Kawatiri Business Review

DETERMINING THE FUTURE OF BULLER DREDGING

MARCH 2021

RMC2 Limited t/a RMC²
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SECTION ONE

INTRODUCTION

Giving context

Executive Summary

Background

Since Holcim ceased Westport operations approximately seven years ago, the institutional knowledge of the dredging business has understandably diminished. Long serving local experts left the business due to lack of sustainable and reliable work and dredging has occurred on a largely adhoc basis for several years.

The Kawatiri was essentially laid up to reduce costs in the face of significantly lower revenues which was sensible. Being laid up also had the effect of creating some deferred maintenance on the ship due to the absence of a full-time crew.

An older specialist vessel such as the Kawatiri requires an ongoing program of repairs and maintenance which is carried out by a dedicated crew. A large proportion of these works are unskilled in nature but important to the sustainability and reliability of the vessel.

The good news is that Buller's port is undergoing a transformation with approximately $1.8m of dredging work booked for the Kawatiri through government funded projects. This provides a stable income in the short term to not only reset the Buller river for shipping and create flood resilience for Westport, but to also fund some immediate maintenance needs on the vessel.

Additionally, the reality of a large scale export business (Heavy Mineral Sands) is gaining momentum and may start on the Buller in 2021. This would effectively replace the Holcim operation of the past and makes the Kawatiri a vital component of the port system (without her there is no large port).

The key to creating a sustainable business is to rebuild the institutional knowledge across the operation. This is achieved and underpinned by strong revenues in Buller and elsewhere.

Port of Nelson and Eastland Port (Gisborne) are also interested in long term partnership type agreements which could bring approximately $1m revenue per year.

Noting the opportunities and the recent maintenance issues on the Kawatiri, this paper was commissioned to conduct a full review of the dredging business. The aim as to understand how to make the dredging business safe, sustainable and profitable. There is a pathway to achieving these objectives which are outlined in sections throughout the paper.

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Ray Mudgway

Managing Director, RMC²

Business review

To complete a thorough review of the current business, and to understand the potential pathways forward, the following building blocks formed the review:

1. Define the value proposition for the Kawatiri in terms of:
    a. Buller.
    b. The West Coast Region.
    c. New Zealand.
2. Define the capital plan required to sustain operations.
    a. Define the list and cost of works required to bring the vessel (and business) up to sustainable operational standard.
    b. Define working capital requirements under all scenarios.
3. Create a comprehensive financial model that clearly shows the financial pathway to sustained operations.
4. Define the contractual positions the business requires to sustain operations. This includes crew contracts under casual and full time arrangements, Buller related contracts, Outer Region Contracts (e.g. Port Nelson).

The business review:

1. Builds on the steps already taken by BDC following the strategic review in 2020.
2. Explores the governance, ownership and management recommendations in more detail to make a final decision on business structures.
3. Looks to leverage the business opportunities that have gathered momentum since the strategy was written.

5. Complete a review of insurances required for sustained operations.
6. Recommend an operating model to sustain safe and reliable operations.
7. Clearly outline the risk mitigations for the operation, council, and rate payers of Buller.

This paper steps through each of these building blocks outlining the various options and approached in each section before making recommendations in section 4 of the paper.

SECTION TWO

VALUE PROPOSITION

Defining our opportunities

Immediate focus

Central Government funded works – approximately $2m

There are three dredging jobs requiring completion in Buller and paid for by the government:

1. Lagoon dredging to 4m for the new pontoons as funded by the PDU up to $330,000.
2. Jetty removals from the lagoon following the construction of new pontoons as funded by the PDU up to $200,000.
3. Gravel removal on the river side of half tide wall for river operability and flood protection for Westport as funded by IRG up to $1.5m.

Without an operational dredge, these services will need to be acquired through third parties at great expense (and potentially delay). Conversely, the work is paid in full by central government funds thus providing a guaranteed revenue stream in 2021 for the Kawatiri.

The lagoon works need to be completed by April. Jetty removals are scheduled for July. The river gravel extraction can start following an RFI process scheduled for late February. These works may take several months pending work methodology of the RFI process.

Additionally, the accretion of gravel in the Buller has increased the flood risk to Westport township. Therefore, a dredging capability is required long term for the township and river.

Gravel extraction *(from The IRG Ports Package 2020)*

$1,500,000

As part of the West Coast Ports strategic review in late 2019 (funded by the PGF), a hydrology report was commissioned in consultation with the Buller 2100 working group. Buller 2100 sought to understand the flood risk of increased gravel deposits in the river system. A full copy of the report is included in the attached RMC² strategy 'Securing the Future of the West Coast Ports'.

The hydrology report, in terms of the port strategy work, was scoped to:

1. Understand the commercial implications on current and future port operations.
2. Understand the sustainability of new port investment to ensure new assets were not undermined by river currents, particularly around the ex Holcim and Bathurst Coal wharves and seawalls.
3. Test the hypothesis that removing gravel at Organ's Island (upstream of the port operation), would reduce the dredging requirement around the port and at the river mouth.

The key findings of the report, identified that the impacts of the port strategy are:

1. The half tide wall (wall) opposite the Holcim and Bathurst wharves, has increased gravel build up with is redirecting the river flows towards the wharves, associated seawalls, and ultimately the township of Westport.

2. Degradation of the wall is accelerated by the gravel build up.
3. The wall is critical to narrowing the river to encourage self-flushing of the river.
4. Degradation of the wall leads to a higher flood risk.
5. Gravel extraction or dredging methods should be investigated in the port and lower river areas.
6. A targeted dredging regime around the wall is required to reduce this risk (dredging elsewhere on the Buller will not materially improve the situation with respect to the wall).
7. That gravel removal at Organ's Island is:
   a. Unlikely to minimise or reduce dredging requirements downstream around the port and at the river mouth.
   b. Likely to increase flood risk downstream if too much gravel is removed, thus reducing the overflow into the Orowaiti area.

The following recommendations were made to local government officials as a result of this study:

Recommend that BDC investigates gravel extraction methods for the half tide wall.

Recommend that the commercial negotiations for the fishing sector and HMS sector gives consideration to the gravel removal and ongoing dredging requirements for a safe and sustainable river system.

Recommend that WCRC, BDC and Buller 2100 work collaboratively to solve the flooding and sustainability risks including the consideration of funding models.

Growing the Buller and West Coast

Enabling growth and creating resilience for Buller and the West Coast

The Port Strategy outlines the need for protecting the existing fishing fleet and attempting to grow shipping through Buller by exporting heavy mineral sands (refer to the Protect : Optimise : Grow diagram below). There has been significant progress made in past 12 months to implement the strategy with multiple key components currently being executed as planned.

