



Updated Local Water Done Well Modelling

Horowhenua, Kāpiti Coast and Manawatū District and Palmerston North City councils

February 2025



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Introduction

Purpose of this report

In late 2024 Morrison Low provided support and advice to Palmerston North City and Manawatū, Horowhenua and Kāpiti District councils (referred to as the "Group of Four") relating to Local Water Done Well. Prior to Christmas 2024 each of the Councils individually identified a four-council water CCO as one of the options they would consult with their community on under Local Water Done Well. Each Council also has other options identified for consultation.

This report summarises recent financial modelling work commissioned by the Group of Four councils to update and review the data collected and analysed in previous studies.

The intention was to update data and make adjustments to the modelling approach and assumptions for all of the options being considered by the four councils so that all four consultation documents are consistent in the information presented and the basis on which the information has been developed.

This report sets that out in the following structure.

- The main report 'Regional Results' sets out a comparison of each Council's base case with the four council CCO including providing updated information around capital programmes, debt profiles, the impacts of economic and price regulation, impacts on commercial customers and introduces some scenarios for changing the time frame for harmonising prices or not harmonising prices at all.
- Sensitivity analysis is set out in Appendix One.
- Detailed financial modelling assumptions are outlined in Appendix Two.
- Comparison of modelling approaches between Morrison Low and the Department of Internal Affairs is set out in Appendix Three.
- Alternative scenarios (that do not apply to all of the councils) are set out in **Appendix Four.**
- A data sheet providing all of the outputs as data is provided in **Appendix Five.**

This updated report introduces new harmonisation scenarios in the main report. Specifically:

- Price harmonisation starting in year 10 and taking 3 years
- Price harmonisation starting in year 5 and taking 5 years, and
- Scenarios where all council household charges are at or less than the Council Base Case price path creating a scenario where all households can benefit from a regional water CCO.

This report shows that regionalising costs for three waters under a combined CCO covering all four councils immediately would mean that the costs of that service would increase in some areas and reduce in others. The report provides examples of ways in which this impact can be reduced by harmonising prices over time and/or using the savings created by a water CCO for the benefit of all customers of three waters services. The report demonstrates that should the four councils determine that a combined water CCO is the preferred delivery model for three waters services then there is opportunity to establish the CCO in a way that benefits all customers.



Economic and price regulation

The requirement on councils to develop Water Services Delivery Plans is part of the transitional arrangements (under The Local Government (Water Services Preliminary Arrangements) Act 2004). This information will then be shared with the Commerce Commission as it works towards implementing the indicated economic regulation regime.

The economic regulation regime is proposed under the Local Government (Water Services) Bill (Bill 3) currently before Parliament. This is expected to come into effect by mid-2025 and other aspects from 2026 (revenue thresholds, quality regulation, performance, price quality).

The settings for economic regulation are aimed at Water Service Providers (WSPs), including councils and water organisations, who are responsible for making core decisions about capital and operating expenditure, revenue recovery, and charging levels.

The aim is to address water infrastructural challenges through influencing price and quality, protecting both consumer interests and promoting sufficient revenue recovery for investment and maintenance of water infrastructure.

This will apply firstly to all local government drinking water and wastewater services, with some flexibility on stormwater to be added at a later date.

This model is the extension of the existing economic regulation regime (which currently applies to electricity lines services, gas pipeline services, and airport services) in the Commerce Act 1986 to water services. The Commerce Commission (the Commission) will therefore be tasked with overseeing the economic regulation and consumer protection regime.

The Commission will be provided with a range of tools (enforcement and regulation-making) to ensure that WSPs providers collect sufficient revenue and make efficient investment decisions to maintain and develop infrastructure.

The Commerce Commission will have a number of options:

- Information disclosure: local government water services providers must disclose information to promote transparency and inform the need for further regulatory intervention based on performance.
- Revenue thresholds: revenue thresholds can be set by the Commission to ensure that WSPs collect enough revenue to operate, maintain and develop water infrastructure.
- Quality standards: the Commission can set specific standards and performance requirements for WSPs aimed at quality improvements.
- Price-quality regulation: a maximum or minimum revenue or pricing levels that WSPs can collect may be set ensuring that water services are delivered at a quality that communities expect.

The Commission will also enforce financial "ringfencing" where revenue collected for regulated water services (initially drinking and wastewater) must be spent on water services along with financial penalties available if breached. Noting the ringfencing is not by type of water, it is the waters package.

In support of this economic regime, the proposed consumer protection regime will require the Commission to monitor the treatment of consumers by WSPs. Where there are existing issues revealed in information disclosures a range of additional regulations on complaints, dispute resolution may be deployed alongside, service quality guidelines and mandated service quality codes.



Regional results

The following section presents the impact of creating a four-council water CCO on households that receive three waters services. All charts and figures are presented as nominal (or inflated) and as an average household charge excluding GST¹. References to years are to LTP years unless otherwise stated.

Modelling projections of future household costs over 30 years has an inherent and increased uncertainty over the long term. Sensitivity analysis is contained in Appendix 1 to highlight which assumptions the modelling outcomes are most sensitive to changes in.

A number of scenarios are also shown to demonstrate a range of possible outcomes that could be achieved. Results are shown in this report for:

- A base case for each Council which assumes three waters services continue to be provided by each Council.
- A regional household cost based on harmonising prices at the creation of the water CCO.
- Scenarios where household costs for three waters are harmonised in the future using different timeframes.
- Scenarios where household costs for three waters are harmonised based on no community paying more than the base case (i.e. so no community is financially disadvantaged).
- A scenario where household costs for three waters are never harmonised and continue to be different in each council area in perpetuity.

Ultimately how the CCO charges for three waters and how the financial benefits of the CCO model are shared will be a matter for the Councils (as owners to guide), the CCO itself and overseen by the Commerce Commission (economic regulator).

¹ In previous reports household charges have been expressed as Real (uninflated) and including GST



Three waters charges are harmonised at the start of the CCO

The charts below presents the base case for each council against the average combined regional charge for the four council CCO.

Figure 1 shows the average household charges across the ten-year 2024/25 Long Term Plan cycle and Figure 2 across thirty years to 2053/54. In both cases household costs are assumed to be regionalised from the start of the CCO.

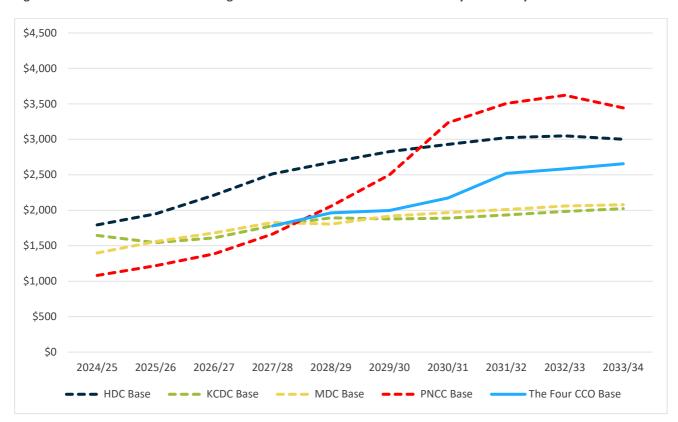


Figure 1: Three waters household charges - base cases versus water service entity across 10 years

The chart above shows most 58% of water consumers are likely to experience lower water bills under the four council CCO in 2028.

For Horowhenua households the CCO represents a 29% decrease in charges on establishment, or an average of 21% across the seven years.

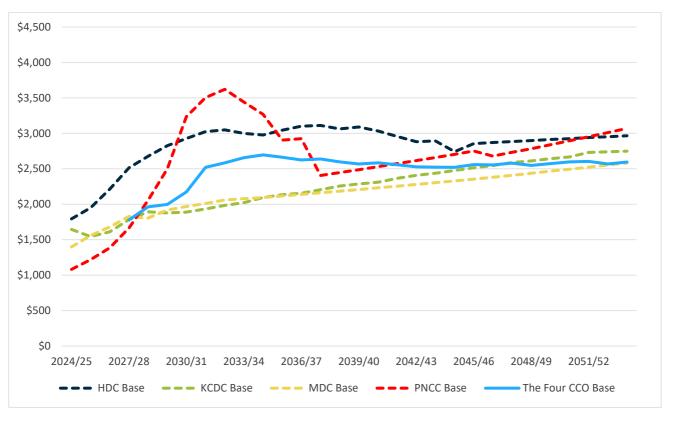
Average household charges for Palmerston North City Council households reach the highest average increase in year 2032/33 with a 235% increase on 2024/25 charges. Across the seven years from CCO establishment the average household charges are 22% higher than under the CCO model.

Manawatū District Council households are projected to have higher charges under the CCO model, averaging 14% over the seven years from CCO establishment.

Kāpiti Coast District Council households are also projected to have higher household costs under the CCO model during the initial 10 years averaging 17% over the seven years from CCO establishment.



Figure 2: Three waters household charges - base cases versus water service entity across 30 years



By 2052 all councils would have water charges that are the same or higher than the average household for the four council CCO.

The chart above shows most 89% of water consumers are likely to experience lower water bills under the four council CCO in 2048.

Kāpiti and Manawatū have charges that are below the average household for the four council CCO. This changes by 2046 for Kāpiti and by 2052 for Manawatū.

Modelling over 30 years shows that the entity is likely to remain more affordable for the majority of water consumers over the long term.



Three waters charges are harmonised using specific years as a target

While the four council CCO price path is presented as an average charge across the combined regions in the Figures above, we note that this price path could instead be regionalised, or 'harmonised' over time (or not at all).

In exploring this, each council's base case for average household charges is compared against the four Council CCO:

- Base case.
- Price harmonisation for the respective council starting in year three of the CCO (2029/30) and taking three years to harmonise.
- Price harmonisation for the respective council starting in year seven of the CCO (2033/34) and taking three years to harmonise.
- Price harmonisation for the respective council starting in year ten of the CCO (2029/30) and taking three years to harmonise.
- Price harmonisation for the respective council starting in year five of the CCO (2033/34) and taking five years to harmonise.

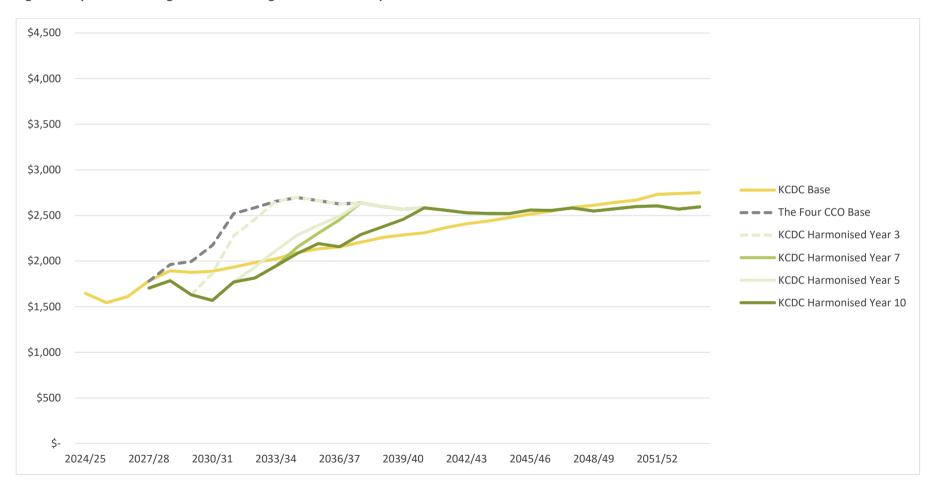
They are presented to test whether altering the timeframe or 'flatten' the curve makes a difference to the outcome. They introduce a complexity that does not exist under the simple regionalised cost scenario but they are presented to demonstrate that different outcomes can be achieved with different approaches to pricing.

The initial reduction in household charges under the harmonisation scenarios when compared to the base cases is driven in part by the reduction in total revenue required under the CCO model and the modelling approach which apportions revenue requirements to each council area and then to households, as opposed to the regionalising of costs where the revenue requirement is shared across all households equally regardless of location.



Kāpiti Coast District Council (KCDC)

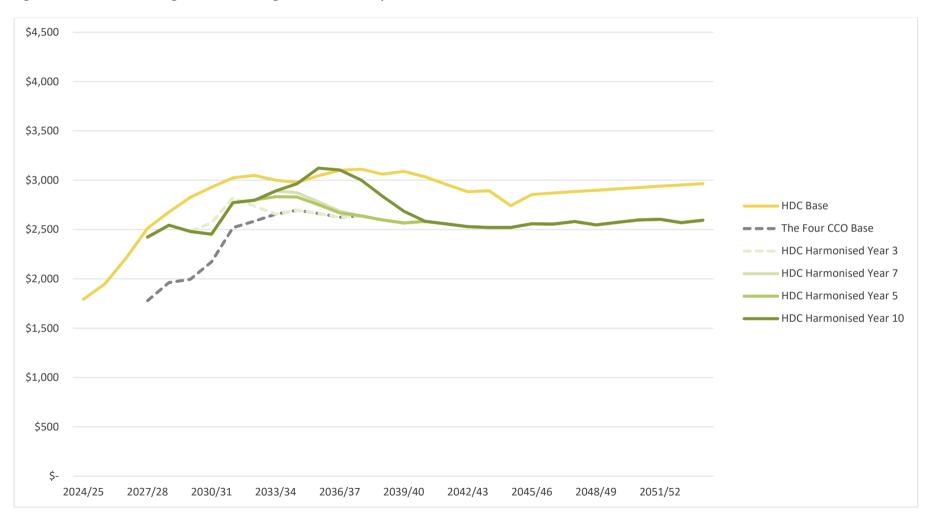
Figure 3: Kāpiti Coast average household charges – base case compared to three CCO scenarios





Horowhenua District Council (HDC)

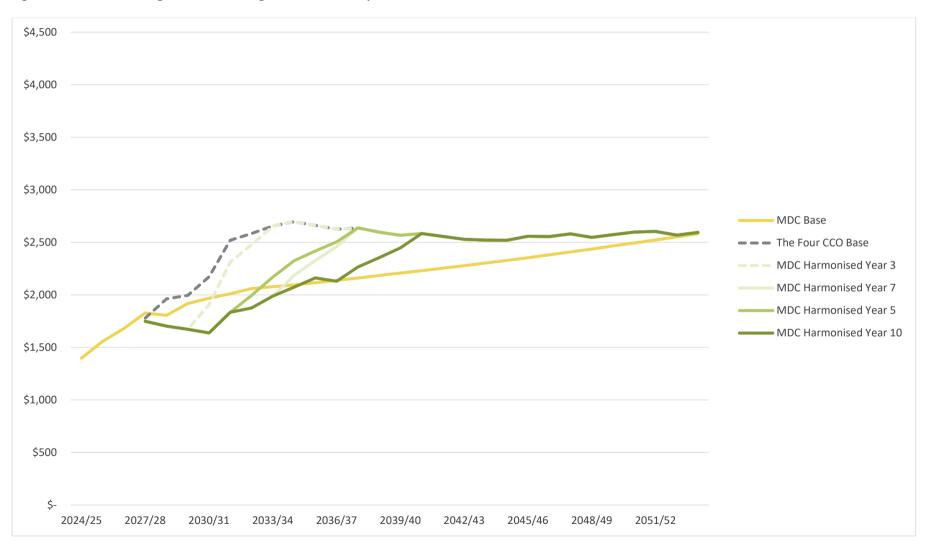
Figure 4: Horowhenua average household charges - base case compared to three CCO scenarios





Manawatū District Council (MDC)

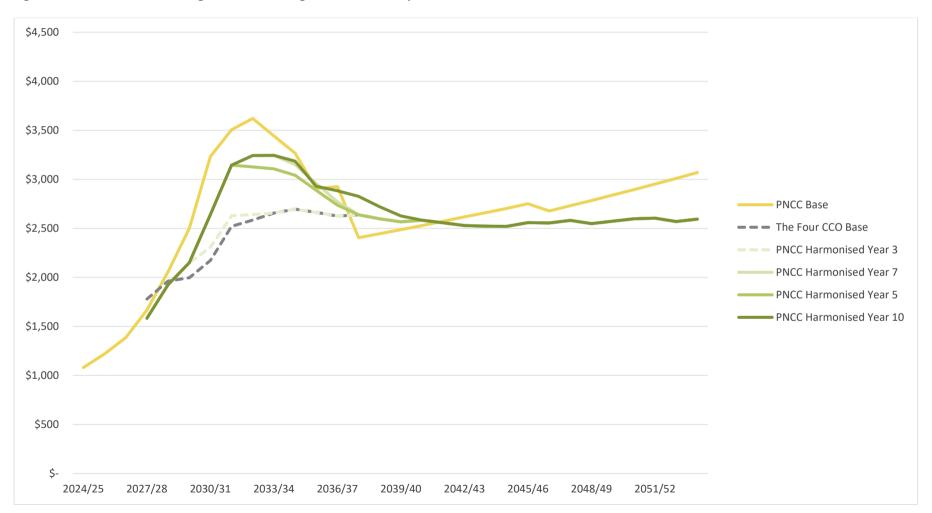
Figure 5: Manawatū average household charges - base case compared to three CCO scenarios





Palmerston North City Council (PNCC)

Figure 6: Palmerston North average household charges - base case compared to three CCO scenarios





Harmonisation so households pay no more than base case

Another approach is to harmonise the household charges over time and to use the financial benefits created by the CCO to mitigate cost increases so that households do not pay more than they otherwise would under each councils' base case. Again, this adds complexity to the operations of the water CCO but is used to demonstrate that different outcomes can be achieved.

