



Growing strong communities.

2015 Policy on Development Contributions and Financial Contributions and Detailed Supporting Document

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Overview

The overall document is split into four parts with Part 1 being the Policy on Development Contributions and Financial Contributions included within the Long Term Plan 2015-2024. Parts 2, 3 and 4 and the Appendices make up the Detailed Supporting Document.

- Part 2 outlines the calculation methodology used for deriving development contributions.
- Part 3 provides the details of specific elements of the development contributions calculation model.
- Part 4 provides the background and direction for assessing development contributions for specific developments.

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PART 1 Policy on Development Contributions and Financial Contributions

Introduction

This Policy on Development Contributions and Financial Contributions replaces the 2012 Policy. It is proposed that these changes will apply to applications for resource consent, building consent or service connection as follows:

- For any application submitted, accompanied by all required information, before 1 July 2015, Council will apply the provisions of the 2012 Policy.
- For any application submitted, accompanied by all required information, after 1 July 2015, Council will apply the provisions of the 2015 Policy.

For the avoidance of doubt, where applications are submitted without all required information, Council will apply the provisions of the Policy in force at the time all required information is provided.

Key Changes

This Policy is an update of the 2012 Policy. Key changes made to the Policy are described below.

- Contributions for eight water supplies have increased and in some areas such as Hampden/Moeraki, Herbert/Waianakarua and Kakanui, those increases are significant. Council has also made changes to the water development contributions for Windsor Water Scheme. A full list of new water contributions is on page 6 of the policy.
- For the purpose of water development contributions, the Hampden/Moeraki, Herbert/Waianakarua and Kakanui supplies are amalgamated with Oamaru (which is already amalgamated with Enfield and Weston).

- For the purposes of wastewater development contributions, the Oamaru and Kakanui schemes are amalgamated to reflect the physical connection of the two reticulation networks and the use of the Oamaru Treatment Plant for both schemes.
- Contributions for seven of eight wastewater systems will decrease. Only the Oamaru wastewater contribution will increase. A full list of new wastewater contributions is on page 6 of the policy.
- Contributions for roading are proposed to increase by \$62. A new 50% remission will apply to residential, rural residential and accommodation developments. Roading contributions are listed on page 6 of the policy and all remissions are detailed on page 12 of the policy.
- A new definition of “family flat” is included, to clarify the intention of the policy. The new definition is on page 9 of the policy.
- Council has clarified the policy on the relocation of a business activity from one location within the district to a greenfield site. Under the Policy, the original site continues to receive a deemed credit for the activity and there is no transfer of credit to the greenfield site. The clarification is on page 14 of the policy.
- Council has clarified the policy on the relocation of dwellings. When a dwelling is relocated from one site in the district to another, the deemed credit will stay with the original site until such time as service connections are removed. The clarification is on page 14 of the policy.
- Council has included statements in the policy to reflect improvements to the administration of the policy to make it more customer-friendly. These statements are on pages 13 of the policy.

Future Policy Work

- Council will do more work on proposals to waive all development contributions on houses or other buildings built on residential sections subdivided prior to 1 July 2004.
- Council will also do more work on proposals for a 50% remission for Oamaru wastewater development contributions in respect of properties that paid the \$1,000 half lump-sum for the Oamaru Wastewater treatment Plant Upgrade.
- Council will also consider the merits of remitting development contributions for development of pre-1900 heritage buildings.

Overview

Growth in the population (permanent and seasonal) and economic activity of the District will ultimately lead to major additions to the existing urban areas, new greenfield development in the rural environment and in-fill development of existing urban areas. Greater demand for water and improvements in roading will place a significant strain on existing reticulation and roading networks as well as on community infrastructure and reserves.

The Development Contributions Policy provides a transparent and consistent basis for requiring contributions from developers towards capital expenditure for this infrastructure.

Council is required to have a Development Contributions Policy as a component of its Funding and Financial Policies in the Waitaki Community Plan.

The Policy is intended to set the baseline for financial and development contributions from developers and is likely to be amended and updated over time as assumptions are developed, and as the growth predictions are refined. These growth predictions will also alter as scenarios change the expected effect on our community.

This policy contributes to community outcomes by ensuring the provision of appropriate infrastructure to meet the needs of growth.

Historically, Council has sought a contribution towards the expansion of the District's reserves, community facilities and infrastructure from those developments which place additional demand on these services. In order to levy these contributions Council may employ either of the following:

- Financial Contributions imposed as a condition of a resource consent pursuant to Section 108 of the Resource Management Act (RMA) 1991. Chapter 14 of the District Plan and any subsequent variations shall be considered in this policy.
- Development Contributions as defined by the provisions of Part 8 Subpart 5 and Schedule 13 of the Local Government Act 2002 (LGA 2002). To make use of these provisions Council must adopt a Policy on Development Contributions as part of the Council's Long Term Plan ("LTP"). Development Contributions are based on the fiscal implications of growth.

Development contributions may be sought in respect of any development that generates a demand for reserves, network or community infrastructure. Council will assess whether development contributions are payable in relation to the development when an application for one of the following is made:

- (i) Resource Consent
- (ii) Building Consent
- (iii) Authorisation for a Service Connection

Council can require a contribution at any of these trigger points.

This policy has been prepared to meet the requirements of Section 106(2) of the LGA 2002. The full methodology that demonstrates how the calculations for development contributions were made is contained in a separate document which is available to the public as per section 106 (3) of the Act.

Purpose and Principles

The purpose of development contributions is set out in section 197AA of the Local Government Act 2002. This policy is consistent with that purpose.

The principles guiding the use of development contributions are set out in section 197AB of the Local Government Act 2002. This policy is consistent with those principles.

Reasons for using Development and Financial Contributions

Council intends to entirely fund the portion of capital expenditure (CAPEX) that is attributable to growth by either Financial or Development Contributions wherever it is legally, fairly, reasonably and practically possible to do so.

Council considers that Development and Financial Contributions are the best mechanisms available to ensure the cost of growth sits with those who have created the need for that cost. Council considers it inappropriate to burden the community as a whole, by way of rating or other payment means, to meet the cost of new growth.

