Akersten Street.

The proposed relocation of the Sea Sports Centre will reduce the demand on both trailer parks and single car parks at the boat ramp which will reduce congestion. The WARDALE demand assessment reviewed car parking counts across all parking areas of the Marina and found almost all areas were non-compliant with the consent conditions for the marina berth to parking ratio. This Masterplan has considered each current and future use and recommends securing and allocating sufficient areas for berth holder and public parking.



Boat Ramp Area – this Masterplan recommends a number of initiatives to improve the car parking experience around the immediate boat ramp area including relocation of the gangway for Piers A and B away from the public ramp.

Improved car parking management is also required in these areas to control marina parking used by neighbouring tenancies. Single cars are also incorrectly parked in designated car with trailer parks.



Northern Zone – Council strategically acquired 225 Akersten Street to add the property to the Marina.

The site is proposed to be utilised to provide parking for berth holders on Piers A, B and C and to also provide for staff and customer parking associated with the proposed redevelopment of the existing sea sports building into a food and beverage offering.







Marine Centre Development

The undeveloped southern end of the Akersten Street reclamation (as shown below) is suitable for a Marine Centre, providing retail, office and workshop space for the marine industry, surrounded by marina and watersport users. The co-location of the Marina Centre and planned expansion of the hardstand will support the establishment of a marine cluster.



Development Plan:

The concept layout for the Marine Centre recognises the existing privately held property on the perimeter of the development, which could potentially be redeveloped in the future.

The land-based development plan identified that the Marina does not currently provide boat owners with a range of marine services that those users would expect from a modern marina. Whilst marine services and marine contractors are available in Nelson City a dedicated marine service precinct has not been developed. Nelson Marina is well positioned to develop such a marine centre to ensure that these business are retained in the central city and close to the city's marine activities.









Marine Centre Components



Similar developments in other marinas provide tenancies for marine businesses to provide convenience for marine users, but to also support these businesses in being able to secure a marine tenancy, particularly when demand for waterfront tenancies comes from non-marine users.

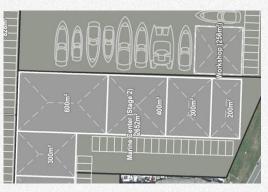
Subject to its design and use, a marine centre of this type on the Nelson Marina reclamation has a permitted activity status.

The development of the new Marine Centre would be split into at least two stages unless there was significant interest and demand for a single staged development. Stage 1 tenants are expected to be marine businesses which do not require the workshop spaces provided in the second stage which back on to the future hardstand development.



Stage 1 – this Masterplan recommends a two-level development, with retail frontage facing the Marina and offices or mezzanine areas located above. Offices above may be connected to the tenancy below or be separate.

A dedicated driveway around the rear of the building will provide staff and drop in customer parking. It is likely that the development would be one structure with internal tenancy partitions. The floorplate sizes shown are indicative only.



Stage 2 – the second stage of the development would provide additional space to stage 1 which would be designed to provide a front of house plus rear workshop access to both the trailer parking area, and then in the future the second stage development of the expanded hardstand.

This positioning would result in vessels being able to be delivered directly to the businesses from the trailer parking area or the hardstand via the mobile boat hoist machine.







Marina Centre Render

The render showing the Marine Centre concept includes both stage 1 and stage 2, with stage 2 including workshop spaces opening out onto the expanded hardstand to the north.









Marina Hardstand Development

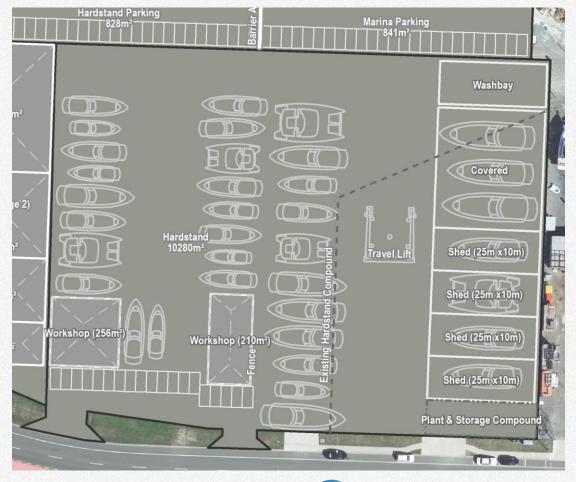
The undeveloped reclamation area to the south of the existing hardstand (as shown below) provides the opportunity for the hardstand to expand incrementally as demand requires.



Development Plan:

This Masterplan provisions that the undeveloped area between the proposed Marine Centre and the Hardstand remain as trailer boat storage until demand exists for the development of a stacking solution for trailer boats and a parking area for trailer sailers.

This Masterplan proposes that the hardstand continues to expand and improve the vessel maintenance offering available at the Marina. The demand study identified that Nelson Marina had insufficient yard space for current marina users who were known to travel out of the city for repairs and maintenance due to capacity and cost constraints.



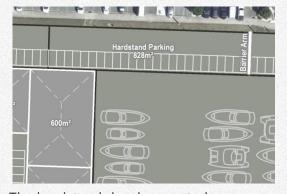






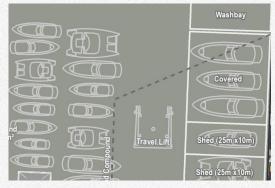
Marina Hardstand Components

The hardstand development plan seeks to expand the hardstand area but also provide new services and facilities, including covered working areas, and tenancies backing onto the hardstand to provide users the convenience of access to professional service providers adjacent the hardstand.



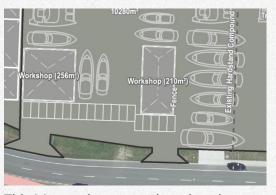
The hardstand development plan includes provision for dedicated hardstand parking for customers, contractors and guests.

Dedicated parking outside the hardstand is becoming required in the industry due to health and safety requirements where parking adjacent the boat under repair is not possible due to space constraints for all service providers, and in circumstances where the mobile boat hoist is operating frequently and at capacity.



The concept plan includes provision for covered work areas to be developed down the northern boundary of the hardstand area. These may be 'open' ended covered structures or fully enclosed sheds allowing all weather maintenance. Some could be shared spaces or private single vessel sheds.

These premium covered spaces will complement the additional open yard space created to the south.



This Masterplan recognises that the hardstand development can be flexible in its expansion orientation which can include the development of private tenancies along the eastern road frontage.

These tenancies would have dedicated parking, office and provide access through the tenancy direct to the hardstand.







Marina Hardstand Render

The render below shows the hardstand development concept with covered spaces and sheds along the northern boundary and workshop sheds bordering Akersten Street. There is an option for some additional tenancies to be established with access onto Akersten Street.









Boat Hoist Upgrade Improved Capacity



Shown above is a 75 tonne mobile boat hoist which is approximately the capacity of new machine that is proposed for the Marina.

Disclosure:

WARDALE Ltd is advising Port Nelson on its plans for the redevelopment of the Nelson Slipway. Both Nelson Marina and Port Nelson expect the redevelopment of both hardstand facilities to complement each other.

Boat Hoist Upgrade – the current boat hoist shown below (often known as a Travel Lift™) is currently unable to lift vessels over 44 tonnes which means a number of Nelson Marina vessels are leaving Nelson City to undertake maintenance and repairs. The current machine has a beam capacity of 6.5 metres.

A replacement machine is proposed with a customised width capability able to accommodate wider catamaran vessels up to approximately 9 metres.









Boat Hoist Upgrade Components



Boat Hoist Runways – the proposed new larger boat hoist will require upgraded concrete platforms (runways) that the machine operates from when lifting boats from the water.

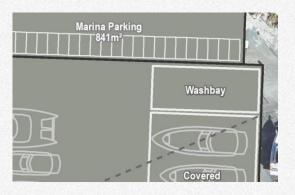
Engineers will confirm whether the southern side runway can be retained for a new larger machine, however the northern runway would need replacement to provide the added width for the wider machine. The works will require the reorientation of at least four marina berths on Pier E, some of which could become work berths.

Larger Boat Hoist – this Masterplan includes the reorganisation of the infrastructure within the water space associated with the hardstand, particularly to accommodate longer, heavier and wider vessels.