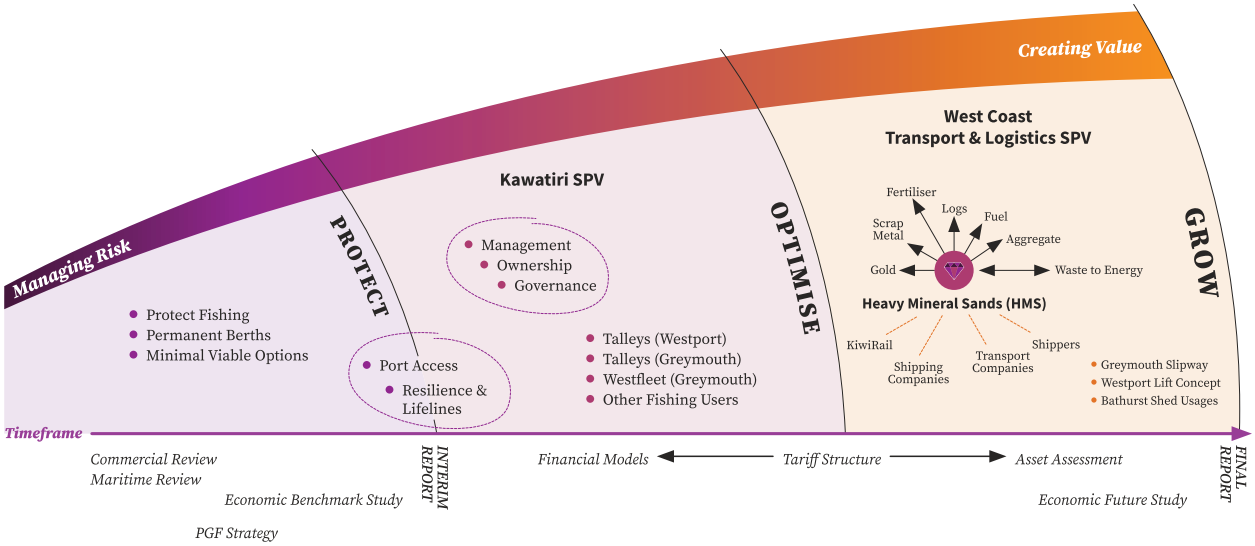
This strategy continues to gather momentum with funding provided by IRG and the PDU, as well as significant private investment, to establish a fishing precinct and a bulk precinct that any region would be proud of.

Fishing is established and is growing with expansion of Talley's processing in Westport.

> The prize that a sustainable Kawatiri operation unlocks for the Buller, and the wider region, is game changing.

The lease of Holcim wharf to West Coast Bulk Logistics Ltd enables bulk exports to be exported in 2021 and the initiative continues to make strong progress towards operationalisation.

The following four pages outline the economic benefits of growing our fishing and bulk sectors in the region. The opportunities for the region on the back of executing the ports strategy is significant. The ports strategy also outlined a plan to create greater natural and commercial resilience for the region and states the important of the Buller and associated assets in this regard.



Economic Impact Assessment *(from The Port Strategy)*

A full economic assessment was completed by Kel Sanderson in two parts:

1. **Current state.**
2. **Future state** based on establishing a coast wide FMS sector.

This provides an important lens into the potential value created through a cohesive West Coast Transport & Logistics Strategy and is summarised below. A full report is attached at Appendix A.

CURRENT STATE SUMMARY

The overall picture shows a considerable level of change in the economy of the West Coast Region between 2000 and 2018. It is generally unusual to see two main resource-based industries like forest & wood, and mining to reduce in economy share to such an extent.

In the year 2000, these industries had 12% of the Region's employment and produced 30% of the Region's value added. By 2018, the two industries employed just 7% of the Region's employment and generated 13% of the Region's value added.

These are certainly a weak part of the Region's current economy, and presumably there are some initiatives possible to recover or replace them.

Protect and Grow Fishing

There is also the potential, presumably for a greater proportion of the fish and seafood offshore of the West Coast, to be caught and processed by the people on the West Coast.

In a 2017 report on "The economic contribution of commercial fishing to the New Zealand economy", prepared for the New Zealand commercial fishing industry by BERL, the employment in harvesting in FMA7 was shown to be 966 FTEs in 2015.

This contrasts with the level shown as 19 to 34 FTEs in the StatisticsNZ data we have in the table above. The 966 FTEs involved in commercial fishing in FMA 7 presumably mostly are domiciled in other Regions, such as Nelson-Marlborough. Talleys of Motueka utilise port facilities at Westport, and it may be possible to increase the employment based there in certain conditions.

FUTURE STATE SUMMARY

At the Minerals Forum in May 2018, Minister for Energy and Resources Hon Dr Megan Woods said "There is sky-rocketing demand around the world for minerals which are used in clean-tech and which can aid our transition to a low carbon economy. That demand represents a real opportunity for New Zealand." These 'green' minerals are needed for batteries, wind turbines, solar panels, LEDs and hybrid cars.

Minerals which fall into these groups and are present on the West Coast include Garnet, Rare Earth Elements (REEs) and Ilmenite. Work which has been done to determine the size of the deposits, and potential annual production indicates that there is a potential to sustainably produce 600,000 tonnes per year.

Establish a 600,000 tonne HMS industry

This industry would mine, process and export 200,000 tonnes of industrial garnet, and 400,000 tonnes of ilmenite, mined and extracted as a product complementary with the garnet from the West Coast deposits.

This section estimates the impacts of the full industry, including the initial Stage One 100,000 tonnes garnet operation, joined by a further 100,000 tonnes of garnet and 400,000 tonnes of high-grade ilmenite.

Operations on the West Coast

On a similar basis to the estimates for Stage One above we now estimate the economic impacts of the established industry operating at a level of 600,000 tonnes per year.

Garnet and ilmenite mining, processing and export operations:

Employment	100 FTEs, permanent
Indirect employment	80+ FTEs, permanent

This implies that the operation of the production and processing industry will increase permanent employment on the West Coast by at least 180 fulltime employed.

Taking account of the different levels of production cost per tonne of the initial garnet plant, the later garnet plant(s) and the ilmenite plant, the expectation is that the total direct production cost will be of the order of $30 million per year. Taking account of the value chain impact the total addition to annual expenditure on the West Coast is expected to be $60 to $70 million.

Export earnings

The expected export return from the mineral sand exports, being of high grade is that an average return of US$150 to US$200 per tonne will be achieved. This is currently equivalent to NZ$240 to NZ$320 per tonne.

This implies that the value of exports from the 600,000 tonnes exported by this industry would be worth NZ$144 million to $192 million per year.

Recommend that the PGF approve the funding application to renew the fishing jetties to protect and enable growth in the fishing sector.

Recommend that the ‘Establishment Board’ to create a West Coast Transport & Logistics strategy be stood up and funded to attempt to maximise the economic benefit of the HMS sector.

These volumes are thought to be conservative in terms of both the resource available and the market opportunities.

Capital expenditure on the West Coast:

Garnet processing plant (200,000 tonnes)

Capital cost:	$100 million
Construction employment	30 FTE jobs over three years
Indirect employment	4 FTE jobs over three years

Ilmenite processing (400,000 tonnes)

Capital cost:	$35 million
Construction employment	20 FTE jobs over one year
Indirect employment	16 FTE jobs over one year

Storage / portside

Capital cost	$20 million
Construction employment	10 FTE jobs over one year
Indirect employment	8 FTE jobs over one year

The indications are that the total capital expenditure to develop the mineral sands industry on the West Coast would be about $155 million. This would employ directly 30 FTE jobs over three years another 30 FTE jobs over one year, which is a total of the equivalent of 30 FTE jobs over four years. This direct employment would generate indirect or value chain employment of about 24 FTE jobs over four years, giving a total increase of the equivalent of 54 FTE jobs over four years.

Resilience & Lifelines strategy *(from The Port Strategy)*

Natural disaster resilience

The resilience and lifeline team at WCRC do not currently factor in the ports of Westport and Greymouth as key lifeline assets due to their perceived poor condition and uncertain futures.

This presents a serious risk in the resilience plan for the West Coast, particularly in terms of natural disaster, given the precarious nature of the roads and rail connecting the West Coast to the rest of New Zealand. In the author's opinion, the West Coast ports must play a key role in providing much need resilience for the wider region.

For an isolated region at risk from the Alpine Fault, sea transport is essential.

Commercial resilience

The closure of main roads such as Arthur's Pass, and the semi-regular disruption to rail services (the latest being October 2019), presents significant business disruption and economic impact on that largest West Coast exporters; Westland Dairy and Bathurst Resources.