Section 101(3) of the LGA 2002 requires that the following be considered:

The funding needs of the local authority must be met from those sources that the local authority determines to be appropriate, following consideration of:

a) in relation to each activity to be funded,-

- (i) the community outcomes to which the activity primarily contributes; and*
- (ii) the distribution of benefits between the community as a whole, any identifiable part of the community, and individuals; and*
- (iii) the period in or over which those benefits are expected to occur; and*
- (iv) the extent to which the actions or inactions of particular individuals or a group contribute to the need to undertake the activity; and*

(v) the costs and benefits, including consequences for transparency and accountability, of funding the activity distinctly from other activities; and

b) the overall impact of any allocation of liability for revenue needs on the current and future social, economic, environmental, and cultural well-being of the community.

Responses to these requirements in relation to the Development Contributions and Financial Contributions Policy are:

Community outcomes

This policy contributes to the following outcomes:

- Our infrastructure enables and responds to economic growth.
- We have affordable, reliable and accessible transport services that meet the needs of the community.
- Our local and central governments demonstrate efficient and effective use of resources.

Distribution of benefits

Council apportions all capital expenditure into the classifications of growth, renewal, level of service and statutory obligations, by the geographic areas of benefit. This apportionment represents the distribution of benefit to the community as a whole, to identifiable parts of the community and to individuals.

Period over which the benefits are expected to occur

Once a Development or Financial contribution has been paid in relation to a subdivision or development, the benefits of the asset, service, or environmental enhancement shall occur indefinitely (at a set level of service for that asset, service, or environmental enhancement as defined at any one time).

Action or inaction that contributes to the need for this activity

The provision of assets, services, or environmental standards that promote the community outcomes may not be willingly provided by the development community. In addition Council is often the only viable supplier (often legally required to provide services) of these services and therefore Council has a moral and legal obligation to supply additional assets and services to meet the new community needs.

Costs and benefits of funding this activity (Development and Financial Contributions)

The benefits to the existing community are significantly greater than the cost of policymaking, calculations, collection, accounting and distribution of funding for development and financial contributions.

Allocation of liability for revenue needs

The liability for revenue falls directly with the development community. At the effective date of this Policy, Council does not perceive any impact on the social, economic, environmental and cultural well-being of this particular sector of the community. At any stage in the future where there may be impacts of this nature, Council may revisit this Policy.

Assets Included in the Development Contributions and Financial Contributions Policy

Assets included in this policy are:

Development Contributions: Pursuant to the provisions of Part 8, Subpart 5 LGA 2002.

- Network infrastructure for water supplies, wastewater and roading – Development Contributions.

Financial Contributions: Pursuant to S108 of the RMA 1991.

- Open Space and Recreation – Financial Contributions
- Services – Financial Contributions for any of the following
 - Water supply system,
 - Stormwater collection and disposal system,
 - Wastewater collection, treatment and disposal system,
 - Trade waste collection and disposal system,
 - Energy supply system,
 - Telecommunications system,
 - Works to avoid, remedy or mediate natural hazards,
 - Landscaping, including planting of vegetation,
 - Provision of access to land in the subdivision (including roads, cycleways, accessways, service ways, private access, street lighting and associated works).
- Esplanade Strips – Financial Contributions
- Other Assets. Financial Contributions can be required to avoid remedy or mitigate adverse effects of development that are of a non-fiscal nature. These may include contributions that avoid, remedy or mitigate the effects of development on biodiversity, landscape, amenity values or the provision of specific assets by the developer/subdivider (i.e. access easements in gross). Development Contributions provisions of the LGA 2002 specifically relate to fiscal impacts or effects of growth, Financial Contributions for non-fiscal impacts of effects of development will need to be assessed through the RMA and District Plan processes. Chapter 14 of the District Plan and any subsequent variations shall be considered in this policy.

Development contributions for community infrastructure and reserves have been excluded from the Policy at this time.

Which Contributions Will Apply

The Financial Contributions rules, policies and objectives under the provisions of Part 14 of the Waitaki District Plan are operative. These will be used for open space and recreation, and services where appropriate development contributions are not available.

The Council cannot require a Development Contribution for a reserve, network infrastructure or community infrastructure if and to the extent that it has under Section 108, 407 or 409 of the RMA imposed a condition on a resource consent in relation to the same development for the same purpose.

Council will retain the right to use all, some or none of the provisions in this Policy notwithstanding the rules, policies and objectives of the Financial Contributions provisions of Part 14 on the District Plan. Council shall in requiring contributions, clearly identify under what circumstances and upon which legislation (RMA 1991, LGA 2002) a contribution is required.

The following tables indicate:

- Where Financial and Development Contributions are to be sought such that no duplication of levy for the same effect/benefit will occur.
- The development contributions per household equivalent unit for each asset type within each area. The water supply contributions for rural restricted schemes are shown per cubic meter (m³ or 1,000L) of water.
- The contributions for the amalgamated water schemes are shown per household equivalent unit or point (1,800L) of water

Table 1: Development Contributions Required By Geographic Area - Within All District Plan Zones (Ex GST)

Water Supply		Wastewater	Stormwater	Roading	Open Space and Recreation	Other Services/ Miscellaneous
Development Contributions		Development Contributions	No Development Contributions	Development Contributions	No Development Contributions	No Development Contributions
On-demand Supplies	Per HEU		Council has no capital expenditure programme.	District Wide		
Kurow	\$1,730	Kakanui		\$968 per HEU		
Oamaru	\$3,956	Kurow				
Omarama	\$3,476	Moeraki				
Otematata	\$3,399	Lake Ohau				
Waihemo (Palmerston)	\$3,938	Oamaru				
Restricted Supplies	Per 1m³ of Water	Omarama				
Awamoko	\$1,231	Otematata				
Dunback	\$2,188	Palmerston				
Duntroon	\$702					
Goodwood	\$2,188					
Hampden/Moeraki	\$2,198					
Herbert/Waianakarua	\$2,198					
Kakanui	\$2,198					
Kauru	\$1,361					
Lake Ohau	\$10,032					
Lower Waitaki	\$1,158					
Oamaru	\$2,198					
Otekaieke	\$577					
Palmerston	\$2,188					
Stoneburn	\$1,065					
Tokarahi	\$1,125					
Windsor	\$1,088					
Assess and Collect development contributions as provided by Part 8, Subpart 5 and Schedule 13 of LGA 2002 from 1 July 2015.		Assess and collect development contributions as provided by Part 8, Subpart 5 and Schedule 13 of LGA 2002 from 1 July 2015.		Assess and collect development contributions as provided by Part 8, Subpart 5 and Schedule 13 of LGA 2002 from 1 July 2015.		
Scheme charge to apply and any network extension costs.		Scheme charge to apply and any network extension costs.				

