Deloitte.

Nelson City Council

Landfill Proposal Review

26 February 2014

Strictly private and confidential

Deloitte
50 Hazeldean Road
PO Box 248
Christchurch
New Zealand

Tel: +64-3-379 7010
Fax: +64-3-366 6539
www.deloitte.co.nz

26 February 2014

Nelson City Council
PO Box 645
Nelson 7040

For the attention of: Nikki Harrison

Dear Sir / Madam

Landfill Proposal Review

We enclose our report prepared for Nelson City Council setting out the results of our independent review of the proposal for Nelson City Council and Tasman District Council to begin sharing a single landfill facility.

This report has been prepared in accordance with the terms of our engagement letter dated 20 February 2014 and is subject to our Disclaimer set out in Appendix 1.

The Nelson City Council has requested that our report be publicly released and included within a Statement of Proposal for public consultation on the landfill proposal. We have consented to this report being included within the Statement of Proposal subject to the Important Notice included in the Background section of the report.

Yours sincerely
DELOITTE

Scott McClay
Partner
(03) 363 3834

Section	Page
Contents	3
Glossary	4
Background	5
Current Position	7
Proposal Detail	10
Financial Impact Review	12
Additional Considerations	16
Summary	18

Appendices	No.
Restrictions, Reliance on Information, Disclaimer and Indemnity	1
Modelling Assumptions	2

In this Report capitalised terms have the meaning given to them as defined below:

$	New Zealand Dollars
ETS	Emissions Trading Scheme
FY13	Year ended 30 June 2013
FY16	Forecast year ended 30 June 2016
GST	Goods and Services Tax
JWMMP	Nelson City Council and Tasman District Council Joint Waste Management and Minimisation Plan
K	Thousand
LTP	NCC Long Term Plan
m	Million
NCC	Nelson City Council
Proposal	The joint proposal between NCC and TDC that York Valley will be used as a joint landfill from 1 July 2014.
t	Tonne
TDC	Tasman District Council

Background

Introduction

- In April 2012 Nelson City Council ("NCC") and Tasman District Council ("TDC") released the 'Nelson City Council and Tasman District Council Joint Waste Management and Minimisation Plan' ("JWMMP").
- The JWMMP was the output of a working party comprising Councillors and staff from NCC and TDC, and representatives of the Nelson Marlborough District Health Board. The working party was formed following the March 2010 completion of the Joint Waste Assessment prepared by Morrison Low for TDC and NCC.
- The JWMMP sets out a number of policies and methods by which the Councils will pursue their joint vision of "*Valuing Resources and Eliminating Waste*" and focus on joint goals of:
  1. Avoiding the creation of waste
  2. Improving the efficiency of resource use
  3. Reducing the harmful effects of waste
- One of the policies set out in the JWMMP in respect of Goal 3 was Policy 3.1.5: *The Councils will jointly make the most effective and efficient use of York Valley and Eves Valley Landfill space*.
- Method 3.1.5.1 specified the action in respect of Policy 3.1.5, whereby *The Councils will investigate a joint landfill solution as a matter of priority in the first year this plan is operative (and the options will include using one landfill as a regional facility serving both Districts or that the two landfills will be used for separate materials)*.
- Accordingly, MWH New Zealand Ltd was commissioned jointly by NCC and TDC to investigate aspects of a joint landfill solution, and in particular to provide:
  - an assessment of the financial implications of different options relative to the current landfill disposal activity of each Council;
  - a high level assessment of options in terms of the six guiding principles contained within the JWMMP.
- MWH's May 2013 report concluded that options involving the joint use of NCC's York Valley landfill facility resulted in the lowest cost for the region, followed by the status quo, whilst the most expensive option was the long term disposal of joint waste at Eves Valley.
- Following the MWH report, NCC and TDC have prepared a proposal ("the Proposal") which (at a high level) involves:
  - the joint use of York Valley from 1 July 2014; and
  - TDC, maintaining relevant consents for Eves Valley to be available to accept special waste and to act as a back up facility in the event that a seismic events renders York Valley temporarily unavailable.
- Details of the Proposal, including the proposed financial arrangements, are set out in a subsequent section of this report.
- Prior to approval by the Nelson City Councillors, the NCC has sought an independent review by Deloitte of the Proposal focussed on the financial implications to NCC.

Scope of Review

- The scope of this review is focussed on the thought, logic and financial modelling that underpins the Proposal, and to estimate the financial impact on NCC of proceeding with the Proposal.
- In performing our review we applied the following approach:
  - Met with NCC staff to understand in detail the Proposal and associated model.
  - Independently reviewed and critiqued the logic, thinking and completeness of the analysis.
  - Independently reviewed the modelling prepared by NCC.
  - Rolled the modelling across a number years beyond the remaining life of the current landfill.

- Estimated the net present benefit / cost to NCC of proceeding with the Proposal under a range of scenarios by contrasting the expected cash flows with projected cash flows to NCC under a status quo arrangement.
- Qualitatively contrasted the financial impact on NCC against the benefits and risks of the Proposal to the wider region.

- We note that an assessment of the costs and / or benefits expected by TDC from the Proposal is beyond the scope of this review.

Important Notice to Statement of Proposal Reader

- **NCC has asked for, and we consented to, the inclusion of this report within a Statement of Proposal for wider consultation on the Proposal. This Notice sets out the terms on which we are prepared to allow you access to the report. If you do not agree to the terms of this Notice you may not read the report.**
- We are prepared to allow you access to the report on the following terms:

1. Our work was performed and the Report was prepared for NCC:
   - at its request, from information provided by NCC;
   - solely for its benefit and not for any other person;
   - for the purpose set out in the Introduction section of this report and not for any other purpose; and
   - in accordance with our engagement letter dated 20 February 2014.
2. You may only have access to and use the report to consider whether you wish to provide consultation feedback on the Proposal (the Purpose) and not for any other purpose.
3. Our work or the report may not be sufficient or appropriate for your Purpose. The Report may not address or reflect matters in which you may be interested or which may be material to you (Additional Matters).