The chart below demonstrates that over time the CCO is expected to be a lower cost model for delivery three waters services than the individual councils combined. Initially there is an impact from financing efficiency that reduces the revenue required to support the combined debt. Operationally the CCO becomes more efficient and is more efficient at delivering capital and over time those efficiencies translate into lower operating costs than the individual councils combined. Over 30 years this is estimated at a total of \$330M. It is this regional financial benefit that is shared across all council areas to the point of harmonisation.

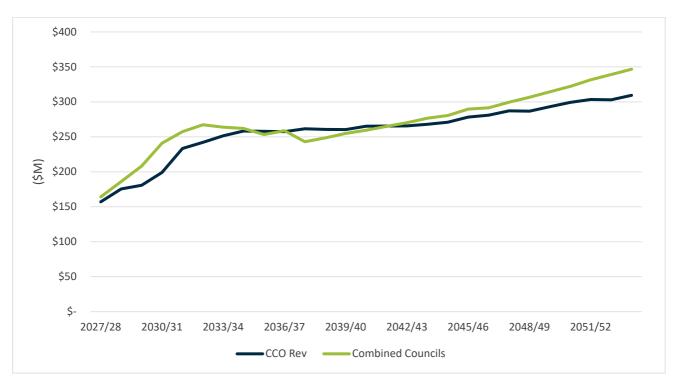


Figure 7: Comparison of annual revenue requirements 'CCO v combined Councils'

Results of smoothing the harmonisation price path

In these charts the council household cost price path for each council under a CCO scenario, until the point of harmonisation, is no more than that council base case. This example, which is simply one way in which this could be achieved, demonstrates that it is possible for a regional water CCO to deliver three waters services in a way that means no council customers pay more than they otherwise would.

Scenarios based on a 20 and 30 year path to a regional price have been shown.



Figure 8: Smoothed price path over 20 year v base case

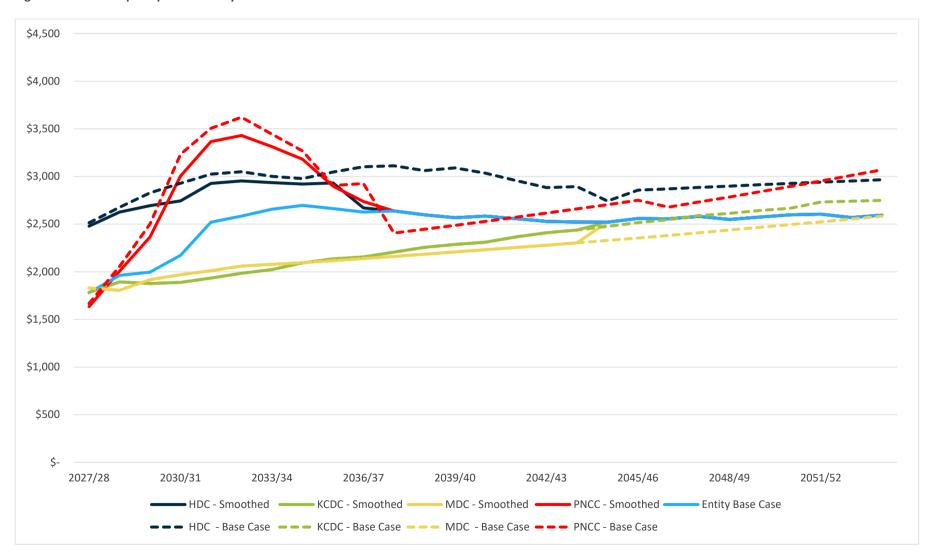




Figure 9: Smooth price path over 20 years

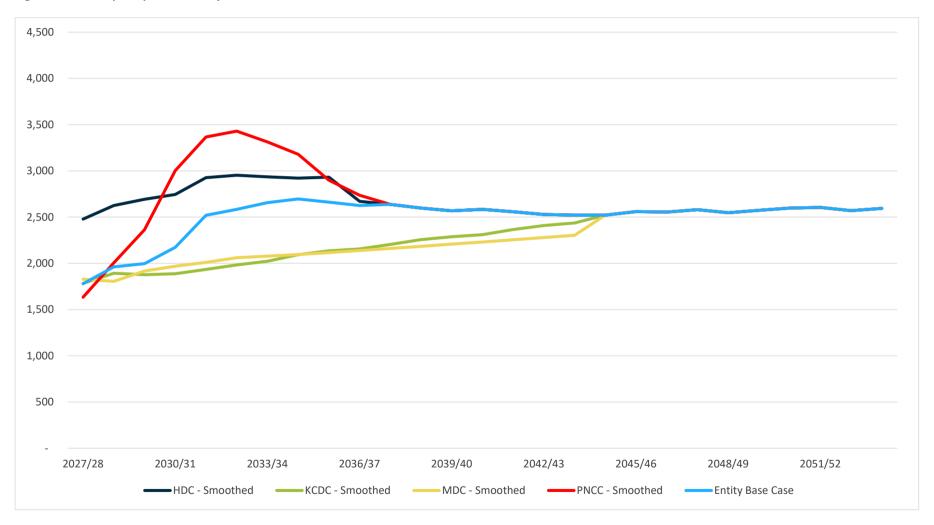




Figure 10: Smoothed price path over 30 year v base case

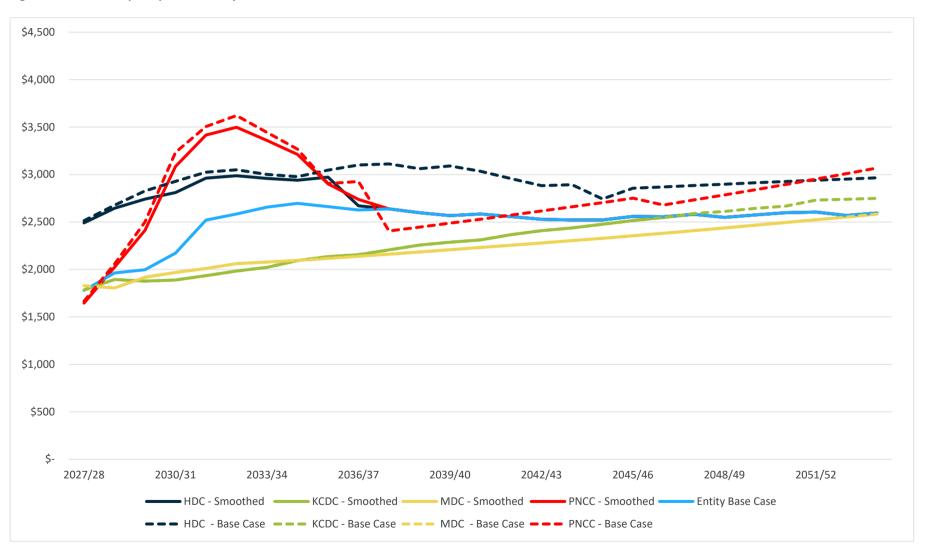
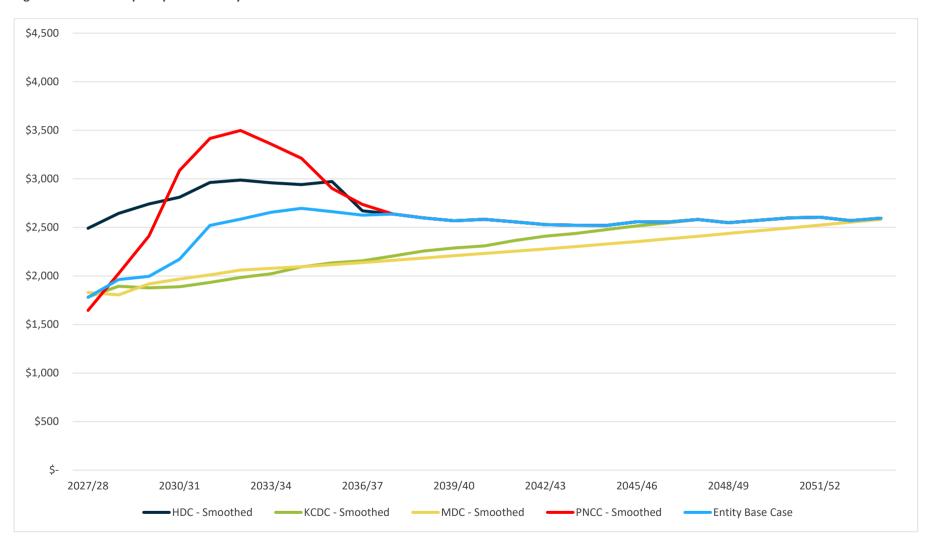




Figure 11: Smoothed price path over 30 year





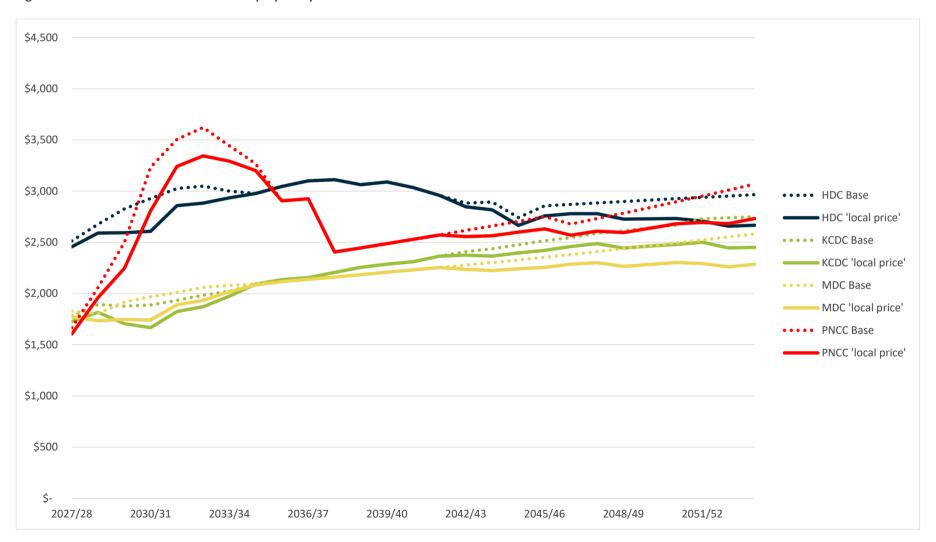
Three waters charges are never harmonised

This scenario assumes household cost are never harmonised. Like the previous scenario this chart demonstrates that over time the CCO is expected to be a lower cost model for delivery three waters services than the individual councils combined, and this regional financial benefit is shared across all council areas to achieve a lower household cost for all councils.

This scenario would add complexity to the operations of the CCO and there is significant uncertainty over whether a Water CCO could and would operate with such an approach to pricing over the long term but it does demonstrate that lower household costs for three waters can be achieved for all households. In year 10 household costs are projected to be lower in all council areas by between 2 and 4% and by year 30 that increases. Three waters household costs are lower in all council areas by between 10-12%.



Figure 12: Base Case v no harmonisation in perpetuity





Capital expenditure

The chart below shows each councils' capital expenditure under the base case compared to the CCO. In the short term the capital expenditure is higher as a result of initial establishment costs but over time the capital efficiencies reduce the value of the programme.

The large peak of investment in the initial ten years is largely driven by the PNCC Nature Calls project.

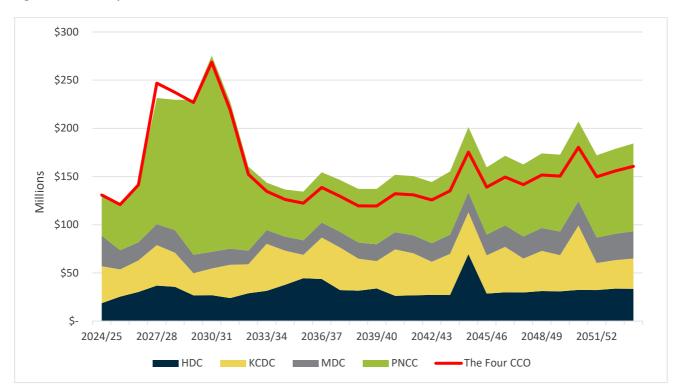


Figure 13: Total Capex - CCO versus councils' base cases

The charts shows some large peaks of expenditure for a number of councils over this period. These represent significant renewal, replacement and/or upgrade projects:

- Horowhenua District Council Growth related upgrades to the Levin Wastewater Treatment Plant and renewals for the Shannon, Foxton and Waitarere Beach Wastewater Treatment Plants in 2044/2045.
- Kāpiti District Council A new water storage dam in 2050 through 2052.
- Palmerston North City Council The 'Nature Calls' project to upgrade the Palmerston North City wastewater treatment system.
- Manawatū District Council has recently undertaken major upgrade projects so no further peaks show over this period.



Debt

The chart below shows each councils' debt under the base case compared to the CCO. In the short term the debt is higher as a result of initial establishment costs and the CCO being more highly leveraged but over time the debt under the CCO is lower as a result of both capital efficiencies and lower borrowing costs.

\$2.0 \$1.5 \$1.0 Billions \$0.5 2024/25 2027/28 2030/31 2033/34 2036/37 2039/40 2042/43 2045/46 2048/49 2051/52 HDC KCDC MDC PNCC The Four CCO

Figure 14: Total debt - CCO versus councils' base cases

Debt is assumed to be used to fund capital projects not otherwise funded by depreciation or development contributions as well as CCO establishment costs.

All models are based on fully funding the depreciation charge and a break even accounting surplus. Cash flow from operations (effectively depreciation) is applied first to capital expenditure requirements and secondly to debt repayment. No specific rate is levied for debt repayment. If operating cash flows are insufficient to fund capital expenditure, borrowings are increased. Debt is managed against debt to revenue or FFO ratios as relevant.

