FULL STEAM AHEAD
The purpose of this paper is to promote and stimulate discussion in regard to the movement of goods and people around the New Zealand coast and between the North and South Islands.

It looks at the opportunities to achieve better results, environmentally, economically and ethically — true triple bottom line issues. It also looks at problems that could and should be resolved and barriers that should be removed. The rapid rise of freight movements around the coast and internationally gives this issue great urgency.

New Zealand is an island nation, defined by our coastline. You can see this on a map and New Zealanders live it every day. We watch the ships and take an interest in them as they come and go from our ports and as they sail past the coast. Our nation relies on sea transport to get goods to New Zealand and to export goods to market.

Sea transport is the only viable method of bridging between the North and South Islands, with the ferries transporting large volumes of cargo and many thousands of passengers. Without coastal ships, fuel shortages would mean that road and air transport would stop and the construction industry would grind to a halt due to lack of cement.

Sea transport is essential to the security of the New Zealand supply chain. This is not limited solely to international shipping of imports and exports, but to the movement of goods and people around New Zealand.

NZ hosts a large number of ports per kilometre of coastline, and while a hierarchy is emerging more strongly now, most ports remain small, and our population density is low.
Coastal shipping does not exist in a vacuum. Coastal shipping needs to be considered as an essential component of the transport infrastructure. Trucks operate on roads, rail requires tracks. Ships require efficient ports plus the road, rail and maritime infrastructure to get cargo and passengers to the ports. Every ship movement is reliant upon shore-based support.

The operation of ships is at the heart of a maritime cluster, which includes building, repairs and maintenance, surveyors, research and development, IT, technical support, insurance, HR, lawyers, accountants and much more. By way of example, viable ship operations directly impact on the viability of the New Zealand maritime education sector, a multi-million dollar contributor to the New Zealand economy.

In the United Kingdom it is estimated that the maritime cluster generates a million pounds in the economy, every hour of every day. In Australia, it is estimated that the maritime cluster adds $A9 billion to GDP (“The Economic Contribution of the Australian Maritime Industry” PriceWaterhouseCoopers Feb 2015). This calculation has not been undertaken for New Zealand.

Historically ports facilitated coastal trade but now the greatest volumes are related to international import-export. NZ is a trading nation, with ports being the gateway for over 99% by volume of NZ imports and exports. New investment by ports has focussed on growing international import-export capacity, particularly containers. The infrastructure to facilitate modern coastal shipping remains largely in place, as a legacy of the days of smaller international ships and greater coastal trade.

Ships are getting even bigger. Internationally we are seeing 20,000 twenty-foot equivalent unit (TEU) ships being built. In New Zealand waters we expect 6,500 TEU ships to be regular on international routes to New Zealand. This is up from 2,500 TEU ships in 2001 and 4,800 TEU ships in 2015. Coastal ships will always be smaller as this is a trade-off for frequent service.

Ship operators are practical people, usually with a maritime background. Coastal shipping comprises a number of businesses each of which has found a niche of opportunity. Ship operations are both flexible in that a ship can be acquired or a destination changed; and they are inflexible in that ships are large assets with big costs.
The coastal task comprises a mix of scheduled and unscheduled services. Unscheduled services are for irregular shipments or sole-use cargos such as fertiliser, aggregate, petroleum and cement. Scheduled services (including but not limited to the Cook Strait ferries) require steady volumes to be viable, and so need to provide shippers certainty for their planning — fixed schedules, available capacity, priority and reliability.

Coastal ship operations around the coast of New Zealand are either privately owned or run as state-owned business enterprises. The maritime environment is highly regulated to standards mandated by the International Maritime Organisation (IMO). These business entities are dependent on sound implementation of IMO rules in this country to achieve safe, environmentally friendly ship operations at least cost. IMO rules affect everything from the detailed operations of the ship to the high standards of seafarer training.

**There are a number of impediments to greater use of coastal shipping.**

Mode decisions (that is, whether to move goods and people by sea, road, rail or air) reflect commercial/economic imperatives with timeliness of service and reliability often seen as more important than cost. Coastal shipping services are less frequent services and have longer transit times than other options.

Rules and regulations are also a big factor. We would like there to be one set of rules. NZ is signatory to international treaties which dictate every aspect of the running of a ship. We expect to be held to high standards and appropriate implementation. The adoption of these international requirements by Parliament is sometimes slow meaning that New Zealand has a different standard from the international mandates so that ships have to comply with both. We believe that time and effort (funded by levies) is wasted on re-working international standards that could be simply adopted without being re-written.