Notes:

1. Development Contributions are contributions defined by the provisions of Part 8 Subpart 5 and Schedule 13 of LGA 2002.
2. As the sequence of development is not always consistent, development contributions shall be required at the first available opportunity. At each and every subsequent opportunity the development will be reviewed and additional contributions required if the units of demand assessed for the development exceed those previously paid for.
3. Development contributions are triggered on the granting of:
 - a) A Resource Consent
 - b) A Building Consent
 - c) An authorisation for a service connection for sewer or stormwater
 - d) An authorisation for a service connection for water, including additional units of water by volume supplied to existing consumers.

Table 2: Financial Contributions Required By Geographic Area - Within All District Plan Zones (Ex GST)

Water Supply	Wastewater	Stormwater	Roading	Open Space and Recreation	Other Services/ Miscellaneous
<p>Financial Contributions where appropriate. Environmental Effects – Chapter 14 District Plan. Environmental Considerations.</p>	<p>Financial Contributions where appropriate. Environmental Effects – Chapter 14 District Plan. Environmental Considerations.</p>	<p>Financial Contributions where appropriate. Environmental Effects – Chapter 14 District Plan. Environmental Considerations.</p>	<p>Financial Contributions where appropriate. Environmental Effects – Chapter 14 District Plan. Environmental Considerations.</p>	<p>Financial Contributions where appropriate. Environmental Effects – Chapter 14 District Plan. Environmental Considerations.</p> <p><u>Subdivision:</u> 1) Residential and Township Zones - 7.5% of Land Value - Land, Money, Works or Combination of all</p> <p>2) Business Zones - 10% of Land Value - Land, Money, Works or Combination of all</p> <p><u>Developments</u> 1) Residential (In all zones) - 7.5% of Land Value</p> <p><u>Other Developments</u> 0.5% of value of development exceeding \$200,000.</p> <p>(Refer 14.5.4 and 14.5.5 of the Waitaki District Plan)</p> <p>Land, Money, Works or Combination of all.</p>	<p>Other Services as described by 14.1 of the District Plan.</p> <p>Financial Contributions where appropriate. Environmental Effects – Chapter 14 District Plan. Environmental Considerations.</p> <ul style="list-style-type: none"> o Trade waste collection and disposal system, o Energy supply system, o Telecommunications system, o Works to avoid, remedy or mediate natural hazards, o Landscaping, including planting of vegetation, o Provision of access to land in the subdivision (including roads, cycleways, accessways, service ways, private access, street lighting and associated works). o Esplanade Strips

Notes:

1. Financial Contributions are defined by Section 108 of the Resource Management Act (RMA) 1991 and collected using the provisions of the District Plan. Contributions are assessed based on the environmental effects of growth. These are defined in Chapter 14 of the Waitaki District Plan. Chapter 14 of the District Plan is particularly relevant for contributions of a non-fiscal nature. These will generally be of an environmental nature, including public access, provision of parking and protection of environmentally sensitive sites.

Overview of Calculation Methodology

A brief introduction to the development contributions calculation method is presented herein. A full disclosure of the methodology and calculations is in the detailed supporting document and is available from Council for public inspection at:

- Waitaki District Council, Thames Street, Oamaru.
- Palmerston Service Centre.
- Website - <http://www.waitaki.govt.nz>

The Development Contributions model applies to Water Supply, Wastewater, and Roding.

The key concept of the approach is to define the total capital expenditure (CAPEX) for growth consumed by the growth population over a period of time. This consumption of CAPEX for growth is then apportioned among the increased number of units of demand (household equivalent units) over the same time period. This defines the long run average cost of growth per unit of demand, defined as the household equivalent unit contribution. This can be represented by the following formula.

<p>Household Equivalent Units Contribution</p>	$= \frac{\text{Sum of CAPEX for Growth Consumed In Analysis Period}}{\text{Sum of New Household Equivalent Units in Analysis Period}}$
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The calculation method can be simplified according to the following steps:

- Step 1: Assess capital expenditure for growth on an asset by asset basis using financial reports (past expenditure) and projected expenditure.
- Step 2: Apportion capital expenditure for growth by the growth population (household equivalent units) over the design life of the asset, to assess the \$/unit of demand.

Step 3: For each year in the analysis period determine the total consumption of asset capacity for each asset identified, namely – \$/unit of demand x the number units of demand.

Step 4: Sum for all assets in each year in the analysis period, namely total capacity consumed in that year, measured in dollars (\$).

Step 5: Sum each year in the ten year analysis period and divide by the growth population (new household equivalent units) projected over the analysis period to determine the household equivalent unit contribution.

Capital Expenditure

Only capital expenditure (CAPEX) is considered in the model. All Operational Expenditure is excluded, including internal overheads.

Capital expenditure is identified from two sources, namely.

- Activity Management Plans (formally Asset Management plans) and
- Financial Reports.

The Activity Management Plans are used for assessing projected CAPEX. The AMPs are formal planning documents that include long term expenditure forecasts.

CAPEX for Growth Apportionments

The CAPEX identified above has been apportioned into five cost drivers. These being Growth, Renewal, Level of Service, Statutory and Deferred Works/Other. The growth apportionment is the significant driver for assessing development contributions. The cost drivers have been assessed using several methods.

These are:

- Asset Capacity.
- Using Design Life of New Assets to Approximate Growth Percentage.
- Assessed using professional judgement.

Land Use Differentials

Land use differentials are an important part of the calculations. They enable all development and subdivision types (residential and non-residential) to be considered. Non-residential subdivisions or developments can be described using a common unit of demand, which in this case is the Household Equivalent Unit (HEU).