Both Westland Dairy, and Bathurst Resources, have sought contingency plans to utilise ports as an alternative, but again, due to the perceived condition of assets and their future, have struggled to achieve a robust alternative to road and rail.

Opportunity

Through the renewal of fishing jetties, and the adoption of the strategies recommended in this study, the ports will provide the confidence to WCRC and the commercial exporters, to have a credible and reliable plan to utilise ports when it is required.

Accordingly, the strategies encourage increased involvement from WCRC to achieve natural disaster resilience, and it is recommended that Westland Dairy and Bathurst contribute to the 'Establishment Board' costs to enable their alternative sea logistics options.

Essential assets

The ports need to be viewed as a system, rather than just a wharf or lagoon. The critical elements of the port system in relation to resilience and lifelines are:

1. Seawalls.
2. River access (dredging).
3. Wharves that are capable of berthing large ships and offloading/loading cargoes and Pax.
4. Road and rail access to berths is ideal including marshalling land.
5. Safe passage from the sea to the wharves including navigation and marine services.

There are limited credible options available at present with the following seen as priorities:

1. Holcim wharf is by far the most resilient and valuable wharf to achieve sizeable shipping on the West Coast presently. The issue with the wharf is the Buller River bar access which requires ongoing dredging. This is a critical element which must be maintained in order to achieve resilience.
2. The Greymouth bar is self-flushing, but the general-purpose wharf is in very poor condition and not in itself a resilient structure.

Recommend that the recommended strategies to maintain the Buller River are executed to not only present commercial opportunities, but to underpin a resilience strategy that involves a credible sea option for the West Coast.

Recommend that the general-purpose wharf in Greymouth is maintained to its current state as a secondary option to Holcim wharf.

Recommend that WCRC, Westland Dairy, Bathurst Resources and other West Coast entities establish a clear resilience plan to utilise the assets at Westport and Greymouth if a natural disaster occurs and road and rail is not an option.

Dredging growth opportunities

Outer region contracts

The Kawatiri's small size compared to its competitors presents a unique value proposition for dredging at smaller NZ ports.

Port of Nelson, Eastland Port, CentrePort, Port of Oamaru and potentially others all have a need for boutique and small scale dredging.

Some of this work consists of capital dredging (one off assignments that are required to 'reset' a port) where others require annual or biannual maintenance dredging thus providing a longer term revenue stream.

Key enablers for outer region contracts

Port of Nelson and BDC had a robust debrief following the recent work. For Nelson, the dredge is important to them and they are keen to engage for a long term contract. However, they must be reassured of its reliability and professionalism before doing so citing recent reliability issues and crewing issues.

There is a lot of work to do before BDC could achieve the required levels of service to enter into long term contracts. However, by following the path outlined in this paper outer port work is a real potential option from later this year.

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Partnership approach

Previous contracts have been adhoc and a one-sided 'contractor agreement' arrangement. This did not serve BDC or Nelson well on the last contract.

If outer port work is to be pursued, a longer term 'partnership' type contract is required that provides the certainty and revenue for BDC, and the reliability and professionalism for the client.

Both Port of Nelson and Eastland port are keen to enter into such negotiations. There is potential that the two annual maintenance contracts at those ports are tied together in one 'ports agreement' which provides increased surety for all parties. This is the model that is applied by Dutch Dredging at larger ports.

The contract must also enable BDC to look after its own port interests at all times. This may require a negotiation around timings at outer ports, as well as contractual provisions to enable the vessel to return to Buller for works if required at short notice. These are standard approaches in the industry.

SECTION THREE

BUSINESS PLAN

Leveraging our opportunities

Capital plan

Vessel works

1. Immediate works $200,000. These can be funded by revenues from the government contracts throughout the work.
2. 2022 slipping estimated $2.2m Some of these works can be funded from operating surpluses but may require an investment from BDC. These works would only be completed if the growth opportunities outlined happen. By doing so, the works would be repaid quickly through operating revenues.

A full list of works has been created by the Port Manager, in consultation with the dredging crew and SGS. An independent SGS report is appendix B.

The costs are estimates only. Thorough assessments and quotes from industry professionals are required and recommended before any major works are carried out.

Working capital

Based on all scenarios, there will not be a working capital requirement for dredging (noting that there wouldn't be any dredging if sand exports didn't occur).

If it was decided to continue outer port work (without the need for large scale work in Westport), there may be a requirement to top the operation up from time to time depending on the success of each individual job (similar to that experienced to date).

The fishing fleet will not sustain dredging operations.

Financial model

Cashflow model

To fully understand the cash implications of the dredging operation, a cashflow model has been created based on the BDC budget. Maintenance provisions as outlined in this paper have also been added. This approach was taken (rather than a Profit and Loss) so cash requirements from council are clearly understood.

To help understand the different phases, the model enables the user to select outer port work or remove it to understand how sustainable the operation is. In summary, the model shows:

1. The annual operating budget of the dredge with a full time crew is approximately $1.7m if it remains in the Buller. This scenario would only occur if sands exports were to occur. Revenues from these activities would be approximately $2.6m per year. Therefore, the Buller dredging business under a sands export model is profitable and sustainable.
2. Outer Port work (based on BDC budget ratios) costs approximately $360,000. If revenues are contracted at $1m per year (which is the request from Nelson and Gisborne), this work is also profitable and sustainable.
3. BDC does not have chase outer port work to create a sustainable business model.
4. Outer Port work on its own is marginal and should be carefully considered. It will not sustain a full time crew.

Extracts from the model as summarised above are in the Appendices.

Key points to note for the model:

- The model has been prepared on a pre-tax basis.
- All calculations and assumptions are detailed on the “Assumptions” worksheet.
- With the exception of items relating to additional out of port dredging work, revenues and expenses are as per the draft Budget provided to us on 10 March.
- A complete reliance has been put on the budget data provided by BDC. General comments:
  - No dredging income has been budgeted in 2021/22 (with the exception of the Govt work). However, all costs appear to have been allowed for - fuel, crew etc so the model is showing a pessimistic outcome.
  - Additional operating costs are added for outer port work. In time, some of these may prove to be double ups.

With respect to the additional out of port the following additional costs on the ratio of budgeted costs to budgeted revenue:

- *Fuel:* 11.6% of the additional revenue
- *R&M:* 7% of the additional revenue (note this excl. slip charges)
- *Other Operating Costs:* 2.7% of additional revenue

The 2019 Nelson campaign was reviewed and noted there are other out of port specific costs for the likes of mobilisation, surveys, crew transfers, port charges etc. These specific costs accounted for 14.7% of the revenue for that campaign so these have been applied to this model.

Crew costs are assumed to be fixed - so no further costs are added for the out of port work.

Contractual positions

Legal advice

Several dredging contracts were reviewed as part of this strategy including the existing Nelson/BDC version.

To gain a deep understanding of the pitfalls of dredging contracts, the services of Chris Dann, Partner Anthony Harper, were used to discuss the operation and potential contracts (particularly outer port work).

Chris' in-house experience in the UK as Corporate Legal Manager at Exel Plc, then the world's largest logistics company, provided him with a commercially pragmatic approach and an in-depth understanding of the shipping and logistics industry.

He has continued to develop this expertise and is now regarded as one of the country's leading transport and logistics lawyers. Chris is ranked as a "Leading Individual" in the 2018-2021 Legal 500 Asia Pacific Guides. In 2020 he was awarded the Chartered Institute of Logistics and Transport's Communication Award for his contributions to the sector.