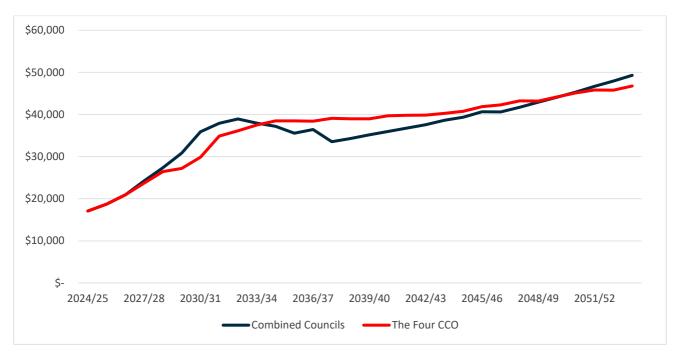


Impact on commercial customers

Morrison Low's approach focussed on the impact of residential consumers, expressing the impact through an average household cost. While commercial revenue only accounts for approximately 15% of the total revenue of the CCO, it is still important to show the likely impact on commercial users.

Commercial customers can vary significantly in size and scale and the associated cost for three waters varies accordingly. As a result we cannot simply express an average commercial charge, instead the chart below shows the impact on commercial customers by reference to the change in total revenue requirement from commercial customers over the 30 year period. This is then expressed as a likely change in % of commercial charges at the key years of year 10 and year 30. Implied in this is that the relative proportion of income from commercial customers remains similar, although any decisions like this would be made by the CCO.





Likely mayoment in commencial charges	% Movement		
Likely movement in commercial charges	Yr1 to Yr10	Yr1 to Yr30	
Combined councils	122%	189%	
The Four CCO	120%	174%	



Appendix One - Sensitivity testing

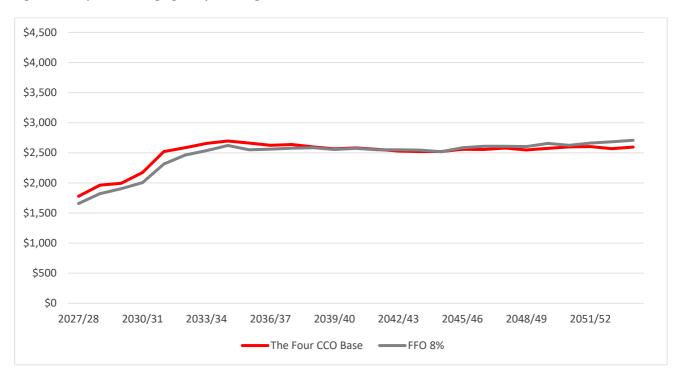
A number of scenarios have been modelled for the four council CCO to test the sensitivity to various assumptions used. These are:

- FFO to debt ratio² at 8 %
- Interest rate changes
- Capital investment
- Efficiencies

FFO to debt ratio at 8 %

Our base case modelling uses a conservative FFO ratio of 10%. This scenario tests the impact of using a more aggressive FFO ratio of 8% (still within the guidance as to what would be available to a combined council water CCO) on household costs.

Figure 16: Impact of changing FFO percentage on CCO base case



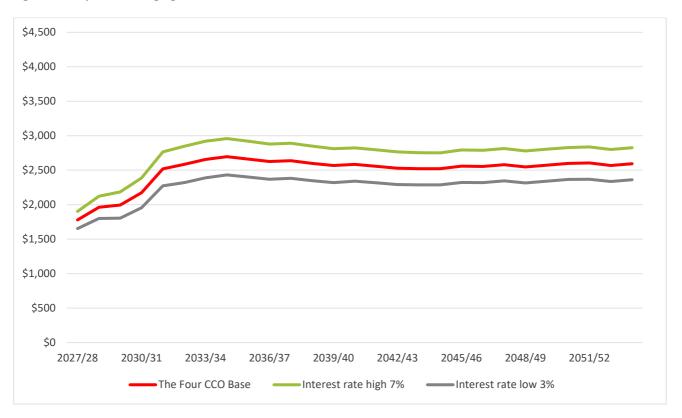
² 'Funds from Operations to debt' is the covenant that LGFA has indicated will apply to jointly owned council water CCOs rather than debt to revenue which has commonly been applied to all of council debt



Interest rate changes

Our base case modelling uses a long-term interest rate of 5%. Two scenarios have been modelled to test the sensitivity of higher (7%) or lower (3%) interest rates on household costs.

Figure 17: Impact of changing interest rates on CCO base case





Capital investment

Overall changes in size and scale of capital programme

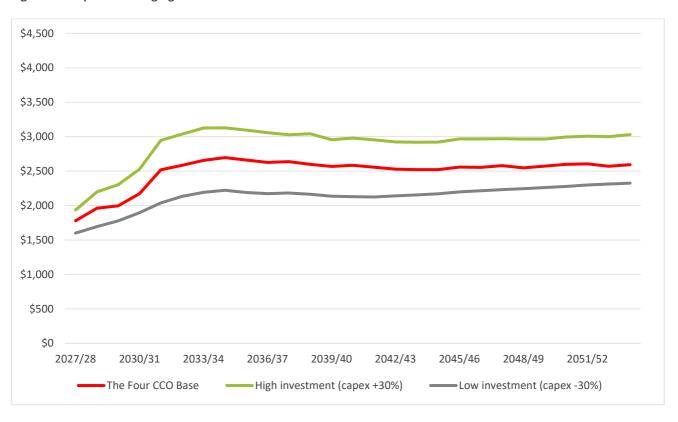
Our base case modelling uses the best available data for the council capital programmes. LTP's and Infrastructure Strategies are the base with each Council given opportunity to update and adjust to reflect changes or additional investment not factored in at the time.

Two scenarios have been modelled to test the sensitivity of higher (+30%) or lower (-30%) capital programmes.

These results show the significant impact that the capital investment programmes have on household costs.

The +30% scenario sees household costs increase by an average of 15% over the base case in the first ten years of the CCO and the -30% investment sees household costs being on average 15% less over the first ten years.

Figure 18: Impact of changing investment on CCO base case



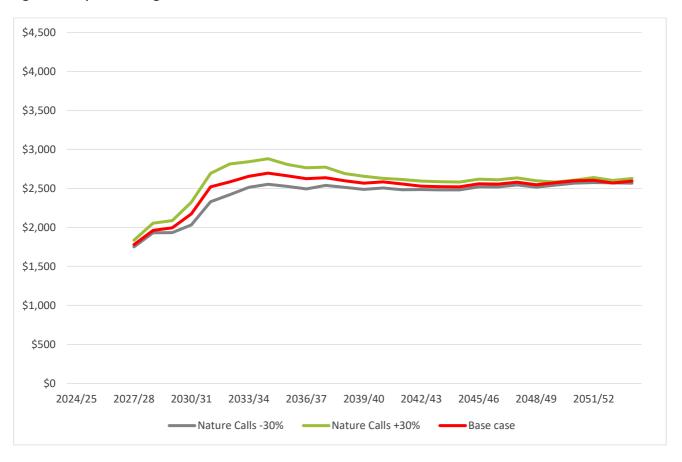


Change in size and scale of specific project

The Nature Calls project is significant. Its scale dwarfs any other projects in the individual or combined capital programmes. Two scenarios have been modelled to test the sensitivity of this one project being more expensive (+30%) or less expensive (-30%) than expected.

The results show how significant this single project is. The -30% scenario sees household costs reduce by an average of 5% over the first 10 years of the CCO and +30% sees costs increase by an average of 6% over the first 10 years.

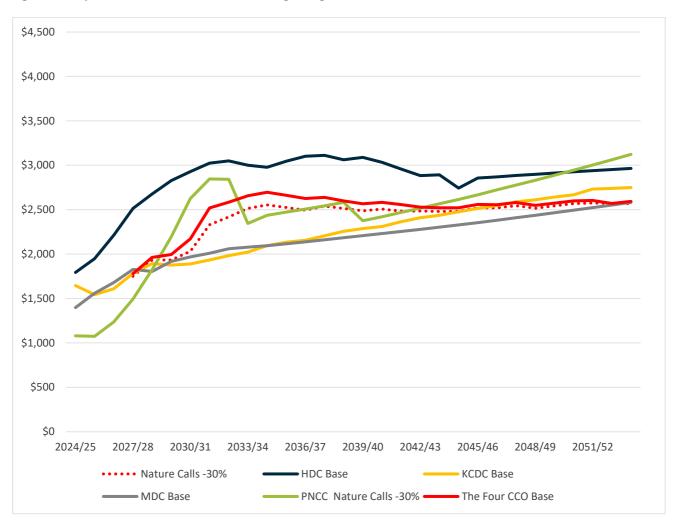
Figure 19: Impact of changes in costs of Nature Calls





The -30% nature calls scenario has been compared with the councils' base cases in the Chart below including the impact on the PNCC base case of that scenario. This demonstrates the scale of the impact on PNCC as well as on the CCO.

Figure 20: Impact of Nature calls at -30% including changes in PNCC base case



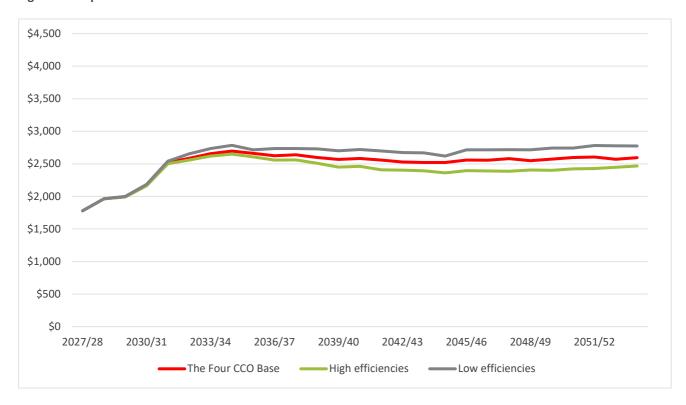


Efficiencies

Our base case modelling assumes that efficiency can be generated from the creation of four council CCO. 14% capital and 13% operational are assumed to be achieved, introduced progressively from year 3.

Two scenarios have been modelled to test the impact of achieving greater (150%) or lesser (50%) efficiencies on household costs.

Figure 21: Impact of cost efficiencies on CCO base case





Appendix Two – Modelling assumptions

Assumptions applied to 'Base Case' scenarios

In order to enable a like for like comparison between regional delivery options and the existing delivery model, we have made adjustments to financial and capital investment programmes provided by each council as the 'status quo'. These adjustments ensure that differences between regional delivery models are not purely the result of a different approach to managing revenue, debt and expenditure, or differences to underlying assumptions across the individual models.

It is also important to note that this also means that the comparator scenarios presented in our modelling may not mirror an individual councils' current long term plan projections and some changes in household costs may be solely the result of the changes we have made to standardise the models.

We have endeavoured to ensure that our approach aligns with the requirements of a water services delivery plan. This means that some councils may wish to use the comparator case from this modelling as a starting point for a water services delivery plan (WSDP) for in-house delivery. This is however a "best endeavours" approach, and councils may further refine capital programmes before preparing their WSDP.

Where councils are undertaking detailed asset and investment planning work this should then be used to inform their WSDP.

To assist councils in understanding the alignment of our comparator case with their own WSDP or LTP work, we have outlined the key adjustments and changes we have made below.

Operating expenditure

Our modelling of the comparator case scenarios for operating expenditure predominantly relies on each council's own operating budgets, as provided through our information request. Adjustments have been made to:

- Reverse the impact of any internal transfers or overhead activities that occur between water,
 wastewater and stormwater activities. We have retained overhead allocations from other council activities to/from each of the waters activities.
- Recalculate interest costs based on any amendments made to the capital works programme (refer below) and any additional revenue generated in order to stay within borrowing limits.
- Recalculate interest rates using a common interest rate across all councils. The rate used will be the
 weighted average interest rate across the councils currently. We have applied an interest rate of 5%
 in our modelling. Interest is calculated off the previous year's closing balance, meaning the effective
 interest rate is slightly lower than this when current year movements are considered.
- Recalculate depreciation based on any amendments made to the capital works programme. The
 depreciation rate applied to the recalculation is based on each council's average depreciation rate.
 Depreciation rates are set at 1.48% for water supply, 1.62% for wastewater, and 1.32% for
 stormwater.
- Assets are revalued at 2% per annum and depreciation recalculated based off revalued asset base (including additions).
- Inflation is modelled at 2% per annum for years 11 30.



Capital expenditure

Our modelling of the base case scenarios for capital expenditure focuses on ensuring that each council's comparator case is able to meet the requirements of a water services delivery plan, being:

- The requirement to meet all relevant regulatory quality standards for its water services.
- The requirement to meet all drinking water quality standards.
- Supports the territorial authority's housing growth and urban development, as specified in the territorial authority's long-term plan.
- The need to demonstrate financial sustainability through:
 - generating sufficient revenue to ensure long term investment in delivering water services.
 - being financially able to meet all regulatory standards and requirements for the delivery of water services.

All Councils have reviewed the capital programmes and made adjustments from the initial LTP and Infrastructure Strategy programmes.

Renewals

Water Services Delivery Plan templates indicate some of the key measures that DIA expect to be reported in relation to these tests, and therefore what may be expected by the Department. In particular:

- The need to report on combined capital expenditure versus depreciation, indicating a desire from the
 Department for capex to exceed depreciation. We don't anticipate this being an issue for any
 councils over the ten year period.
- The need to report on an "asset sustainability index" which compares renewals expenditure with depreciation, and notably, where renewals expenditure is not equal to depreciation, why that approach is appropriate.
- The need to report on an asset consumption ratio, and note why that ratio may deteriorate over time (if it does). This is unlikely to be a problem for councils that are spending more than their depreciation on capital investment each year. This ratio again is intended to ensure their adequacy of a renewals programme.

All Councils have reviewed the renewal programmes and confirmed them as appropriate.

No other changes have been made to renewals programmes in our base case other than changes applied through sensitivity testing.

Upgrades

Councils are also required to demonstrate and assert that their WSDPs contain sufficient investment to meet regulatory requirements and respond to growth.

For all Councils our approach to reviewing this and making revisions to the status quo was to check with each council that:

• Investment is provided for any drinking water treatment plants that are not currently compliant with Drinking water standards. We did not identify any significant missing expenditure through this process.



- Investment is provided for any wastewater treatment plants that have consents expiring during the period. We did not identify any significant missing expenditure through this process.
- Any upgrade projects that have been deferred beyond the 10 year LTP period. Where these are identified, we will confirm whether these should be moved back into the 10 year planning period.
- In the case of KCDC additional upgrades were identified through a capex workshop that also identified additional opex that was added into the modelling.

Growth

For all Councils:

- We sought confirmation that the growth investment proposed in the LTP responds to the WSDP requirements, and for any significant projects to be identified if they are not already identified in AMPs/LTPs.
- We have not included any sensitivity testing on increased/decreased growth rates, however our model does allow for this to be completed if needed. In our model, sensitivity testing of growth assumes planned capex scales proportionally to the change in the number of new properties being connected.
- Scaling is applied to original growth capital expenditure forecasts at the same rate as the uplift or decrease in connections on an annual basis. The cumulative impact of this is that if sensitivity testing results in 20% more properties over 10 years, the total capital expenditure will have been increased by 10%.
- It is recognised that growth projects do not neatly scale in real life. The scaling recognises that there is likely to be some uplift, or advancement of timing, and that, at the least, increased or decreased rates of growth impact the capacity life of infrastructure.