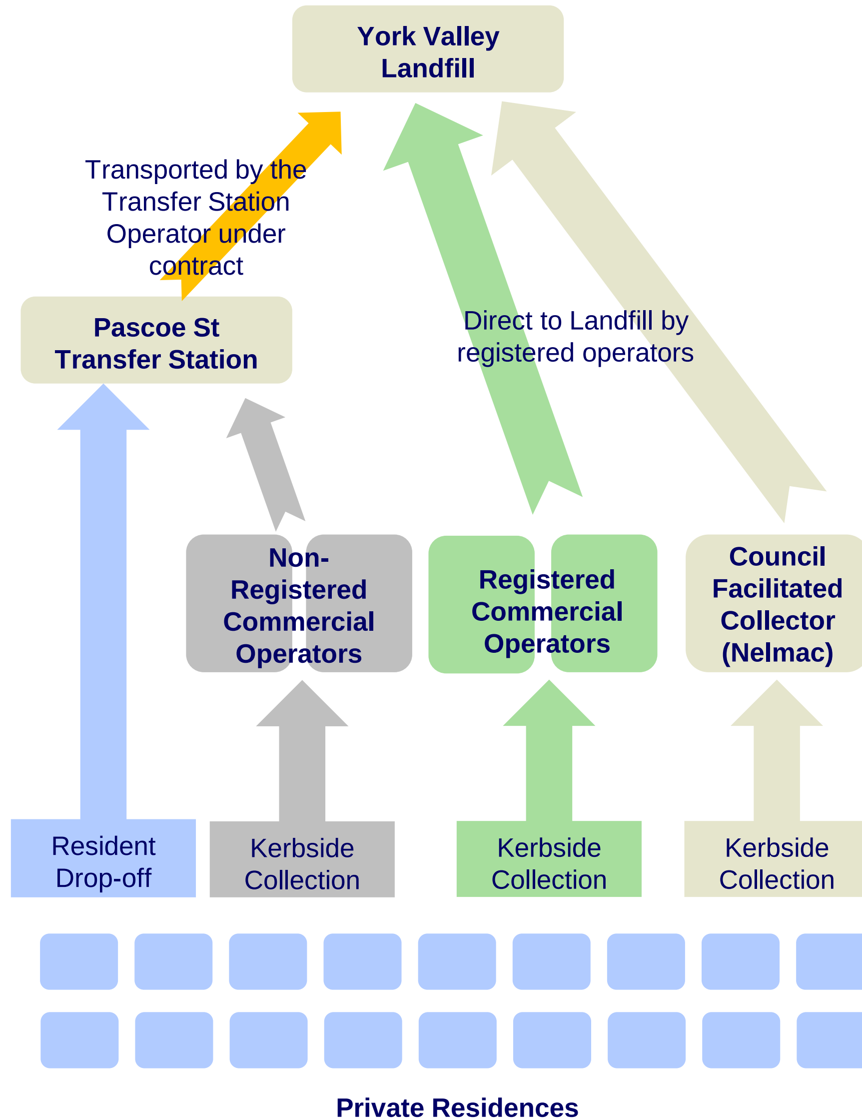
   You are responsible for verifying the accuracy and completeness of the report. We have no responsibility to advise you of any Additional Matters and we are not responsible to you (whether for our negligence or otherwise) if any Additional Matters are not included in the report.
4. Events may have occurred since we prepared the report which may impact on the information contained in the report and on your interest in providing consultation feedback.
5. You may not rely on the report. We are not responsible to you or anyone else for any loss (however caused, including as a result of our negligence) you or anyone else may suffer or incur in connection with your access to, or if you rely on the report.
6. You will not acquire any rights in connection with your access to the report. We have no duty of care to you for the work we have performed or for the report or anything in it. You are responsible for making your own enquiries as may be appropriate to your interests in providing consultation feedback. In providing you with a copy of the report we do not accept any responsibility to you or anyone else in that regard.
7. You must not name us in any report or document which will be made publicly available or provided to any regulator without our consent.
8. You will not make any claim or demand or bring any proceedings against us in connection with the report or your access to it.
9. This Notice forms a binding agreement between Deloitte and any recipient of this report which is governed by the laws of New Zealand and in respect of which the Courts of New Zealand shall have exclusive jurisdiction.

Current Waste Operations

- To provide context to the Proposal, in this section we have summarised the current waste management processes of NCC and TDC.
- For the purposes of illustrating the waste processes we have focussed on domestic waste.

