



Simultaneous Northland Regional Council/ Whāngārei District Council Meeting Agenda

Thursday 6 December 2012

Whangarei District Council

His Worship the Mayor M C A Cutforth
Cr P R Halse (Deputy Mayor)
Cr C B Christie
Cr S J Deeming
Cr A J Edwards
Cr S M Glen
Cr J S Jongejans
Cr G M Martin
Cr M L McLachlan
Cr S L Morgan
Cr K J Sutherland
Cr W L Syers
Cr M R Williams
Cr J D T Williamson

Northland Regional Council

Chairman C A E Brown
Cr J Bain (Deputy Chairman)
Cr J Bain
Cr J Carr
Cr T Davies-Colley
Cr B Hunt
Cr G Ramsey
Cr B Rossiter
Cr I Walker

ISSUE: Independent Ports Technical Study Final Report**ID:** A268804**To:** Northland Regional Council Extraordinary Meeting 6 December 2012; and
Whāngārei District Council Extraordinary Meeting 6 December 2012**From:** Vaughan Cooper, Growth and Infrastructure Manager, NRC; and
Paul Dell, Group Manager District Living, WDC**Date:** 29 November 2012**Summary** The purpose of this report is to set out the findings from the independent ports technical study final report, produced by PricewaterhouseCoopers (PwC), and sponsored by the Upper North Island Strategic Alliance. The findings specific to Marsden Point and the Northland region are also outlined. Some further work by this council is proposed including a joint workshop with PwC and all Northland Councils to scope a second stage of work related to infrastructure development for Marsden Point.**Normal
Operations****Executive summary**

The independent ports technical study conducted by PwC has concluded that:

- There is strong growth projected in the three Upper North Island (UNI) ports over the next 30 years. All three UNI ports (covering the Port of Auckland, Port of Tauranga and the Whāngārei Ports) will be required to meet the projected freight task.
- A rapid and ongoing increase in trans-shipping means that pressure is likely to be more on port infrastructure than on distribution networks and land transport infrastructure to these ports.
- Pressure on land transport infrastructure is likely to be driven by non-port traffic, competing land uses, and (potentially) reverse sensitivity. General congestion may be a factor in the medium to longer term, which will impact ports as users of the network.
- The UNI port network has the capacity to meet the projected freight task, provided that efficiency gains, incremental investments in infrastructure and the uptake of already consented works are undertaken in a planned and timely manner. The greatest opportunities for efficiency gains to access additional capacity are in relation to container trade.
- In a properly functioning market, prices charged at different ports can play a role in directing customers to where spare capacity exists in the UNI ports system, and in prioritising investment choices. Furthermore, the development of inland ports can help drive efficiencies in the distribution network, and aid competition and substitutability between ports.
- A third rail line between Southdown and Wiri (dedicated to freight) is at the strategic planning stage and if it were to proceed could provide additional capacity to address emerging rail congestion issues. This portion of the network is currently under pressure as it must cope with rail freight between the Port of Auckland and Wiri, Port of Tauranga and Metroport, as well as commuter traffic from both branches of the southern line.
- Substantial, systemic change to the UNI port system within the next 30 years (for example, establishing a new UNI port) is likely to be significantly less cost effective than incremental change.

- Over the next 30 years, the most efficient and cost effective options for meeting the projected freight task are likely to be based around improved efficiency, incremental growth at each port, planned improvements in the land transport system, complemented by changes in relative prices that direct customers to where spare capacity exists in the UNI port system.

Further work to be undertaken by this council is proposed including a joint workshop with PwC and all Northland councils to scope a second stage of work specifically related to the incremental development of infrastructure and capacity at Marsden Point.

Background

On 6 March 2012, Auckland Council's Auckland Plan Committee (the Committee) made resolutions about the long-term role of Auckland ports within the UNI freight network and about long-term strategic choices for the Auckland waterfront. These resolutions are provided at **Appendix 1**. The Committee signalled it wanted to work in partnership with UNI stakeholders on this. A staged approach was developed to address the resolutions of the Committee, given considerations of the Commerce Act and Port Companies Act.