Revenue

Water Services Delivery Plan templates indicate some of the key measures that DIA expect to be reported in relation to these tests, and therefore what may be expected by the Department. In particular:

- A chart demonstrating projected revenue versus projected costs including depreciation, and net
 operating surplus or loss. We anticipate that DIA are expecting revenue to at least equal total
 expenditure including depreciation based on the examples provided.
- An operating surplus ratio. DIA guidance notes that "Where this ratio percentage is negative, this
 represents the percentage increase required for revenues to cover costs". Costs in this ratio include
 depreciation.

Based on these questions, and additional commentary within the WSDP templates, we intend to model status quo arrangements to be fully funding depreciation from the 2028 financial year onwards. Councils that are not currently fully funding depreciation will be modelled to move to a fully funded scenario evenly over the remaining years.

In addition, from 2028 and beyond:

 Revenue has been modelled to "break even" before accounting for development contributions, vested assets and grants and subsidies.



- Additional revenue has been calculated to ensure that the council remains in borrowing limits. This
 revenue line is recovered through water/wastewater/stormwater charges and is calculated to be no
 more than the amount needed to remain within agreed debt caps.
- The additional debt repayment/control revenue is modelled to ensure that debt caps are not breached over the life of the modelling period, however the additional revenue is modelled over the entire modelling period, meaning revenue is collected in anticipation of debt otherwise exceeding limits. This will impact price paths, where councils may have otherwise deferred increases in revenue to a later year than our modelling. Our modelling smooths the impact of this increase.
- Development contribution revenue has been modelled to scale proportionally with changes in growth capital expenditure. Scaling is completed annually.

Debt and borrowing costs

Revisions to capital works programmes, revenue, and expenditure all impact the amount of debt required by councils to fund their three waters activity. Our modelling recalculates three waters debt under the base case scenarios to ensure comparability with regional delivery models.

To calculate debt, we have:

- Assumed each councils' starting debt position is correct.
- Identified the cash surplus available from operations, development contribution receipts, and capital and operating subsidies.
- Subtracted the cost of capital works from the cash surplus.
- Identified ongoing working capital requirements and any shortfalls in cash balances to meet those requirements.
- Where this value is negative, we have increased borrowings to fund the difference.
- Where this value is positive, we have modelled a debt repayment.

We have not assumed any "regular" debt repayments under a table loan facility. Council's typically borrow through bond issues that are repaid on maturity date. Our modelling effectively assumes that these bonds are renewed if needed. Our modelling also assumes that in any given year there will be sufficient bonds expiring that council will have the opportunity to repay debt if it holds surplus cash.

Assumptions applied to base data

We've also made the following minor additional assumptions to base data provided by Councils. These adjustments impact projections in the "status quo" modelling.

- The percentage of water, wastewater and stormwater revenue received from residential customers is assumed to be consistent with the percentage split across these activities as provided to WICS in their RFI of 2021.
- Where specific projections of the number of connections has not been provided, we've assumed connection growth continues at the rate of growth in rateable units.
- We've assumed the proportion of residential to non-residential customers is consistent with WICS RFI where detailed breakdown of these projections has not been provided.
- In all models, we have assumed that council revenue and debt relating to non-three waters activities is unchanged under all investment scenarios. That is, even where three waters investment, charges,



- or debt increase, we have assumed that there is no consequential or offsetting reduction in the corresponding expenditure/charge for non-three waters activities.
- In 30 years modelling, we have relied on capital programmes from infrastructure strategies or long term capital works plans provided to us by participating councils as the initial base. Each Council has reviewed and adjusted those based on changes since those estimates were made or confirmed them as still valid. In the case of HDC the 30 year projections showed a considerable drop off in investment beyond year 10. Years 11 20 contain a total investment of 20% less than the first 10, and years 21 -30 represented a further 30% drop. To mitigate this we have modelled HDC annual capital investment over yeas 11 30 based on the mid-point between the original projections (low) and the average annual investment over years 1 10 (high).
- Corporate costs, as provided, have been retained in the base case. Some of these costs may
 represent "stranded overhead" in individual councils, however we note that the amount of cost
 allocated varies greatly across councils, and assessment of the amount of stranded overhead in each
 council would not be possible without a detailed assessment of the cost allocation and
 apportionment approaches used by each council.

Harmonisation over time

Under the scenarios where harmonisation occurs over time the following approach has been used

- **Period where household charges are not harmonised**: Costs are initially apportioned to each council area in proportion to their share of the total revenue on Day 1 of the CCO, that amount is then apportioned across the number of connections in that Council area.
- **Period where all household charges are harmonised**: Costs are apportioned based on the number of connections across the entire region.
- Transitional period: Transition between the two different approaches as shown in the graphic below.

Before Harmonisation	Year 1 of harmonisation	Year 2 of harmonisation	Year 3 of harmonisation	After harmonisation
No charges harmonised	1/3 of charges harmonised	1/3 of charges harmonised	1/3 of charges harmonised	All charges harmonised
	2/3 of charges not harmonised	2/3 of charges harmonised	2/3 of charges harmonised	
	2/3 of charges not harmonised	1/3 of charges not harmonised	3/3 of charges not harmonised	



CCO assumptions

To create the CCO options we have modelled transitional and organisational costs based on a ground up approach. The full details of costs included in our model are outlined below.

Operating and capital efficiencies

Efficiencies have been modelled using the efficiency data produced by the Water Industry Commission of Scotland (WICS) for the Department of Internal Affairs (DIA) as a base case, noting the following adjustments:

- The total achievable efficiency identified by WICS were scaled back by 75% and this was compared to our bottom-up estimates of potential efficiencies for multiple council CCOs. These two approaches produced similar outcomes. Using that, Morrison Low then developed a population based scale for efficiencies using the logarithmic scale of connections approach of WICs, but not based on their estimated efficiencies. This allows for cost effective and efficient estimates for indicative modelling such as that used in this report³.
 - KCDC, HDC, MDC & PNCC CCO: 14% capital and 13% operating efficiencies.
- We've assumed that these efficiencies are achievable over a 10 year period, commencing two years after the establishment of the entity.
- Efficiencies are assumed to arise from:
 - Ability to employ specialists that are otherwise contracted out at an individual level
 - Limited opportunities to combine networks
 - Spend to save investment due to increased borrowing capacity and improved asset management focus
 - Bundled procurement and panel arrangements. We have examples of where this approach has resulted in significant reduction of costs
 - Decreased competition for resources between councils
 - Increased market attractiveness
 - Reduction of duplicated systems, processes and roles
 - Streamlined investment decision making due to dedicated focus on three waters services
- Efficiencies are less than the rate of inflation. Inflation (2%) is applied to all costs before any efficiencies are applied in the modelling. Efficiencies are applied at a compounding 1.21 capex and 1.28 opex until they reach 14% and 13% respectively.
- Sensitivity testing has been undertaken with 50% and 150% of the expected efficiencies being able to be realised.

Borrowing

The Government and the Local Government Funding Agency (LGFA) jointly announced that water entities would be able to borrow up to a 500% debt to revenue ratio. The fine print of that announcement noted that entities will actually be measured based on an FFO to debt ratio, with the intention that lending covenants would be set at such a level that the entity could maintain an "investor grade" credit rating.

³ These are rounded in the description below



Our modelling adopts the Moody's credit rating approach, with non-financial components being set based on Moody's assessment of water entities in the United Kingdom, and based on their published guidance.

The result of the credit rating approach is that it is likely that the CCOs considered would be able to maintain an investment grade credit rating with an FFO to debt ratio of 10% or higher. Our modelling assumes a 10% minimum threshold and includes additional modelled revenue, where necessary, to support that.

Sensitivity testing has been undertaken using an 8% ratio as well.

Costs of change

Corporate overhead from each council has been replaced with costs for the CCO, and transition costs have been included as set out in the tables that follow:

- Transitional costs to establish the CCO (assumed to be borne by the CCO).
- Increased compliance costs associated with regulatory reforms (recognising the role and requirements to report to both a service and economic regulator) has been applied to base cases and any options modelled.
- Any change is assumed for modelling purposes to take place on 1 July 2026/7.
- Costs have been indexed using BERL inflation rates for water services through 2034, and 2% per annum thereafter.



Transitional costs to establish a CCO

Item	Value (\$0	000)	Rationale
Transition team	\$	2,325	Develop initial transition plan, implement & resource it. Transition lead, 6 workstream leads (7 x \$150K, plus \$500K of resources). Full time for one year, part time for one year.
New entity set up	\$	785	Established and resourced. Set up shell CCO with CEO, Tier 2 and Board appointed six months ahead of operations (CEO remuneration based on Tier 2 of Wellington Water, Directors at 70% of that x 6 months), plus Board (5 Dir, Ave of WWL and Watercare \$40K pa, Chair gets double x 6 months).
Business process	\$	500	Transformation costs for merging staff from several organisations together and designing a new operating model with associated structure.
Comms and engagement	\$	500	Additional engagement with stakeholders throughout process.
Rebrand	\$	200	New logo and brand creation in different formats.
Restructuring costs	\$	650	Assume existing three waters staff and support roles to be similar enough to transfer to new organisation, allow for some restructuring costs as some staff may choose not to transfer. 10% of existing staff at avg \$100K at 6 months.
Finance & funding	\$	500	Establish new entity financial structure, balance sheet, debt arrangements, charging and pricing etc.
Legal & compliance	\$	500	Transfer of all titles, duties, rights & obligations.
ICT systems, process & data migration	\$	7,000	Consolidation of the multiple systems will be required. CCOs will be required or will choose to purchase their own corporate (GL, billing, payroll etc), asset management, CRM and customer service. Process redesign and data migration. Estimate uses the average of two NZ Council ERP implementation processes - differences in scale, complexity of system but offset by complexity in multiple councils. 50% of costs incurred in set up, rest in year 1.
Office set up	\$	1,230	Floor area based on 15m2 per staff member x state service guide fitout allowance of \$600 per m ² .
Total	\$	14,190	



Additional ongoing CCO Costs

Item	Value (\$0	000)	Rationale
Governance	\$	180	Five Directors including Chair. Director fees based on avg of WWL and Watercare \$40K pa, Chair gets double.
Stakeholder governance	\$	300	Costs of supporting shareholder Councils & Māori to develop and implement accountability framework.
Executive team costs	\$	1,350	CEO & Four Directors – CEO remuneration based on Tier 2 of Wellington Water, Directors at 70% of that.
IT infrastructure & systems	\$	7,773	Uses Watercare IT budget as the basis and scaled based on population served.
Auditor costs	\$	200	Additional costs for audit.
Council rates	\$	1,521	The cost of paying rates to councils for water assets located on council land.
Additional resources	\$	1,536	Additional staff to create support structure. Includes HR, IT, Finance, health and safety and customer service + operational staff where required. Based on 12% of additional roles created in the organisational structure developed for Hawke's Bay Water CCO x \$100K per additional staff member.
Accommodation - office rent	\$	645	15m² per staff member based on reviewing average office rental in Provincial centres (\$250m²) used. Allowance for all staff to have office space provides for costs of multiple locations.
Office overheads	\$	65	10% of office Accommodation cost for insurance, electricity etc.
Regulatory compliance	\$	1,711	Budget of Taumata Arowai (\$19M) doubled to represent economic regulation to represent levies (apportioned by population served) and includes a further allowance for additional internal costs for meeting compliance reporting. [Exists in comparator case as well]
Total costs	\$	15,281	



Sensitivity to key assumptions

The table below sets out some of the key assumptions contained in our modelling, and highlights the risk of the assumption being incorrect and its likely impact.

Assumption	Risk	Likely impact
Capital investment included within long term plans and infrastructure strategies is sufficient to meet future regulatory standards.	Medium - High All Council programmes have been reviewed and updated. Future standards are unknown.	High and Low capex scenarios have been modelled as part of sensitivity testing.
Disposal of treated wastewater to land will not be required and that costs savings are available as a result. That small schemes will be able to generate cost savings due to standardised design.	Medium Government information releases strongly indicate that requirement to dispose of treated wastewater to land will be relaxed. Costs savings of some scale should be available.	Moderate Any changes would be consistent across all scenarios. High and Low capex scenarios have been modelled as part of sensitivity testing.
Depreciation rates used in modelling are accurate and reflective of true economic depreciation.	Low Depreciation rates are based on weighted average rates across the combined regions, reducing the impact of any one council having rates that are too high or low.	Minor Any changes to depreciation rates would be consistent across all scenarios and would be reflected in changing debt profiles and funding requirements.
Interest rates used in modelling are accurate and reflective of likely future borrowing costs.	Moderate Interest rates are difficult to predict and are based on a range of external economic circumstances.	Minor High and Low interest rate scenarios have been modelled as part of sensitivity testing.
Operating and capital efficiencies included in our modelling can be achieved.	Moderate The extent to which any CCO is able to achieve efficiencies will only be known in the event that it is established.	Minor Efficiencies contained in modelling are modest compared to those suggested by analysis undertaken for the Department of Internal Affairs by the Water Industry Commission of Scotland. High and Low efficiency scenarios have been modelled as part of sensitivity testing.
Establishment and operating costs for a CCO are reflective of likely true costs.	Moderate Establishment and ongoing costs have been re-estimated using a ground up approach and benchmarking with established entities and establishment processes, reducing these from earlier reports.	Minor Further refinement of costs and sensitivity testing can be undertaken once options are narrowed down.



Assumption	Risk	Likely impact
A CCO will be able to leverage debt up to an FFO ratio of 10% or higher.	Low The 10% FFO ratio used has been determined based on a review of Moody's credit rating matrix for water services utilities. The ratio is more conservative than ratios actually applied by international water utilities in many jurisdictions.	Major If a CCO is unable to borrow to the extent included in our modelling then charges will need to be substantially higher and its overall viability would likely be undermined. An 8% FFO scenario has been modelled as part of sensitivity testing.



Approach to Smoothing the Harmonisation Path

Step one

Base case price path = Council IBU

CCO price path = The Four, base case

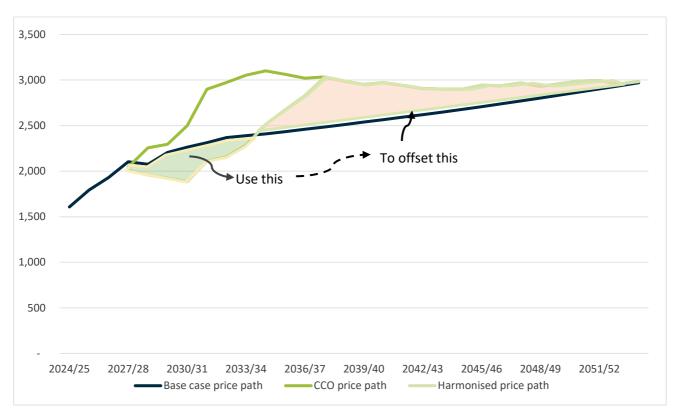
Harmonised Price Path = start at Year 7, take 3 years

Benefits = the period of time when the Harmonised Price Path is less than the Base Case Price Path Costs = the period of time when the Harmonised Price Path is higher than the Base Case Price Path

Approach is to use the value of the benefits to offset the costs for each council individually by smoothing the price path:

- Quantify the respective values of the area on the chart both above and below the Base Case price
 path and Harmonised Price Path for MDC and KCDC (PNCC and HDC do not experience years with
 costs).
- Smooth the Harmonised price path so that the line mirrors the base case.
- Use the early benefits to offset the later costs until Base Case Price Path and CCO Price Path intersect.
- If there is no intersection point, move to step 2.