Nelson City Council

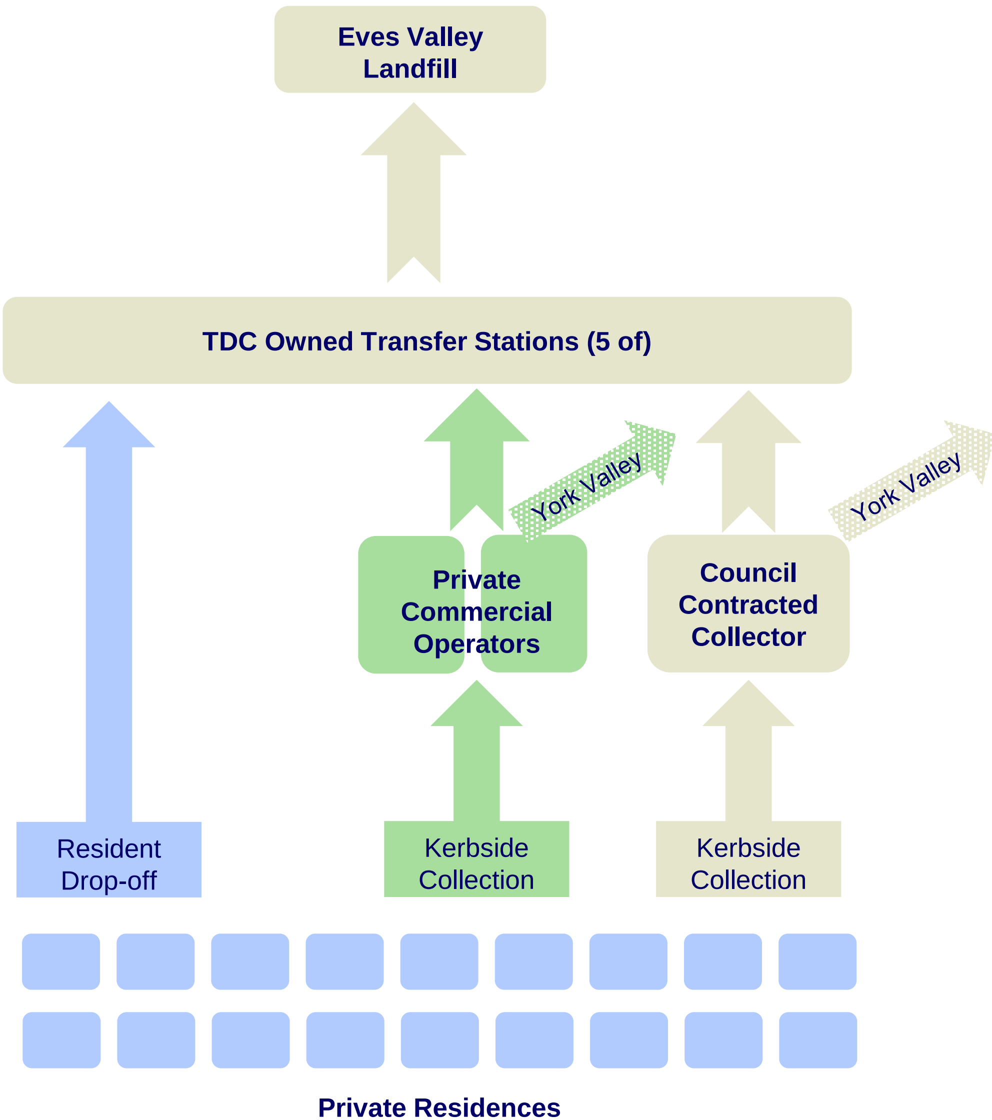
- The diagram to the right summarises the flow of waste from NCC private residences to the landfill.
- NCC does not directly provide any waste collection services, and does not include a charge for waste collection within rates. Accordingly, NCC does not accept ownership of waste until it reaches the transfer station or landfill.
- Nelson City residents do however have access to a weekly user pays household refuse collection service which is facilitated by NCC. This system involves residents purchasing disposal bags, which are collected by Nelmac Ltd.
- Alternatively, residents can directly contract with a number of private commercial operators that provide collection services, including EnviroWaste Services Ltd, Nelmac Ltd and Transpacific Waste Management.
- Residents also have the option of paying to drop refuse directly at the NCC owned Pascoe Street refuse transfer station. The refuse station also accepts greenwaste and recyclables.
- Kerbside collection operators that are registered and approved by NCC can take refuse directly to the NCC owned York Valley landfill, and pay approximately $110 per tonne (including GST) to dump the refuse. The same price is charged to all operators who utilise the York Valley landfill.
- In contrast, non-registered kerbside collection operators deposit the refuse at the Pascoe Street transfer station, where it is aggregated with other waste and transported by the Transfer Station Operator (under contract with NCC) to the York Valley landfill.



- We understand that the private operators have the option of depositing waste at one of the TDC owned transfer stations rather than York Valley, and that this can happen if significant pricing differences arise between the facilities.
- The York Valley landfill is a modern facility owned by NCC, and is currently operated under contract by the Landfill Operator (currently Downer).
- The current stage of the landfill is consented through to 2034, however at current annual volumes it has sufficient capacity to run until approximately 2046 subject to receiving a consent extension.
- Landfill gas is collected and sold to provide water heating for Nelson Hospital. We understand that Nelson Hospital has demand for further landfill gas if it is available.
- NCC provides a weekly kerbside collection service for recyclables, which are collated at the Pascoe Street transfer station, and disposed into the private sector from there.
- Finally, facilities for processing discarded organic material such as lawn clippings and foliage are provided by the private sector. Any such material collected at the Pascoe Street transfer station is taken to the private facilities.
- Based on the price charged by the York Valley landfill to receive waste, the landfill generates a financial surplus over and above the contractor costs, overheads and provisions required to operate the landfill.
- These surpluses are used within NCC to fund NCC's other waste management and minimisation activities, including the operation of the Pascoe Street transfer station and the recycling collection programme, such that they are not funded by general rates.

Tasman District Council

- The diagram on the following page summarises the flow of waste from TDC private residences to the landfill.
- In contrast to NCC, weekly household waste collection and disposal services are provided in the Tasman District under a collection contract. TDC residents do however have to purchase the disposal bags.
- Residents also have the option of paying to drop refuse directly at one of the 5 TDC owned refuse transfer stations that are situated around the TDC region. The refuse stations also accept greenwaste and recyclables.
- Similar to NCC, a number of private waste operators directly contract with and provide collection services to TDC residents, and a number of these are the same contractors that operate in the NCC region.
- Given the geography of the Tasman District, there are areas that are substantially more expensive to service with waste collection. As such, the price of council contracted disposal bags is based on an average cost base across the region.
- Accordingly, as the council contracted collections are partially funded by rates, geographic areas which are closer to the transfer stations (and NCC facilities) such as Richmond represent the main areas which are targeted by private waste operators.
- The Tasman District is served by a modern TDC owned landfill at Eves Valley. The landfill currently accepts waste from each of the 5 transfer stations in the district and, as permitted, special waste directly from waste generators. There is no direct access to the landfill for commercial operators or the public other than for permitted special waste.
- Given the commonality of private waste operators, and the proximity of the York Valley landfill to parts of the TDC region, contractors are able to take waste from the Tasman District to the York Valley site if the relative pricing makes it more profitable.



- This was particularly observed in the mid-2000's when TDC increased the disposal prices and operators diverted the refuse to York Valley.
- We understand that Eves Valley requires new resource consents in 2015 for the existing landfill, and a new stage would need to be developed in the future if Eves Valley was used for general waste disposal in the long-term.

Impact of the Proposal on Operations

- From an operational sense, the only impact that the Proposal would have is that waste collected within the TDC region would flow either directly to York Valley, or through one of the 5 TDC owned transfer stations and then on to York Valley.