Crane Lifting Platform – due to the limited land area within this area of the Marina this Masterplan includes a crane lifting platform where water edge lifting can be undertaken in association with the hardstand.

The lifting platform and the new boat hoist runway will need to carefully integrated into the second stage of the public promenade through this area of the Marina, which will include additional moveable safety barriers to be used when the work areas are in use.



Wash Bay – this Masterplan incorporates a new purpose-built wash bay for the new wider and larger capacity boat hoist.

The wash bay will be connected to the existing wastewater treatment plant with upgrades expected to the plant to allow for the additional water.

The potential to reuse the wash water after running through a recycling system will be evaluated as part of the upgrade.







Trailer Boat StorageRacking



Trailer boat storage was moved from the boat ramp (previous yard as shown above) to create additional public car and empty trailer parking for the boat ramp.

The WARDALE supply and demand study forecast increasing demand for trailer boat storage, so this Masterplan is flexible and able to accommodate a variety of options for small boat storage at the Marina.

Trailer Boat Storage – this Masterplan continues to provision trailer boat storage on-site at the Marina. The image below shows the current yard which requires investment to seal and correctly and efficiently mark out suitably sized spaces. This Masterplan recommends that any investment in the upgrade of the trailer park be made in a location that provides for the short to medium term expansion of the hardstand and any confirmed plans for the proposed Marine Centre.

This Masterplan anticipates the possibility that in 10-15 years, competing demands for the current trailer boat land will result in the need to consider efficiently racking some vessels. This would require the Marina to consider acquiring or leasing neighboring land, such as the site to the north of the public boat ramp. The new site could be initially used at grade, before vessels are racked, and then when demand is confirmed a fully covered dry stack building could house all powered trailer boats. Rigged trailer sailers would be stored on trailers at grade close to the boat ramp.



Current Nelson Marina trailer boat vard





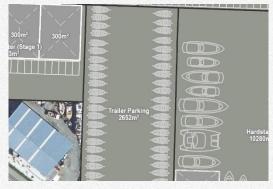
Trailer Boat Storage Components

This Masterplan seeks to expand the hardstand area but also provide new services and facilities, including covered working areas and tenancies backing onto the hardstand to provide users the convenience of access to professional service providers adjacent the hardstand.



Any decision to offer additional trailer boat storage on the site is likely to include the efficiency of a racked storage solution, initially on the ground and then when demand allows two or three high. Such a solution requires a location that allows the launching of vessels from a specialist forklift.

This could be accommodated on the land at the head of the boat ramp, but would require other projects included in this Masterplan to be completed.



This Masterplan includes the provision for trailer boat storage in the centre of the reclamation area. The short to medium term layout will be dependent upon the Marine Centre and Hardstand expansion projects.

As a minimum, the storage yard requires sealing and appropriate line marking. The investment will be linked to a business case forecasting corresponding changes to user fees.



The masterplanning process found that the preferred location for a Nelson Dry Stack building would be on the neighbouring Port Nelson land adjacent the public boat ramp.

Development of a Dry Stack in this location would require removal of Marina berths on the north side of Pier Δ







Future Dry Stack Concept Render

Nelson Marina Dry Stack – the render below shows the potential for the development of a dry stack building on a neighbouring Port Nelson site adjacent to the Marina's northern land boundary.



Disclaimer:

This is one of several projects within this Masterplan that would require discussion, negotiation and agreement with Port Nelson (and in this instance one of their tenants) if, and when Nelson Marina decided to advance the development opportunity.









Water Area Masterplan Components

Western Basin

Western Edge

Marina Wide Reconfiguration

Boat Ramp Area Reconfiguration

Marina Extension



Western Basin

Redevelopment

The WARDALE demand study reaffirmed that the Nelson Marina and most other marinas in the region were effectively full, with marina berth waitlists. The study confirmed that planned development at other regional marinas is unlikely to be sufficient to meet regional demand over time.

The industry trend of larger vessels with a corresponding reduction in demand for smaller berths triggers the first phase of the master planning process specifically where reconfiguration of existing marina berths in the Nelson Marina can be completed to better align with demand.

This Masterplan anticipates relocation of vessels affected by the redevelopment to other berths in the Marina. The concept for the Western Basin Redevelopment project seeks to replace 8m and 9m berths on Piers O and P and the south of Pier N with larger 12m berths and to also remove the neighbouring underutilised pile moorings.









Western Basin

Components



12m Berths – the provisional layout indicates that a partial redevelopment of the Western Basin efficiently using all available water space can accommodate piers of 12m berths, all of which would have full services and full-length fingers.

The current lower utilisation of the existing smaller berths is likely to support a business case to deliver this project.



Existing Berth Removal – the removal of pile moorings along the eastern side of the basin is recommended to provide for extension of the piers to provide better waterspace utilisation. The removal of these moorings also recognises the lower occupancy of the pile moorings due to their smaller size and the industry trend of this berthing type falling out of favour with boat owners.



Dredging and Berth Access – the concept plan seeks to optimise utilisation of all the water space within the basin so recommends the dredging of the basin to allow pontoons adjacent the perimeter sea walls.

Greater utilisation of the basin will trigger the opportunity to configure gate and gangway access to Piers O and P by joining access, which delivers efficiencies for the Security Gate House and CCTV upgrade projects within this Masterplan.







Western Edge Berth Reconfiguration Marina Layout

Any reconfiguration of existing berths within the Marina will have a consequential effect of necessitating the migration of existing marina users to either the redeveloped berths, or alternatively to other berths in the Marina.





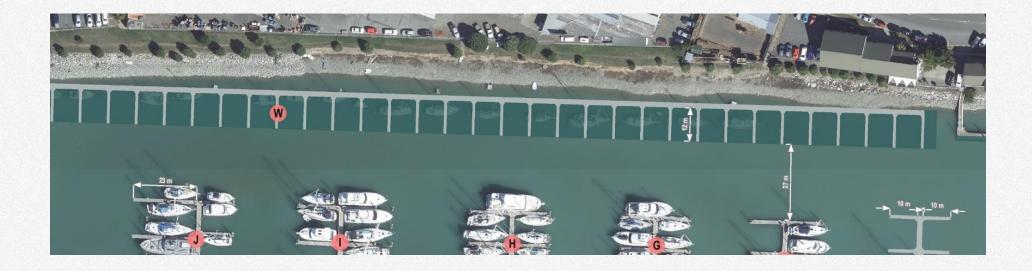




Western Edge Berth Reconfiguration Marina Layout

The Western Edge Berth Reconfiguration project proposes to replace the underutilised pile moorings with marina berths.

The concept plan below shows the preferred option of new 12m berths along the western edge.









Western Edge

Components



Berth Sizing – the concept for the area is to provide walk on berths which have higher customer demand, by removing the existing line of pile moorings from this water space.

The new berths would have either full-length fingers or no fingers.



Car Parking – the north-western side of the Marina has a higher existing ratio of carparks to berths (ratio 2.0 : 1) than other areas in the Marina.

Redevelopment of the western edge with additional berths will better utilise this car parking resource.



Security Access & Services – multiple options exist for gangway access to the new western edge pontoons including upgrading the neighbouring gate house at K pier and linking this gate house to the new pontoons.

Services will all be connected from the western side, joining with the existing services connections for Pier K.







Western Edge Berth Reconfiguration Alternative 1

This project could be linked to the Western Basin Redevelopment project by repurposing existing pontoon infrastructure from that project. A feasibility assessment exercise is required to determine the economics of reuse. The image below shows an example of a layout option where some of the floating infrastructure from Piers N and O is reused and the balance of the area reconfigured into 'walk to' pile berths.

Whilst re-use of some of the pontoons may be worth considering as part of the project, the Pier N and O fingers are 8 and 9m long which is too short for the longer-term redevelopment of the area. Therefore, any reuse of the finger pontoons is likely to only be a short to medium term solution.









Western Edge Berth Reconfiguration Alternative 2

Central Marina Water Space Reconfiguration – this alternative was prepared to test whether the water space within the central area (Piers E to J) is better utilised to:

- Remove the existing pile berths along the western edge and effectively move the access channel to the west; and
- Extend all Piers E to J into the existing access channel water space by adding full length fingers to the piers as shown.

This alternative concept plan produces fewer marina berths and is likely to be more costly per new berth. In addition, it puts added pressure on the limited car parking available on the eastern side of the Marina.