Figure 22: Illustrative example of Step 1 of smoothing the price path





Step two

Contributor = Where a Base Case household cost is less than the CCO Household Cost

Beneficiary = Where a Base Case household cost is greater than the CCO Household Cost

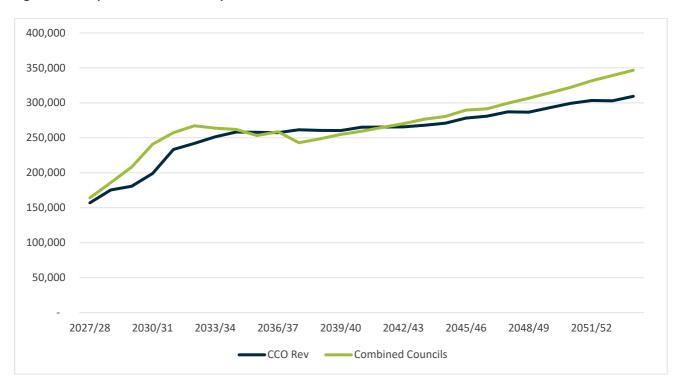
Smooth CCO Price Path = Modified Price Path for the CCO with different Household Cost for each Council, smoothed and intersecting at a Regional Cost at some point

Approach is to net off the value of Contributors and Beneficiaries where that is necessary so that each Council's household cost under the CCO is no more than the Base Case Price Path:

- Quantify the respective value of Contributors and Beneficiaries over time.
- Offset Contributors with Beneficiaries so that the CCO Price Path line mirrors the base case.
- When Beneficiaries offset contributors over time, seek every council better scenario.

The chart below demonstrates that generally, and over time the CCO is a lower cost model for three waters delivery services than the individual councils combined. Initially there is an impact from financing efficiency that reduces the revenue required to support the combined debt. Operationally the CCO becomes more efficient over time and is more efficient at delivering capital. Over 30 years this is estimated at a total of \$330M. It is this regional financial benefit that is shared across all council areas to the point of harmonisation.

Figure 23: Comparison of revenue requirements CCO v combined Councils





Step Two illustrative 4,500 4,000 3,500 3,000 2,500 2,000 Uses some of this (and from HDC) to 1,500 offset orange area in Step 1 if 1,000 needed. 500 2024/25 2027/28 2030/31 2033/34 2036/37 2039/40 2042/43 2045/46 2048/49 2051/52 —The Four CCO Base Base Council harmonised Yr 7

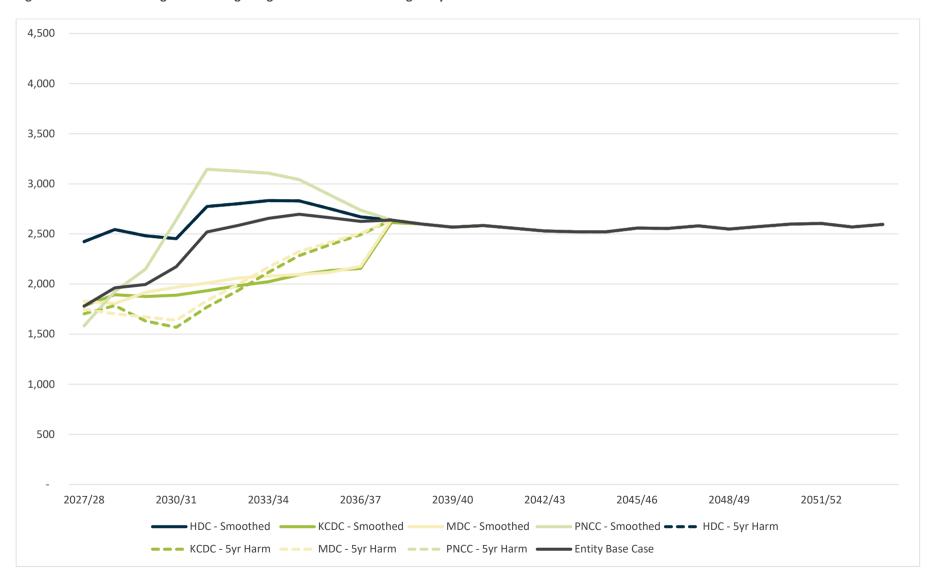
Figure 24: Illustrative example of Step 2 of smoothing the harmonisation path (PNCC)

The following chart shows how step one would function for the four councils. As anticipated it shows that not all councils 'can pay no more' if only the savings accumulated by that council area are used to offset additional costs.

As a result the smoothing requires the financial benefits from the creation of the CCO to achieve the desired outcome of 'no group of customers paying more' than they otherwise would. That is step two described above under smoothing.



Figure 25: Household charges smoothing using own accumulated savings only





Appendix Three – Comparison of modelling approach with DIA

Comparison of the approach used between Morrison Low and Department of Internal Affairs.

The following table compares key aspects of the modelling undertaken by Morrison Low and the Department of Internal Affairs for the four councils. It is intended to be an objective comparison and not a critique. Both provide useful information for the Councils but the extent of the differences in what they are intended to show, the approach used and what they represent means the results are not directly comparable but nor should they be read as being inconsistent with each other.

Aspect of Model	Morrison Low	Department of Internal Affairs	Impact of Difference			Materiality	
Timeframe	30 Years	10 Years	ML model uses 30 years as th should be considered.	ere is often investme	ent beyond the LTP period th	that Minor - Moderate	
Base Data	LTPs as adjusted by each Council & infrastructure strategies	Council LTPs	ne Major - Significant				
			Council	LTP period	Years 11 - 30		
			HDC	\$0	\$147M		
			KCDC	\$27M	\$0		
			MDC	\$11M	\$0		
			PNCC	\$41M	\$0		
Approach to debt in the base case IBU option	250% of total Council debt/revenue	FFO ring fenced for three waters – variable	As most of the borrowing for this will increase the revenue therefore costs to consumers comparable to the individual The current advice from LGFA to be able to borrow as a conbased on total council debt/re	required to support i. This approach make Council CCO. A is that under the IBI solidated Council usi	inue		
Approach to debt in the CCO Options	FFO ring fenced for three waters – 10%	FFO ring fenced for three waters - variable	Same approach is used, except on the size of the CCO. ML pro			ding Minor	
Basis of projected costs/charges	Average three waters household charge. (inflated, excl GST)	Cost per connection (inflated, excl GST)	ML figure excludes both common impact on households. Inclikely to show a higher cost as who typically pay a much high	cluding both commer s there is a small num	s is		
What is the basis of the Regional CCO	All three waters services of all Councils combined together into consolidated programme, standardised and adjusted for costs and benefits of change.	Each council three waters services as per the base case IBU options recalculated using a lower FFO ratio achievable with a regional CCO.	Means that the projections and DIA projections are intended CCO, which they do. ML projections of a change in delibenefits.	to show the financin	g efficiency available under a to show the estimated impa	ra	
Harmonisation of charges of regional CCO	Base case harmonises on Day 1 with sensitivity analysis to shows impact of harmonising over 3 year period starting in Year 3 and year 7 respectively.	None	Means that the projections and DIA projections are intended CCO, which they do. ML projections should the CCO (and the Courant no requirement to, but history trend is for that to occur over	to show the financin ections show the imp ncil owners) choose t ically within Councils	g efficiency available under a act of harmonising charges o do that. Noting that there	r a G	



Aspect of Model	Morrison Low	Department of Internal Affairs	Impact of Difference	Materiality
Costs of change	Additional costs are estimated for transition and for operation of new CCOs including levies for regulators.	Not included	ML model does include costs (\$14M for establishment) and additional ongoing costs associated with CCO. These costs are however minor in comparison to the capital investment programmes and associated debt, and the impact they have on cost projections.	Minor – Moderate (has more impact for smaller CCOs and in particular individual council CCOs)
Efficiencies/Benefits	Efficiencies and cost savings are estimated for CCOs and introduced progressively.	Not included	ML model does include cost savings from the commercial model and from regionalisation of the service. However, these costs are modest in comparison to the capital investment programmes and associated debt, and the impact they have on cost projections.	Minor
Reconciliation of different approaches and assumptions in each Council e.g. depreciation, renewals, opex	Standardised in all options	Assumptions remain as set out in Council LTPs	ML standardises these so that any differences between the base case IBU option and the CCO are not the result of different assumptions about how the CCO would operate.	Moderate
Nature calls	Costs includes as per LTP, funded in each case by debt and costs met by customers of the Council or CCO.	Costs includes as per LTP, funded by IFF	Means the costs of servicing the debt for Nature Calls are show in the ML model (both for PNCC ratepayers in the base case IBU option and all households in the CCOs) but are not shown in the DIA model.	Significant
Changes in assumptions	Sensitivity testing for different Interest rates FFO ratio Investment scenarios Efficiencies	Assumptions remain as set out in Council LTPs	The DIA model is not intended to use the LTP base data and apply as few assumptions as possible whereas ML is approach intended to highlight which assumptions have the greatest impact the projected outcomes and therefore areas of risk.	Minor



Appendix Four - Alternative scenarios

In addition to the base case Group of Four CCO, we have also completed updated modelling for three additional scenarios. These scenarios were those identified by the respective councils as options for consultation under LWDW.

We have used a consistent approach to modelling these alternative scenarios as for the base cases for each council and the four council CCO. The alternative scenarios are:

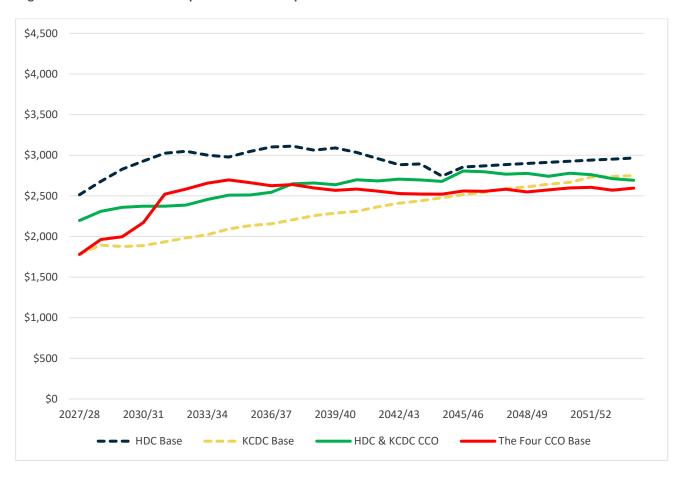
- Horowhenua and Kāpiti Coast CCO
 - HDC & KCDC CCO: 4% capital and 4% operating efficiencies
 - Establishment cost: \$8.8M
- Manawatū and Palmerston North CCO
 - MDC & PNCC CCO: 6% capital and 7% operating efficiencies
 - Establishment cost: \$8.9M
- Manawatū Whanganui CCO (Horowhenua, Manawatū, Palmerston North with Whanganui, Rangitikei, Ruapehu and Tararua)
 - MDC & PNCC CCO: 14% capital and 14% operating efficiencies
 - Establishment cost : \$22.7M



Horowhenua and Kāpiti Coast CCO

The modelling below shows that for the vast majority of the time the lower cost CCO is the larger group of four CCO. The only period where this does not occur is in line with the peak investment for the four council CCO. While over the long term the projections show lower household costs for both KCDC and HDC households under either CCO model it does take almost 20 years for KCDC households to have lower costs under a CCO. Further sensitivity testing, particularly around timing of price harmonisation may change this.

Figure 26: Horowhenua and Kāpiti Coast CCO compared with base scenarios

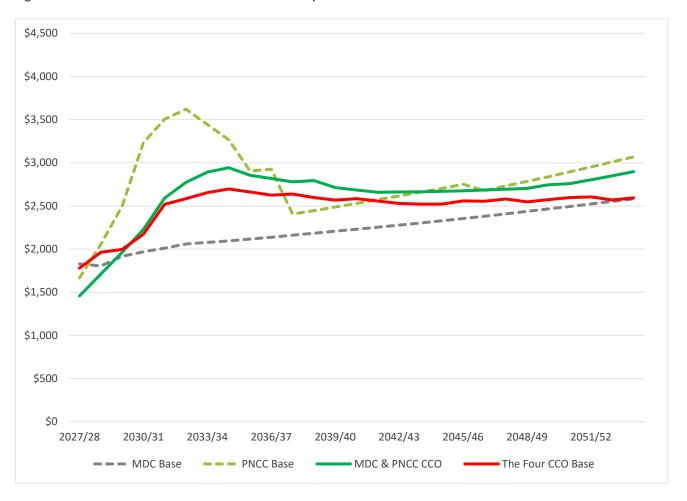




Manawatū and Palmerston North CCO

The modelling below shows that for the almost the entire 30 years the lower cost CCO is the larger group of four CCO. While over the long term the projections eventually show lower household costs for both MDC and PNCC households under the larger four council CCO it does take almost the entire 30 years for MDC households to have lower costs under a CCO. Further sensitivity testing, particularly around timing of price harmonisation may change this.

Figure 27: Manawatū and Palmerston North CCO compared with base scenarios





The Manawatū – Whanganui CCO

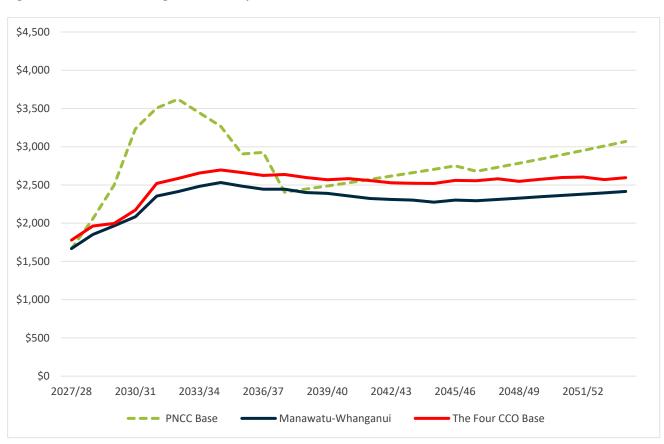
This option includes the following seven councils: Palmerston North City and Horowhenua, Manawatū, Whanganui, Rangitikei, Ruapehu and Tararua District councils.

The change of approach when Morrison Low has modelled this group using the same assumptions and approach has resulted in a changed forecast of household cost over the longer term than was previously advised.

There are many factors creating the different projections including how debt is treated, the investment scenarios used, household costs v connections but a significant amount of the difference is how the financial modelling has been undertaken.

As a result of this change in approach household costs are now projected to be lower under the Manawatū-Whanganui CCO than under the four council CCO.