Details of the Proposal

- Following completion of the MWH report, NCC and TDC have prepared a Proposal for all waste to be sent to York Valley landfill from July 2014.
- The key points of the Proposal are set out below.

Physical Aspects

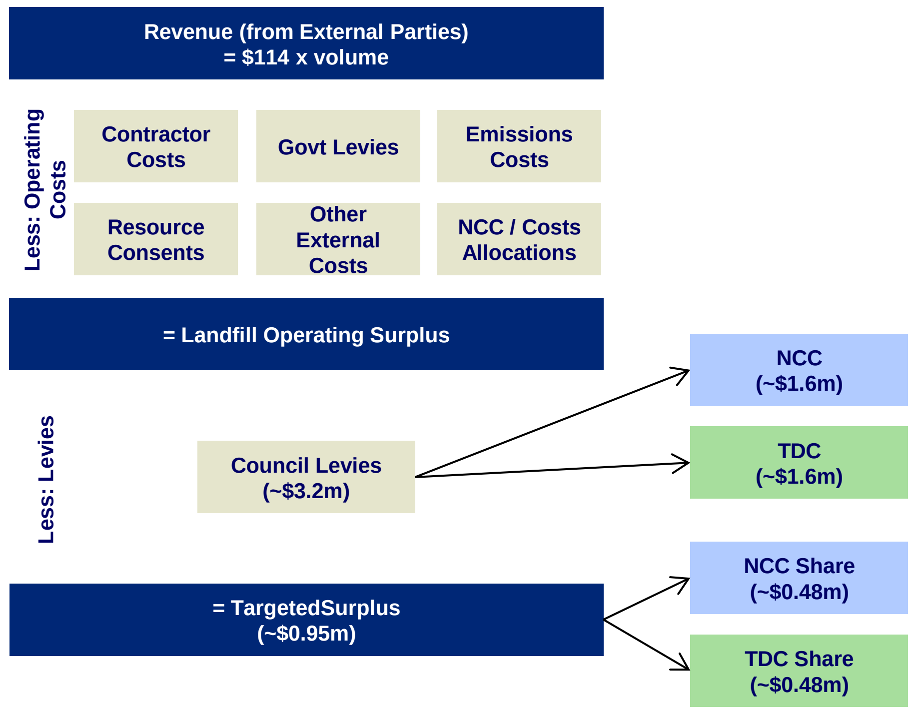
- TDC general waste disposal at York Valley from July 2014.
- NCC general waste disposal continues at York Valley.
- TDC and NCC special waste disposal at Eves Valley.
- TDC obtains and maintains sufficient resource consent extensions to enable Eves Valley to be used for disposing of special waste and to provide emergency back up cover in the event that York Valley was temporarily unavailable. The costs associated with the resource consents (including monitoring) are to be borne by TDC.

Landfill Life Span

- Based on current volume projections, the remaining life of York Valley is shortened from 32 years (2046) to 16 years (2030).
- Consequently a replacement for York Valley is required sooner.
- There is an intention that the two Councils would work together in relation to the replacement landfill, however there are no commitments in this respect, nor any agreement as to how the replacement landfill will be funded.

Financial / Commercial Aspects

- Under the current position, surpluses within York Valley are used to fund other waste management and minimisation activities (recycling programme, transfer station, green waste etc). It is proposed that this will effectively continue, with a levy being paid by York Valley to both NCC and TDC each year.
- The quantum of the levy will be set to cover the budgeted operating costs of NCC's other waste management activities. This is budgeted at approximately $1.6m in FY15, with the same amount being paid to TDC.
- It is proposed that the York Valley pricing will be set to generate a targeted surplus each year, based on the budgeted volumes and operating costs.
- For FY15, pricing has been proposed at $114 per tonne, in order to target a surplus of approximately $950k after levies have been paid to NCC and TDC (implying a total operating surplus of approximately $4.15m for the landfill).
- NCC has advised that the market is expected to accept a pricing increase to $114 (including GST) - up from approximately $110 currently - and that it is not expected to have an impact on volumes.
- The following diagram depicts / summarises the intended annual financial operation of the Proposal.



- We note that the summary diagram on the previous page does not include the revenue earned by the landfill from capturing and selling landfill gas to Nelson Hospital, which is not material to the overall economics of the Proposal.
- The diagram also excludes any capital expenditure required on the landfill. We understand that this is likely to be funded by NCC as NCC owns the landfill.

Stabilisation Fund

- The Proposal includes the build up of a stabilisation fund to smooth the impact on the annual surplus distributions to NCC and TDC if events do not follow budget in a year.
- This will involve surpluses up to a certain level (currently anticipated to be $400k) being set aside from the first year operating surplus. The fund will then provide a buffer in the event that, say, operating costs are higher than budget, then the projected surplus payments can still be made to the councils and the replenishment of the stabilisation fund can be factored into the price setting process for the following years.

Financial Impact Review

NCC Modelling

- As part of analysing the Proposal, NCC has modelled the projected financials of a joint York Valley landfill for the FY15 year. We understand that this modelling was used to determine the $114 per tonne price point (by targeting a certain surplus after levies).
- In order to review the NCC modelling, we have identified the key value drivers (primarily volume, pricing, Landfill Operator contractor costs, ETS costs and Government levies) and developed a parallel model which rebuilds these elements up from the source of the relevant assumptions.
- Our parallel model review identified an error in the calculation of the Landfill Operator contractor costs for operating York Valley, however we did not identify any fundamental material errors in the NCC modelling.