The following table summarises the differentials for each activity. These can be used to calculate the number of HEU’s for non-residential subdivisions or developments based on a standard measure of size.

Table 3: Land Use Differentials

Land Use Category	Household Equivalent Units per Measure of Size Shown		
	Water Supply ⁽ⁱ⁾	Wastewater ⁽ⁱⁱ⁾	Roading
Residential	1 HEU / dwelling	1 HEU / dwelling	1 HEU / dwelling
Rural Residential	1 HEU / dwelling	1 HEU / dwelling	1.14 HEU / dwelling
Commercial	0.17 HEU / 100m ² + 1.17 HEU /property	0.43 HEU / 100m ²	4.18 HEU / 100m ² GFA
Industrial	0.14 HEU / 100m ² + 1.17 HEU /property	0.34 HEU / 100m ²	3.34 HEU / 100m ² GFA
Accommodation	0.29 HEU / 100m ² + 1.30 HEU /property	0.49 HEU / 100m ²	0.65 HEU / accomm unit
Primary Industry - Dairy	N/A - Assumed to be rural schemes only.		5.44 HEU / 100 Ha ⁽ⁱⁱⁱ⁾

⁽ⁱ⁾ These water supply differentials are only required to assess urban unrestricted schemes. Rural restricted water supply schemes are based on a development contribution per cubic meter of water.

⁽ⁱⁱ⁾ These differentials are to be used to assess the demand on wastewater infrastructure for wastewater that does not fall within the definition of trade waste contained in the operative Waitaki District Trade Waste Bylaw applying at the time

consent is granted. Development contributions payable for discharge of trade wastes will be the subject of an individual assessment.

⁽ⁱⁱⁱ⁾ The roading differential for Primary Industry – Dairy has already accounted for the existing pastoral use of a dairy conversion.

Assessment of Unknown Size

If the Gross Floor Area (GFA) is unknown, which may be the case at the subdivision or land use consent stage, then the following table will be used to estimate the GFA.

Table 4: Estimation of Gross Floor Area

Category	Building Coverage	No. of Floors
Residential	1 dwelling / lot	
Rural Residential	1 dwelling / lot	
Accommodation	45%	2
Commercial	75%	1
Industrial	75%	1

Note: When an estimate of the GFA is used in the development contribution assessment then Council will only charge 75% of the calculated contribution at this stage.

Family Flat

A family flat or ‘granny flat’ means self-contained living accommodation, whether contained within a residential unit or located separately to a residential unit on the same site, which is occupied by a family member who is dependent in some way on the household living in the residence.

Self-contained living accommodation means having its own kitchen and bathroom facilities, including an oven or stove and a toilet.

Development contributions payable for family flats are as follows:

Gross Floor Area (GFA) equal or less than 60m² = ½ x HEU

Gross Floor Area (GFA) greater than 60m² = 1 x HEU

Assumptions Used in the Calculation of Development Contributions

All information used in the calculations of either development or financial contributions is the best available at the time. Council is proceeding with numerous strategic studies which will aid in delivering improved information. Council is committed to updating its contribution calculations as the results of these studies become available. Council considers it fiscally prudent to have contributions in place now to ensure the recovery of growth costs. Further delays in the implementation of these contributions are considered unacceptable and would unfairly burden the existing population with extra costs.

Financial Considerations

The following are key financial considerations applied in the model:

- All figures are in current New Zealand dollars – effective 1 July 2015.
- Inflation is applied to past capital projects only.
- Interest costs have been assessed based on the weighted average cost of capital (WACC) over the first 10 year period from 1 July 2015. The cumulative net deficit between the contributions anticipated to be collected and the growth costs over the 10 year period are used to determine the proportion of the growth cost that will be funded by debt. A 7.5% interest rate has been applied.
- Capital expenditure projections are those that have been applied in the Long Term Plan effective at 1 July 2015. The public nature and auditability of these capital projections provides additional confidence to the process. Schedule 10 of the LGA 2002 prescribes a number of disclosures including growth, renewal and level of service apportionments.

Risks

The risks relating to the Policy are listed below. The steps required to mitigate these risks are also shown. This ensures that the correct contributions are collected by Council.

Subsidies: The future portion of the development contributions are based on Council's 10 year Long Term Plan Capital budget. There are a number of projects in the budget that may be fully or partial subsidised by non-Council entities. Examples of these are roading projects and water treatment projects which may have significant levels of Central Government funding. The actual capital expenditure will be input in to the calculation model on an annual basis as soon as it is available. This will ensure the contributions are based on Council's most up to date information and reflect the actual growth related expenditure.

Legislative Improvements: The Policy and calculation model needs to be updated to incorporate any legislation changes.

Growth lower or higher than anticipated: If the growth in the District is more or less than projected, Council risk under or over collecting contributions. The growth projections need to be reviewed regularly to ensure they are as accurate as possible.

Growth Apportionment: Any changes in the growth rates may affect the apportionment of some capital projects and hence the growth CAPEX to be recovered via contributions.

Inflation: If actual inflation is significantly different to the figures used in the calculation model. The figures used to model inflation are taken from the most up to date BERL data and can be updated regularly.

The above variables can be reviewed every year via the annual plan update process or via the 3 yearly Long Term Plan review process. This ensures that the contributions are based on the most up to date information possible.

Growth Projections – Source Data

The Waitaki District Projections for Resident Population, Dwellings and Rating Units to 2045 report was completed by Rationale Ltd in July 2014. This work updated the Growth Projections Study May 2008 which was last updated in September 2011. This study has been adopted by Council to ensure consistent projections. These have been applied for projecting residential and non-residential growth with the exception of the sources below.

The Rural Water Supplies, Future Design Assessment report, Waugh August 2009 has been used to project the growth in demand for the rural/restricted water supplies.

Growth projections are converted into units of demand which are used to apportion the growth cost to define a household equivalent unit (HEU's) development contribution. Assessing total HEU's involves converting non-residential land uses into HEU's and adding this to the number of dwellings. This is completed using land use conversion factors or land use differentials.

Note: The unit of demand for restricted rural water schemes is a cubic meter of water. The contribution per point, half point or crib point can be calculated based on the applicable volume for each scheme.