Chris heads Anthony Harper's corporate advisory team and has over 20 years' of experience in commercial contracts, procurement, manufacturing, supply and distribution, corporate structuring and governance, joint ventures and mergers and acquisitions.

Chris Dann

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Examples of work

- Advising Lyttelton Port Company on a range of development, transport, logistics, relationship and procurement arrangements (including dredging works; and vessel, crane and container handling equipment procurement (construction, purchase, hire and charter)).
- Acting for a number of Ports in preparing and negotiating container terminal, depot services and stevedoring/marshalling agreements with shipping lines and other parties.
- Advising CentrePort in relation to the establishment of its inland container terminal in Wanganui and on a range of services and relationship arrangements (including with KiwiRail for CentrePort's "CentreRail" freight transportation service).
- Advising Southland District Council on both template and bespoke procurement contracts for services and minor works.
- Advising Southland District Council on the procurement process and approach and regulatory issues and implications in relation to contracts for community services, including under the Local Government Act and Local Authorities (Members' Interests) Act 1968, following a service delivery review under s17A of the LGA.
- Lead advisor to the Ministry of Business, Innovation and Employment in relation to the domestic and international procurement of petroleum reserves for the New Zealand Government, including tendering, procurement and probity advice and documentation, tender evaluation, and contract drafting and negotiation.

Legal approach

Chris' advice has been provided to management in full, however the following is important for the strategy:

1. First, we think that there are two general 'approach' considerations:

    1.1. We recommend a relational/"partnering" approach with the client in order to minimise the risk of surprises which can lead to risk and dispute. Two aspects are particularly important:

        (a) proper definition of the full scope of works (explained further below); and

        (b) identifying and properly allocating risks to the party best placed to address those risks (including, where that party is the Council, ensuring that the Council is properly remunerated for those risks).

    1.2. The form of contract should be appropriate for dredging services. In our view, an industry standard construction contract (e.g. NZS 3910 – 3916 suite) is not appropriate for dredging services. There are considerations which are unique to dredging operations that are not addressed in a construction contract (and vice versa). We suggest that the Council considers either:

        (a) preparing a template dredging contract which is specifically designed for dredging services by the Council using Kawatiri; or

        (b) uses the standard form "FIDIC® Form of Contract for Dredging and Reclamation Works".

One advantage of the FIDC form of contract is that has the same 'look and feel' as a standard construction contract (an "Appendix" of specific details, bespoke "Particular Conditions" if required and a set of "General Conditions"), so we expect that Council staff will find it relatively user friendly, yet it is specifically designed for dredging (both capital and maintenance dredging, as well as reclamation work and ancillary construction) and somewhat simpler than a standard form construction contract.

Business structure

Ownership

The review considered these four scenarios:

1. Status Quo
2. Transfer to CCO (Buller Holdings?)
3. Partnership (other Ports/Government)
4. Opco/AssetCo

Once the staged approach was fully understood, it became apparent that the Kawatiri:

1. Is a strategic asset for the Buller.
2. Can be sustainable.
3. Is a long term option (doesn't need replacing for many years).
4. Has value for other ports.
5. Requires local institutional knowledge to operate effectively and safely.

When considering the streams of potential work, the recommended structure is quite simple:

1. BDC retains 100% ownership.
2. The crew is hired full time (pending work) and is locally based.
3. Outer port contracts are long term and partnerships, not service agreements.
4. Third party experts are engaged formally for engineering assessments and works.

This model is simple, gives the region full control over its strategic assets, generates local high paid jobs, and creates win win scenarios for partner ports.

Risks

The following outlines some key risks and how this strategy is seeking to mitigate/minimise or avoid the risks.

Financial

Currently, the operation loses money, capital requirements are high (slipping), it is rate payer funded, and external contracts are not reliably profitable.

The staged approach as recommended ensures:

1. Short term maintenance is paid by contracted works from government.
2. 2022 major works is defined but not committed to until there is confirmed work in Buller (sands exports)
3. If sands exports happens, the operating model is profitable and sustainable and creates enormous value for Buller and the region.
4. Outer port contracts are not entered into unless they are strategic/partnership in nature, long term (guaranteed revenue) and the council can commit to major works on the vessel.
5. The self funding staged approach removes the need for rate payer subsidies for dredging operations.

Operational

Currently, the part time contracted crew is expensive and hard to keep current and motivated. There is low institutional knowledge of the operation as a whole and this puts reliance on third parties who may not have our best interests at heart.

Additionally, the current operation lacks continuity and is not capable of maintaining full operability at Buller for bulk shipping.

The staged approach:

1. Creates an operating model that will sustain full time Westport based crews.
2. The funds to manage the business professionally.
3. Will rebuild institutional knowledge.

Reputational

External contracts have been a mix of successes and the value proposition of the Kawatiri diminishes with bad experiences (like the last Nelson contract). Outer port work may reduce if the operation is not reset into a professional format.

The staged approach:

1. Commits the dredge to work only if it is fit for purpose. This includes the vessel, equipment, operation, crew and management.

Health and Safety

Dredging operations are specialised activities that require professionals. Casual crewing increases the H&S risk profile through inconsistent work at multiple ports and a lack of currency.

Direct oversight on outer region contracts is limited and largely outsourced to the master (who is a contractor).

Deferred maintenance of the vessel increases the H&S risk profile.

This staged approach:

1. Ensures all systems are safe and sustainable for each stage of work.
2. Focusing on work creates the need for a full time, dedicated and local crew.
3. Oversight becomes less important with a full time employed crew with a vested interest in the operation.
4. The plan does not defer maintenance, it ensures it is on time and fully funded.

Capital

There has been concern that the capital required to sustain operations is unachievable due to low revenues and high risks.

There is limited or no appetite from council to commit further capital under the existing model.

This staged approach:

1. Generates the income required to sustain operations.
2. Does not require rate payer funds.
3. Is largely self funding, and if not entirely, any committed funds can be repaid quickly.

SECTION FOUR

OUTCOMES

Taking action

Summary

There is now a clear plan on how to create a sustainable dredging operation for Buller:

1. Complete all government works as outlined.
2. In parallel, start long term negotiations with outer ports to understand the position. Engage professional engineers to give a full assessment of major works needed in 2022.
3. Understand the export sands opportunity. If that is confirmed as a start:
    a. Hire a full time crew and start building institutional knowledge across the operation.
    b. Book the vessel in for major works as defined by experts.
4. If export sands does not happen:
    a. Reassess the sustainability of operations and major works requirements before signing any outer port contract.

Recommendations

Immediate focus of government funded works

Following a thorough survey of the vessel by SGS (qualified company providing professional services), and discussions with the current contract crew, these works can safely be completed by the Kawatiri without major works or capital being spend on the vessel.

Recommend that a casual crew is contracted immediately for works.

Recommend that BDC commits up to $200,000 for immediate maintenance works as recommended by SGS as follows:

1. Commission a qualified marine electrical engineer to understand the sychronisation of the gensets. From this, a program of works will be created for next year's slipping to confirm the capital requirements and would potentially fix the intermittent bow thruster issue.
2. Fix all hand rails which are currently rusted (non skilled labour)
3. Review the ventilation and alarm arrangements in the engine room (through SGS)
4. Lift the floor plates in the engine room, clean and make good any maintenance under the floor. This also provides clear access to assess the sea water pipes and hull ahead of next year's slip.

Outer port contracts

Recommend that the FIDC contract form is adopted.

Recommend that outer port contracts are long term and partnerships, not service agreements.

Recommend that Chris Dann is engaged to form a robust contract for works if this option is pursued.

Recommend that no outer port contracts are signed until the export sands business is understood (to underpin major works in 2022).