Figure 28: Manawatū-Whanganui CCO compared with base case scenarios





Appendix Five – Data sheet

Part A: All figures are inflated (nominal) and exclude GST



Entity	Scenario	Metric	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
HDC Base	Base	HH Charges	1,794	1,949	2,214	2,514	2,677	2,827	2,929	3,025	3,049
KCDC Base	Base	HH Charges	1,645	1,544	1,610	1,783	1,893	1,877	1,888	1,934	1,984
MDC Base	Base	HH Charges	1,398	1,559	1,680	1,829	1,805	1,918	1,968	2,011	2,060
PNCC Base	Base	HH Charges	1,081	1,219	1,386	1,666	2,057	2,500	3,234	3,506	3,621
MDC & PNCC CCO	Base	HH Charges	#N/A	#N/A	#N/A	1,457	1,710	1,963	2,229	2,592	2,774
HDC & KCDC CCO	Base	HH Charges	#N/A	#N/A	#N/A	2,197	2,311	2,359	2,372	2,372	2,386
		- J									
The Four CCO Base	Base	HH Charges	#N/A	#N/A	#N/A	1,779	1,963	1,996	2,173	2,520	2,584
The Four CCO	FFO 8%	HH Charges	#N/A	#N/A	#N/A	1,907	2,095	2,191	2,306	2,660	2,831
The Four CCO	High investment (capex +30%)	HH Charges	#N/A	#N/A	#N/A	2,225	2,529	2,650	2,909	3,389	3,493
The Four CCO	Low investment (capex -30%)	HH Charges	#N/A	#N/A	#N/A	1,840	1,950	2,045	2,180	2,344	2,453
The Four CCO	High efficiencies	HH Charges	#N/A	#N/A	#N/A	2,046	2,257	2,290	2,486	2,877	2,941
The Four CCO	Low efficiencies	HH Charges	#N/A	#N/A	#N/A	2,046	2,257	2,301	2,512	2,922	3,052
The Four CCO	Interest rate high 7%	HH Charges	#N/A	#N/A	#N/A	2,188	2,441	2,514	2,746	3,181	3,273
The Four CCO	Interest rate low 3%	HH Charges	#N/A	#N/A	#N/A	1,901	2,071	2,074	2,249	2,614	2,669
Nature Calls Scenarios						1,547	1,707	1,736	1,889	2,192	2,247
PNCC	Nature Calls -30%	HH Charges	\$ 1,081	\$ 1,074	\$ 1,238	\$ 1,495	\$ 1,825	\$ 2,196	\$ 2,626	\$ 2,846	\$ 2,842
PNCC	Nature Calls +30%	HH Charges	\$ 1,081								
The Four CCO	Nature Calls -30%	HH Charges	#N/A	#N/A	#N/A	\$ 1,751			\$ 2,032	\$ 2,331	\$ 2,419
The Four CCO	Nature Calls +30%	HH Charges	#N/A	#N/A	#N/A	\$ 1,836	\$ 2,055	\$ 2,087	\$ 2,323	\$ 2,693	\$ 2,814
Harmonise											
HDC Harmonised Year 3	HDC	Consol	#N/A	#N/A	#N/A	\$ 2,424	\$ 2,545	\$ 2,481	\$ 2,568	\$ 2,821	\$ 2,739
KCDC Harmonised Year 3	KCDC	Consol	#N/A	#N/A	#N/A	\$ 1,704					
MDC Harmonised Year 3	MDC	Consol	#N/A	#N/A	#N/A	\$ 1,748					
PNCC Harmonised Year 3	PNCC	Consol	#N/A	#N/A	#N/A	\$ 1,583					
						,	, ,,	, ,	, ,,,,,,,		, , ,
HDC Harmonised Year 7	HDC	Consol	#N/A	#N/A	#N/A	\$ 2,424	\$ 2,545	\$ 2,481	\$ 2,453	\$ 2,774	\$ 2,796
KCDC Harmonised Year 7	KCDC	Consol	#N/A	#N/A	#N/A	\$ 1,704					
MDC Harmonised Year 7	MDC	Consol	#N/A	#N/A	#N/A	\$ 1,748					
PNCC Harmonised Year 7	PNCC	Consol	#N/A	#N/A	#N/A	\$ 1,583					
UD011 : 1V 40	LIDO	0 1	4451/6	451/5	#N1/A	.	A 0.545	A 0.404	A 0.450	h 0.774	Φ 0.700
HDC Harmonised Year 10	HDC KCDC	Consol	#N/A #N/A	#N/A #N/A	#N/A #N/A	\$ 2,424 \$ 1.704					
KCDC Harmonised Year 10 MDC Harmonised Year 10	MDC	Consol Consol	#N/A #N/A	#N/A	#N/A	,					
PNCC Harmonised Year 10	PNCC	Consol	#N/A	#N/A	#N/A	\$ 1,748 \$ 1,583					
T NCC Haimonised real 10	TNOO	Consor	πIN/A	#IN/A	πιν//\	φ 1,303	ψ 1,925	φ 2,143	φ 2,042	φ 5,145	Ψ 5,244
HDC Harmonised Year 5	HDC	Consol	#N/A	#N/A	#N/A	\$ 2,424	\$ 2,545	\$ 2,481	\$ 2,453	\$ 2,774	\$ 2,801
KCDC Harmonised Year 5	KCDC	Consol	#N/A	#N/A	#N/A	\$ 1,704	\$ 1,785	\$ 1,631	\$ 1,568	\$ 1,770	\$ 1,933
MDC Harmonised Year 5	MDC	Consol	#N/A	#N/A	#N/A	\$ 1,748	\$ 1,703	\$ 1,672	\$ 1,638	\$ 1,835	\$ 1,994
PNCC Harmonised Year 5	PNCC	Consol	#N/A	#N/A	#N/A	\$ 1,583	\$ 1,925	\$ 2,149	\$ 2,642	\$ 3,145	\$ 3,128
HDC 'Pay no more' 20 years	HDC	HH Charges	#N/A	#N/A	#N/A	\$ 2,479	\$ 2,626	\$ 2,693	\$ 2,744	\$ 2,927	\$ 2,953
KCDC 'Pay no more' 20 years		HH Charges	#N/A	#N/A	#N/A	\$ 1,783					
MDC 'Pay no more' 20 years	MDC	HH Charges	#N/A	#N/A	#N/A	\$ 1,829					
PNCC 'Pay no more' 20 years	PNCC	HH Charges	#N/A	#N/A	#N/A	\$ 1,634					
LIDC IDay no 100	LIDO	111105		44 N I / A	#N1/A	6 0.401	6 0011	6 0.741	Φ 0.040	φ 0.000	¢ 0.00
HDC 'Pay no more' 30 years	HDC	HH Charges	#N/A #N/A	#N/A #N/A	#N/A #N/A	\$ 2,491					
KCDC 'Pay no more' 30 years MDC 'Pay no more' 30 years	KCDC MDC	HH Charges HH Charges	#N/A #N/A	#N/A #N/A	#N/A #N/A	\$ 1,783 \$ 1,829					
	PNCC		#N/A #N/A	#N/A #N/A	#N/A #N/A						
PNCC 'Pay no more' 30 years	FINOU	HH Charges	#IN/A	#IN//N	#IN/A	\$ 1,645	\$ 2,024	ψ 2,412	\$ 3,086	\$ 3,416	ψ 3,498
HDC 'local price'		HH Charges	#N/A	#N/A	#N/A	\$ 2,456					
KCDC 'local price'		HH Charges	#N/A	#N/A	#N/A	\$ 1,727					
MDC 'local price'		HH Charges	#N/A	#N/A	#N/A	\$ 1,772					
PNCC 'local price'		HH Charges	#N/A	#N/A	#N/A	\$ 1,605	\$ 1,960	\$ 2,247	\$ 2,807	\$ 3,242	\$ 3,344



Entity	Scenario	Metric	2033/34	2034/35	2035/36	2036/	37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44
HDC Base	Base	HH Charges	3,00	1 2,977	3,04	6 3.	101	3,112	3,062	3,090	3,034	2,957	2,883	2,893
KCDC Base	Base	HH Charges	2,02				155	2,205	2,256	2,287	2,310	2,366	2,409	2,437
MDC Base	Base	HH Charges	2,07				138	2,161	2,184	2,208		2,255	2,279	2,303
PNCC Base	Base	HH Charges	3,44				926	2,406	2,104	2,487	2,529		2,617	2,660
FINOC base	Dase	Till Charges	3,44	2 3,200	2,30	2,	920	2,400	2,440	2,407	2,329	2,373	2,017	2,000
MDC & PNCC CCO	Base	HH Charges	2,89	2,943	2,85	5 2,	817	2,780	2,794	2,713	2,685	2,660	2,662	2,665
HDC & KCDC CCO	Base	HH Charges	2,45	2,510	2,51	0 2,	543	2,649	2,658	2,637	2,698	2,684	2,706	2,696
e	Base	HH Charges	2,65	5 2,696	2,66	2 2	626	2,638	2,598	2,567	2,584	2,557	2,529	2,522
The Four CCO	FFO 8%	HH Charges	2,91	-	-		945	2,963	2,974	2,941	2,961	2,934	2,932	2,926
The Four CCO	High investment (capex +30%)		3,59				519	3,483	3,499	3,400		3,396	3,363	3,357
The Four CCO		-					500	2,509		2,456		2,444		2,478
	Low investment (capex -30%)	HH Charges	2,52						2,488				2,463	
The Four CCO	High efficiencies	HH Charges	3,01		-		943	2,944	2,885	2,818			2,763	2,751
The Four CCO	Low efficiencies	HH Charges	3,14				144	3,145	3,139	3,107	3,130		3,074	3,069
The Four CCO	Interest rate high 7%	HH Charges	3,35	3,403	3,36	0 3,	312	3,325	3,276	3,235	3,248	3,215	3,179	3,168
The Four CCO	Interest rate low 3%	HH Charges	2,74				725	2,741	2,699	2,669		2,665	2,635	2,631
Nature Calls Scenarios			2,30	2,345	2,31	5 2,	283	2,294	2,259	2,233	2,247			
PNCC	Nature Calls -30%	HH Charges	\$ 2,34	5 \$ 2,438	\$ \$ 2,47	2 \$ 2.	508	\$ 2,544	\$ 2,582	\$ 2,375	\$ 2,421	\$ 2,469	\$ 2,518	\$ 2,566
PNCC														
	Nature Calls +30%	HH Charges	\$ 3,30				015							
The Four CCO	Nature Calls -30%	HH Charges		3 \$ 2,554			494 \$							
The Four CCO	Nature Calls +30%	HH Charges	\$ 2,84	2 \$ 2,881	\$ 2,80	8 \$ 2,	765	\$ 2,774	\$ 2,691	\$ 2,656	\$ 2,629	\$ 2,616	\$ 2,595	\$ 2,586
Harmonise														
HDC Harmonised Year 3	HDC	Consol	\$ 2,65	5 \$ 2,696	\$ 2,66	2 \$ 2,	626	\$ 2,638	\$ 2,598	\$ 2,567	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
KCDC Harmonised Year 3	KCDC	Consol	\$ 2,65				626							
MDC Harmonised Year 3	MDC	Consol	\$ 2,65				626							
PNCC Harmonised Year 3	PNCC	Consol	\$ 2,65	5 \$ 2,696	\$ 2,66	2 \$ 2,	626	\$ 2,638	\$ 2,598	\$ 2,567	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
HDC Harmonised Year 7	HDC	Consol	\$ 2,89	2 \$ 2,874	\$ 2,78	1 \$ 2,	685	\$ 2,638	\$ 2,598	\$ 2,567	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
KCDC Harmonised Year 7	KCDC	Consol	\$ 1,94	5 \$ 2,152	\$ 2,30	6 \$ 2,	451	\$ 2,638	\$ 2,598	\$ 2,567	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
MDC Harmonised Year 7	MDC	Consol	\$ 1,98				461							
PNCC Harmonised Year 7	PNCC	Consol	\$ 3,24				771							
HDC Harmonised Year 10	HDC	Consol	\$ 2,89	2 \$ 2,965	\$ 3,12	3 \$ 3,	105	\$ 3,002	\$ 2,838	\$ 2,686	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
KCDC Harmonised Year 10	KCDC	Consol	\$ 1,94	5 \$ 2,083	\$ \$ 2,19	2 \$ 2,	157	\$ 2,291	\$ 2,372	\$ 2,457	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
MDC Harmonised Year 10	MDC	Consol	\$ 1,98	9 \$ 2,073	\$ 2,16	1 \$ 2,	129	\$ 2,266	\$ 2,354	\$ 2,447	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
PNCC Harmonised Year 10	PNCC	Consol	\$ 3,24	5 \$ 3,187	\$ 2,930) \$ 2,	883	\$ 2,826	\$ 2,720	\$ 2,627	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
HDC Harmonised Year 5	HDC	Consol	\$ 2,83	3 \$ 2,831	\$ 2,75	2 6 2	670	\$ 2,638	\$ 2,598	\$ 2,567	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
KCDC Harmonised Year 5	KCDC	Consol	\$ 2,11				493							
MDC Harmonised Year 5	MDC	Consol	\$ 2,16				505							
PNCC Harmonised Year 5	PNCC	Consol	\$ 3,10	7 \$ 3,042	2,889	9 \$ 2,	737	\$ 2,638	\$ 2,598	\$ 2,567	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
HDC 'Pay no more' 20 years	HDC	HH Charges	\$ 2,93	6 \$ 2,921	\$ 2,933	2 \$ 2,	670	\$ 2,638	\$ 2,598	\$ 2,567	\$ 2,584	\$ 2,557	\$ 2,529	\$ 2,522
KCDC 'Pay no more' 20 years	KCDC	HH Charges	\$ 2,02				155							
MDC 'Pay no more' 20 years	MDC	HH Charges	\$ 2,07				138							
PNCC 'Pay no more' 20 years	PNCC	HH Charges	\$ 3,31				737							
			, 3,01	3,100									, 2,020	
HDC 'Pay no more' 30 years	HDC	HH Charges	\$ 2,95				670							
KCDC 'Pay no more' 30 years	KCDC	HH Charges	\$ 2,02		\$ 2,13	5 \$ 2,	155	\$ 2,205	\$ 2,256	\$ 2,287	\$ 2,310	\$ 2,366	\$ 2,409	\$ 2,437
MDC 'Pay no more' 30 years	MDC	HH Charges	\$ 2,07	3 \$ 2,095	\$ 2,11	7 \$ 2,	138	\$ 2,161	\$ 2,184	\$ 2,208	\$ 2,231	\$ 2,255	\$ 2,279	\$ 2,303
PNCC 'Pay no more' 30 years	PNCC	HH Charges	\$ 3,35				737 \$							\$ 2,522
HDC 'local price'		UU Chargas	ф 200	1 6 207	, e	2 6 2	101 4	¢ 2110	¢ 2.000	\$ 2,000	¢ 2.004	¢	¢ 0047	¢ 0.040
HDC 'local price'		HH Charges	\$ 2,93				101 \$							
KCDC 'local price'		HH Charges	\$ 1,97				155							
MDC 'local price'		HH Charges	\$ 2,01				138							
PNCC 'local price'		HH Charges	\$ 3,29	2 \$ 3,200	\$ 2,90	5 \$ 2,	926	\$ 2,406	\$ 2,446	\$ 2,487	\$ 2,529	\$ 2,573	\$ 2,557	\$ 2,563