As the first stage in this process, at their March 2012 meeting, the UNISA¹ Mayors and Chairs endorsed work to investigate current and future freight demand and supply and scenarios to meet that demand, in the context of ports and port-related infrastructure for the UNI. This work has taken the form of a joint technical study.

UNISA is a collaborative group of seven member councils who have committed to a long-term collaboration for responding to and managing a range of inter-regional and inter-metropolitan issues. A particular focus of UNISA is taking a 'New Zealand Inc' approach and perspective, to ensure the Upper North Island and New Zealand as a whole remains internationally competitive and prosperous.

A formal procurement process, via a Request for Proposal (RFP) to appoint an independent supplier for the technical study was led by Auckland Council on behalf of UNISA. PricewaterhouseCoopers (PwC) were appointed as the supplier and this was announced via a joint UNISA press release on 18 June 2012.

The UNISA Chief Executives and Mayors/Chairs also received full updates on the study (on a confidential basis) at their October and November 2012 meetings respectively.

¹ UNISA comprises the Mayors or Chairs from Northland, Bay of Plenty and Waikato Regional Councils, Hamilton and Tauranga City Councils, Whāngārei District Council and Auckland Council.

Recap on technical study purpose and scope

The primary objective of the study was to develop a credible and consistent understanding of the upper North Island's freight and port supply chain system. It is a technical, evidence based demand and supply study conducted by an independent supplier, which has had regard to existing relevant studies, information or research previously undertaken.

The key deliverable of the study is a final report (provided as **Attachment A**) which contains analysis, modelling and data about current and future freight demand for ports and ports-related infrastructure in the UNI, incorporating scenarios to meet that demand (in the context of various constraints) and the potential implications of these scenarios at a preliminary level.

The technical study has not utilised confidential business planning information of any port and instead makes objective assumptions, based on published port plans, about likely future capacity and operations of ports. For a summary of the scope of services specification from the study's RFP, refer to **Appendix 2**.

PwC's report was informed by interviews with key stakeholders, including interviews with port companies, major importers and exporters and transport operators.

While it is a non-binding technical study, some UNISA councils may wish to individually commission a second stage of further work in respect of their own ports and the regional implications.

The study was not designed to produce business/investment case assessment of scenarios, nor cost them at a detailed level or assess them in regard to their commercial viability. The study was also not designed to make specific recommendations on how future freight demand should be met, or recommendations on specific infrastructure development sites.

Key parameters and concepts

The study period of the report is 30 years and includes projections out to 2041. These projections are based on analysis of trade patterns and port throughput over the last 10 years, supplemented by: qualitative information from industry participants; high level forecasts of economic growth in the UNI, New Zealand and amongst key trading partners; expected demographic changes; and physical constraints in respect of agricultural production in New Zealand. PwC's report also notes other exogenous influences on infrastructure demand, including:

- the impact of larger ships
- domestic freight costs
- inland ports.

In measuring the current port task and in order to make projections for future port task growth, PwC's report measures cargo in terms of **weight** in tonnes rather than the dollar **value**, as weight of cargo is a better indicator of the size and number of vessels, trucks, trains, wharfs, cranes, and other infrastructure required. Weight is also a comparable measure that captures the total quantity of goods that must be moved through ports. **Volume** data (e.g. twenty-foot equivalent unit (TEU) containers or cubic metres) is less comparable between different cargos.