Structure

Recommend that BDC retains 100% ownership of the Kawatiri.

Recommend that a full time crew that is based locally is hired (pending the export sands outcome).

Recommend that third party experts are engaged formally for engineering assessments and works.

APPENDICES

APPENDIX A

FINANCIAL MODEL

KAWATIRI DREDGE
CASH FLOW MODEL

Notes:

1 Unless stated otherwise, values shown within this file are exclusive of GST and presented in NZD.
2 Cash flows are presented in nominal terms (i.e. values **include** assumed general price / cost inflation over time).
3 Cells highlighted in **orange** represent inputs / assumptions that may be manually altered.
No other values should be altered without careful consideration, as they generally rely on supporting calculations / formula.
4 Cash flows are presented on a before tax basis. The impact of income tax (if any) should be separately considered.
5 For supporting calculations and assumptions refer to the worksheet 'Assumptions'.

Select Scenario	
Budgeted Dredging	**Included**
Budgeted Government Related Work	**Included**
Additional Out of Port Dredging	**Excluded**

Cash Flows

	Assumption Ref.	Source	1 2021/22	2 2022/23	3 2023/24	4 2024/25	5 2025/26	6 2026/27	7 2027/28	8 2028/29	9 2029/30	10 2030/31
1) Cash flows to repair / extend life of dredge												
Dredge Slipping	A1	Draft Budget		(2,200,000)								
Contribution from interested third party	A2	Draft Budget	-									
Total cash flows to repair/extend life of dredge			**-**	**(2,200,000)**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2) Cash flows from operating activities												
Revenue												
Per Draft Budget												
Dredging Income	A3	Draft Budget	300,000	2,601,000	2,653,020	2,703,427	2,752,089	2,801,627	2,849,254	2,897,692	2,946,952	2,994,104
Government Related Work	A4	Draft Budget	1,800,000	204,000	-	-	-	-	-	-	-	-
Additional Out of Port Work												
Additional Out of Port Dredging Work	A5	Refer A5	-	-	-	-	-	-	-	-	-	-
Total Revenue			2,100,000	2,805,000	2,653,020	2,703,427	2,752,089	2,801,627	2,849,254	2,897,692	2,946,952	2,994,104
Operating Expenses												
Per Draft Budget												
Crew Costs	A6	Draft Budget	(1,111,489)	(1,068,415)	(1,088,781)	(1,109,028)	(1,129,438)	(1,150,680)	(1,171,640)	(1,193,228)	(1,215,710)	(1,237,917)
Fuel	A11a	Draft Budget	(307,122)	(302,554)	(308,605)	(314,469)	(320,129)	(325,892)	(331,432)	(337,066)	(342,796)	(348,281)
Repairs and Maintenance	A10a	Draft Budget	(197,835)	(181,392)	(185,019)	(588,535)	(191,928)	(195,383)	(598,705)	(202,083)	(205,518)	(608,806)
Contractor Depth Sounding	A7	Draft Budget	(9,000)	(9,180)	(9,364)	(9,542)	(9,713)	(9,888)	(10,056)	(10,227)	(10,401)	(10,567)
Insurance	A8	Draft Budget	(25,000)	(25,500)	(26,010)	(26,504)	(26,981)	(27,467)	(27,934)	(28,409)	(28,892)	(29,354)
Other Operating Costs	A9a	Draft Budget	(68,268)	(69,633)	(71,026)	(72,376)	(73,678)	(75,005)	(76,280)	(77,576)	(78,895)	(80,158)
			(1,718,714)	(1,656,674)	(1,688,806)	(2,120,453)	(1,751,869)	(1,784,315)	(2,216,047)	(1,848,589)	(1,882,212)	(2,315,084)
Additional Out of Port Work												
Fuel for Additional Out of Port Work	A11b	% of Revenue	-	-	-	-	-	-	-	-	-	-
Repairs and Maintenance - Additional Out of Port Work	A10b	% of Revenue	-	-	-	-	-	-	-	-	-	-
Mobilisation, maps, surveys, crew transfers etc - Out of Port	A12	% of Revenue	-	-	-	-	-	-	-	-	-	-
Other Operating Costs - Additional Out of Port Work	A9b	% of Revenue	-	-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-	-
Total Operating Expenses			(1,718,714)	(1,656,674)	(1,688,806)	(2,120,453)	(1,751,869)	(1,784,315)	(2,216,047)	(1,848,589)	(1,882,212)	(2,315,084)
Total cash flows from operating activities			**381,286**	**1,148,326**	**964,214**	**582,974**	**1,000,220**	**1,017,312**	**633,208**	**1,049,103**	**1,064,740**	**679,020**
Total Cash Flow in Year (Before Tax)			**381,286**	**(1,051,674)**	**964,214**	**582,974**	**1,000,220**	**1,017,312**	**633,208**	**1,049,103**	**1,064,740**	**679,020**
Cumulative Cash Flow (Before Tax)			**381,286**	**(670,388)**	**293,826**	**876,800**	**1,877,021**	**2,894,333**	**3,527,540**	**4,576,643**	**5,641,384**	**6,320,404**

KAWATIRI DREDGE
CASH FLOW MODEL

Notes:

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3 Cells highlighted in **orange** represent inputs / assumptions that may be manually altered.
No other values should be altered without careful consideration, as they generally rely on supporting calculations / formula.
4 Cash flows are presented on a before tax basis. The impact of income tax (if any) should be separately considered.
5 For supporting calculations and assumptions refer to the worksheet 'Assumptions'.

Select Scenario	
Budgeted Dredging	**Included**
Budgeted Government Related Work	**Included**
Additional Out of Port Dredging	**Included**