Monitoring and Review of Development Contributions Policy

Council will monitor and review the following:

- Calculation Updates:
 - Identify capital expenditure actually undertaken and whether the projections remain reasonable. This may include adding or deleting capital projects.
 - Update capital costs to reflect a year of inflation. This will be based on SNZ Labour cost index and Producer Price Index.
 - Review population projections.

- Any asset planning initiatives including changing levels of service, updated capital projections.
- Update any new information that has become available. This may include updated population projections, additional zoning and scheme boundary changes.
- Correction of any errors or omissions.
- Policy Reviews:
 - Any changes to the policy direction of Council that affects this policy. This may include changes to the Long Term Plan, Revenue and Financing Policy and strategic studies.
 - New information affecting the land use differential analysis.
 - Amendments to the District Plan.

Reconsiderations

An applicant may request Council to reconsider the requirement if the applicant has grounds to believe that:

- the development contribution was incorrectly calculated or assessed under the Council's Development Contributions Policy; or
- Council incorrectly applied its Development Contributions Policy; or
- the information used to assess the person's development against the Development Contributions Policy, or the way Council has recorded or used it when requiring a development contribution, was incomplete or contained errors.

A Request for Reconsideration must be made in writing stating clearly which of the above grounds the applicant believes the Council has erred. The Request for Reconsideration must be made within ten working days after the date on which the

person lodging the request receives notice from Council of the level of development contribution that Council requires. This request should be addressed to:

- Contact person
- Position
- Postal address
- e-mail address
- Fax number

The steps that Council will apply when reconsidering the requirement to make a development contribution are:

- The appropriate Council officer shall review the reconsideration request
- The Council officer may request further relevant information from the applicant
- The Council officer will make a recommendation to the delegated authority
- Council will, within 15 working days after the date on which it receives all required relevant information relating to a request, give written notice of the outcome of its Reconsideration to the person who made the request.

A reconsideration cannot be requested if the applicant has already lodged an Objection. If the applicant is not satisfied with the outcome of the Reconsideration, they may lodge an Objection as specified in the Local Government Act 2002 Amendment Act (No 3) 2014, s199C to s199N.

Remissions

Council will provide the following remissions:

- A 100 % remission for the roading contribution will be provided for any primary industry dairy housing for each new dwelling constructed as part of the property development.
- A 50 % remission for the roading contribution will be provided for each new residential, rural-residential or accommodation development.

- A 50% remission on Ohau water supply development contributions will be provided for any Ohau properties paying a water half-charge.
- A 50% remission on Moeraki wastewater development contributions will be provided for any Moeraki properties paying a wastewater half-charge.

Council will also consider requests for remissions on a case-by-case basis where it is satisfied that such remission will promote the economic, environmental, social or cultural wellbeing of the district. These remissions may be on the basis of activity, land use or location.

The schedule of contributions within this policy show the full development contribution. The above remissions will be applied to these figures. Any remissions will be funded from rates.

Refund Policy

Council may allow for refund of contributions in the following circumstances:

- a) Where Council required a development/financial contribution as part of subdivision or development activities and where the documentation (resource consent, building consent or connection authorisation) permitting that subdivision or development has lapsed, Council will refund the contribution. This does not prevent Council from requiring development/financial contributions in the future. Council may retain a portion of the contribution of a value equivalent to the costs incurred by the Council in processing/assessing the contribution required by the subdivision or development.

All applications for Refunds must be made in writing to the Chief Executive Officer of the Council.

Developer Provision of Assets - Liability

Council may accept or require a contribution to the equivalent value in the form of land or infrastructure. It may be appropriate, for example, to allow water supply

assets to vest in Council through the subdivision consent process, where they meet Council's requirements, and credit them against the contributions required. Any such proposals will need to be the subject of an agreement with Council before the consent is issued, and will be dealt with on a case by case basis.

Unusual Developments

Council reserves the right to individually assess contributions on any development or activity that it deems to create a significantly different demand on infrastructure than could usually be expected under their relevant land use category (an unusual development).

Wherever the level of quantum of development contributions assessed for a development is likely to generate an appeal or objection, the Chief Executive will proactively seek a special assessment of those contributions in order to enable the prompt resolution of such appeal or objection.

When Will Payment be Required?

Development contributions will be notified on granting of consent with a due date for payment as follows:

- Resource consent (subdivision) – prior to the issue of S224c certificate;
- Resource consent (other) – prior to commencement of the consent except where a building consent is required then payment shall be prior to the issue of the code of compliance certificate or prior to the connection to Council services, whichever comes first;
- Building consent – prior to the issue of the code of compliance certificate or prior to the connection to Council services, whichever comes first;
- Service connection – prior to connection.

If payment is not received the Council may (under section 208 of the LGA):

- Withhold S224c Certificate on a subdivision;

- Prevent the commencement of a resource consent for a development
- Withhold a code of compliance certificate under the Building Act
- Withhold a service connection to a development.

Council may agree to enter into a deferred payment arrangement at the time of issuing a s224c Certificate. Such arrangement would defer payment on terms and conditions approved by Council or approved by officers under delegated authority in accordance with policy approved by Council.

In each case the Council may register the Development Contribution under the Statutory Land Charges Registration Act 1928 as a charge on the title of the land for which the contribution was required. Council may enter into a preferential mortgage arrangement by agreement with the developer to enable payment of development contributions for multi-lot subdivisions to be made as each section sells.

Deferral of Payment

Council will consider requests for deferral of contribution payments on a case-by-case basis.

When considering deferred payment arrangements, Council will have regard to tools including, but not limited to, bank guaranteed bonds, bonds as first charge, statutory land charges and use of the normal debtor recoveries systems.

When considering deferred payment arrangements, Council will also have regard to matters including, but not limited to, application of interest on deferred revenue, cost recovery via administrative charges, and maximum periods of deferral. Council reserves the discretion to waive or reduce charges and/or extend a deferral period where it is satisfied that the exercise of such discretion promotes the economic, environmental, social or cultural wellbeing of the district.