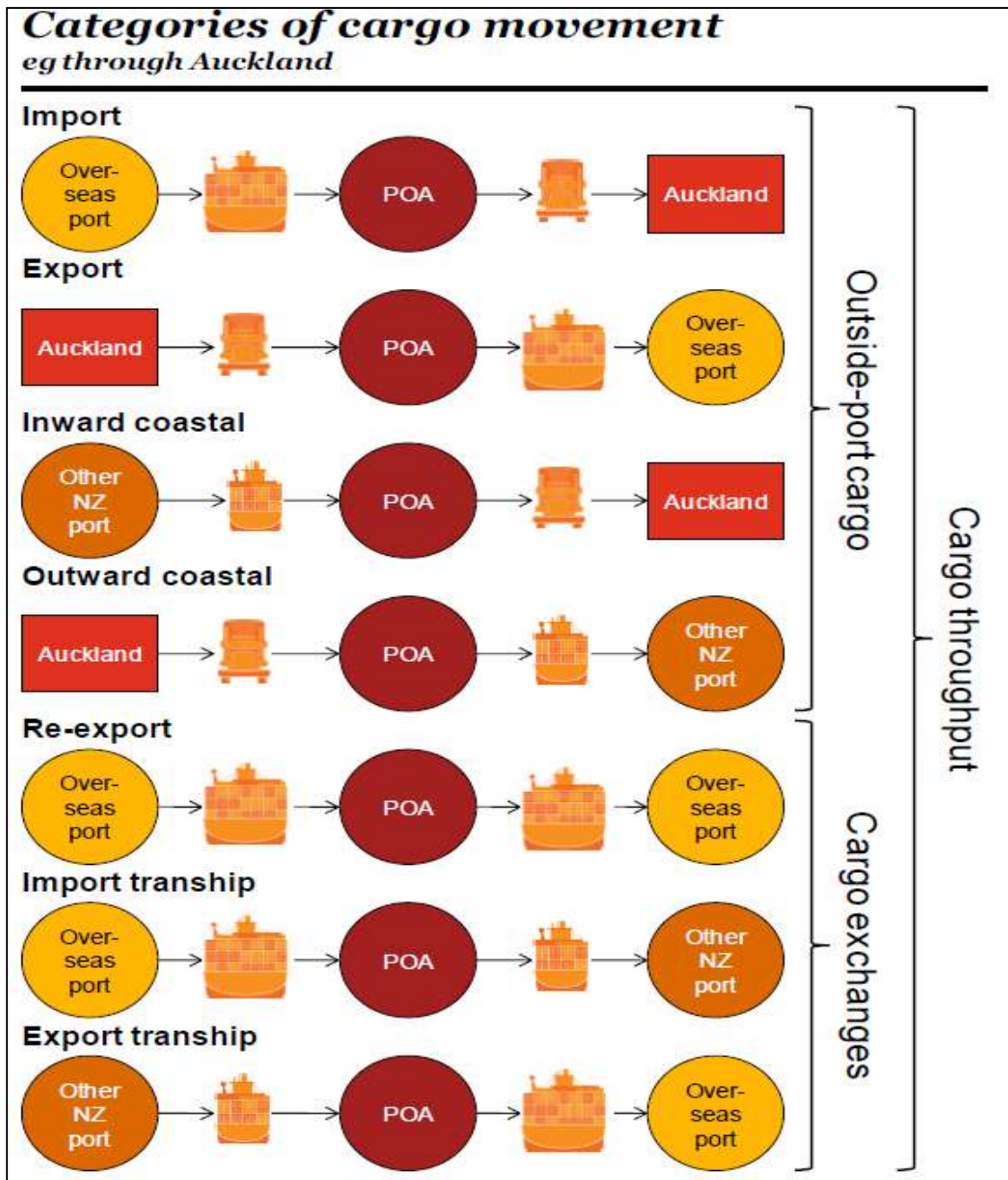
In making their projections, PwC's report separately considered two components of total throughput: 'port exchanges' and 'outside-port' volume.

- **Port exchanges** includes domestic and international transshipping, which involves the unloading and loading of ships at the port, but where products do not leave (or enter from outside) the port gates.
- **Outside-port** volume involves inward or outward movement of goods, which leave or arrive from outside of the port gates.

Importantly, outside-port volume has an impact on both land transport and port infrastructure, while port exchanges impact port infrastructure only. Throughput includes both outside-port cargo and exchanges. It measures the total amount of cargo that is loaded or discharged at a port. Throughput is the best measure of infrastructure requirements at the port itself, including the number of cranes required to move containers on and off ships and the amount of port land required to store cargo. The diagram from PwC's report illustrates these concepts.

PwC has used a 30-year projection period which was considered a sensible timeframe in this context given:

- It coincides with the longest planning periods used by many public sector entities
- Projections over longer time periods become increasingly undermined by transformative changes
- The potential for major system shocks to undermine trade.