Future Investments:

All significant capital works projects proposed within this Masterplan will require business cases which will reaffirm that alternative options have been considered.







Western Edge Port Nelson Berth Redevelopment

Port Nelson owns a number of fixed walkway piers along the western side of the Nelson Marina which have some vacancy. A portion of these berths could be redeveloped and integrated into the overall Marina berth offering to assist meeting the growing demand for marina berths.

This concept plan shows 25 redeveloped modern floating marina berths with full length 16m floating finger piers.



Disclaimer:

This is one of several projects within this Masterplan that would require discussion, negotiation and agreement with Port Nelson, if and when Nelson Marina decided to advance the project.









Marina Wide

Berth Reconfigurations

Across the Marina there are opportunities to add or reconfigure berths to align with current and future demand. The projects below provide an indication of the smaller berth reconfigurations required to deliver berth sizes that align to the demand at the Marina, some of which include improving the service offering to align with customer expectations.



Inspection Grid – the ramp access between Piers L and K and the tidal inspection grid is proposed to be removed. This will improve environmental compliance and water quality and dredging of this water space will remove historic contaminants. It also enables two 8m berths to be added at the western end of Pier L and provides space for additional car parking to be added, as shown in the image above.



Pier J – berths on the south side of Pier J can be extended in length to take advantage of the open water space to the south.

This will provide a group of longer berths in currently underutilised water space.



Pier L – the addition of four berths on the end of Pier L are dependent upon the **Western Basin**

Redevelopment

project maximising the water space by removing the pile moorings on the eastern side which are in relatively low demand.

Pier K – there are also minor reconfiguration opportunities on Pier K to provide wider berths for catamarans and new berths with fingers.







Marina Wide

Berth Reconfigurations

The projects below provide further indication of the berth reconfigurations required to deliver larger berth sizes that align to the demand at the Marina. These projects may be supplemented with other minor berth reconfiguration projects throughout the Marina.



Pier D & E – there are opportunities to add additional berths to the outer end of Piers D and E. Both projects are linked to the timing of works around the boat ramp and the western edge areas.

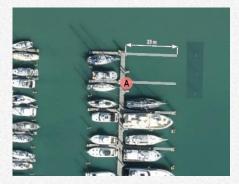
Pier D berths can be 12 and 14m berths.



Pier B – the proposed relocation of the sea sports activities unlocks the opportunity for all berths on the south side of Pier B to be extended to become 18m berths. Some vessels on this pier are already extending beyond existing berths.

In some instances, the existing finger piers will be able to be repurposed into other areas of the Marina as berths in those locations are extended.

Note: Pier C upgrades are discussed in the **Boat Ramp Area Reconfiguration** section of this Masterplan.



Pier A – currently Pier A includes 30m berths without full length fingers which are not attractive to boat owners and have minimal occupancy. The Masterplan reconfigures these berths to 22 - 25m with full length fingers to better align with demand. Existing timber piles would be removed and reused where possible.

Note: Reconfiguration of the Pier A and B gangway connection is discussed in the **Boat Ramp Area Reconfiguration** section of this Masterplan.

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Boat Ramp AreaReconfiguration

The proposed relocation of sea sports and nonpowered vessels to the northern end of the reclamation improves health and safety within the marina and unlocks the opportunity to reconfigure the existing boat ramp water space.



Water Space Utilisation – the concept plan below reconfigures the pontoons of Piers A and B to provide a dedicated sheltered water access channel to and from the boat ramp. The concept also allows improved access to Piers A and B via the Pier C gangway and expands berth sizes on Piers C and D.









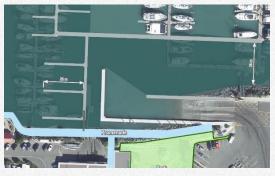
Boat Ramp Area

Components



Boat Ramp Access Lane – the concept plan layout provides a dedicated water space lane for access to and from the boat ramp.

The boat ramp would retain the existing floating pontoon on the eastern side of the ramp and a new pontoon would be installed to the western side of the ramp to provide pontoon waiting space for users of the most western lane of the ramp.



Access to Piers A and B – the reorganisation of the water space in the boat ramp area allows for the relocation of the pier gangway access to Piers A and B.

This relocation of access to Piers A and B away from the head of the boat ramp removes further conflicts in the area, including the lack of car parking within the immediate boat ramp area and the existing gangway for Piers A and B.



Berth Reconfiguration – the proposed removal of the existing sea sports pontoon enables reconfiguration of the neighbouring water space including Piers C and D which currently has an oversized fairway width.

Berth sizes on the north of Pier D are increased to 14m and Pier C is replaced with a new pier with larger berths (a mix of 14m, 20m and 25m berths is shown).

The Pier C gangway and pontoon becomes the primary accessway for Piers A and B.





Boat Ramp Area Concept Render

The render below shows the preferred layout concept for the public boat ramp area within the Marina.









Boat Ramp Area Reconfiguration Alternative 1

Connection to Piers A, B and C – this Masterplan has considered alternative pier reconfigurations in the boat ramp area. The concept below shows an option of removing part of the existing boat ramp pontoon system, opening up the opportunity for smaller berths to be included on the north side of Pier C.

Boat Ramp Water Space – there is an opportunity for a limited number of smaller marina berths (10m length) to be configured on the north side of Pier C. This would result in these marina vessels sharing the proposed boat ramp access channel, but it would maximise the use of the water space for new marina berths.



The image above is an example of a 9.5m trailer boat being launched at a boat ramp, therefore 10m marina berth vessels could share the boat ramp access channel due to similarities in size.









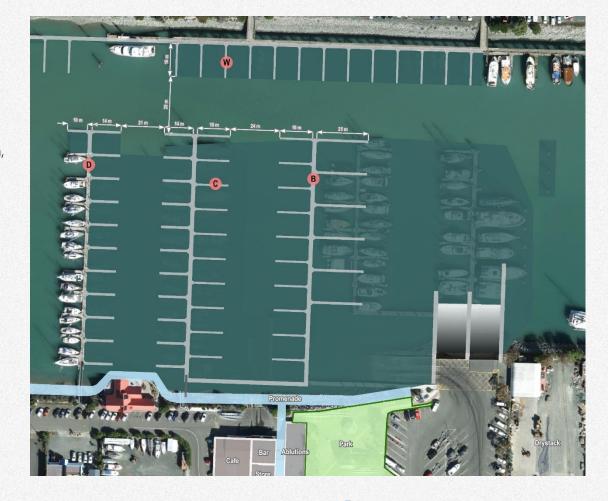
Reconfiguration Alternative 2

Boat Ramp Reorientation – the opportunity to reconstruct the public boat ramp is constrained by the limited surrounding car parking area. The benefits include a wider boat ramp allowing up to two additional launching lanes to provide for future growth, simpler alignment to the car park and potentially more maneuvering space.

However, this alternative reconfiguration option has been discounted from the Masterplan since it:

- Reduces marina berth numbers and provides less optimal marina water space utilisation;
- Orientates the ramp east west, across the predominant sea breeze wind direction; and
- Would have a capital cost that likely outweighs the benefits.

Relocation of the Boat Ramp – this Masterplan has considered the potential relocation and construction of a new larger boat ramp. This concept relocates the boat ramp to the Marina's northern boundary and reorientates it to face west.









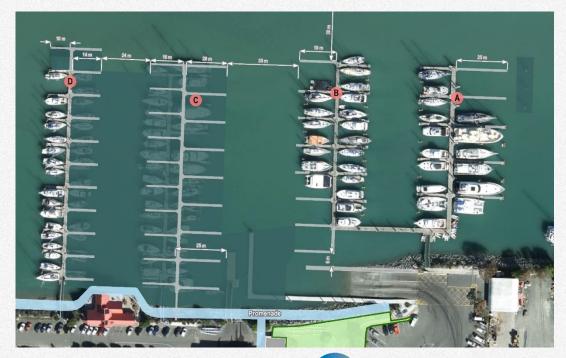
Boat Ramp Area Reconfiguration

Alternative 3

Replacement of Pier C with longer berths and extending existing berths on Piers B and D takes advantage of the generous water space between Piers B and C shown in the photo below. This opportunity would be unlocked if the proposed new Sea Sports Centre is established in a more appropriate location.