One of the biggest impediments to coastal ship operations around New Zealand is a lack of government interest arising because the NZ government has no skin in the game, with no ownership of ports or ships but 100% ownership of rail-track and operations, and 100% ownership of road infrastructure. This reduces the touch points for government attention.
The New Zealand Shipping Federation began in 1906 and is the representative body for New Zealand’s coastal ship operators.

Members of the Federation are:

**COASTAL BULK SHIPPING - MV Anatoki**  
www.coastalbulkshipping.co.nz  
*Coastal Bulk Shipping* operates the MV Anatoki which carries bulk cargo such as wheat, dolomite, cement and fertiliser.

**GOLDEN BAY CEMENT - MV Golden Bay, Cement Barge Marsden Bay**  
www.goldenbay.co.nz  
*Golden Bay Cement* operates one bulk carrier out of NorthPort (Near Whangarei) to five ports.

**HOLCIM MV Westport - MV Milburn Carrier II**  
www.holcim.co.nz  
*Holcim* operates mv Milburn Carrier II, carrying cement to ports around New Zealand.

**INTERISLANDER - Aratere, Kaitaki, Kaiarahi**  
www.interislander.co.nz  
*KiwiRail* operates the Interislander service between Wellington and Picton. This consists of three ships making more than 4,000 crossings per annum over 800,000 passengers and nearly 220,000 passenger-accompanied vehicles. In addition the fleet moves over 2 million lane metres of freight, including rail, each year.

**NIWA - Tangaroa** (70m Ocean Research),  
*Kaharoa* (28m Coastal and Ocean research),  
*Ikatere* (14m Survey Vessel)  
www.niwa.cri.nz  
*NIWA* owns and operates a fleet of state-of-the-art coastal and oceanic research vessels to support marine survey research and development, focused on enhancing the benefits of New Zealand’s marine and geological resources. All three vessels are also available for commercial charter.

**PACIFICA SHIPPING - Spirit of Endurance, Spirit of Canterbury**  
www.pacship.co.nz  
*Pacifica Shipping* has been New Zealand’s leading coastal ship operator and domestic cargo carrier for 30 years now. Pacifica offers total transport solutions for producers, manufacturers, exporters, freight forwarders, and other shipping companies, combining the environmental advantages of coastal shipping with efficient distribution and door-to-door deliveries.

Pacifica operates New Zealand crewed and flagged vessels on the New Zealand coast, and is a proud member of the New Zealand Shipping Federation. With calls in the key ports in the North and South Islands on a weekly basis, Pacifica Shipping is an integral part of New Zealand’s vital transport infrastructure.

**Silver Fern Shipping - Kakariki, Torea**  
www.sfsl.co.nz  
*Silver Fern Shipping* operates two double-hulled tankers moving more than 2 million tonnes of oil products (fuel and bitumen) from Marsden Point to ports around NZ.

**STRAIT SHIPPING - Straitsman, Strait Feronia**  
www.strait.co.nz  
*Strait Shipping Limited* is a privately-owned company operating two vessels between the ports of Wellington and Picton. Shipping heavy vehicles, livestock, containers and all other roll-on, roll-off freight it is a vital part of New Zealand’s infrastructure linking the North and South islands. Its Bluebridge passenger service provides a customer focused service for passengers and their vehicles in both the domestic and tourist markets.

The Federation has a long history of representing the sector. More detail on this history is available on our website and elsewhere including:

“A Voice for Shipping”. The history of the Federation is available online at www.nzsf.org.nz/history

We believe that Roadways to Waterways was largely incorporated in the Government’s 2007 draft strategy: “Sea Change”

“Sea Change: transforming coastal shipping in New Zealand”  
Some things have changed since 2006 but some things remain the same.

The Changing Workforce
The maritime sector has an aging workforce. It is hard to get robust data but the anecdotal evidence is clear. At some stage the aging seafarer population will exit the industry, resulting in a shortfall of younger replacement seafarers. The pipeline to bring any seafarer into a role includes International Maritime Organisation mandated levels of training and sea-time. New Zealand needs to be confident that there are sufficient potential staff at all stages in the employment pipeline, either working now in New Zealand or available to come here with from overseas.