Entity	Scenario	Metric	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54
HDC Base	Base	HH Charges	2,74	3 2,856	2,870	2,885	2,899	2,913	2,926	2,940	2,952	2,966
KCDC Base	Base	HH Charges	2,47		2,547	2,589	2,612	2,643	2,667	2,732	2,740	2,749
MDC Base	Base	HH Charges	2,32		2,381	2,409	2,437	2,466	2,495	2,523	2,553	2,583
PNCC Base	Base				2,678		2,437		2,495	2,951		3,069
PINCC base	base	HH Charges	2,70	2,751	2,070	2,732	2,704	2,839	2,095	2,951	3,010	3,069
MDC & PNCC CCO	Base	HH Charges	2,66	9 2,676	2,685	2,694	2,704	2,746	2,759	2,803	2,850	2,898
HDC & KCDC CCO	Base	HH Charges	2,67	2,806	2,795	2,766	2,776	2,740	2,779	2,762	2,712	2,691
The Four CCO Base	Base	HH Charges	2,52	1 2,559	2,555	2,581	2,548	2,574	2,598	2,604	2,570	2,594
The Four CCO	FFO 8%	HH Charges	2,89			2,999	2,994	3,056	3,019	3,061	3,087	3,114
The Four CCO			3,36			3,415	3,410	3,410	3,446	3,459	3,451	3,485
The Four CCO	Low investment (capex -30%)	HH Charges	2,49		2,547	2,567	2,583	2,601	2,618	2,644	2,659	2,675
The Four CCO	High efficiencies	HH Charges	2,71			2,745	2,767	2,762	2,787	2,791	2,813	2,837
The Four CCO	Low efficiencies	HH Charges	3,01			3,125	3,122	3,155	3,154	3,199	3,193	3,190
The Four CCO	Interest rate high 7%	HH Charges	3,16			3,123	3,197	3,133	3,253	3,199	3,193	3,250
The Four CCO			2,63			2,697	2,662	2,692	2,721	2,725	2,687	2,716
The Four CCO	Interest rate low 3%	HH Charges	2,63	2,670	2,008	2,697	2,002	2,692	2,/21	2,725	2,687	2,716
Nature Calls Scenarios												
PNCC	Nature Calls -30%	HH Charges	\$ 2,61	5 \$ 2,667	\$ 2,723	\$ 2,778	\$ 2,831	\$ 2,887	\$ 2,945	\$ 3,003	\$ 3,062	\$ 3,123
PNCC	Nature Calls +30%	HH Charges	\$ 2,71	2 \$ 2,759	\$ 2,811	\$ 2,863	\$ 2,912	\$ 2,963	\$ 3,017	\$ 3,071	\$ 3,127	\$ 3,183
The Four CCO	Nature Calls -30%	HH Charges	\$ 2,48	2 \$ 2,521	\$ 2,519	\$ 2,546	\$ 2,516	\$ 2,542	\$ 2,568	\$ 2,576	\$ 2,571	\$ 2,568
The Four CCO	Nature Calls +30%	HH Charges	\$ 2,58	2 \$ 2,618	\$ 2,611	\$ 2,635	\$ 2,599	\$ 2,582	\$ 2,606	\$ 2,641	\$ 2,603	\$ 2,627
Harmonise												
HDC Harmonised Year 3	HDC	Consol	\$ 2,52	1 \$ 2,559	\$ 2,555	\$ 2,581	\$ 2,548	\$ 2,574	\$ 2,598	\$ 2,604	\$ 2,570	\$ 2,594
KCDC Harmonised Year 3	KCDC	Consol	\$ 2,52				\$ 2,548					
MDC Harmonised Year 3	MDC	Consol	\$ 2,52				\$ 2,548					
PNCC Harmonised Year 3	PNCC	Consol		1 \$ 2,559								
THE CHAINICHIC TOUT	THEC	Contoct	Ψ 2,02	Σ,000	ψ 2,000	ψ 2,001	ψ 2,040	Ψ 2,074	ψ 2,000	ψ 2,004	ψ 2,670	Ψ 2,004
HDC Harmonised Year 7	HDC	Consol	\$ 2,52	1 \$ 2,559	\$ 2,555	\$ 2,581	\$ 2,548	\$ 2,574	\$ 2,598	\$ 2,604	\$ 2,570	\$ 2,594
KCDC Harmonised Year 7	KCDC	Consol		1 \$ 2,559	. ,							
MDC Harmonised Year 7	MDC	Consol		1 \$ 2,559								
PNCC Harmonised Year 7	PNCC	Consol		1 \$ 2,559								
HDC Harmonised Year 10	HDC	Consol	\$ 2,52					, , , ,				
KCDC Harmonised Year 10	KCDC	Consol	\$ 2,52		. ,			, , ,				
MDC Harmonised Year 10	MDC	Consol	\$ 2,52	1 \$ 2,559	\$ 2,555	\$ 2,581	\$ 2,548	\$ 2,574	\$ 2,598	\$ 2,604	\$ 2,570	\$ 2,594
PNCC Harmonised Year 10	PNCC	Consol	\$ 2,52	1 \$ 2,559	\$ 2,555	\$ 2,581	\$ 2,548	\$ 2,574	\$ 2,598	\$ 2,604	\$ 2,570	\$ 2,594
HDC Harmonised Year 5	HDC	Consol	\$ 2,52	1 \$ 2,559	\$ 2,555	\$ 2,581	\$ 2,548	\$ 2,574	\$ 2,598	\$ 2,604	\$ 2,570	\$ 2,594
KCDC Harmonised Year 5	KCDC	Consol		1 \$ 2,559								
MDC Harmonised Year 5	MDC	Consol		1 \$ 2,559								
PNCC Harmonised Year 5	PNCC	Consol		1 \$ 2,559								
HDC 'Pay no more' 20 years	HDC	HH Charges	\$ 2,52									
KCDC 'Pay no more' 20 years	KCDC	HH Charges		1 \$ 2,559								
MDC 'Pay no more' 20 years	MDC	HH Charges		1 \$ 2,559								
PNCC 'Pay no more' 20 years	PNCC	HH Charges	\$ 2,52	1 \$ 2,559	\$ 2,555	\$ 2,581	\$ 2,548	\$ 2,574	\$ 2,598	\$ 2,604	\$ 2,570	\$ 2,594
HDC 'Pay no more' 30 years	HDC	HH Charges	\$ 2,52	1 \$ 2,559	\$ 2,555	\$ 2,581	\$ 2,548	\$ 2,574	\$ 2,598	\$ 2,604	\$ 2,570	\$ 2,594
KCDC 'Pay no more' 30 years	KCDC	HH Charges		7 \$ 2,515								
MDC 'Pay no more' 30 years	MDC	HH Charges	\$ 2,47									
PNCC 'Pay no more' 30 years	PNCC	HH Charges	\$ 2,52									
		_										
HDC 'local price'		HH Charges	\$ 2,66									
KCDC 'local price'		HH Charges		7 \$ 2,421								
MDC 'local price'		HH Charges	\$ 2,24									
PNCC 'local price'		HH Charges	\$ 2,60	0 \$ 2,631	\$ 2,571	\$ 2,609	\$ 2,595	\$ 2,637	\$ 2,681	\$ 2,694	\$ 2,684	\$ 2,733



Part B : All figures are deflated (real) and exclude GST



Entity	Scenario	Metric	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Inflation Index			1.00	1.03							1.21	1.23
HDC Base	Base	HH Charges	\$ 1,794	\$ 1,901	\$ 2,103	\$ 2,327	\$ 2,418	\$ 2,496	\$ 2,528	\$ 2,554	\$ 2,522	\$ 2,431
KCDC Base	Base	HH Charges	\$ 1,645	\$ 1,506	\$ 1,530	\$ 1,651	\$ 1,710	\$ 1,657	\$ 1,630	\$ 1,633	\$ 1,641	\$ 1,639
MDC Base	Base	HH Charges	\$ 1,398	\$ 1,521	\$ 1,596	\$ 1,693	\$ 1,631	\$ 1,693	\$ 1,699	\$ 1,698	\$ 1,704	\$ 1,684
PNCC Base	Base	HH Charges	\$ 1,081	\$ 1,189	\$ 1,317	\$ 1,543	\$ 1,858	\$ 2,207	\$ 2,791	\$ 2,961	\$ 2,996	\$ 2,789
MDC & PNCC CCO	Base	HH Charges	#N/A	#N/A	#N/A	\$ 1,349	\$ 1,545	\$ 1,734	\$ 1,924	\$ 2,189	\$ 2,294	\$ 2,343
HDC & KCDC CCO	Base	HH Charges	#N/A	#N/A	#N/A	\$ 2,034	\$ 2,087	\$ 2,083	\$ 2,048	\$ 2,003	\$ 1,973	\$ 1,990
The Four CCO Base	Base	HH Charges	#N/A	#N/A	#N/A	\$ 1,647	\$ 1,817	\$ 1,848	\$ 2,012	\$ 2,334	\$ 2,393	\$ 2,459
The Four CCO	FFO 8%	HH Charges	#N/A	#N/A	#N/A	\$ 1,765	\$ 1,893	\$ 1,935	\$ 1,990	\$ 2,246	\$ 2,342	\$ 2,363
The Four CCO	High investment (capex +30%)	HH Charges	#N/A	#N/A	#N/A	\$ 2,060	\$ 2,285	\$ 2,340	\$ 2,511	\$ 2,862	\$ 2,889	\$ 2,912
The Four CCO	Low investment (capex -30%)	HH Charges	#N/A	#N/A	#N/A	\$ 1,704	\$ 1,761	\$ 1,806	\$ 1,882	\$ 1,980	\$ 2,029	\$ 2,041
The Four CCO	High efficiencies	HH Charges	#N/A	#N/A	#N/A	\$ 1,894	\$ 2,039	\$ 2,022	\$ 2,146	\$ 2,430	\$ 2,433	\$ 2,440
The Four CCO	Low efficiencies	HH Charges	#N/A	#N/A	#N/A	\$ 1,894	\$ 2,039	\$ 2,032	\$ 2,168	\$ 2,467	\$ 2,525	\$ 2,548
The Four CCO	Interest rate high 7%	HH Charges	#N/A	#N/A	#N/A	\$ 2,026	\$ 2,205	\$ 2,220	\$ 2,371	\$ 2,686	\$ 2,708	\$ 2,721
The Four CCO	Interest rate low 3%	HH Charges	#N/A	#N/A	#N/A	\$ 1,761	\$ 1,871	\$ 1,832	\$ 1,941	\$ 2,208	\$ 2,208	\$ 2,227
Nature Calls Scenarios												
PNCC	Nature Calls -30%	HH Charges	\$ 1,081	\$ 1,048	\$ 1,176	\$ 1,384	\$ 1,648	\$ 1,939	\$ 2,267	\$ 2,403	\$ 2,351	\$ 1,900
PNCC	Nature Calls +30%	HH Charges	\$ 1,081	\$ 1,051	\$ 1,183	\$ 1,682	\$ 2,275	\$ 2,700	\$ 3,401	\$ 3,486	\$ 3,351	\$ 2,678
The Four CCO	Nature Calls -30%	HH Charges	#N/A	#N/A	#N/A	\$ 1,621	\$ 1,745	\$ 1,707	\$ 1,754	\$ 1,968	\$ 2,001	\$ 2,036
The Four CCO	Nature Calls +30%	HH Charges	#N/A	#N/A	#N/A	\$ 1,700	\$ 1,856	\$ 1,843	\$ 2,005	\$ 2,274	\$ 2,327	\$ 2,303
Harmonise												
HDC Harmonised Year 3	HDC	Consol	#N/A	#N/A	#N/A	\$ 2,244	\$ 2,299	\$ 2,191	\$ 2,216	\$ 2,383	\$ 2,266	\$ 2,152
KCDC Harmonised Year 3	KCDC	Consol	#N/A	#N/A	#N/A	\$ 1,577						
MDC Harmonised Year 3	MDC	Consol	#N/A	#N/A	#N/A	\$ 1,619						
PNCC Harmonised Year 3	PNCC	Consol	#N/A	#N/A	#N/A	\$ 1,466						
HDC Harmonised Year 7	HDC	Consol	#N/A	#N/A	#N/A	\$ 2,244	\$ 2,299	\$ 2,191	\$ 2,118	\$ 2,343	\$ 2,313	\$ 2,343
KCDC Harmonised Year 7	KCDC	Consol	#N/A	#N/A	#N/A	\$ 1,577	\$ 1,612	\$ 1,440	\$ 1,354	\$ 1,495		
MDC Harmonised Year 7	MDC	Consol	#N/A	#N/A	#N/A	\$ 1,619						
PNCC Harmonised Year 7	PNCC	Consol	#N/A	#N/A	#N/A	\$ 1,466	\$ 1,739	\$ 1,898	\$ 2,280	\$ 2,656	\$ 2,683	\$ 2,629
HDC Harmonised Year 10	HDC	Consol	#N/A	#N/A	#N/A	\$ 2,244	\$ 2,299	\$ 2,191	\$ 2,118	\$ 2,343	\$ 2,313	\$ 2,343
KCDC Harmonised Year 10	KCDC	Consol	#N/A	#N/A	#N/A	\$ 1,577						
MDC Harmonised Year 10	MDC	Consol	#N/A	#N/A	#N/A	\$ 1,619						
PNCC Harmonised Year 10	PNCC	Consol	#N/A	#N/A	#N/A	\$ 1,466				\$ 2,656		
HDC Harmonised Year 5	HDC	Consol	#N/A	#N/A	#N/A	\$ 2,244	\$ 2,299	\$ 2,191	\$ 2,118	\$ 2,343	\$ 2,317	\$ 2,295
KCDC Harmonised Year 5	KCDC	Consol	#N/A	#N/A	#N/A	\$ 2,244						
MDC Harmonised Year 5	MDC	Consol	#N/A	#N/A	#N/A	\$ 1,619						
PNCC Harmonised Year 5	PNCC	Consol	#N/A	#N/A	#N/A	\$ 1,466						
LID O ID	LIDO		//>//	// 1/ 4	(1) 1/ 0		.	.		A 0.470	.	.
HDC 'Pay no more' 20 years	HDC	HH Charges	#N/A	#N/A	#N/A	\$ 2,295						
KCDC 'Pay no more' 20 years	KCDC	HH Charges	#N/A	#N/A	#N/A	\$ 1,651						
MDC 'Pay no more' 20 years	MDC	HH Charges	#N/A	#N/A	#N/A	\$ 1,693						
PNCC 'Pay no more' 20 years	PNCC	HH Charges	#N/A	#N/A	#N/A	\$ 1,513	\$ 1,812	\$ 2,087	\$ 2,593	\$ 2,843	\$ 2,837	\$ 2,684
HDC 'Pay no more' 30 years	HDC	HH Charges	#N/A	#N/A	#N/A	\$ 2,306						
KCDC 'Pay no more' 30 years	KCDC	HH Charges	#N/A	#N/A	#N/A	\$ 1,651						
MDC 'Pay no more' 30 years	MDC	HH Charges	#N/A	#N/A	#N/A	\$ 1,693						
PNCC 'Pay no more' 30 years	PNCC	HH Charges	#N/A	#N/A	#N/A	\$ 1,523	\$ 1,828	\$ 2,130	\$ 2,663	\$ 2,885	\$ 2,894	\$ 2,721
HDC 'local price'		HH Charges	#N/A	#N/A	#N/A	\$ 2,274	\$ 2,340	\$ 2,290	\$ 2,250	\$ 2,414	\$ 2,384	\$ 2,377
KCDC 'local price'		HH Charges	#N/A	#N/A	#N/A	\$ 1,599	\$ 1,641	\$ 1,505	\$ 1,439	\$ 1,541	\$ 1,548	\$ 1,600
MDC 'local price'		HH Charges	#N/A	#N/A	#N/A	\$ 1,641						
PNCC 'local price'		HH Charges	#N/A	#N/A	#N/A	\$ 1,486	\$ 1,770	\$ 1,984	\$ 2,423	\$ 2,738	\$ 2,766	\$ 2,667
Manwatu-Whanganui	Base	HH Charges	#N/A	#N/A	#N/A	¢ 1 545	¢ 1 672	¢ 1.726	¢ 1000	¢ 1,000	\$ 1,997	¢ 2.011
r-ianwatu-vviianganui	ממסכ	rin Charges	#IN/A	#IN/A	#IN/A	\$ 1,545	\$ 1,673	\$ 1,736	\$ 1,800	\$ 1,988	ψ 1,99/	\$ 2,011