Deloitte Modelling

- In order to assess / review the overall financial impact of the Proposal on NCC, we extended our parallel model as follows:
  - Included the build up of the less material revenues and costs that are included in the NCC model to provide a full profit and loss contribution statement.
  - Rolled the parallel model out across a period of 50 years, and allowed for the anticipated capital expenditure required to develop the next landfill after the current York Valley facility is exhausted.
  - Calculated the surplus available to NCC (being 50% of the surplus generated after payment of the levies) each year, and deducted off the capital expenditure required when the current landfill is exhausted.
  - Discounted the net cash flow to NCC over the 50 years back to a net present value using NCC's internal discount rate of 6.5%.
  - Compared the net present value to NCC of the joint landfill arrangement (under a range of scenarios) to the equivalent calculation under a status quo arrangement to estimate the net financial impact of the Proposal on NCC.
- We selected a period of 50 years for the modelling to recognise that under the status quo (where NCC and TDC continue with separate landfills), with the appropriate consent variations York Valley could be extended for another 32 years and NCC would not need to fund a replacement landfill until that time.
- The assumptions applied in our model have been sourced from NCC and are set out in Appendix 2.
- The key scenarios that we considered in the modelling were as follows:
  - Status Quo – TDC develops a new landfill and NCC continues to utilise York Valley. NCC funds the development of a replacement landfill facility in 2046.
  - Proposal (Joint funding) – Proposal proceeds with joint use of York Valley. NCC and TDC equally fund the development of a replacement landfill facility in 2030 and the arrangement continues.
  - Proposal (NCC funding) – Proposal proceeds with joint use of York Valley. NCC funds the development of a replacement landfill facility in 2030 and the arrangement continues.
  - Proposal (TDC funding) – Proposal proceeds with joint use of York Valley. TDC funds the development of a replacement landfill facility in 2030 and the arrangement continues.

Modelled Impact

- Under the base case set of assumptions set out in Appendix 2, the modelling implies that the net present value of the Proposal to NCC over 50 years (relative to the status quo) is positive under all 3 of the future landfill funding scenarios. This is summarised in the following table.

$m	Status Quo	Proposal		
		(Joint Funding)	(NCC Funding)	(TDC Funding)
NCC Impact	-	+15.0	+11.7	+18.3

Rationalisation of Modelled Impact

- The table on the previous page indicated that the Proposal has a net positive impact on NCC ranging from $11.7m to $18.3m depending on the funding of the next landfill.
- This is somewhat contrary to the result we initially anticipated. We expected that the Proposal would be net present value negative to NCC given that TDC is being paid half of the surpluses generated by the landfill, and NCC will need to replace the landfill approximately 16 years earlier.
- The table to the right illustrates the driver of the positive impact on NCC.
- Specifically, the table presents the forecast profit and loss contribution of the landfill for FY16 (as a normal representative year) under the Status Quo and under the joint use Proposal. The same market price point is applied to both scenarios.
- The table highlights that the additional volume provided by TDC drive a revenue uplift of $3.4m, however, given the relatively fixed cost base of the landfill the operating costs only increase by $0.64m, thereby resulting in an operating surplus increase of $2.8m.
- From this increase, $1.7m is payable to TDC to be consistent with the levy extracted by NCC to fund its other waste management and minimisation initiatives, leaving $1.0m that is evenly distributed between NCC and TDC.
- By contrast, under the Status Quo, the price is effectively sufficient to cover the costs of NCC's other waste activities, but it does not generate any further surplus.
- The annual surplus available to NCC more than offsets the impact of NCC incurring the cost of replacing the landfill 16 years earlier than it would have otherwise faced.
- The key point from this analysis is that, from NCC's perspective, the economics of the Proposal depend on the ability to process a significantly higher annual volume through the landfill for a relatively minor increase in operating costs.

Comparison of FY16 Contribution

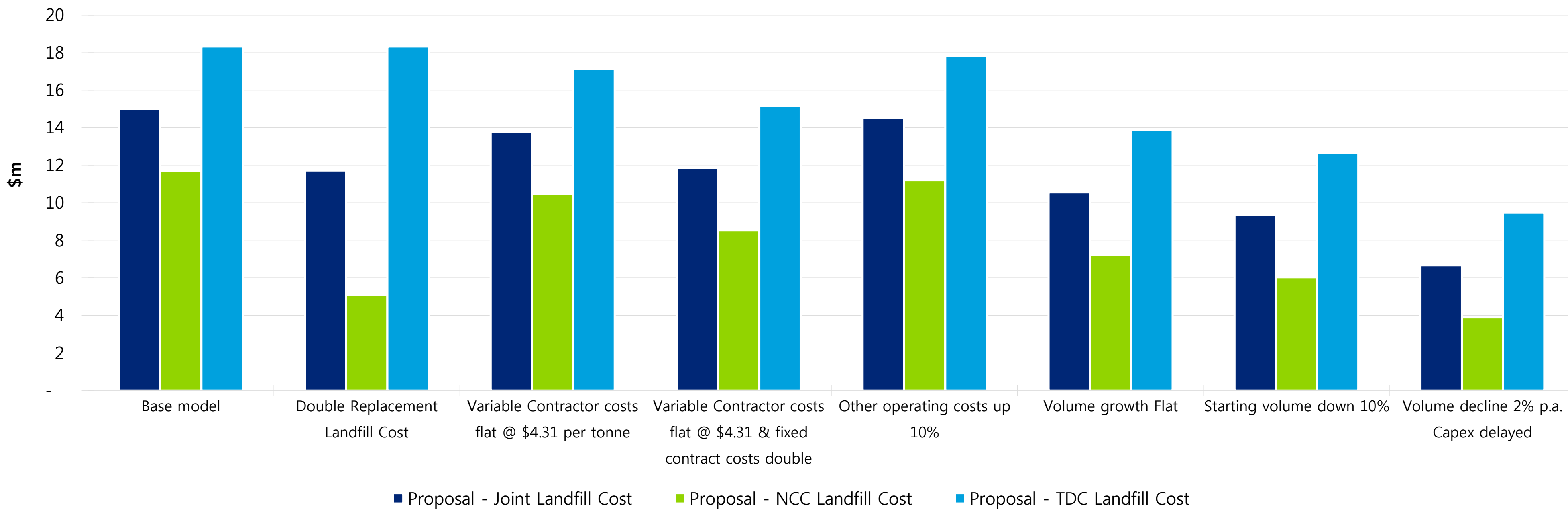
$000	Status Quo	Proposal	Difference
Volume (tonnes)	28,945	62,495	33,550
Landfill Income	2,927	6,319	3,392
Gas Sales	24	48	24
Total Income	**2,951**	**6,367**	**3,416**
Operational Costs (Landfill Operator contract)	294	349	56
ETS Cost	48	104	56
Waste Levy	295	637	342
Other Operating Costs	498	513	15
Depreciation	173	347	173
Total Operating Costs	**1,309**	**1,951**	**642**
Operating Surplus	**1,642**	**4,417**	**2,775**
Levy Allocation (Cost of other NCC waste activities)	1,715	3,430	1,715
Surplus	**(73)**	**987**	**1,060**
NCC Share of Surplus	(73)	493	566
NCC Share of Levy Allocation	1,715	1,715	-
Total NCC Share	**1,642**	**2,208**	**566**