The labour force pipeline is also important for the flow-on effect on strategically important shore-based roles such as shipping managers, harbour masters, pilots, marine surveyors, marine and safety inspectors, maritime regulators and trainers.

Ship operations are a global industry. Internationally there is increasing competition for skilled seafarers with many overseas opportunities for trained and skilled New Zealanders. In addition, shipping faces competition for employees from other industries, where staff work regular hours and go home each night. This creates a risk for New Zealand where we are increasingly reliant on immigration to fill shortages.

Failure to address workforce issues will make New Zealand increasingly reliant on foreign staffing of ships and shore positions. This is will be expensive but more importantly makes a strategic aspect of our economy very vulnerable.

Emergency Preparedness
The Canterbury Earthquake has made people more aware of possibility of sea transport being needed in a civil emergency. Emergency planning needs to include coastal ship operators so that there is a realistic understanding of what resources are available. New Zealand coastal ship operators are already entering into formal arrangements to provide local emergency assistance. This could include power generation, freight capacity (if roads become impassable) and accommodation. These local arrangements lie outside any national emergency planning. It is not known to what extent central or local government expects these resources to be available to them without having entered into a prior arrangement.

The environmental case
Shipping is widely recognised as offering environmental advantages over road and rail transport. Since Sea Change was published, maritime transport of cargo has come into fashion as the efficiency of sea operations have been understood. Greater sea movement of cargo would also take pressure off main trunk roads slowing the need to expansion of the existing highway infrastructure.

The possibility of sea movement of cargo to be factored into the cost/benefit model underlying government funding decisions about road and rail.

Transport is primarily powered by fossil fuels which unavoidably emit greenhouse gases on combustion. Shipping is the most efficient, emitting 8-15 gms CO2e /tonne-km (depending on ship size), while rail records 20-25 gm CO2 equivalent/tonne-km, and road 90-120 gm CO2e/tonne-km. Domestic transport in New Zealand emits 12,690 tonnes CO2e (Ministry for the Environment report). Of this diesel accounts for 5,620 tonnes CO2e, of with road freight accounting for 1850 tonnes CO2e and domestic shipping 40 tonnes CO2e.

<table>
<thead>
<tr>
<th>MODE</th>
<th>GRAMS OF CO2 PER TONNE-KILOMETRE</th>
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<tbody>
<tr>
<td>ROAD</td>
<td>123.1</td>
</tr>
<tr>
<td>HEAVY DUTY ROAD VEHICLES</td>
<td>92.0</td>
</tr>
<tr>
<td>RAIL</td>
<td>22.8</td>
</tr>
<tr>
<td>COASTAL SHIPPING</td>
<td>13.9</td>
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</table>

Shipping also has some negative environmental impacts. It is a source of marine and air pollution, including sulphur dioxide and nitrous oxide emissions and the risk of oil spills, which will all increase with increased shipping traffic. Shipping may also help introduce non-indigenous species to areas they would not reach naturally.

The large potential benefits of reduced CO2 emissions from increased use of domestic sea freight need to be supported by a continuing focus on reducing more localised environmental impacts, including efforts to reduce sulphur dioxide and nitrous oxide emissions from vessels.
Road transport accounts for 16% of NZ's assessed greenhouse gas emissions (t CO2-eqiv) (Ministry for the Environment Greenhouse Gas Inventory 2013 Report). The NZ freight task (NFDS2014) totals 236 million tonnes and 26.3 billion tonne-km, with road accounting for 91% and 70% respectively (and coastal 2% and 14%). However, coastal shipping is far more greenhouse gas efficient, at 14 gm CO2-eqiv/tonne-km, than rail (23) and road (90–120) (Sea Change report).

The reduction in emissions arising from greater used of ships to move freight around New Zealand can be simplistically modelled by nominally transferring the freight task from road to ship, with the Base (NFDS) and 3 scenarios presented below. Doubling the coast shipping effort from 3.6 to 7.0 billion tonne-km (14% to 27% of total) would reduce domestic transport emissions by 16%.