Cash Flows

	Assumption Ref.	Source	1 2021/22	2 2022/23	3 2023/24	4 2024/25	5 2025/26	6 2026/27	7 2027/28	8 2028/29	9 2029/30	10 2030/31
1) Cash flows to repair / extend life of dredge												
Dredge Slipping	A1	Draft Budget		(2,200,000)								
Contribution from interested third party	A2	Draft Budget	-									
Total cash flows to repair/extend life of dredge			**-**	**(2,200,000)**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2) Cash flows from operating activities												
Revenue												
Per Draft Budget												
Dredging Income	A3	Draft Budget	300,000	2,601,000	2,653,020	2,703,427	2,752,089	2,801,627	2,849,254	2,897,692	2,946,952	2,994,104
Government Related Work	A4	Draft Budget	1,800,000	204,000	-	-	-	-	-	-	-	-
Additional Out of Port Work												
Additional Out of Port Dredging Work	A5	Refer A5	1,000,000	1,020,000	1,040,400	1,061,208	1,082,432	1,104,081	1,126,162	1,148,686	1,171,659	1,195,093
Total Revenue			3,100,000	3,825,000	3,693,420	3,764,635	3,834,521	3,905,707	3,975,417	4,046,377	4,118,612	4,189,196
Operating Expenses												
Per Draft Budget												
Crew Costs	A6	Draft Budget	(1,111,489)	(1,068,415)	(1,088,781)	(1,109,028)	(1,129,438)	(1,150,680)	(1,171,640)	(1,193,228)	(1,215,710)	(1,237,917)
Fuel	A11a	Draft Budget	(307,122)	(302,554)	(308,605)	(314,469)	(320,129)	(325,892)	(331,432)	(337,066)	(342,796)	(348,281)
Repairs and Maintenance	A10a	Draft Budget	(197,835)	(181,392)	(185,019)	(588,535)	(191,928)	(195,383)	(598,705)	(202,083)	(205,518)	(608,806)
Contractor Depth Sounding	A7	Draft Budget	(9,000)	(9,180)	(9,364)	(9,542)	(9,713)	(9,888)	(10,056)	(10,227)	(10,401)	(10,567)
Insurance	A8	Draft Budget	(25,000)	(25,500)	(26,010)	(26,504)	(26,981)	(27,467)	(27,934)	(28,409)	(28,892)	(29,354)
Other Operating Costs	A9a	Draft Budget	(68,268)	(69,633)	(71,026)	(72,376)	(73,678)	(75,005)	(76,280)	(77,576)	(78,895)	(80,158)
			(1,718,714)	(1,656,674)	(1,688,806)	(2,120,453)	(1,751,869)	(1,784,315)	(2,216,047)	(1,848,589)	(1,882,212)	(2,315,084)
Additional Out of Port Work												
Fuel for Additional Out of Port Work	A11b	% of Revenue	(116,322)	(118,649)	(121,022)	(123,442)	(125,911)	(128,429)	(130,998)	(133,618)	(136,290)	(139,016)
Repairs and Maintenance - Additional Out of Port Work	A10b	% of Revenue	(69,739)	(71,134)	(72,557)	(74,008)	(75,488)	(76,998)	(78,538)	(80,108)	(81,711)	(83,345)
Mobilisation, maps, surveys, crew transfers etc - Out of Port	A12	% of Revenue	(147,233)	(150,178)	(153,181)	(156,245)	(159,370)	(162,557)	(165,808)	(169,124)	(172,507)	(175,957)
Other Operating Costs - Additional Out of Port Work	A9b	% of Revenue	(26,772)	(27,307)	(27,853)	(28,410)	(28,979)	(29,558)	(30,149)	(30,752)	(31,367)	(31,995)
			(360,066)	(367,268)	(374,613)	(382,105)	(389,747)	(397,542)	(405,493)	(413,603)	(421,875)	(430,313)
Total Operating Expenses			(2,078,780)	(2,023,942)	(2,063,419)	(2,502,559)	(2,141,616)	(2,181,857)	(2,621,540)	(2,262,192)	(2,304,087)	(2,745,396)
Total cash flows from operating activities			**1,021,220**	**1,801,058**	**1,630,001**	**1,262,077**	**1,692,905**	**1,723,851**	**1,353,877**	**1,784,186**	**1,814,524**	**1,443,800**
Total Cash Flow in Year (Before Tax)			**1,021,220**	**(398,942)**	**1,630,001**	**1,262,077**	**1,692,905**	**1,723,851**	**1,353,877**	**1,784,186**	**1,814,524**	**1,443,800**
Cumulative Cash Flow (Before Tax)			**1,021,220**	**622,278**	**2,252,279**	**3,514,356**	**5,207,262**	**6,931,112**	**8,284,989**	**10,069,175**	**11,883,699**	**13,327,500**

APPENDIX B

SURVEYOR REPORT

KAWATIRI

MNZ 100258

PERIODIC SURVEY REPORT

REPORT NUMBER	**DGH443**
DATE OF SURVEY	**11th & 12th March 2021**
SURVEYOR NAME	**Dominic Harvey SRV002**

SIGNATURE: Dominic Harvey

REPORT DATE **19th July 2020**

PICTON SGS NEW ZEALAND

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VESSEL DETAILS

Name of vessel	KAWATIRI
MNZ Number	100258
Name of operation	Buller District Council
Contact person	Paul Scanlon
Survey type	NZ Loadline
Surveyors name	Dominic Harvey SRV002
Survey date	11th & 12th March 2021
Certificate of Survey expiry date	26th September 2022
Certificate of Survey number	DGH212

Length Overall	55.15 m
Beam	12.00 m
Home Port	Westport
Hull Material	Steel
Total Engine Power (kW)	700
Year built	1979
Category of Operation	Non-Passenger Ship
Activities	Dredging
Operating limits	Inshore / Restricted Coastal Limits
Operating limits description	NZ Inshore Limits / NZ Coastal Limits restricted to within 12nm
Min number of crew	6 / 7
Max number of Passengers	0
Max persons on board	12

CERTIFICATES / STATEMENTS HELD FOR THIS VESSEL

Certificates / statements held marked with **X**

Certificate of Survey	X	Registration	X	Tonnage	X	Load Line	X
Compass Survey	X	Radio Survey	X	Build Certificate	X	IOPP	X
Life raft Inspection	X	Design Approval	X	Inclining Test	X	Stability	X
Heel Test		Equipment list	X	Exemption	X	Other	

MAJOR SURVEY DATES

Midterm survey before	TBA
Renewal survey (shaft) before	26/09/2022

INTRODUCTION

All findings and observations applicable to date and time of survey only and subject to suitable access made to the vessel at that time. All findings taking into account acceptable wear and tear of an item, build material, type and age of vessel.

The ship was visited alongside in Westport on 11th and 12th March 2021. The Annual Load Line endorsement was done and a general condition survey conducted. Machinery and equipment was checked and documentation reviewed.

The Survey Plan as required by NZ Maritime Rule 19.43 is in place.

The following documents required by NZ Maritime rule 19.45 and 19.46 were also available:

- Maintenance plan
- Safety equipment list
- Spare part list

EXECUTIVE SUMMARY

This survey was to ensure compliance with the relevant Maritime and Marine Protection rules as per Survey Performance Requirements set by the Director of MNZ.

The Survey Plan has been approved by a recognised surveyor and must be followed.

DEFICIENCIES AND CORRECTIVE ACTIONS

No.	Description of deficiency and corrective action	Rectification date
1	Deck handrails are to be repaired as required, rusted sections to be renewed and all rails to be properly coated.	15/06/2021
2	Remote valve shut off arrangements inc. deck handles to be made good	13/04/2021
3	Stability Book and Load Line Conditions of Assignment to be available with bridge documentation	13/04/2021
4	Effectiveness of ventilation shut offs, Engine Room ventilation and CO_2 alarm systems (Engine Room & Pump Room) to be verified.	15/06/2021

REFERENCE DOCUMENTS

Document	Reference No
Previous Survey Records	SGS & LR

SURVEY FINDINGS

DECK LOAD LINE ITEMS

Compliance with the International Load Line Convention is required for an over 24m NZ Ship such as MV Kawatiri. SGS form 621 itemises according to the specific regulations but correct stability, marking, watertight integrity, prevention of down flooding, ventilation, prevention of excessive tank pressures and safe movement of crew are the principle items.

The general condition of deck items aboard Kawatiri is now poor and significant maintenance is required to remedy defects and bring the standard up to acceptable standards.

Poor handrail condition is now becoming a safety issue. There are fully corroded joints and pieces of pipework that need to be cropped and replaced followed by proper priming and painting.

Tank breather and filler pipes and save-alls should be included in this work. All breathers with ID greater than 40mm should have intact gauzes.









The condition of door and hatch seals and closing arrangements is generally acceptable.
Proper means are to be in place to stop ingress to the chain locker through the spurling pipes.



ENGINE ROOM

General poor maintenance of the Kawatiri is evident in the Engine Room were there are particular areas of concern. With respect to Load Line compliance remote valve closure, effective ventilation, ventilation shut-offs and CO_2 alarms are all significant. Lack of cleanliness below the floor plates and the unknown condition of much of the piping should be addressed as soon as practical.

The construction or fitting of bunding under and around the four engines in the engine room should be considered in order to improve the condition and the ability to manage the cleanliness of the under floor spaces in the engine room going forward.





MAIN ENGINES

Propulsion for Kawatiri is provided by the 2 original 470 hp Mirrlees Blackstone engines.

These are currently in acceptable condition subject to known necessary maintenance issues.