Credits

There are two types of credits anticipated:

1. Actual Credits will apply to those subdivisions or developments where contributions have been paid under this, the 2012, the 2009 or the 2006 Policy on Development and Financial Contributions.
2. Deemed credits will apply for the redevelopment of an existing site. Existing activities will be given deemed credits based on the HEU's assessed in terms of the relevant unit (i.e. GFA, dwelling) prior to redevelopment. A development contribution will only be levied if the redevelopment creates additional demand.

Where the Chief Executive considers there is a special case to be considered for granting of a credit or credits, this matter will be referred to Council's Hearings Committee for decision.

Deemed Credits for Relocation of Activities or Dwellings

Where a business activity relocates from one site in the District to another site in the District, deemed credits are not transferable to the new site. Deemed credits will remain with the original site until such time as service connections are removed.

Where a business activity relocates from one site in the District to another site in the District, deemed credits are not transferable to the new site. Deemed credits will remain with the original site until such time as service connections are removed.

Delegations

Council shall determine where a development or financial contribution will be sought. Council has the authority to set the quantum of those contributions. If Council so wishes, it may delegate this authority, wholly or in part to a committee, by resolution of Council.

The Chief Executive Officer will ensure the Policy is implemented.

Capital Expenditure Attributed to Growth

The following tables show a summary of each contributing area for the 10 year period between 2015/16 and 2024/25. The tables demonstrate the nature and level of expected capital expenditure required by Council and the portion that is attributable to growth. A table is produced for each activity (asset type) which shows the CAPEX for each geographic area where a contribution has been assessed. The CAPEX attributable to growth is apportioned equitably among the growth population to define a set charge for each unit of demand. The unit of demand is expressed in terms of a household equivalent unit or cubic meter of water.

The following tables also detail the growth related debt levels by development contribution account. These define the interest component of the contributions. The tables show the growth CAPEX consumed by each contributing area and the growth, in HEU's or cubic meters, used to calculate the development contributions.

The tables included in the following section are summarised. The full tables can be found in the appendices of the detailed supporting document.

Capital Expenditure and Debt Funding Disclosures

Water Supply

Table 5: Restricted Supplies - Water Supply Capital Expenditure for Development Contributions (Excluding GST)

Water Supply Contributing Area	Capital Cost				Percentage Attributable to Growth	Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of Cubic Meters of Water Apportioning Growth Cost 2015-2024	Development Contribution Per Cubic Meter of Water (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)						
Awamoko	393,000	423,868	97,500	295,500	25%	20,702	28,729	49,431	40	1,231
Duntroon	6,000	7,658	0	6,000	0%	47,227	0	47,227	67	702
Hampden/Moeraki	Merged with Oamaru									
Herbert/Waianakarua	Merged with Oamaru									
Kakanui	Merged with Oamaru									
Kauru	313,000	335,414	84,000	229,000	27%	21,407	20,243	41,651	31	1,361
Lower Waitaki	156,000	208,990	150,000	6,000	96%	73,885	18,194	92,079	80	1,158
Ohau	6,000	7,658	0	6,000	0%	74,707	0	74,707	7	10,032
Otekaieke	93,000	100,811	18,000	75,000	19%	1,450	5,933	7,383	13	577
Stoneburn	263,000	282,673	92,000	171,000	35%	10,406	15,964	26,370	25	1,065
Tokarahi	273,000	294,646	108,000	165,000	40%	88,663	15,740	104,402	93	1,125
Windsor	303,000	324,646	73,566	229,434	24%	2,231	30,418	32,650	30	1,088
TOTAL	1,806,000	1,986,365	623,066	1,182,934	34%	340,678	135,222	475,900	385	

Table 6: On-demand Supplies - Water Supply Capital Expenditure for Development Contributions (Excluding GST)

Water Supply Contributing Area	Capital Cost				Percentage Attributable to Growth	Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEU's Apportioning Growth Cost 2015-2024	Development Contribution Per HEU (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adjusted \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)						
Kurow	206,000	218,482	0	206,000	0%	31,475	0	31,475	18	1,730
Omarama	6,000	7,658	0	6,000	0%	50,944	0	50,944	15	3,476
Otematata	6,000	7,658	0	6,000	0%	74,443	0	74,443	22	3,399
TOTAL	218,000	233,799	0	218,000	0%	156,861	0	156,861	55	

Table 7: Amalgamated Schemes - Water Supply Capital Expenditure for Development Contributions (Excluding GST)

Water Supply Contributing Area	Capital Cost				Percentage Attributable to Growth	Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEU/Points Apportioning Growth Cost 2015-2024	Development Contribution Per HEU/Point (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adjusted \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)						
Oamaru	17,282,000	19,244,837	1,960,000	15,322,000	11%	1,515,276	633,497	2,148,773	543	3,956
Waihemo	106,000	120,874	0	106,000	0%	224,210	0	224,210	57	3,938
TOTAL	17,388,000	19,365,711	1,960,000	15,428,000	11%	1,739,486	633,497	2,372,983	600	
DISTRICT TOTAL	19,412,000	21,585,875	2,583,066	16,828,934	13%	2,237,025	768,719	3,005,744		

Table 8: Restricted Supplies - Water Supply – Debt Funding Ratio – 2015 - 2024 Net Growth Cost vs. Revenue Assessment

Water Supply Contributing Area	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adjusted \$)	Growth Funded Portion (2015/16 \$)	New Cubic Meters of Water 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adjusted \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
Awamoko	393,000	423,868	97,500	40	49,431	58,830	48,069	68%
Dunroon	6,000	7,658	0	67	47,227	56,665	-47,227	0%
Hampden/Moeraki	Merged with Oamaru							
Herbert/Waianakarua	Merged with Oamaru							
Kakanui	Merged with Oamaru							
Kauru	313,000	335,414	84,000	31	41,651	49,570	42,349	68%
Lower Waitaki	156,000	208,990	150,000	80	92,079	109,614	116,784	56%
Ohau	6,000	7,658	0	7	74,707	88,688	25,293	67%
Otekaieke	93,000	100,811	18,000	13	7,383	8,782	10,617	73%
Stoneburn	263,000	282,673	92,000	25	26,370	31,379	65,630	81%
Tokarahi	273,000	294,646	108,000	93	104,402	124,248	3,598	47%
Windsor	303,000	324,646	73,566	30	32,650	38,894	40,916	73%
TOTAL	1,806,000	1,986,365	623,066	385	475,900	566,669	306,028	