- The two areas where economies of scale are expected are in the Landfill Operator contracted operating costs, and the 'Other Operating Costs'.
- We note that this is consistent with the current Landfill Operator contract which specifies a significant reduction in marginal cost per tonne for volumes between 40,000 and 60,000 per annum (down from $3.21 to $0.41 per tonne), before increasing to $4.34 per tonne for each tonne over 60,000.
- Further, the 'Other Operating Costs' primarily comprise management costs / NCC costs allocations, and maintenance costs and reserve provisions which NCC do not expect to increase materially with the higher annual throughput.
- On the following pages we have illustrated the sensitivity of the outcome to these cost assumptions.

Sensitivity Analysis

- The chart below summarises the sensitivity of the net present value impact on NCC of the Proposal to a range of key assumptions.
- Consistent with the base result previously outlined, in all cases the benefit to NCC is lowest when NCC fully finances the replacement landfill facility, and the benefit is highest when TDC fully finances the replacement landfill facility.
- The modelling assumes a replacement landfill capital cost of approximately $14m (inflated by 2% per annum until incurred). This cost was based on the cost allowed by TDC to open the next valley of Eves Valley in its latest Waste Activity Management Plan.
- The analysis below presents a sensitivity where the capital cost is doubled. Under all scenarios it is assumed that the replacement landfill has sufficient capacity to run through the remainder of the 50 year modelling period (i.e. at least 34 years under the joint landfill proposal).

NCC Impact Sensitivity (Net Present Value)



- NCC's current contract with the Landfill Operator to operate York Valley specifies a range of fixed annual costs and a schedule of per tonne costs which vary by volume.
- In particular the contract includes a significant step down in the marginal cost per tonne for volumes between 40,000 and 60,000 per annum, with a further step up to $4.31 per tonne for volume above 60,000 tonnes per annum.
- We understand that the current contract has approximately 1 year left to run. Accordingly, we have run a sensitivity whereby the $4.31 per tonne cost applies to all volumes going forward (representing a potential tendering situation whereby volumes are expected to exceed 60,000 per annum).
- As illustrated in the previous graph, the NCC impact is not highly sensitive to this assumption.
- The second contractor cost sensitivity combines the previous variable cost sensitivity with a doubling of the fixed cost elements specified in the current Downer contract – broadly consistent with the increase in throughput.
- As previously outlined, NCC expect that, given their nature, the 'Other Operating Costs' will not increase as a result of the higher volume. We have considered a sensitivity whereby these costs increase by 10% as a result of the Proposal. Overall the NCC impact is not sensitive to this assumption.
- The volume projections prepared by NCC assume a starting point consistent with the current refuse processed through the York Valley and Eves Valley facilities, with volume growing at 0.5% (based on an assumed 1% growth in TDC refuse and nil growth in NCC volumes).
- We have considered 3 volume sensitivities. Under the first, volume was assumed to remain constant. Under the second the starting volume was reduced by 10% (with growth occurring from the lower starting point).
- In the third volume sensitivity we have reduced volumes by 2% per annum, as an illustration of the potential impact of waste reduction initiatives and trends, and delayed the introduction of a replacement landfill accordingly.
- Under this sensitivity we also applied the 2% annual decline to the volumes under the Status Quo. This sensitivity highlights that the Proposal is still financially beneficial to NCC in a declining waste environment, as the two councils benefit from the use of a single landfill rather than operating two facilities at uneconomic volumes.
- **Overall the analysis highlights that the NCC impact is most sensitive to volume projections and the capital cost of the replacement landfill. However, the benefit remained positive to NCC under all sensitivities presented.**

Stabilisation Fund

- We note that the intention of the stabilisation fund is to smooth out the surpluses available to NCC and TDC in the situation where events do not follow budget in a year.
- An example would be if volumes were down on budget. To consider the effectiveness of the proposed stabilisation fund we have identified that it would require a 7% drop in volumes in a year to fully exhaust the proposed $0.4m fund.
- We note that a benefit of the stabilisation fund is that it would help avoid situations whereby the landfill incurs a one-off spike in costs (such as a one year spike in carbon emission costs) and consequently the landfill increases prices to recoup the expenditure. In this situation we would expect the waste collection contracting companies to increase their prices to end consumers to maintain their profitability.
- We would however recommend that a detailed set of criteria is agreed between NCC and TDC as to when the stabilisation fund is to be used, and that these situations be limited to events which impact the landfill operation itself, and that the fund is not used to cover events or cost increases within the council's other waste management and minimisation initiatives.

Review of Additional Considerations

Overview

- In this section we have considered a variety of benefits and risks to NCC of the Proposal which are not purely financial.

Overall Benefit for the Region

- In addition to the benefits that our analysis indicates are available to NCC from the Proposal, the Proposal is also expected to be beneficial to TDC.
- In particular, TDC would avoid an imminent cost of extending the Eves Valley facility, and gain a share of the operating surplus generated by the York Valley facility (as a result of TDC's refuse being directed to York Valley).
- Further, we note from the MWH report that the Proposal is not expected to significantly increase the private commercial haulage costs.
- Accordingly, even if the Proposal was neutral to NCC, the benefits that accrue to TDC would be worthy of pursuing in the interests of the wider region.

Provides a Platform

- We note that the JWMMP sets out a wide range of initiatives for NCC and TDC to work through together in order to achieve a better waste outcome for the wider region.
- Whilst being at the end of the waste flow chain, moving to a joint landfill arrangement may provide a platform for the two councils to progress the variety of other waste management and minimisation initiatives.