Eventual replacement of the main engines should be considered with the natural choice being later generation MAN diesel engines.

GENERATORS & SWITCHBOARDS

Electrical power for MV Kawatiri is provided by 2 Blackstone engines. These have to be synchronised to generate enough power for the bow thruster. Issues with this system have caused loss of the bow thruster including at times critical to ship manoeuvring.

A proper remedy for this should be determined, firstly by ensuring there are no problems with the synchronising controls but with renewal of the generators and replacement with, at least one, larger generator being considered as options.

PUMP ROOM

The general condition of the pump room is also poor although the level of corrosion is not yet excessive.

The main and secondary dredge pumping systems are functioning well enough.

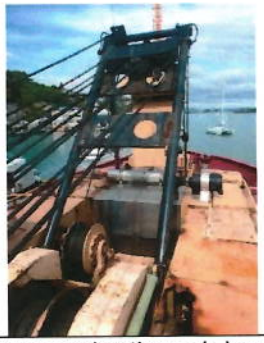
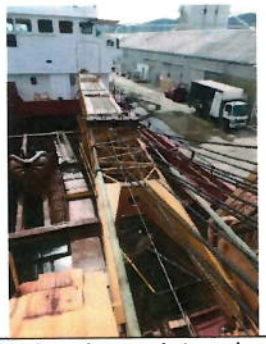
Refinement of bunding arrangements to localise flooding during blockage clearing should be done.

DECK CRANE

The deck crane is a remounted crawler crane. The boom has recently been refurbished and the motor replaced. A new hoist alarm was also fitted last year. Concerns have been expressed over the condition of the slewing arrangement and the drum brakes but no specific causes have been identified. Further investigation is strongly recommended.

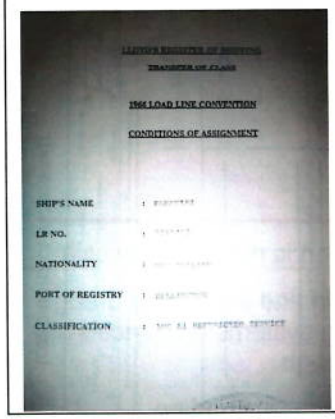


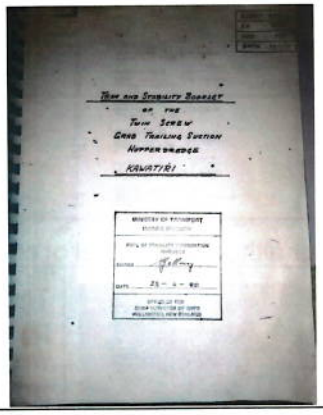


The plate condition of the secondary structure under the cab is very poor but this has been determined as non-critical.

DOCUMENTATION





Covers of Trim & Stability Book and Conditions of Assignment are shown – last sighted at the 2020 Annual Load Line survey. Copies of the full documents should be available with the Bridge Documents along with the current Certificate of Survey, Load Line Certificate with Annual Endorsement pages, Radio Certification and the Crane Certificate and Cargo Gear Register with Annual Endorsements.

The up to date Survey Plan, Maintenance Plan and Equipment List (LSA, FFA & 1st Aid) should also be available.

- End of Report -

APPENDIX C

ANTHONY HARPER LEGAL ADVICE

MEMORANDUM

To	Ray Mudgway, RMC2 Limited and to Buller District Council
From	Chris Dann, Anthony Harper
Subject	**KAWATIRI DREDGE - CONTRACTING APPROACH, RISKS AND ISSUES**
Date	17 March 2021

1. We understand that RMC2 Limited has been engaged by the Buller District Council to undertake a review into the Council's dredging operations. The Council provides dredging services, using the Council owned *Kawatiri* dredge, for other NZ ports from time to time under contract, in addition to the *Kawatiri* being required to dredge the Buller River.

2. In connection with RMC2's review, you have asked us to outline some high level key considerations for dredging contracts in light of our experience of the same in our work for other ports.

Approach

3. First, we think that there are two general 'approach' considerations:

   3.1. We recommend a relational/"partnering" approach with the client in order to minimise the risk of surprises which can lead to risk and dispute. Two aspects are particularly important:

      (a) proper definition of the full scope of works (explained further below); and

      (b) identifying and properly allocating risks to the party best placed to address those risks (including, where that party is the Council, ensuring that the Council is properly remunerated for those risks).

   3.2. The form of contract should be appropriate for dredging services. In our view, an industry standard construction contract (e.g. NZS 3910 – 3916 suite) is not appropriate for dredging services. There are considerations which are unique to dredging operations that are not addressed in a construction contract (and vice versa). We suggest that the Council considers either:

      (a) preparing a template dredging contract which is specifically designed for dredging services by the Council using *Kawatiri*; or

      (b) uses the standard form "FIDIC® Form of Contract for Dredging and Reclamation Works".

   One advantage of the FIDC form of contract is that has the same 'look and feel' as a standard construction contract (an "Appendix" of specific details, bespoke "Particular Conditions" if required and a set of "General Conditions"), so we expect that Council staff will find it relatively user friendly, yet it is specifically designed for dredging (both capital and maintenance dredging, as well as reclamation work and ancillary construction) and somewhat simpler than a standard form construction contract.

Scope of works

4. As noted above, proper upfront definition of the scope of the required works is crucial – to identify risks, properly price the works and properly plan the execution of the works. Scope issues include the following:

   4.1. *Soils information:* Good quality and comprehensive information on the nature and extent of the soils to be dredged and disposed of is required. Failure to obtain, and properly take account of the implications of, this information prior to contracting is likely to lead to delays and additional costs. Consider how much material needs to be removed (and/or to what depth) and from what areas. Put another way, what is the

definition of 'success'? Understand where the disposal areas are and any access/timing issues – how long will it take to sail from the dredging area to the disposal area?

4.2. *Environmental information:* This information will be required in order to obtain the necessary consents for the works but will also be important to the contractor's ability to properly scope the works (e.g. tidal information and hydrographic plans).

4.3. *Measurement:* It is necessary to specify a method and process for measurement of the dredging works (including calibration of measurement equipment and supervision and timing of measurement). Typically there will be 'in' and 'out' surveys at the beginning and end of the works and interim surveys for payment certificates. Consider whether there should be defined "tolerances" for the works (relative to the defined scope requirements) for both payment and completion.

5. Normally the *design* of the works is a matter for the client (called the "Employer" in the FIDIC form of contract) but if the contractor is to have some design responsibility it is essential that the Employer's requirements are described clearly and precisely. The FIDIC contract Guidance Notes suggest the following relevant considerations:

5.1. the purpose for which the works are required;

5.2. the size, speed and draught of vessels using the relevant harbour/waterway;

5.3. the design storm surge level and wave height and period;

5.4. the earthquake forces to be accounted for;

5.5. the stability criteria; and

5.6. the volume of acceptable over-topping.

Programme for works

6. Once the overall scope of the works is ascertained, a specific programme for carrying out the works should be prepared and agreed. Consider the following:

6.1. Usually, efficient and cost effective dredging works requires the contractor to be able to *work continuously by day and by night*. Ideally, the contractor would obtain contractual assurance that he is able to do that. Consider what might interfere with continuous works (e.g. shipping) and develop a programme (and a remuneration model) to mitigate (and/or compensate the contractor for) interruption and interference.

6.2. Normally the contract will expressly provide for the client ("Employer") to *'take over' each area in respect of which the dredging work has been completed* (i.e. in sections, rather than the entire programme when all works are completed). Otherwise, the contractor will effectively be responsible for the maintenance of the dredging work after completing each section.