Table 9: On-demand Supplies - Water Supply – Debt Funding Ratio – 2015 - 2024 Net Growth Cost vs. Revenue Assessment

Water Supply Contributing Area	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adjusted \$)	Growth Funded Portion (2015/16 \$)	New HEU's 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adjusted \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
Kurow	206,000	218,482	0	18	31,475	38,549	-24,605	0%
Omarama	6,000	7,658	0	15	50,944	63,096	-25,303	5%
Otematata	6,000	7,658	0	22	74,443	82,033	-17,281	18%
TOTAL	218,000	233,799	0	55	156,861	183,678	-67,188	

Table 10: Amalgamated Schemes - Water Supply – Debt Funding Ratio – 2015 - 2024 Net Growth Cost vs. Revenue Assessment

Water Supply Contributing Area	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adjusted \$)	Growth Funded Portion (2015/16 \$)	New HEU's/Points 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adjusted \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
Oamaru	17,282,000	19,244,837	1,960,000	543	2,148,773	2,539,126	264,255	59%
Waihemo	106,000	120,874	0	57	224,210	268,679	307,276	80%
TOTAL	17,388,000	19,365,711	1,960,000	600	2,372,983	2,807,805	571,531	
DISTRICT TOTAL	19,412,000	21,585,875	2,583,066		3,005,744	3,558,153	810,371	

Wastewater

Table 11: Wastewater Capital Expenditure for Development Contributions (Excluding GST)

Wastewater Contributing Area	Capital Cost				Percentage Attributable to Growth	Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEU's Apportioning Growth Cost 2015-2024	Development Contribution Per HEU (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adjusted \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)						
Kakanui	Merged with Oamaru									
Kurow	0	0	0	0	0.0%	6,797	0	6,797	14	483
Moeraki	110,000	128,419	0	110,000	0.0%	65,543	0	65,543	15	4,248
Oamaru	4,850,000	5,692,299	550,000	4,300,000	11.3%	557,900	83,515	641,415	226	2,837
Ohau	0	0	0	0	0.0%	431	0	431	13	34
Omarama	280,000	305,013	35,039	244,961	12.5%	13,680	13,543	27,223	13	2,021
Otematata	100,000	100,000	0	100,000	0.0%	36,698	0	36,698	21	1,727
Palmerston	225,000	242,293	1,845	223,155	0.8%	36,398	900	37,298	21	1,770
DISTRICT TOTAL	5,565,000	6,468,024	586,883	4,978,117	10.5%	717,447	97,958	815,405	324	

Table 12: Wastewater – Debt Funding Ratio - 2015 - 2024 Net Growth Cost vs. Revenue Assessment

Wastewater Contributing Area	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adjusted \$)	Growth Funded Portion (2015/16 \$)	New HEU's 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adjusted \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
Kakanui	Merged with Oamaru							
Kurow	0	0	0	14	6,797	8,360	-6,797	0%
Moeraki	110,000	128,419	0	15	65,543	77,241	-65,543	0%
Oamaru ¹	4,850,000	5,692,299	550,000	226	641,415	751,233	-91,415	0%
Ohau	0	0	0	13	431	511	-431	0%
Omarama	280,000	305,013	35,039	13	27,223	33,774	7,815	62%
Otematata	100,000	100,000	0	21	36,698	40,343	-36,698	0%
Palmerston	225,000	242,293	1,845	21	37,298	44,779	-35,453	0%
DISTRICT TOTAL	5,565,000	6,468,024	586,883	324	815,405	956,240	-228,522	

Roading

Table 13: Roading - Capital Expenditure for Development Contributions (Excluding GST)

Roading	2015-24 Total Capital (2015/16 \$)	2015-24 Total Capital Cost (Adjusted \$)	2015-24 Total Capital Net Cost to Council (2015/16 \$)	Growth Funded (2015/16 \$)	Funded by Other Sources (2015/16 \$'s)	Percentage Attributable to Growth	Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEU's Developed Over 10 Year Period	Contribution Per HEU (2015/16 \$)
District Wide	63,303,018	74,782,732	31,624,073	1,868,738	29,755,335	5.91%	868,986	724,711	1,593,697	1,646	968

Table 14: Roading – Debt Funding Ratio: 2015 - 2024 Net Growth Cost vs. Revenue Assessment

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adjusted \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost	New HEU's	Contributions Received (2015/16 \$)	Contributions Received (Adjusted \$)	Cumulative Contributions Received	Net Cost Balance	Debt Funding Ratio
2015	7,961,908	7,961,908	182,893	182,893	153	148,166	148,166	148,166	84,437	33%
2016	7,402,742	7,633,477	189,819	372,712	155	150,254	154,938	298,420	116,731	26%
2017	6,515,853	6,916,395	201,317	574,029	157	152,376	161,743	450,796	158,401	24%
2018	8,013,339	8,783,452	277,412	851,441	160	154,531	169,382	605,327	274,011	30%
2019	5,968,148	6,873,492	193,995	1,045,436	162	156,721	180,495	762,048	304,014	27%
2020	6,223,563	7,533,872	161,026	1,206,462	167	162,052	196,170	924,100	295,718	23%
2021	5,553,630	7,060,382	167,171	1,373,633	170	164,160	208,699	1,088,261	291,457	20%
2022	5,159,809	6,891,378	152,807	1,526,440	172	166,299	222,107	1,254,560	270,693	17%
2023	5,058,398	7,096,134	148,511	1,674,951	174	168,469	236,335	1,423,029	243,465	14%
2024	5,445,628	8,032,242	193,788	1,868,738	176	170,670	251,736	1,593,699	259,312	13%
DISTRICT	63,303,018	74,782,732	1,868,738		1,646	1,593,699	1,929,771			22%