<table>
<thead>
<tr>
<th>FREIGHT EFFORT - BILLION TONNE - KM</th>
<th>EMISSIONS - TONNES CO2 - EQUIVALENT</th>
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<tbody>
<tr>
<td>TRUCK 18.5 70%</td>
<td>RAIL 4.2 16%</td>
</tr>
<tr>
<td>SHIP 3.6 14%</td>
<td>TOTAL 26.3</td>
</tr>
<tr>
<td>TRUCK 1850</td>
<td>RAIL 105</td>
</tr>
<tr>
<td>SHIP 36</td>
<td>TOTAL 1990</td>
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<tr>
<th>SCENARIO 1</th>
<th>INTER-REGIONAL</th>
<th>INTRA-REGIONAL</th>
<th>COASTAL SHARE</th>
<th>PETROLEUM AND CEMENT</th>
</tr>
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<tbody>
<tr>
<td>UNI 94.2</td>
<td>19.5</td>
<td>5.3</td>
<td>1.9</td>
<td>0.3 0.1 0.7</td>
</tr>
<tr>
<td>LNI 28.8</td>
<td>4</td>
<td>7.6</td>
<td>0.4</td>
<td>0 0 0</td>
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<tr>
<td>SI 60.2</td>
<td>1.1</td>
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<td>10</td>
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<tr>
<th>SCENARIO 2</th>
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From a policy perspective, coastal shipping could reduce the number of heavy trucks on New Zealand roads. This brings benefits of avoided investment in road infrastructure, reduced congestion, improved safety, and overall reduced greenhouse gas emissions. However, with no stake in coastal, government lacks some incentives to act. Further, with very high car ownership, and with every driver is a voter, there is a political imperative to satisfy the road market.
The (not so) level playing field

There is no level playing field

Coastal operators compete with international ship operators for whom the coastal New Zealand leg is a small part of their international total journey. Additional costs are imposed on coastal vessels competing for the same cargo, but not imposed on international operators, these are significant. The Federation is concerned that international ships have a legislated advantage over their NZ coastal competitors.

Legislated advantages given to international ships operating locally on the New Zealand coast, and that are not available to their competitors on sea, road and rail, include:

- exemption from the emissions trading scheme on purchases of bunker fuel
- nil income tax positions in New Zealand based on marginal pricing and average costing
- zero-rated GST on supplies taken on by ships
- operation outside New Zealand labour laws including the right to employ foreign crews at wages and salaries significantly below New Zealand levels.

These legislated advantages undermine New Zealand’s environmental policies, labour-force policies and tax policies.

In addition to the benefits given to international ship operators by the New Zealand government, it is likely that international operators are getting significant fiscal and other incentives in their home country such as tax concessions (e.g., favourable depreciation rates, nil tax on corporate profits, concessionary tax regimes for seafarers, rebates of taxes to employers or total exemptions from personal tax), exclusive rights to carry local cargoes and operating subsidies.
What can be done?

The Federation believes that it is widely accepted that the maritime option is a vital part of the New Zealand economy. Moreover, maritime operations are not subsidised by taxpayers, are better environmentally, and are the only option across Cook Strait.

The Federation believes that the time has now come to seek cross-party political consensus on the future of coastal shipping. In this document we put on the table the key issues that need to be considered to reach that agreement.

• Policy Gaps
  - New Zealand’s reliance on international shipping lines for all of its exports is a strategic concern. Government should be giving priority to policies that maintain access to sufficient import-export capacity at the right cost to provide efficient links to our international markets. We need a national policy for coastal shipping recognising the strategic importance of maintaining a viable sector.

  - We are unlike any other nation, in that New Zealand is an island nation, a long way from its trading partners and is dependent on exports. Nevertheless, we support a review of the policy settings in New Zealand to compare them to other jurisdictions to see whether there are lessons to be learnt about how better policy settings could benefit New Zealand and the coastal sector without negatively affecting safety.

  - Government transport and environmental policy needs to integrate strategic thinking at the national, regional and local level. For example, government policy around road congestion and gaps in the rail network needs to seriously consider ship operations and factor them into any cost-benefit analysis.

  - We need a national policy in regard to New Zealand flagged ships. Even if there is no commitment to having New Zealand flagged ships, we need to ensure that they are not disadvantaged in our waters as compared to similar ships that are operating in our waters and flagged elsewhere. That policy also needs to be clear about the situations in which New Zealand flagged ships would be subject to requisition.
Some arrangements are in place in respect of local assistance by operators of coastal ships during civil emergencies. Government needs to understand what capacity is available in the event of a civil emergency so that expectations are realistic.

Gaps in the maritime infrastructure need to be identified.