Reconfigure Piers B to D in Existing Positions - the image below shows an alternative option of extending the berths on Pier B to 18m, replacing Pier C with 16 and 20m marina berths and upgrading the berths on Pier D to 14m. These berth sizes are all experiencing strong demand in Nelson currently.









Marina Extension

This Masterplan has considered what areas would be suitable for future extension of the Marina. This confirmed what others have suggested, that the most logical area for a significant expansion is to the north of the existing reclamation in the water space shown below.



The final layout and berth size mix of any extension of the Marina will be designed as part of the business case which will consider berth demand at that time.

These concept plans include berths to scale from 14m to 25m based upon the 2021 WARDALE demand study.

Berth Layout Option 1 – this Masterplan has recognised that the water space within the existing Marina area is experiencing excess demand currently and there is significant forecast growth. Whilst a number of projects within this Masterplan focus on the higher utilisation of the existing water space, Nelson will require additional recreational marina berths to accommodate this expected future growth in demand.









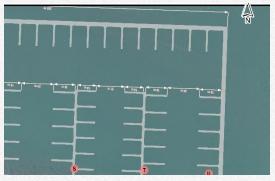
Marina Extension

Components



Car Parking – the concept layout for the northern extension includes dedicated carparking. There are no land-based options available for parking so a dedicated parking deck structure extending over the existing revetment wall has been shown in the plan concepts.

Vehicle access to the new parking deck would be via the rear of the proposed Sea Sports Centre by realigning some of its parking spaces which would be replaced by an allocation of parking on the new parking deck.



Marina Pontoons and Floating Attenuators – the concept layout for

the northern extension includes floating marina berths, with full length marina fingers. The proposed new marina piers are proposed to be surrounded by floating attenuators to provide an appropriate wave climate inside the new marina area.

Attenuators are proposed over fixed breakwaters due to the relatively sheltered wave climate, reduced seabed occupation and reduced visual impacts at lower tides.



Integration with proposed Sea Sports

Centre – the concept plan includes an eastern wave attenuator which provides for physical separation from the activities of the neighbouring proposed new Sea Sports Centre.

The wave attenuator would integrate with a silt fence along the length of the pontoon, which would deflect all travelling sediment coming down the Maitai River past the new facility.

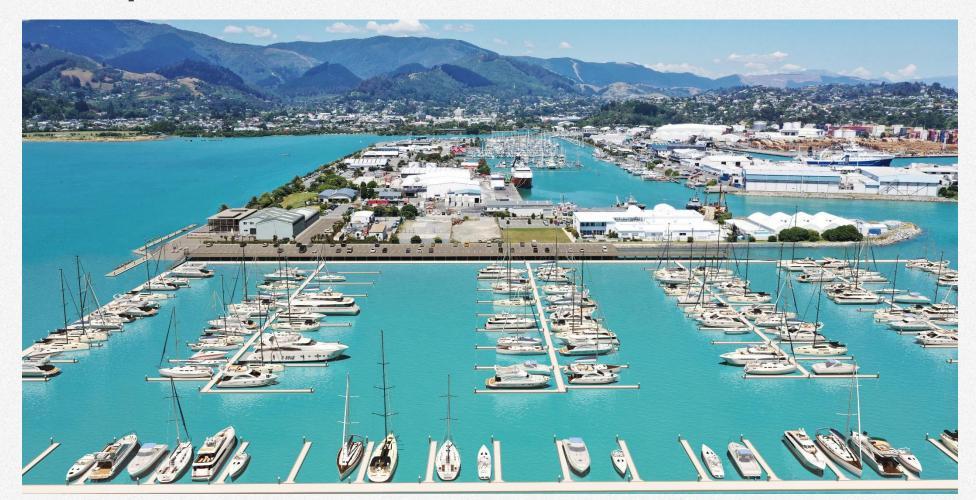






Marina Extension Concept Render

Nelson Marina Extension – the render below shows the first layout concept for the northern end of the reclamation.









Marina Extension Alternative

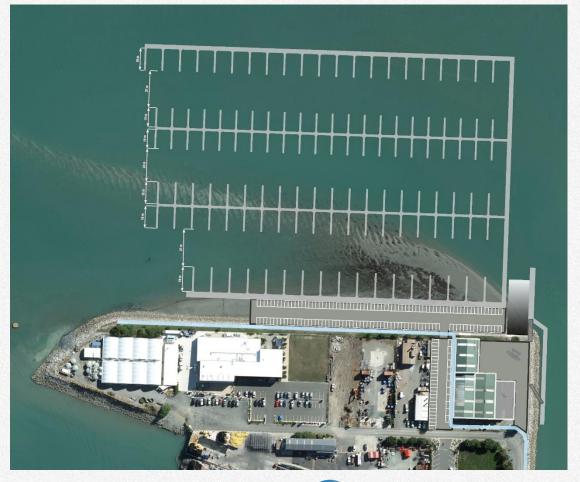
The open water space at the end of the Akersten Street reclamation provides the water space required for a future marina extension, as shown in the photo below.



Disclaimer:

This is one of several projects within this Masterplan that would require discussion, negotiation and agreement with Port Nelson if and when Nelson Marina decided to advance the project.

Nelson Marina Extension Layout Option 2 – the layout plan below shows an alternative marina layout which has the piers running east west which provides for the individual marina berths to face north/south which is consistent with the layout of the existing Marina. This alignment has been discounted due to the greater walking distance from the car parking to the most distant berths.











Masterplan Delivery, Berths & Parking

Project Timing

Project Funding

Berth Changes

Car Parking Changes



Masterplan Indicative Project Timing

The table includes a guide to the proposed indicative scheduling of the projects included in this Masterplan. The project name aligns with the description of the project in this Masterplan and a corresponding page reference in also provided.

The table highlights priority projects in **bold text.**These will be completed as promptly as business cases and negotiations are completed and funding can be secured. An example of a priority project is the Fuel Pier Development.

Many projects within this Masterplan have interrelationships with other proposed projects including some that are dependent upon another project being triggered or completed before the opportunity is unlocked. An example is the proposed Sea Sports Centre which unlocks various opportunities within the Boat Ramp Area Reconfiguration. Council intends to advance development of the Marina, with a number of projects already underway and significant progress proposed to be completed within the next three years.

Project Name	Project Description	Indicative Timing	Page(s)
Health & Safety Electrical & Water Services Supply	Installation of non-slip material on all marina timber walkways Upgrade of marina services pedestals including pier lighting and metered potable water and electricity	FY2022 FY2022	20 20
Security	Stage 1: Upgrade CCTV monitoring	FY2023	20
	Stage 2: Security gates introduced as part of pier upgrades	7- 10 years	
Waste & Recycling	Improved recycling facilities	1 - 3 years	21
Marina Water Quality	Initiatives including sewerage pump-out system in all new berths	1 - 3 years	21
Energy Efficiency & Sustainability	Sustainability initiatives, electric vehicle charging, bike racks and solar panels	1 - 3 years	22 -24
Fuel Pier Development	Develop a new floating pontoon fuel pier for the Marina	FY2023	26 - 27
Trailer Boat Storage	Stage 1: Temporary expansion of trailer parking compound, sealing, security	FY2023	48 – 49
	Stage 2: Racking of vessels and relocation of site	11 - 14 years	
Nelson Sea Sports Centre	Project to investigate relocation and development of a new facility at a new site	1 - 3 years	29 – 31
Marine Centre Development	Stage 1: Develop new retail and office space for the marine industry Stage 2: Develop rear workshops with access to expanded hardstand	1 - 3 years 7- 10 years	40 – 42
Marina Hardstand Development	Stage 1: Expand and improve the vessel maintenance yard, fencing and car parking	1 - 3 years	43 – 45
	Stage 2: Add covered workspaces and expand yard to integrate with Marine Centre	7- 10 years	
Boat Hoist Upgrade	Larger capacity machine upgrade runways, crane platform and wash bay	1 - 3 years	46 – 47
Parking Improvements	Signage and operational management improvements	FY2023	38 – 39
	Provision of additional new car parks for marina users and the hardstand	1 - 3 years	
Marina Café Development	A standalone café development on the current site of the pop-up coffee cart	1 - 3 years	37
Stormwater Upgrades	Stormwater reuse and processing using rain gardens or in ground filtering	7- 10 years	21
Marina Wide Berth Reconfigurations	Various opportunities to improve berth layout and align sizes with demand	4- 6 years	60 – 61
Boat Ramp Area Reconfiguration	Realignment of pontoons and water space access in area of boat ramp	4- 6 years	62 – 67
Public Promenade	Stage 1: Improve public walking and cycling access south of the marina office	4- 6 years	32 – 35
	Stage 2: Improve public walking and cycling access north of the marina office	7- 10 years	
Pocket Park Reestablishment	Public Realm: Revitalisation of public park adjacent boat ramp	4- 6 years	36
	Commercial: Redevelop existing sea sports building with new Café/bar premises	1.6	F2 F2
Western Basin Redevelopment	Redevelop existing piers O and P and pile moorings with new 12m marina berths	4- 6 years	52 – 53
Western Edge Berth Reconfiguration	Pile Moorings: redevelop existing pile moorings with 'walk to' marina berths	4- 6 years	54 – 59
Marina Extension	Port Nelson Berths: potential to redevelop a portion as Nelson Marina berths Future extension of marina to provide additional berth capacity	7 – 10 years	68 - 71
Future Dry Stack	Development of a dry stack facility to increase boat storage capacity	15+ years	50
ratare Dry Stack	Development of a dry stack facility to increase boat storage capacity	13 r years	30