Entity	Scenario	Metric	2	034/35	2035/3	6	2036/37		2037/38	2038/39	2039/40	2040/41	2041/42	2042/43		2043/44
Inflation Index		. 101110		1.26		1.28	1.31		1.34	1.36					_	1.50
The state of the s				0		0										
HDC Base	Base	HH Charges	\$	2,365	\$ 2.	372	\$ 2,368	\$	2,329	\$ 2,247	\$ 2,223	\$ 2,140	\$ 2,045	\$ 1,954	\$	1,923
KCDC Base	Base	HH Charges	\$	1,663					1,651							1,620
MDC Base	Base	HH Charges	\$	1,664			\$ 1,633		1,617							1,531
PNCC Base	Base	HH Charges	\$	2,595		262		\$	1,801							1,768
									•							
MDC & PNCC CCO	Base	HH Charges	\$	2,338	\$ 2,	224	\$ 2,151	\$	2,081	\$ 2,050	\$ 1,952	\$ 1,894	\$ 1,839	\$ 1,805	\$	1,771
HDC & KCDC CCO	Base	HH Charges	\$	1,993	\$ 1,	955	\$ 1,942	\$	1,983	\$ 1,951	\$ 1,897	\$ 1,903	\$ 1,856	\$ 1,835	\$	1,792
The Four CCO Base	Base	HH Charges	\$	2,496	\$ 2,	465	\$ 2,431	\$	2,443	\$ 2,406	\$ 2,377	\$ 2,392	\$ 2,368	\$ 2,341	\$	2,335
The Four CCO	FFO 8%	HH Charges	\$	2,396	\$ 2,	283	\$ 2,248	\$	2,217	\$ 2,182	\$ 2,115	\$ 2,089	\$ 2,028	\$ 1,987	\$	1,944
The Four CCO	High investment (capex +30%)	HH Charges	\$	2,858	\$ 2,	773	\$ 2,686	\$	2,607	\$ 2,567	\$ 2,446	\$ 2,416	\$ 2,348	\$ 2,280	\$	2,231
The Four CCO	Low investment (capex -30%)	HH Charges	\$	2,030	\$ 1,	961	\$ 1,909	\$	1,878	\$ 1,826	\$ 1,767	\$ 1,727	\$ 1,690	\$ 1,670	\$	1,647
The Four CCO	High efficiencies	HH Charges	\$	2,420	\$ 2,	334	\$ 2,247	\$	2,204	\$ 2,117	\$ 2,027	\$ 1,997	\$ 1,916	\$ 1,873	\$	1,828
The Four CCO	Low efficiencies	HH Charges	\$	2,543	\$ 2,	432	\$ 2,400	\$	2,354	\$ 2,303	\$ 2,235	\$ 2,207	\$ 2,146	\$ 2,084	\$	2,040
The Four CCO	Interest rate high 7%	HH Charges	\$	2,703	\$ 2,	616	\$ 2,529	\$	2,489	\$ 2,404	\$ 2,327	\$ 2,291	\$ 2,223	\$ 2,155	\$	2,105
The Four CCO	Interest rate low 3%	HH Charges	\$	2,222	\$ 2,	151	\$ 2,080	\$	2,052	\$ 1,980	\$ 1,920	\$ 1,899	\$ 1,843	\$ 1,787	\$	1,749
Nature Calls Scenarios																
PNCC	Nature Calls -30%	HH Charges	\$	1,936	\$ 1,	925	\$ 1,914	\$	1,904			\$ 1,708	\$ 1,708	\$ 1,707	\$	1,706
PNCC	Nature Calls +30%	HH Charges	\$	2,585			\$ 2,301	\$	2,167	\$ 2,144	\$ 1,913					1,773
The Four CCO	Nature Calls -30%	HH Charges	\$	2,029	\$ 1,	967	\$ 1,904	\$	1,900	\$ 1,845	\$ 1,790	\$ 1,768	\$ 1,718	\$ 1,685	\$	1,649
The Four CCO	Nature Calls +30%	HH Charges	\$	2,288	\$ 2,	186	\$ 2,111	\$	2,076	\$ 1,975	\$ 1,911	\$ 1,854	\$ 1,809	\$ 1,759	\$	1,719
Harmonise																
HDC Harmonised Year 3	HDC	Consol	\$	2,142			\$ 2,004		1,975							1,676
KCDC Harmonised Year 3	KCDC	Consol	\$	2,142			\$ 2,004		1,975							1,676
MDC Harmonised Year 3	MDC	Consol	\$	2,142			\$ 2,004		1,975							1,676
PNCC Harmonised Year 3	PNCC	Consol	\$	2,142	\$ 2,	073	\$ 2,004	\$	1,975	\$ 1,907	\$ 1,847	\$ 1,822	\$ 1,768	\$ 1,714	\$	1,676
HDC Harmonised Year 7	HDC	Consol	\$	2,283		166			1,975							1,676
KCDC Harmonised Year 7	KCDC	Consol	\$	1,709		796			1,975							1,676
MDC Harmonised Year 7	MDC	Consol	\$	1,736		312			1,975							1,676
PNCC Harmonised Year 7	PNCC	Consol	\$	2,501	\$ 2,	304	\$ 2,115	\$	1,975	\$ 1,907	\$ 1,847	\$ 1,822	\$ 1,768	\$ 1,714	\$	1,676
LIDC Harmania ad Vasa 10	LIDO	Compal	ф.	0.055	ф о	422	ф 0.070	ф	2.247	ф 2.002	ф 1.000	ф 1.000	ф 1.700	ф 1 71 <i>4</i>	φ.	1.070
HDC Harmonised Year 10	HDC	Consol	\$	2,355		432			2,247							1,676
KCDC Harmonised Year 10 MDC Harmonised Year 10	KCDC MDC	Consol	\$ \$	1,654 1,646		707 683	\$ 1,647 \$ 1,626			\$ 1,741 \$ 1,728						1,676 1,676
PNCC Harmonised Year 10	PNCC	Consol	Ф \$	2,531		281										1,676
PNCC Harmonised fear 10	PNCC	Consor	ф	2,531	φ ∠,	201	Φ 2,201	Ф	2,115	ф 1,996	φ 1,690	Φ 1,022	Φ 1,700	\$ 1,714	Ф	1,070
HDC Harmonised Year 5	HDC	Consol	\$	2,248	¢ 2	143	\$ 2,038	ф	1,975	\$ 1,907	\$ 1,847	\$ 1,822	\$ 1,768	\$ 1,714	ф	1,676
KCDC Harmonised Year 5	KCDC	Consol	Ф \$	1,814		363										1,676
MDC Harmonised Year 5	MDC	Consol	\$	1,846		383										1,676
PNCC Harmonised Year 5	PNCC	Consol	\$	2,416		250										1,676
Tree Harmonisca Tear 5	11100	Consor	Ψ	2,410	Ψ 2,	_00	Ψ 2,000	Ψ	1,070	ψ 1,507	ψ 1,047	Ψ 1,022	ψ 1,700	Ψ 1,714	Ψ	1,070
HDC 'Pay no more' 20 years	HDC	HH Charges	\$	2,320	\$ 2.	283	\$ 2,038	\$	1,975	\$ 1,907	\$ 1,847	\$ 1,822	\$ 1,768	\$ 1,714	. \$	1,676
KCDC 'Pay no more' 20 years	KCDC	HH Charges	\$	1,663		662										1,620
MDC 'Pay no more' 20 years	MDC	HH Charges	\$	1,664		648										1,531
PNCC 'Pay no more' 20 years	PNCC	HH Charges	\$	2,526		257										1,676
THE Tay He mere 20 years	11100	Titronaigee	Ψ.	2,020	Ψ 2,		Ψ 2,000	Ψ	1,070	Ψ 1,007	ψ 1,047	Ψ 1,022	1,700	Ψ 1,714		1,070
HDC 'Pay no more' 30 years	HDC	HH Charges	\$	2,336	\$ 2	315	\$ 2,038	\$	1,975	\$ 1,907	\$ 1,847	\$ 1,822	\$ 1,768	\$ 1,714	. \$	1,676
KCDC 'Pay no more' 30 years	KCDC	HH Charges	\$	1,663		662										1,620
MDC 'Pay no more' 30 years	MDC	HH Charges	\$	1,664		648										1,531
PNCC 'Pay no more' 30 years	PNCC	HH Charges	\$	2,551		259										1,676
			-	,				-	.,			.,	, .,	, ,,,,,,,,	_	.,
HDC 'local price'		HH Charges	\$	2,365	\$ 2.	372	\$ 2,368	\$	2,329	\$ 2,247	\$ 2,223	\$ 2,140	\$ 2,045	\$ 1,930	\$	1,873
KCDC 'local price'		HH Charges	\$	1,661		662										1,572
MDC 'local price'		HH Charges	\$	1,654		648										1,479
PNCC 'local price'		HH Charges	\$	2,542		262										1,704
										,						,



Entity	Scenario	Metric	204	44/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54
Inflation Index	Contains	1100110	20	1.53	1.57								
acion in acio													
HDC Base	Base	HH Charges	\$	1,787	\$ 1,824	\$ 1,798	\$ 1,772	\$ 1,745	\$ 1,719	\$ 1,693	\$ 1,668	\$ 1,642	\$ 1,617
KCDC Base	Base	HH Charges	\$	1,614									
MDC Base	Base	HH Charges	\$	1,517	\$ 1,504								
PNCC Base	Base	HH Charges	\$	1,762	\$ 1,757	\$ 1,677	\$ 1,678	\$ 1,676	\$ 1,675	\$ 1,675	\$ 1,674	\$ 1,674	\$ 1,673
MDC & PNCC CCO	Base	HH Charges	\$	1,739									
HDC & KCDC CCO	Base	HH Charges	\$	1,745	\$ 1,792	\$ 1,751	\$ 1,699	\$ 1,671	\$ 1,617	\$ 1,608	\$ 1,567	\$ 1,508	\$ 1,467
The Ferri 000 Bee	Dana	LILLObandaa		0.004	Φ 0.000	Φ 0.000	Φ 0.000	φ 0.050	Φ 0000	Φ 0.400	0.444	ф 0.070	Φ 0.400
The Four CCO Base	Base FFO 8%	HH Charges	\$	2,334		, , , , , ,							
The Four CCO The Four CCO	High investment (capex +30%)	HH Charges HH Charges	\$ \$	1,887 2,190									
The Four CCO	Low investment (capex +30%)	HH Charges	\$	1,627									
The Four CCO	High efficiencies	HH Charges	\$	1,770									
The Four CCO	Low efficiencies	HH Charges	\$	1,963									
The Four CCO	Interest rate high 7%	HH Charges	\$	2,062									
The Four CCO	Interest rate low 3%	HH Charges	\$	1,715									
Nature Calls Scenarios													
PNCC	Nature Calls -30%	HH Charges	\$	1,704									
PNCC	Nature Calls +30%	HH Charges	\$	1,767									
The Four CCO	Nature Calls -30%	HH Charges	\$	1,617									
The Four CCO	Nature Calls +30%	HH Charges	\$	1,682	\$ 1,672	\$ 1,635	\$ 1,618	\$ 1,565	\$ 1,524	\$ 1,508	\$ 1,498	\$ 1,447	\$ 1,432
I I i													
Harmonise HDC Harmonised Year 3	HDC	Concol	\$	1,643	\$ 1,635	\$ 1,600	\$ 1,585	\$ 1,534	\$ 1,519	\$ 1,503	\$ 1,477	\$ 1,429	¢ 1.415
KCDC Harmonised Year 3	KCDC	Consol Consol	\$	1,643									
MDC Harmonised Year 3	MDC	Consol	\$	1,643									
PNCC Harmonised Year 3	PNCC	Consol	\$	1,643									
		00.1001		.,0.0	,,,,,,	,,,,,,	,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,	,,,,,	, , , , , , , , , , , , , , , , , , ,	, .,0	,,
HDC Harmonised Year 7	HDC	Consol	\$	1,643	\$ 1,635	\$ 1,600	\$ 1,585	\$ 1,534	\$ 1,519	\$ 1,503	\$ 1,477	\$ 1,429	\$ 1,415
KCDC Harmonised Year 7	KCDC	Consol	\$	1,643	\$ 1,635	\$ 1,600	\$ 1,585	\$ 1,534	\$ 1,519	\$ 1,503	\$ 1,477	\$ 1,429	\$ 1,415
MDC Harmonised Year 7	MDC	Consol	\$	1,643	\$ 1,635	\$ 1,600	\$ 1,585	\$ 1,534	\$ 1,519	\$ 1,503	\$ 1,477	\$ 1,429	\$ 1,415
PNCC Harmonised Year 7	PNCC	Consol	\$	1,643	\$ 1,635	\$ 1,600	\$ 1,585	\$ 1,534	\$ 1,519	\$ 1,503	\$ 1,477	\$ 1,429	\$ 1,415
HDC Harmonised Year 10	HDC	Consol	\$	1,643	\$ 1,635	\$ 1,600	\$ 1,585	\$ 1,534	\$ 1,519	\$ 1,503	\$ 1,477	\$ 1,429	\$ 1,415
KCDC Harmonised Year 10	KCDC	Consol	\$	1,643									
MDC Harmonised Year 10	MDC	Consol	\$	1,643									
PNCC Harmonised Year 10	PNCC	Consol	\$	1,643	\$ 1,635	\$ 1,600	\$ 1,585	\$ 1,534	\$ 1,519	\$ 1,503	\$ 1,477	\$ 1,429	\$ 1,415
HDC Harmonised Year 5	HDC	Consol	\$	1,643									
KCDC Harmonised Year 5	KCDC	Consol	\$	1,643									
MDC Harmonised Year 5	MDC	Consol	\$	1,643									
PNCC Harmonised Year 5	PNCC	Consol	\$	1,643	\$ 1,635	\$ 1,600	\$ 1,585	\$ 1,534	\$ 1,519	\$ 1,503	\$ 1,477	\$ 1,429	\$ 1,415
HDC 'Pay no more' 20 years	HDC	HH Charges	\$	1,643	\$ 1,635	\$ 1,600	\$ 1,585	\$ 1,534	\$ 1,519	\$ 1,503	\$ 1,477	\$ 1,429	\$ 1,415
KCDC 'Pay no more' 20 years	KCDC	HH Charges	\$	1,643									
MDC 'Pay no more' 20 years	MDC	HH Charges	\$	1,643									
PNCC 'Pay no more' 20 years	PNCC	HH Charges	\$	1,643									
LIDO ID	LIDO	LII LOb a rese	•	1.040	φ 4.005	ф. 4.000	φ 4.505	φ 4.504	φ 4.540	φ 4.500	ф 4477	φ 4.400	Φ 4.445
HDC 'Pay no more' 30 years	HDC	HH Charges	\$	1,643									
KCDC 'Pay no more' 30 years	KCDC MDC	HH Charges	\$	1,614									
MDC 'Pay no more' 30 years PNCC 'Pay no more' 30 years	PNCC	HH Charges HH Charges	\$ \$	1,517 1,643									
TINOU Fay HU HIUTE 30 years	INOU	in i Gridiges	Ψ	1,043	Ψ 1,035	ψ 1,000	φ 1,000	φ 1,554	φ 1,519	φ 1,000	Ψ 1,4//	ψ 1,429	φ 1,415
HDC 'local price'		HH Charges	\$	1,737	\$ 1,762	\$ 1,741	\$ 1,707	\$ 1,641	\$ 1,611	\$ 1,582	\$ 1,536	\$ 1,478	\$ 1,454
KCDC 'local price'		HH Charges	\$	1,562									
MDC 'local price'		HH Charges	\$	1,461								\$ 1,257	
PNCC 'local price'		HH Charges	\$	1,694									
M	Dana	LILLO		4 400	φ	ф	φ	φ	φ=	φ	ф	φ	φ
Manwatu-Whanganui	Base	HH Charges	\$	1,482	\$ 1,471	\$ 1,437	\$ 1,418	\$ 1,401	\$ 1,385	\$ 1,367	\$ 1,349	\$ 1,333	\$ 1,317