Risk of Competition

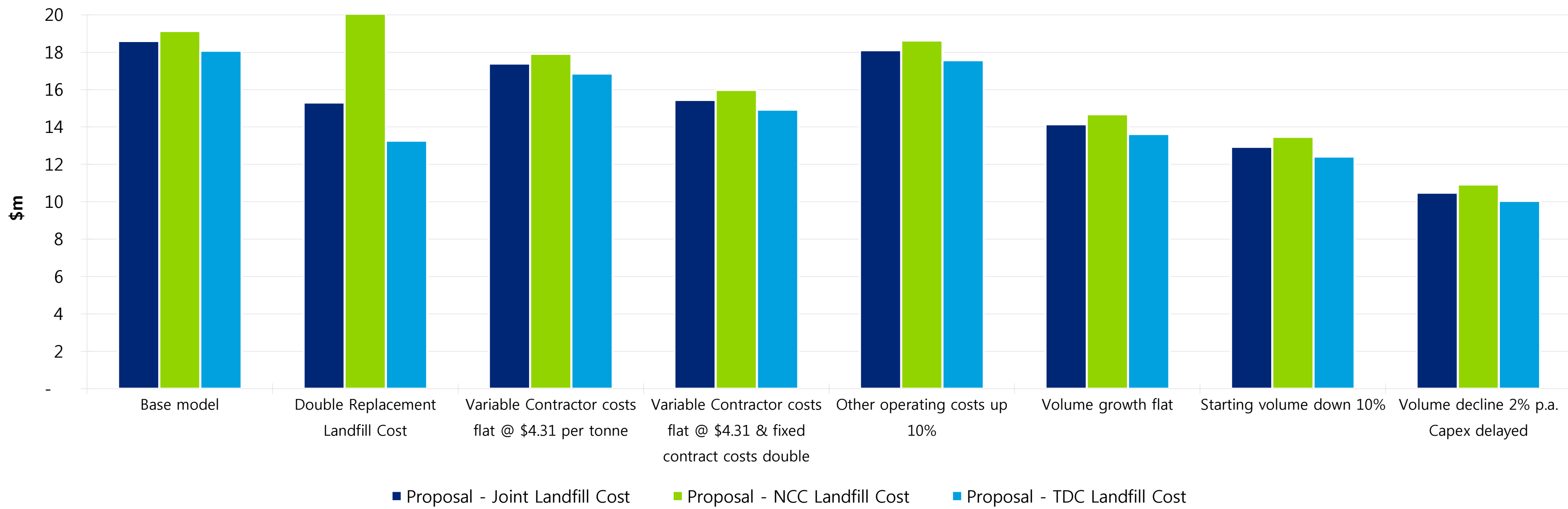
- Moving to a single landfill facility and targeting a particular annual surplus, as contemplated in the Proposal, increases the risk that a commercial operator may seek to establish a competing landfill facility and attempt to capture the full value chain by using the profits from the landfill to subsidise the price offered to residents and businesses for waste collection.
- If a commercial operator was successful in securing the waste collection market then a large portion of the NCC and TDC waste would likely flow into the competitor's landfill and undermine the commercial viability of York Valley.
- We note that setting up a competing commercial landfill would require a resource consent from either NCC or TDC (unless the operator was prepared to incur significant costs to transport the refuse outside of the region).
- We further note that NCC already faces this risk of competition, and arguably the risk is currently higher under the Status Quo as TDC may currently be more inclined to grant a landfill consent to a third party if it would mean avoiding the capital cost of replacing the current Eves Valley facility.

TDC Benefits from NCC Assets

- Whilst our analysis indicates that the Proposal is financially beneficial to NCC, the fact that TDC is to be paid half of the levies and surpluses generated by the landfill without contributing to the cost of originally developing or enhancing the assets lends itself to the argument that TDC is receiving a 'free ride'.
- We understand that it is not NCC's preference to sell half of York Valley to TDC. However, we suggest that consideration is given to factoring into the Proposal an annual payment for an economic rate of return to the asset owner.
- Under this approach the owner of the assets (initially NCC) would be paid an amount equating to a percentage of the book value of the landfill assets out of the landfill operating surplus, before the balance is distributed equally.
- This payment recognises that one party has paid for the assets and rewards them appropriately.
- In addition to rewarding NCC for effectively making the York Valley asset available to TDC, this approach reduces the complexity of deciding which party funds the next landfill, as the party that funds it gets to earn an economic rate of return on the assets / capital contributed.

- In the chart below we have demonstrated the impact that including an economic rate of return payment to the asset owner has on the modelling and sensitivities that were previously presented.
- An economic rate of return of 10% of the asset base per annum has been applied based on our understanding of the rate of return that the private operator of another New Zealand landfill was originally entitled to earn.
- As expected, appropriately rewarding the provider of the assets reduces the variance between the three new landfill funding scenarios across the range of sensitivities.

NCC Impact Sensitivity with Economic Rate of Return



Summary

Overall the key points identified in our review are as follows:

1. We did not identify any fundamental material errors in the NCC modelling of the Proposal.
2. The results of our 50 year parallel modelling indicate that the Proposal is financially beneficial to NCC, with NCC's share of the additional landfill surpluses more than offseting the impact of NCC incurring the cost of replacing the landfill 16 years earlier than it would have otherwise faced.
3. From NCC's perspective, the economics of the Proposal are highly dependent on the ability to process a significantly higher annual volume through the landfill for a relatively minor increase in operating costs.
4. The analysis highlights that the NCC impact is most sensitive to volume projections and the capital cost of the replacement landfill. However, the benefit remained positive to NCC under all sensitivities presented.
5. The implementation of the stabilisation fund is expected to provide smoothing benefits to both NCC and TDC across the years. However we recommend that a detailed set of criteria is agreed between NCC and TDC as to when the stabilisation fund is to be used, and that these situations be limited to events which impact the landfill operation itself.
6. The Proposal is expected to be financially beneficial to both NCC and TDC.
7. Moving to a joint landfill arrangement may provide a platform for the two councils to progress the variety of other waste management and minimisation initiatives set out in the JWMMP.
8. Setting market prices to achieve a targeted surplus each year may lead to competitive interest from a commercial landfill operator, however NCC is arguably more exposed to this risk under the Status Quo.
9. We suggest that consideration is given to factoring into the Proposal an annual payment for an economic rate of return to the asset owner.