A plan showing the location of each project can be found on page 13 or click here.

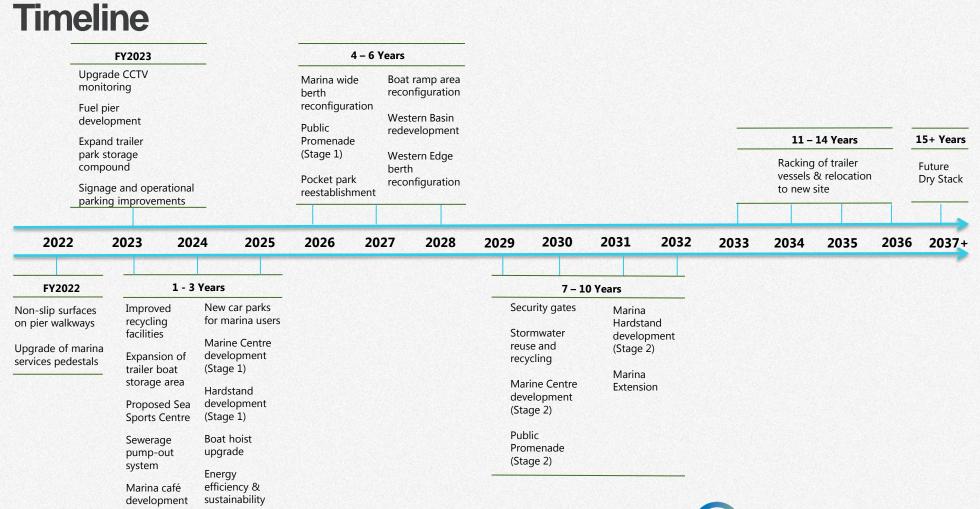






Masterplan Indicative Project

The proposed indicative timing of Masterplan projects is shown visually in the diagram below.







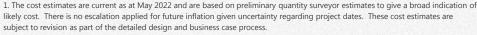


Masterplan Indicative Project Funding

The table below includes a guide to the proposed funding basis for the projects included in this Masterplan. Priority projects are highlighted in **bold text.** Funding for priority projects is intended to be sought for inclusion in the Council 2023 - 2032 Long Term Plan. The Health & Safety project (non-slip surfaces) and some other projects are already funded within the Annual Plan or Long Term Plan. The sustainable initiatives for each project will be detailed as a key component of the business cases that will be prepared for Council funding approval.

Project Name	Funding Category	Expected Funding Basis	Indicative Cost Estimate \$m 1
Health & Safety (non-slip surfaces)	Marina Operations	Marina Berth Fees (Funded in 2022 Annual Plan)	0.9
Electrical & Water Services Supply	Marina Operations	Marina Berth Fees	2.7
Security	Marina Operations	Marina Berth Fees	1.6
Waste & Recycling	Marina Operations	Marina Berth Fees	0.1
Marina Water Quality	Marina Operations	Marina Berth Fees	1.6
Energy Efficiency & Sustainability	Marina Operations	Marina Berth Fees	0.4
Fuel Pier Development	JV with Port Nelson and Fuel Supplier	Business Case - Fuel Price Revenue	0.9
Trailer Boat Storage	Marina Operations	Marina Trailer Storage Fees	1.1
Nelson Sea Sports Centre	Marina Operations	Currently 80% Marina funding, 20% Sea Sport User Funding	11.1
Marine Centre Development	Marina Commercial Development	Business Case – Building Lease Revenue	Stage 1: 7.9 Stage 2: 10.9
Marina Hardstand Development	Marina Commercial Development	Business Case – Hardstand Fees	10.1
Boat Hoist Upgrade	Marina Commercial Development	Business Case – Hardstand Fees	4.7
Parking Improvements	Marina Operations	Marina Berth Fees and Public Parking Fees	1.2
Marina Café Development	Marina Commercial Development	Business Case – Building Lease Revenue	1.7
Stormwater Upgrades	Marina Operations	Marina Capital Expenditure Budget	1.8
Marina Wide Berth Reconfigurations	Marina Commercial Development	Business Case – Marina Berth Fees	1.5
Boat Ramp Area Reconfiguration	Marina Commercial Development	Business Case – Marina Berth Fees and Boat Ramp Fees	5.0
Public Promenade	Public Realm	Council Parks & Facilities Rates Funding	8.9
Pocket Park Reestablishment: Public Realm	Public Realm	Council Parks & Facilities Rates Funding	3.1
Pocket Park Reestablishment: Commercial	Marina Commercial Development	Business Case – Building Lease Revenue	4.9
Western Basin Redevelopment	Marina Commercial Development	Business Case – Marina Berth Fees	4.8
Western Edge Berth Reconfiguration: Pile Moorings	Marina Commercial Development	Business Case – Marina Berth Fees	6.3
Western Edge Berth Reconfiguration: Port Nelson	Marina Commercial Development	Business Case – Marina Berth Fees	2.9
Marina Extension	Marina Commercial Development	Business Case – Marina Berth Fees	35.2
Future Dry Stack	Marina Commercial Development	Business Case – Boat Storage Fees	9.7









Berths Summary of Changes

Overall, the reconfiguration and expansion projects in this Masterplan increase berth numbers to meet future anticipated demand over a 40 year horizon.

Indicative Changes to Berths

Currently the Marina has total berth supply of 578. The base case reconfiguration of existing water space results in a similar number of berths at 576 but delivers a needed increase in average length, from 11.6m to 12.7m.

The incremental marina expansion options have the combined potential to increase total berth supply by approximately 281 berths to 857.

This would satisfy the expected excess demand in the order of 185 berths over the next 30 years indicated in the WARDALE demand study, plus provide expansion capacity for a further 10 years of growth.

This analysis is indicative only and berth numbers and berth sizes will be refined as part of the business case and detailed design process. The objective is to use project phasing where possible to align increases in berth capacity with the actual future growth in demand over time.

	Existing Marina Area		Incre	Potential Total		
	Current	After	Port Nelson	Boat Stacker	Northern Marina	Reconfigure &
	Marina	Reconfigure ¹	Berths ²	and Pier ³	Extension	All Expansion
Marina Berths	545	576	25	11	245	857
Pile Moorings	33	<u>-</u>		-		
Total Berth Supply	578	576	25	11	245	857
Total Berth Lineal Metres ⁴	6,706	7,318	400	(10)	4,044	11,752
Average Berth Length	11.6	12.7	16.0	n/a	16.5	13.7

^{1.} The proposed berth reconfiguration projects within the existing marina area include the Western Basin Redevelopment (Piers M to P), Western Edge Berth Reconfiguration (Pier W), Boat Ramp Area Reconfiguration (Piers A to D) and Marina Wide Reconfiguration (Piers A, B, D,E, J, K and L). Where there are alternatives considered in this Masterplan, the analysis is based on the first preferred option presented.