The projections for the future port task have been made for the UNI region as a whole. However PwC's report also breaks down these projections to individual ports (both bulk and container trade), in context of understanding the constraints faced by these ports. The ports under consideration are the Port of Auckland (PoA), Port of Tauranga (PoT) and the Whāngārei Ports which include Northport and Refining NZ at Marsden Point (referred to simply as Northport in the remainder of this report).

Port and port-related infrastructure

In considering existing port and port-related infrastructure, PwC's report distinguishes the following elements:

- Port access – the depth of each port's channel and berths
- Berthage – the number, length and configuration of container and bulk berth space at each port
- Storage – the container and bulk storage capacity of each port
- Distribution – primarily the land transport infrastructure servicing the port. In PwC's report this focuses on the road and rail networks.

Ports also own significant operational infrastructure, such as cranes, straddles (for stacking containers), reefer slots (power points for refrigerated containers), buildings and operational technology. These types of assets are discussed in the report in the context of options for improving port efficiencies.

There has been public commentary on systemic change in the port configuration as an alternative to incrementally adding capacity. PwC's report summarizes at a high level the pros, cons and implications of three potential options, to help inform further technical analysis. These options are:

- establishing a container terminal at Northport;
- limiting PoA's growth; and
- establishing a new port in the UNI.

Key findings and conclusions

The key findings/conclusions from the final report can be summarised as follows:

Demand

- Strong growth is projected for the UNI ports over the next 30 years, underpinned by continued growth in the trade of primary products, and the on-going development of transshipping at PoA and PoT.
- All of the three UNI ports are required to meet the projected freight task.
- Cargo throughput will grow more rapidly than outside-port cargo, and containerised cargo will grow more rapidly than bulk cargo – in line with recent trends.
- More pressure will be placed on port infrastructure, which must handle growing volumes of exchange cargo, than on distribution networks and land transport infrastructure to the ports. Likewise, container handling facilities are expected to handle more growth than bulk cargo facilities.

Capacity

- The UNI port network has capacity to meet the projected freight task over the next 30 years, but requires substantial operational efficiencies as well as incremental investment in infrastructure including the uptake of consented berth developments, reclamations, channel and berth deepening.
- There is considerable capacity that can be accessed through improved operational efficiencies, most notably for containers and container storage in particular.

Future capacity

If each port is to manage their share of trade as projected, each will need to develop further capacity over the study period (even with assumed operational efficiencies):

- For Northport this would include development of a planned fourth berth and deployment of additional storage space.
- For PoT this would include additional container berthage to the south at Sulphur Point. PoT may also look to develop up to 1km of earmarked bulk berthage on the Mount Maunganui side of the port, which would provide a significant increase in capacity, and operational flexibility.
- For PoA, further reclamation and berth developments will probably be necessary, especially if Marsden and Captain Cook wharfs cease to be used for port-related operations. Provided sufficient operational efficiencies can be achieved, the requirement for additional infrastructure through reclamation would be smaller in scale than the preferred options shown in the 2008 Port Development Plan. When this infrastructure is required is dependent on the timing of any operating efficiencies, the timing of any release of Captain Cook and Marsden wharfs, and spikes in demand.

Constraints and options

- Following efficiency gains, if PoA is unable to gain approval for an expanded footprint, then some of the projected growth may need to be accommodated at other UNI ports. PoT and Northport have potential to grow both from a storage and berth perspective, and accommodate some of this growth, though at an economic cost to the supply chain.
- In a properly functioning market, the prices charged at different ports can play a role in directing customers to where spare capacity exists in the UNI ports system, and in prioritising investment choices (e.g. between investing in infrastructure or efficiencies).
- The development of inland ports can help drive efficiencies in the distribution network, and aid competition and substitutability between ports.
- Substantial, systemic change to the UNI port system within the next 30 years (for example, establishing a new UNI port) is likely to be significantly less cost effective than incremental change.