1. Restrictions, Reliance on Information, Disclaimer and Indemnity

Restrictions

- This report is not intended for general circulation or publication, nor is it to be reproduced or used for any purpose other than that outlined in the "Background" section without our prior written permission in each specific instance. We do not assume any responsibility or liability for losses occasioned to NCC or to any other parties as a result of the circulation, publication, reproduction or use of this report or any extracts there from contrary to the provisions of this paragraph. In any event, our total liability to all and any parties for any reasons whatsoever is limited to five times the fee charged for this assignment.
- We reserve the right, but not the obligation, to review all calculations included or referred to in this report and, if we consider it necessary, to revise our conclusions in the light of any information existing at the date of our review which becomes known to us after the date of this report.

Reliance on Information

- In preparing this report we have relied upon and assumed, without independent verification, the accuracy and completeness of all information that is available from public sources and all information that was furnished to us by NCC.
- We have evaluated that information through analysis, enquiry and examination for the purposes of this Report. However, we have not verified the accuracy or completeness of any such information nor conducted an appraisal of any assets. We have not carried out any form of due diligence or audit on the accounting or other records of NCC. We do not warrant that our enquiries have identified or revealed any matter which an audit, due diligence review or extensive examination might disclose.
- We have also relied upon key assumptions made by NCC, and we have highlighted these within the report.

Disclaimer

- This report has been prepared with care and diligence and the statements and conclusions in this report are given in good faith and in the belief, on reasonable grounds, that such statements and conclusions are not false or misleading. However, in no way do we guarantee or otherwise warrant that any forecasts of future profits, cash flows or financial position of NCC or TDC will be achieved. Forecasts are inherently uncertain. They are predictions of future events that cannot be assured. They are based upon assumptions, many of which are beyond the control of NCC, TDC and the management teams. Actual results will vary from the forecasts and these variations may be significantly more or less favourable.
- We assume no responsibility arising in any way whatsoever for errors or omissions (including responsibility to any person for negligence) for the preparation of this report to the extent that such errors or omissions result from the reasonable reliance on information provided by others or assumptions disclosed in this report or assumptions reasonably taken as implicit.

Indemnity

- NCC has agreed that to the extent permitted by law, it will indemnify Deloitte and its partners, employees and consultants in respect of any liability suffered or incurred as a result of or in connection with the preparation of the review. This indemnity will not apply in respect of any negligence, wilful misconduct or breach of law. NCC has also agreed to indemnify Deloitte and its partners, employees and consultants for time incurred and any costs in relation to any inquiry or proceeding initiated by any person. Where Deloitte or its partners, employees and consultants are found liable for or guilty of negligence, wilful misconduct or breach of law, Deloitte shall reimburse such costs.

2. Modelling Assumptions

Starting volume	28,945t NCC only, 62,184t including TDC. NCC projections.
Volume growth	0% per annum NCC only, 0.5% per annum including TDC. Deloitte approximation based on NCC projections.
Starting Price	$114, NCC joint proposal model.
Gas sales	$23,687 under status quo. NCC FY13 projection. Assumed to double under joint proposal
Operational costs (Landfill Operator)	$194,094 fixed costs plus, $3.21/t first 40,000t, $0.41/t between 40,000-60,000t and $4.34/t over 60,000t. NCC contracted prices.
ETS costs	$2.50 per tonne, Deloitte calculation based on NCC FY13 actual costs. Emissions factor of 131%. NCC joint proposal model.
Waste levy	$10 per tonne. NCC joint proposal model.
Resource consent conditions costs	$63,759. NCC joint proposal model.
Administration overhead	$20,110. NCC joint proposal model.
Executive team costs	$41,263. NCC joint proposal model.
Management allocation	$69,261. NCC joint proposal model.
Gas operating costs	$14,877 status quo, NCC LTP. $21,572 NCC joint proposal model.
Leachate control	$17,002 status quo, NCC LTP. $24,653 NCC joint proposal model.
Toe embankment maintenance	$170,024 NCC joint proposal model.
Closure costs reserve	$52,070 NCC joint proposal model.
Maintenance	$20,000 NCC joint proposal model.
Other miscellaneous	$20,000 Deloitte approximation from NCC joint proposal model.
Depreciation	$173,425 NCC joint proposal model

Levy allocation	$1,681,304 status quo and $3,362,608 joint proposal. NCC joint proposal model
Stabilisation fund opening balance	$400,000. NCC joint proposal model.
Initial Targeted surplus	$950,000. Deloitte approximation of NCC joint proposal model.
Resource consent costs	$100,000. High level estimate to extend York Valley based on TDC disclosed cost estimates.
New landfill costs	$14,000,000 (in 2013 dollars). High level estimate based on TDC disclosed cost estimates.
NBV of NCC landfill assets as at June 2014	$9.5m. Deloitte approximation based on NCC landfill assets as at June 2012 $5,895,586, plus land value as at June 2013 $553,648 and the estimated cost of a new weighbridge $1.5m and road $1.5m.
Return on assets	10%. Deloitte estimate based on another New Zealand landfill operation financial statements
Discount rate	6.5%. NCC internal discount rate.
Inflation rate	2%. Deloitte estimate. Applied to market prices and costs.
York Valley resource consent required	2034 under status quo. 2030 under joint proposal. NCC estimates
York Valley new landfill required	2046 under status quo. 2030 under joint proposal. NCC estimates.
First year of joint operation	FY15. NCC estimate

About Deloitte
Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/nz/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 140 countries, Deloitte brings world-class capabilities and deep local expertise to help clients succeed wherever they operate. Deloitte's approximately 169,000 professionals are committed to becoming the standard of excellence.

Deloitte New Zealand brings together more than 900 specialists providing audit, tax, technology and systems, strategy and performance improvement, risk management, corporate finance, business recovery, forensic and accounting services. Our people are based in Auckland, Hamilton, Wellington, Christchurch and Dunedin, serving clients that range from New Zealand's largest companies and public sector organisations to smaller businesses with ambition to grow. For more information about Deloitte in New Zealand, look to our website www.deloitte.co.nz.