2. The potential for the Marina to acquire these berths would be subject to negotiations with Port Nelson.





^{3.} The Dry Stack concept plan involves removal of 8 x 25m berths on the north of Pier A and addition of 19 x 10m berths on the new Boat Stacker pier.

^{4. &}quot;Total Berth Lineal Metres" is calculated as berth lengths multiplied by berth counts.



Car Parking Summary of Changes

Overall, the reconfiguration and expansion projects in this Masterplan increase car parking numbers to meet future anticipated demand over a 40 year horizon.

Indicative Changes to Car Parks

The Marina's car parks are currently not exclusive for marina customers but are also used by the public and local businesses so higher ratios of car parks to marina berths are required than an exclusive marina use situation.

Currently the Marina has 372 car parks (a ratio of 0.64 car parks per berth). The Masterplan projects within the existing marina area increase car parks to about 496 (a ratio of 0.86 per berth).

The incremental marina expansion options have potential to further increase total car park numbers to about 773 (a ratio of 0.90 per berth).

This analysis is indicative only and car park numbers will be refined as part of the project prioritisation and detailed design process. The objective is to use project phasing where possible to align increases in car park capacity with the actual future growth in demand over time.

	Existing Marina Area		Incren	Potential Total			
	Current	After	Port Nelson	Boat Stacker	Northern Marina	Reconfigure &	
	Marina	Reconfigure ¹	Berths ²	and Pier ³	Extension	All Expansion	
Total Berth Supply	578	576	25	11	245	857	
Marina Car Parks ⁴	372	496	34	64	179	773	
Marina Car Parks to Berths Ratio	0.64	0.86	1.36	5.82	0.73	0.90	

^{1.} The proposed berth reconfiguration projects include the Western Basin Redevelopment (Piers A to D) and Marina Wide Reconfiguration (Piers A, B, K and L). Where there are alternatives considered in this Masterplan, the analysis is based on the first preferred option. The car parking changes proposed in the existing marina area include the addition of 16 car parks by Piers L to P, 38 car parks on the Council owned site at 225 Akersten Street, 82 new marina and hardstand car parks by Piers F to J and the proposed new café by Pier J requires removal of about 12 car parks. The new car parks for the Marine Centre and Hardstand offices on Akersten Street are excluded and the incremental marina expansion options are excluded.





^{2.} The potential for the Marina to lease land for car parks to support these additional berths would require and be subject to negotiations with Port Nelson.

^{3.} The Dry Stack concept plan involves removal of 8 x 25m berths on the north of Pier A and addition of 19 x 10m berths on the new Boat Stacker pier.

^{4. &}quot;Marina Car Parks" includes car parks provided on marina land or close-proximity on-street parking adjacent to the berths.



Car Parking Analysis by Location

The provision of car parking relative to berth numbers varies by location within the existing marina area. The plan below shows the definition of four specific locations for which the existing ratios of car parks to berth numbers are calculated and compared to the ratios after completion of the projects in this Masterplan. The public boat ramp area is excluded given that the access to Piers A and B is proposed to be relocated to Pier C gangway (location 4), thereby resulting in no berthholder parking at the boat ramp. Refer to the next page for the results.









Car Parking Analysis by Location

This Masterplan provides increases in car parking to address current shortfalls in car parking in specific locations within the existing marina area.

Location 1

Piers L to P have the lowest available car parking relative to berth numbers (ratio of 0.32) and competing usage by businesses in the area. This Masterplan reconfigures parking to add 16 car parks. Increasing berth size to 12m reduces berth numbers to 182. The ratio improves to 0.45 but is still relatively low, so parking management initiatives are also needed.

Location 2

Pier K and the western piles have the highest level of car park provision (ratio of 2.03). This Masterplan adds additional berths on Pier W and car park numbers remain unchanged at 73, which results in a ratio of 0.83.

Location 3

Piers F to J share their car parks with the hardstand and marina office. This area is congested during peaks (ratio 0.68). This Masterplan slightly reduces berth numbers and increases car park numbers by 70, improving the ratio to 1.12. This parking may also be utilised by berth holders in location 4.

Location 4

Piers A and B currently share car parks with the congested boat ramp area and Piers C to E have competing demand from sea sports and yacht club members. This Masterplan reconfigures access to Piers A and B via the Pier C gangway, relocates sea sports and adds shared car parking on the site at 225 Akersten Street. The resulting ratio is 0.89.

Area Piers	Current: Existing Marina Area				Masterplan: Existing Marina Area 1,2			
	Location 1 L, M, N, O, P	Location 2 K, West Piles	Location 3 F, G, H, I, J	Location 4 ³ A, B, C, D, E	Location 1 L, M, N, O, P	Location 2 K, W	Location 3 F, G, H, I, J	Location 4 ³ A, B, C, D, E
Marina Car Parks ⁴	66	73	113	88	82	73	183	126
Marina Car Parks to Berths Ratio	0.32	2.03	0.68	n/a ³	0.45	0.83	1.12	0.89

^{1.} This analysis is indicative only and car park numbers will be refined during the detailed design process. The objective is to use project phasing where possible to align increases in car park capacity with the actual future growth in demand over time.

2. New car parks for the Marine Centre and Hardstand offices on Akersten Street are excluded and the incremental marina expansion options are excluded from this analysis of the existing marina area.

4. "Marina Car Parks" includes car parks provided on marina land or close-proximity on-street parking adjacent to the berths, as shown in car parking location plan on the previous slide.



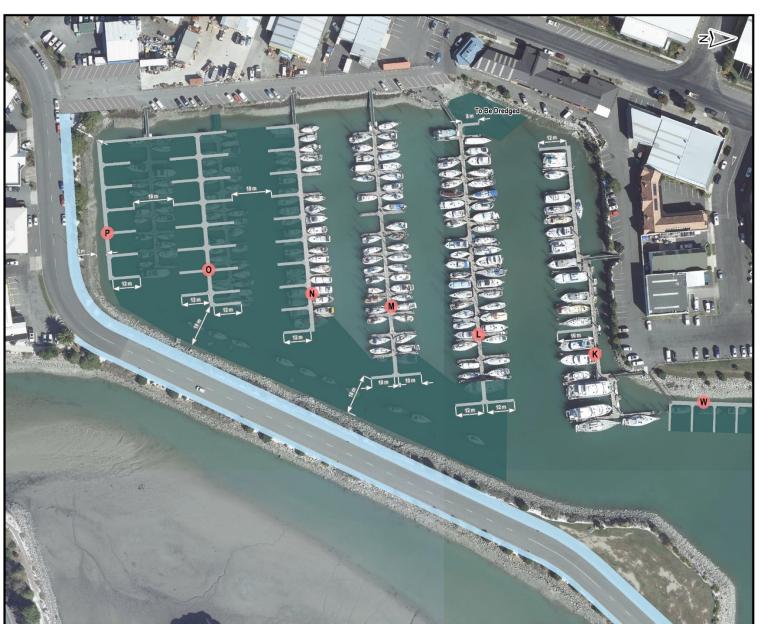
^{3.} The definition of Location 4 excludes the boat ramp area and its shared car parks in order to be consistent with the Masterplan which reconfigures Piers A and B to be accessed by the Pier C gangway. Therefore, the shared car parks at the boat ramp currently used by Piers A and B are excluded from the marina car parks count and a comparable marina car parks to berth ratio is not provided for the current existing marina area, with the result shown as "n/a".