Land transport infrastructure

- Land transport infrastructure will be under less growth pressure than port infrastructure (as outside-port growth rates are lower). Pressure on land transport infrastructure will be driven by non-port traffic, competing land uses, and (potentially) reverse sensitivity. There are however opportunities for efficiencies relating to port-traffic including; increasing the number of TEUs per truck, reducing one-way cargo trips and greater use of off-peak windows.
- The land transport network's current infrastructure can accommodate the projected growth in port traffic across the study period without a material increase in congestion attributable to that port traffic. However, general congestion on the road and rail network may be a factor in the medium to longer term, which will impact ports as users of the network.
- From a rail perspective, Southdown to Wiri is the main issue for the network. This portion of the network is under pressure as it must cope with rail freight between PoA and Wiri, PoT and Metroport, as well as commuter traffic from both branches of the southern line. A third line for freight from Wiri to Southdown is at the strategic planning stage, and if it were to proceed could provide additional capacity to address these congestion issues. Improvements to the East Coast main trunk line between Auckland and Tauranga will also most likely be required, including possible double tracking.

Overall conclusion

Over the next 30 years, the most efficient and cost effective options for meeting the projected freight task are likely to be based around improved efficiency, incremental growth at each port, planned improvements in the land transport system, complemented by changes in relative prices that direct customers to where spare capacity exists in the UNI port system.

Findings specific to Northland

The report confirms that Northport has significant capacity to accommodate growth both in terms of bulk and containerised freight. The report confirms that there is a significant area of land surrounding the port, particularly in comparison to that available at the other ports. The report also clearly shows the natural deep water access available at Northport.

The report confirms that Auckland currently has capacity issues and that Tauranga has impending capacity issues.

The report confirms that significant investment is required to address these issues for Ports of Auckland and the Port of Tauranga – particularly around dredging, berth expansion and internal operations.

The question that is not answered (and that Northland should be seeking to answer) is what is the best investment for NZ Inc.? Upgrade/improve Ports of Auckland and the Port of Tauranga when they have limited lifespan already or invest in Northland with its ample space and capacity and natural advantages? How would this occur as incremental changes in the operation of UNI ports?

The external pressures on waterfront space from a public interest / amenity perspective are not addressed in this report. This is particularly relevant for Auckland and, to a lesser extent Tauranga. Northland is significantly different in this respect as it doesn't have this competing interest due to the location of the port facilities at Marsden Point.

Further work

Further work to be undertaken by this council is initially recommended to be a joint workshop with PwC and all Northland councils to scope a second stage of work specifically related to the incremental development of infrastructure and capacity at Northport. Including what incremental change actually means and how this could be linked with changes at PoA and PoT?

In addition, the report briefing touched on supply chains but did not provide any detailed investigation into the different options and potential costs of those options. It would be particularly useful to understand the total supply chain cost for a customer in Auckland using Northport to access Singapore rather than PoA.

Legal compliance and significance assessment:

The activities detailed in this report are identified in the council's 2012-2022 Long Term Plan, and as such are in accordance with the council's decision making process and sections 76-82 of the Local Government Act 2002.

In relation to section 79 of the Local Government Act 2002, this issue is considered to be of low significance under council policy because it is part of normal day to day operations of council, and it does not require a council decision but is for information purposes only.

Recommendations:

1. That the report Independent Ports Technical Study Final Report by Vaughan Cooper, Growth and Infrastructure Manager, NRC, and Paul Dell, Group Manager District Living, WDC, be received.
 2. That the final report of the independent ports technical study by PricewaterhouseCoopers, which has been sponsored by the Upper North Island Strategic Alliance, as provided at **Attachment A** be received.
 3. That council notes the Upper North Island seaports, including the associated road, rail and logistics network, are vitally important to the current and future economic prosperity of the Upper North Island and New Zealand.
 4. That a joint workshop with PwC and all Northland councils is held to scope a second stage of work specifically related to incremental development of infrastructure and capacity at Northport.
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Attachments

No.	Title
A	Independent Ports Technical Study: Final Report (This attachment is too large to display online. If you would like a copy please contact the Senior Meeting Co-ordinator, phone +64 9 4304 200)

Appendix 1: Auckland Plan Committee resolutions (6 March 2012)

Resolution number AFV/2012/7

MOVED by Deputy Mayor Hulse, seconded Cr Wood:

Directive

Provide for the long term needs of the Port of Auckland and Auckland Airport in an appropriate and environmentally sustainable manner, to support New Zealand's international freight, trading competitiveness and visitor industry:

- That the Auckland Plan does not endorse any specific port expansion proposal.
- That the Upper North Island (UNI) must be able to meet short and long term growth requirements of an export-driven economy, through the capacity of its ports and the freight transport system.
- That the Port of Auckland currently plays a significant role in the freight system and creates economic value both for Auckland, the UNI and New Zealand.
- That the Waitemata Harbour and Hauraki Gulf is an Auckland-defining asset that the plan seeks to protect and enhance.
- That there will need to be integrated and coordinated capacity development across the UNI to meet future freight demand and avoid a shortfall in port infrastructure capacity.
- That in order to determine the long-term (i.e. greater than 30 years) role of the Port of Auckland in the UNI port and freight network, and inform the long-term strategic choices for the Auckland waterfront (including the Unitary Plan), Auckland Council, in conjunction with the above key stakeholders will lead and facilitate a study of port development options for Auckland which will:
 - Take a long-term (30-100 year) view;
 - Assess future freight demand to jointly agree on likely future port infrastructure capacity requirements;
 - Based on the above information, model a range of development options for the Port of Auckland; and
 - Address the community's view on port development noting that the current provisions of the Regional Plan: Coastal contain the following policies:

“Any application to reclaim land in any Port Management Area shall demonstrate that:

 - There is no practicable alternative to the proposed reclamation, including the use of existing facilities and existing land-based areas in the region;
 - It is the most appropriate form of development; and
 - Adverse environmental effects will be avoided, remedied or mitigated.”
- That based on current information, Auckland will continue to need a port on the Waitemata Harbour as its major seaport in order for the overall freight demand anticipated for the UNI to be met. The study of Auckland's position within the UNI options may confirm the status quo, identify different configuration alternatives at the current port locations, or identify as yet unexplored alternative locations for port infrastructure.
- The RMA planning framework for the port area will be developed as part of the Auckland Council's Unitary Plan. That plan will take account of the Port of Auckland study.

- Notwithstanding any of the above, any proposed development of the port will be subject to the full RMA resource consent process.

CARRIED

Appendix 2: Scope of services specification (summary from the Request for Proposal)

The study will deliver a final report which:

1. Details the nature and quantum of the future freight² demand for the Upper North Island ports³ and port-related infrastructure⁴. This shall have reference to contingencies such as:
 - key international shipping trends and competitive practices (including the potential future role of coastal shipping);
 - the strategies and plans of New Zealand's major exporters and importers;
 - the investment strategies of related ports (for example, in Australia and the Pacific Rim);
 - current freight land transport network and supply chain strategies, plans and programmes in the UNI, and other strategies as relevant; and
 - the size and scale of the Upper North Island economy.
2. Identifies and assesses the implications of the future freight demand for ports and port-related infrastructure in the UNI, with particular reference to current existing and planned future supply capacity to meet this demand. The study will not utilise confidential business planning information of any port and will instead make objective assumptions, as well as utilising published port plans, about likely future capacity and operations of ports.

Note: The implications of future freight demand for ports and ports-related infrastructure should also consider any major constraints, consequential impacts or dependencies that might apply, for example sensitive land use, rail corridor capacity.
3. Models a range of scenarios for the ability of UNI ports and ports-related infrastructure to meet future freight demands by applying different constraints (for example, access to land, changes to ship size, availability of transport links and inland freight hubs, global economic conditions forecasts). These scenarios will clearly outline the assumptions that have been applied.

Note: The scenarios may consider a range of ways in which increased future freight demand could be responded to, for example, a greater role for inland ports or freight hubs.
4. Identifies and assesses at a preliminary level the potential implications for the UNI ports and ports-related infrastructure and capacity to meet demand from each scenario.

² For clarification, reference to freight demand is focussed on imports and exports, not all freight movements.

³ For clarification, reference to ports principally refers to seaports and includes associated inland ports.

⁴ For clarification, reference to ports-related infrastructure includes freight transport network infrastructure, supply chain and logistics infrastructure and freight hubs.