6.3. A right for the contractor to be able to influence the scheduling of the dredging programme, postpone the commencement of a dredging programme and/or suspend works during a dredging programme, in order to return home as and when necessary to *attend to "emergency dredging" of the Buller River (or at any other port)* to clear the navigational channel and enable normal shipping operations to safely continue following a storm or other event.

Timeframes

7. The contract would normally define a "Commencement Date" and a "Time for Completion" for the works. Obviously care is needed to ensure those dates/timeframes are achievable, having regard to the scope and programme factors outlined above. Issues to watch out for here include:

7.1. When the contractor is entitled to an *extension of time*. The FIDIC form of contract set out a series of "Defined Risks" for which an extension of time is permitted (discussed in paragraphs 8-9 below). The contractor should consider any other circumstances in which further time should be allowed for the works (i.e. how might delays arise which the contractor should not be responsible for?).

7.2. Any contractual consequences of late completion. The FIDIC form of contract contemplates *liquidated damages* being payable by the contractor, although in our experience LDs are often successfully resisted/rejected by a contractor.

Defined Risks

8. The FIDIC form of contract provides for prescribed *"Defined Risks"*, the implications of which are placed on the client/Employer. Regardless of the form of contract used, the concept is important – in what circumstances should the contractor be relieved of liability (including for delay) and/or be entitled to recover additional costs?

9. These Defined Risks are typically force majeure type events (i.e. events/circumstances outside the contractor's control), including:

9.1. "interruptions due to ship movements in excess of those specified in the Contract Data"

9.2. "climactic or hydrological conditions more adverse than those specified in the Contract Data"

9.3. Unforeseeable physical obstructions or conditions.

The contractor should consider what other events/circumstances should be client, not contractor, risks.

Engineer

10. Just like for construction contracts, it is usual for dredging contracts to make provision for an "Engineer", often an employee of the client, to be responsible for valuing, certifying and making determinations in relation to the dredging works. While the Engineer is required to act promptly and fairly, the contractor may wish to insist upon an *independent expert* to fill this role.

Pricing/remuneration

11. There are a number of *different pricing models* for dredging work, like with construction works. Examples include:

11.1. lump sum price;

11.2. re-measurement (i.e. a fixed sum, subject to re-measurement at agreed rates);

11.3. cost plus; and

11.4. schedule of rates.

12. Consider the following different types of rates:

12.1. hourly rate;

12.2. tonnage rate;

12.3. standby rate (when unable to dredge due to Defined Risks or client suspensions (e.g. for shipping));

12.4. periodic (e.g. daily) layup charge (for extended suspensions where, for instance, it may be possible to demobilise the crew but not the vessel);

12.5. mobilisation and demobilisation charges.

13. The selection of the appropriate pricing methodology will depend, among other things, on the efficiency of the dredging operations, taking account of the likelihood of interruptions, characteristics of the soils being dredged, location of dumping grounds relative to the dredging areas, etc.

14. Other issues for consideration include the following:

14.1. *What other costs may be incurred by the contractor* are those costs taken into account in the remuneration arrangements (either as an additional charge payable by the client or the risks/costs are factored into the contractor's rates/price). For example:

(a) consents;

(b) travel, accommodation, crew shift changes, other crew costs;

(c) port costs (including, wharfage, berthage (including for bunkering), pilotage);

(d) dumping fees.

14.2. Should the contract include *minimum aggregate charge* payable to the contractor for the dredging works, either for a particular dredging programme or over the term of a contract if not one-off?

14.3. In the case of a contract for works of long duration, allow adjustment for the *"rise and fall"* in the cost of resources such as labour, materials and fuel. Often such an adjustment mechanism is linked to an appropriate public index or components of an index (e.g. CPI)

Payment

15. When can the contractor render invoices and what are the payment terms? Consider the following:

15.1. advance payments to fund mobilisation costs;

15.2. periodic interim payments – typically monthly. Payment could also be based on the achievement of milestones or a schedule of activities to which values are assigned;

15.3. retentions.

Performance security

16. Will a bank guarantee or other form of performance security be required by the client? If so, the amount should reduce pro-rata to the sections of work taken over by the client following completion so that the contractor minimises the cost and risk of the guarantee. Those guarantee costs also need to be factored into the contractor's pricing.

Liability limits

17. The contract should include limitations and exclusions on the contractor's liability:

17.1. Any liability for *indirect and consequential loss*, loss of profit, loss of contract, loss of opportunity, and special, exemplary or punitive loss/damage should be entirely excluded.

17.2. A per event and/or aggregate *liability cap* should be included. There is no single right or wrong answer to the calculation of such limits. A contractor friendly option is for a limitation to be linked to the total amount paid or payable by the client. At worst, ensure any limitation is consistent with the amount recoverable (or recovered) under insurance.

17.3. A defects liability/permitted *claim period* should be included. As in construction contracts, that period is commonly 1 year from completion.

Insurance

18. We recommend that the Council carefully reviews its current insurance programme (including, if thought appropriate, consulting with expert brokers) to ensure that the appropriate type and level of cover is in place for dredging services. It is trite to say that dredging services are not 'ordinary course' activities for most councils so the unique risks of dredging services and dredging vessels are unlikely to be addressed with standard liability policies. Similarly, double insurance should be avoided.

19. While we are not insurance experts, we understand that relevant insurance cover for dredging services includes the following:

19.1. Material damage (e.g. a "*hull and machinery*" policy).

19.2. *Protection and indemnity* (including for oil pollution and wreck removal). A P&I policy is a form of marine insurance which we understand is different in scope to standard public liability cover.

19.3. Contract works would normally only be required for marine construction works involving more than just dredging. For dredging works alone, our understanding is that contract works insurance is generally not suitable/necessary.

19.4. Professional indemnity cover would only be required if the Council is responsible for some or all of the design of the dredging works.

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Summary

Chris' in-house experience in the UK as Corporate Legal Manager at Exel Plc, then the world's largest logistics company, provided him with a commercially pragmatic approach and an in-depth understanding of the shipping and logistics industry.

He has continued to develop this expertise and is now regarded as one of the country's leading transport and logistics lawyers. Chris is ranked as a "Leading Individual" in the 2018-2021 Legal 500 Asia Pacific Guides. In 2020 he was awarded the Chartered Institute of Logistics and Transport's Communication Award for his contributions to the sector.

Chris heads Anthony Harper's corporate advisory team and has over 20 years' of experience in commercial contracts, procurement, manufacturing, supply and distribution, corporate structuring and governance, joint ventures and mergers and acquisitions.

Examples of work

- Advising Lyttelton Port Company on a range of development, transport, logistics, relationship and procurement arrangements (including dredging works; and vessel, crane and container handling equipment procurement (construction, purchase, hire and charter)).
- Acting for a number of Ports in preparing and negotiating container terminal, depot services and stevedoring/marshalling agreements with shipping lines and other parties.
- Advising CentrePort in relation to the establishment of its inland container terminal in Wanganui and on a range of services and relationship arrangements (including with KiwiRail for CentrePort's "CentreRail" freight transportation service).
- Advising Southland District Council on both template and bespoke procurement contracts for services and minor works.
- Advising Southland District Council on the procurement process and approach and regulatory issues and implications in relation to contracts for community services, including under the Local Government Act and Local Authorities (Members' Interests) Act 1968, following a service delivery review under s17A of the LGA.
- Lead advisor to the Ministry of Business, Innovation and Employment in relation to the domestic and international procurement of petroleum reserves for the New Zealand Government, including tendering, procurement and probity advice and documentation, tender evaluation, and contract drafting and negotiation.

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