Masterplan Plan Set







Client

Nelson City Council

ocation:

Nelson Marina

Project:

Marina Masterplan

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Nelson Marina Western Basin

Drawing:

Revision:

Option 2

le:

1:1,000 @ A3

Date:

7th February 2022

Revisions:

1 27/08/21 Adding Berths

2 24/10/21 Pier B/C Connector 3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P

5 26/10/21 Parking & Gangways

6 07/02/22 W Pier Gangwa

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All dimensions are in metres, unless otherwise stated

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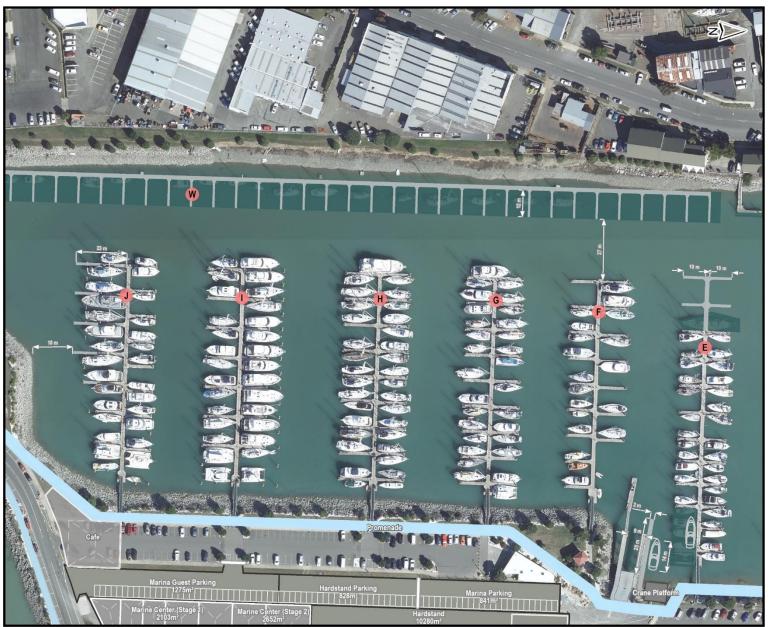
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Location:

Nelson Marina

Marina Masterplan

Nelson Marina South

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Option 2

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7th February 2022

1 27/08/21 Adding Berths 2 24/10/21 Pier B/C Connector

3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P

5 26/10/21 Parking & Gangways 6 28/10/21 Western Berths

7 07/02/22 Crane Deck Added

Notes: 1. All dimensions are in metres, unless otherwise

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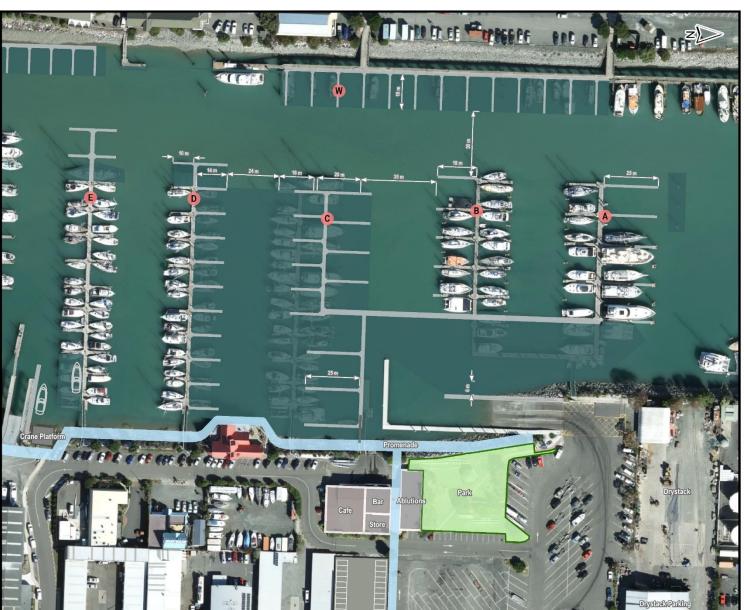


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Location:

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Marina Masterplan

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Nelson Marina North

Option 2

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Date:

16th February 2022

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1 27/08/21 Adding Berths

2 24/10/21 Pier B/C Connector 3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P

5 26/10/21 Parking & Gangways

6 28/10/21 Western Berths

7 17/01/22 Berth Layout

8 26/01/22 Berth

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All dimensions are in metres, unless otherwise stated

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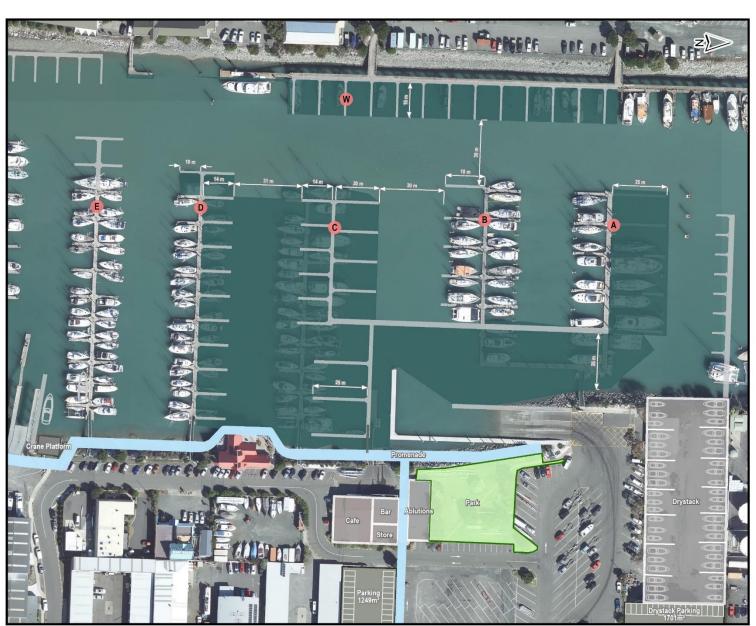
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Clien

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Location:

Nelson Marina

Project:

Marina Masterplan

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Title:

Nelson Marina North

Option 3

Revision:

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Date:

7th February 2022

Revisions:

1 27/08/21 Adding Berths

2 24/10/21 Pier B/C Connector 3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P 5 26/10/21 Parking & Gangways

6 28/10/21 Western Berths 7 07/02/22 Crane Deck Added

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Notes: 1. All dimensions are in metres, unless otherwise stated

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Location

Nelson Marina

Project:

Marina Masterplan

Title:

Nelson Marina Marine Center Stage 1

Drawing:

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WM_NMD_ Marine_Center_Stg1

Scale:

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Date:

8th February 2022

Revisions

1 27/08/21 Adding Berths

2 24/10/21 Pier B/C Connector 3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P

5 26/10/21 Parking & Gangways 6 28/10/21 Western Berths

7 17/01/22 Berth Layout 8 26/01/22 Berth Layout

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Location:

Nelson Marina

Marina Masterplan

Nelson Marina Marine Center Stage 2

Drawing:

Revision:

WM_NMD_ Marine_Center_Stg2

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8th February 2022

Revisions:

1 27/08/21 Adding Berths

2 24/10/21 Pier B/C Connector 3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P 5 26/10/21 Parking & Gangways

6 28/10/21 Western Berths

7 17/01/22 Berth Layout g 26/01/22 Berth Layout

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Nelson Marina

Marina Masterplan

Nelson Seasport

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14th February 2022

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2 24/10/21 Pier B/C Connector

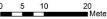
4 25/10/21 Add Berths N/O/P

5 26/10/21 Parking & Gangways

7 17/01/22 Berth Layout

All dimensions are in metres, unless otherwise

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Client

Nelson City Council

Locatio

Nelson Marina

Project

Marina Masterplan

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Nelson Marina Western Basin

Option 2

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Date:

7th February 2022

Revision

1 27/08/21 Adding Berths

2 24/10/21 Pier B/C Connector 2 25/10/21 Add Berthe B/C

4 25/10/21 Add Berths N/O/P

5 26/10/21 Parking & Gangways 6 07/02/22 W Pier Gangway

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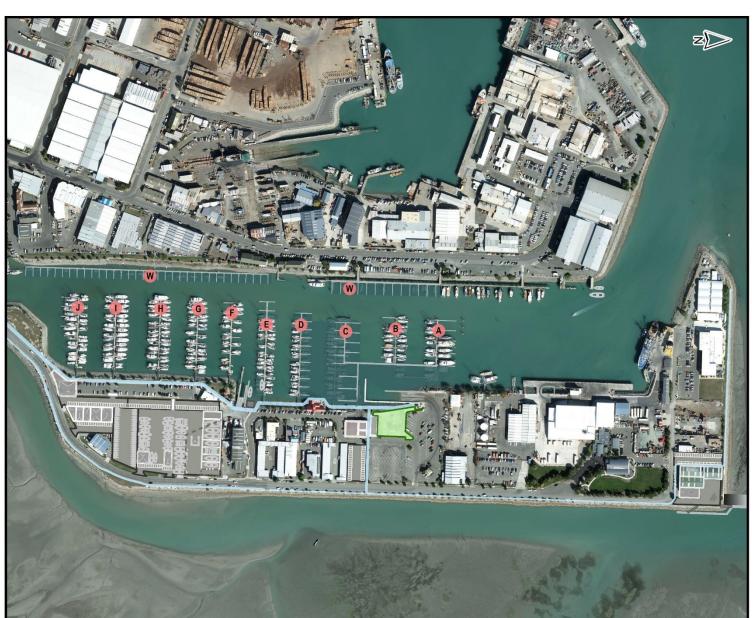
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Location:

Nelson Marina

Project

Marina Masterplan

Fitle:

Nelson Marina Masterplan

Option 2

Revision:

1:3,000 @ A3

Date:

16th February 2022

Revision

ID 1 27/08/21 Adding Berths

2 24/10/21 Pier B/C Connector

3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P

5 26/10/21 Parking & Gangways

6 28/10/21 Western Berths

7 17/01/22 Berth Layout

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Notes: 1. All dimensions are in metres, unless otherwise stated

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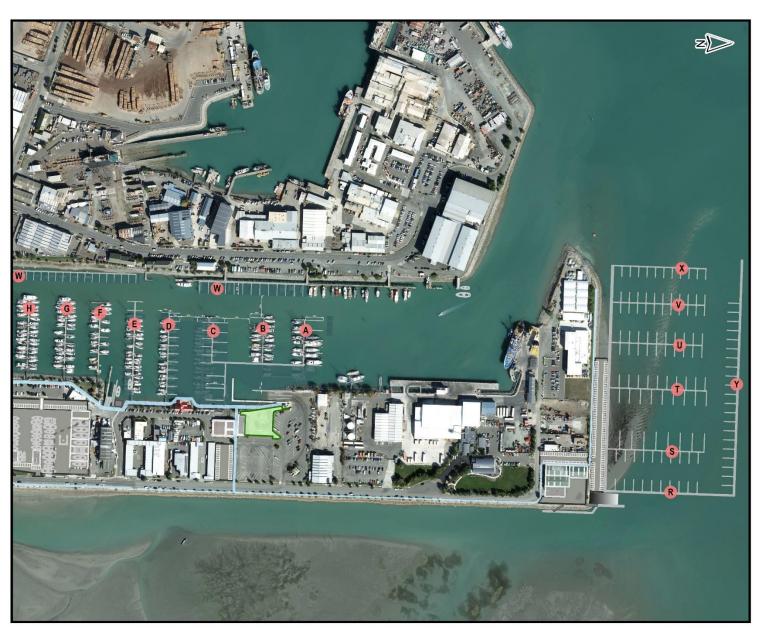
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Nelson Marina

Marina Masterplan

Nelson Marina Masterplan

Option 2

1:3,000 @ A3

16th February 2022

Revisions:

1 27/08/21 Adding Berths

2 24/10/21 Pier B/C Connector

3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P

5 28/10/21 Parking & Gangways

6 28/10/21 Western Berths 7 17/01/22 Berth Layout

8 26/01/22 Berth Layout

All dimensions are in metres, unless otherwise stated

1:3,000 @ A3



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Client

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Location:

Nelson Marina

Project:

Marina Masterplan

Title:

Nelson Marina North

Drawing:

Revisio 8

Option 1

1:3,000 @ A3

Date:

7th February 2022

Revisions:

1 27/08/21 Adding Berths 2 24/10/21 Pier B/C Connector 3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P 5 26/10/21 Parking & Gangways 6 28/10/21 Western Berths

7 17/01/22 Berth Layout 8 26/01/22 Berth Layout 9

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Notes: 1. All dimensions are in metres, unless otherwise stated

1:3,000 @ A3

30 60

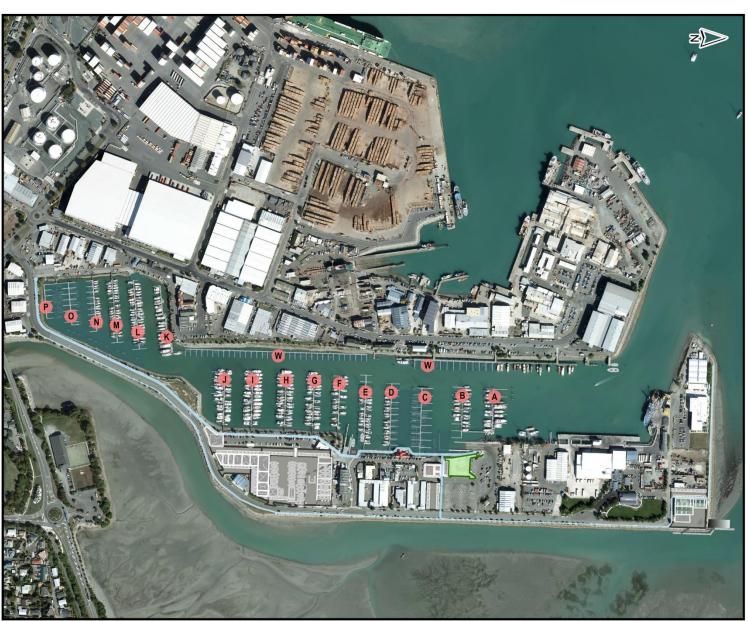
120 Meters

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Nelson Marina

Marina Masterplan

Nelson Marina Masterplan

Drawing: Option 2 6

1:4,000 @ A3

7th February 2022

1 27/08/21 Adding Berths

2 24/10/21 Pier B/C Connector 3 25/10/21 Add Berths B/C

5 26/10/21 Parking & Gangways

6 07/02/22 W Pier Gangway

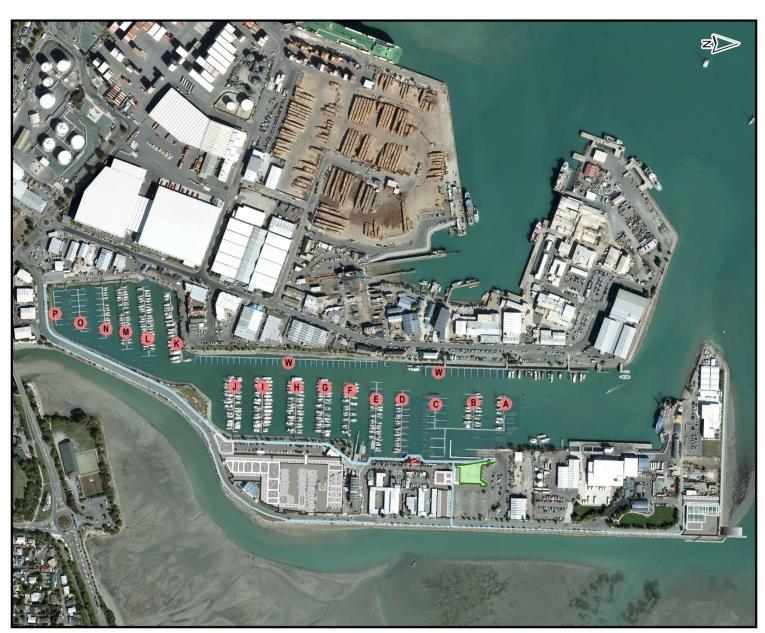
Notes: 1. All dimensions are in metres, unless otherwise stated

1:4,000 @ A3

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Nelson Marina

Marina Masterplan

Nelson Marina Masterplan

Option 2

1:4,000 @ A3

7th February 2022

2 24/10/21 Pier B/C Connecto 3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P

5 26/10/21 Parking & Gangways

6 07/02/22 W Pier Gangway

Notes: 1. All dimensions are in metres, unless otherwise stated

1:4,000 @ A3

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Nelson Marina

Marina Masterplan

Nelson Marina Masterplan

Drawing: Option 1

Scale:

1:5,000 @ A3

7th February 2022

Revisions:

1 27/08/21 Adding Berths

2 24/10/21 Pier B/C Connector 3 25/10/21 Add Berths B/C

4 25/10/21 Add Berths N/O/P 5 26/10/21 Parking & Gangways

6 28/10/21 Western Berths 7 17/01/22 Berth Layout

8 26/01/22 Berth Layout

All dimensions are in metres, unless otherwise stated

1:5,000 @ A3

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Nelson Marina

Base Aerial Photo

The base aerial image of Nelson Marina used in this document without any masterplanning overlay concepts is shown below.

A high resolution (10MB) version is downloadable here.