- The dry dock is a good example of a situation where government agencies should assist to get an important project off the ground. There is a strong financial, safety and environmental case for the establishment of a floating dry dock in New Zealand to be used by New Zealand and Australian ship operators who are currently using dry docks in Singapore as the closest option that is large enough for their ships. This is an opportunity for regional development that would benefit the investors, the region where it is established and New Zealand as a whole.

**Better visibility of the sector when policy is made**

- Policy makers in central, regional and local government can make better decisions by consulting coastal ship operators to ensure that the impact on the viability of ship operations is understood. Better regulation will be the result of better understanding what the sector has to offer.

- Earlier and more meaningful consultation would ensure that policies maximise the positive effects and minimise the negative effects of decisions. In addition to specific policy discussions, general briefings, such as briefings to incoming ministers, need to include coastal options.

**Joined up thinking – thinking as a sector**

- Transport needs to be considered as a joined-up sector of significant size. NZ Transport Authority records the value of the state highway network at $28.5 billion (or $0.13/tonne of freight carried), while KiwiRail values the rail network at $3.2 billion ($0.20/tonne of freight carried). Collectively NZ ports are valued at $3.0 billion ($0.05/tonne, including domestic and import-export).

- Compartmentalisation is a problem. Central, regional and local government plan and work separately. Ports are deliberately separated from local government politics. Officials are separated into their separate ministries and departments. Participants in the sector are separate businesses minding their own business. This problem is not new; nor is it unique to this sector.

- The organisation of government entities promotes separated thinking. Currently, by way of example:
  - the Ministry of Transport provides policy advice to the Minister and has an oversight role on government transport agencies
  - NZ Transport Agency has the purpose “… to deliver transport solutions for a thriving New Zealand on behalf of the government” but appears to be solely focussed on the delivery of land transport.
  - Civil Aviation NZ has a regulatory role for aviation regulations and safety
  - Maritime NZ has a regulatory role for safe, secure and clean maritime. As currently set up, its consultative function role as lead agency in respect of IMO matters does not sit well with the regulatory model.
  - Government policies in other ministries or departments can directly impact on maritime issues. For example, Conservation Department policies that affect safe anchorages in storms, MBIE policies that affect migration and Immigration Department policies impact on the availability of key staff. A way needs to be found to ensure that the expertise in the coastal shipping sector is brought to bear in the making of decision that affect it.

- We need to actively seek out opportunities to look at the big picture and participate in joined up thinking. This is not a call for more conferences or more meetings. It is a call for participants in the sector and across government at all levels to think about who else could have something to contribute to decisions being made.
• **Ports**
  - Ships go where the cargo is presented. Ports benefit when coastal shipping is healthy. It is in any port’s own best interest to advocate for its coastal shipping clients.

  • Ports are more than a mere wharf. A port is infrastructure including the wharf (possibly specialised for particular ships) plus ship services such as workshops, fuel supplies, and significant areas of land for marshalling of freight and people before and after the voyage. The preservation of areas committed to ship services is a vital part of the operation of any port. Policies are needed to ensure that mixed motivations by port owners do not erode the land areas committed to or zoned for port use.

  • Coastal shipping is a national asset whereas ports are set up to act locally. Competition between ports is a significant issue which they need to manage better. It is an irony that at a time of increasing collaboration between maritime, road and rail, ports are becoming more aggressively competitive against each other.

  • Ports need to make available sufficient infrastructure to support the coastal shipping network, in all its forms, including bulk, container, passenger and roll-on/roll-off.

  • There is a risk to this country that ports are treated as cash cows by their owners, to the detriment of all New Zealanders. Simply subsidising the port to provide infrastructure is likely to benefit the port rather than the end users. There may be a case for government to take a role in ensuring that ports are offering appropriate infrastructure at a price that fairly reflects the cost of provision rather than monopoly pricing.

  • Sea ports have many of the same regulatory issues as air ports. Governments should consider whether there is a need for greater oversight of the pricing of port services. Excessive costs benefit the owners (often acting as a subsidy to rating) but they are a drag on the economy as a whole. They also skew decisions in favour of other modes of transport when that may not be the best outcome for the environment.

• **Cost of Regulation**
  - Maritime NZ provides a valuable service as the regulator to the sector. As a monopoly provider it needs to be under scrutiny to ensure that it is operating effectively, efficiently and that its cost allocation model is appropriate. Coastal ship operators should not be funding the policing of other parts of the maritime sector. Operators of New Zealand flagged ships should find it as easy to work with the flag state authorities as operators of ships flagged elsewhere find it to deal with their authorities.