Table 15: Total 10 Year Development Contribution Revenue Projections

Activity	2015-2024 Contributions Received (2015/16 \$'s)	Total 10 Year Remission Estimate (2015/16 \$'s)	Revised 2015-2024 Contributions Received (2015/16 \$'s)	Remission Explanation
Water Supply	3,005,744	37,354	2,968,390	Ohau Water Supply
Wastewater	815,405	32,772	782,634	Moeraki Wastewater
Roading	1,593,697	290,929	1,302,768	Residential dwellings on primary industry dairy property developments (100% remission); other residential, rural-residential and accommodation developments (50% remission).
TOTAL	5,414,846	361,054	5,053,792	

Schedule of Assets

Table 16 : Roading – Schedule of Assets

RCAM Work Category	Description.	Capital Cost (\$)	% of Capital Cost proposed to be recovered through DCs	% of Capital Cost proposed to be recovered through other sources
Amenity/Safety Maintenance	Car Parks - Steward Street	12,474	5.3%	94.7%
	Oamaru Town Centre	69,237	5.3%	94.7%
	Tyne Street Carpark	34,763	5.3%	94.7%
	Capital Project - Lake Centre Carpark Development	27,253	5.3%	94.7%
	Capital Project - Duntroon Amenity Works	20,907	5.3%	94.7%
	Capital Project - Hampden Amenity Works	139,377	5.3%	94.7%
	Capital Project - Herbert Amenity Works	20,907	5.3%	94.7%
	Capital Project - Kakanui Amenity Works	69,688	5.3%	94.7%
	Capital Project - Kurow Amenity Works	245,304	5.3%	94.7%
	Capital Project - Maheno Amenity Works	20,907	5.3%	94.7%
	Capital Project - Moeraki Amenity Works	69,688	5.3%	94.7%
	Capital Project - Ohau Amenity Works	41,813	5.3%	94.7%
	Capital Project - Omarama Amenity Works	153,315	5.3%	94.7%
	Capital Project - Otematata Amenity Works	139,377	5.3%	94.7%
	Capital Project - Palmerston Amenity Works	722,404	4.8%	95.2%
	Capital Project - Reservoir Road	95,263	5.3%	94.7%
	Capital Project - Shag Point Amenity Works	20,907	5.3%	94.7%
	Capital Project - Weston Amenity Works	223,003	5.3%	94.7%
	Carparks	74,389	5.3%	94.7%
	Renewals - Carparks	290,220	5.3%	94.7%
Amenity/Safety Maintenance Total		2,491,195	5.1%	94.9%
Bridge Renewals	Bridges	378,081	11.5%	88.5%
	Bridges - 59% Subsidy	144,911	11.8%	88.2%
	Bridges - 60% Subsidy	274,341	11.5%	88.5%
	Bridges - 69% Subsidy	215,846	8.9%	91.1%
	Bridges - Bowalley 57% Subsidy	55,506	12.4%	87.6%
	Bridges - Breakneck Rd 57% Subsidy	623	12.4%	87.6%
	Bridges - Humber Street 57% Subsidy	1,955	12.4%	87.6%
	Bridges - Lake Ohau #'s 95 & 96 - 57% Subsidy	131,880	12.4%	87.6%
	Bridges - Ngapara 57% Subsidy	3,344	12.4%	87.6%
	Dunback Swing Bridge	3,965,532	12.7%	87.3%
	Renewals - Bowalley Bridge	26,307	12.4%	87.6%
	Renewals - Breakneck Rd Bridge	88,707	12.4%	87.6%
	Renewals - Bridges	68,006	12.4%	87.6%
	Renewals - Humber Street Bridge	37,298	12.4%	87.6%
	Renewals - Kakanui Bridge	9,892,068	13.8%	86.2%
	Renewals - Lake Ohau Bridge	236,252	12.4%	87.6%
	Renewals - Nenthom Diggings Bridge	3,427	12.4%	87.6%
	Renewals - Ngapara Bridge	25,036	12.4%	87.6%
	Renewals - Slaughter Yard Bridge	65,571	12.4%	87.6%
Bridge Renewals Total		15,614,691	13.3%	86.7%
Carriageway Lighting	Lakes Centre Carpark Development	149,130	9.8%	90.2%
	Reservoir Rd Street Light	4,545	9.8%	90.2%
	Street Lighting	339,312	3.9%	96.1%
	Weston K&C/Lighting	5,228	9.8%	90.2%
	Capital Project - Moeraki Amenity Works	3,060	9.8%	90.2%
	Renewals - Street Lighting	1,647,122	4.3%	95.7%
Street Lighting	90,554	4.2%	95.8%	

RCAM Work Category	Description.	Capital Cost (\$)	% of Capital Cost proposed to be recovered through DCs	% of Capital Cost proposed to be recovered through other sources
Carriageway Lighting Total		2,238,951	4.7%	95.3%
Cycleway Construction	Omarama Footpaths Upgrade	12,788	9.8%	90.2%
	Omarama Walway SH8	3,000	9.8%	90.2%
	Renewals - Oamaru Footpaths	1,799,802	5.2%	94.8%
	Reservoir Road Footpath	22,947	9.8%	90.2%
	Capital Project - Omarama Amenity Works	72,026	5.2%	94.8%
	Capital Project - Otematata Amenity Works	15,248	5.2%	94.8%
	Footpaths	1,292,915	5.2%	94.8%
	Renewals - Footpaths District Wide	6,557,316	5.2%	94.8%
Cycleway Construction Total		9,776,042	5.2%	94.8%
Maintenance Chip Seals and Thin Asphalt Surfacing	Pavement Surfacing	11,346,439	1.4%	98.6%
	Bridges & Bridge Culverts	3,166,935	2.1%	97.9%
	Formation	132,652	1.5%	98.5%
	Renewals - Resurfacing	24,199,455	1.6%	98.4%
	Sealed Pavement Structure	2,770,371	1.5%	98.5%
	Sealed Pavement Surface	4,908,640	2.3%	97.7%
Maintenance Chip Seals and Thin Asphalt Surfacing Total		46,524,492	1.6%	98.4%
Major Drainage Control	Drainage	264,741	0.4%	99.6%
	Historic Precinct Roding	156,727	1.5%	98.5%
	Palmerston K&C	96,228	1.6%	98.4%
	Richmond Road Culvert	14,933	1.6%	98.4%
	Surface Water Channels	1,881,534	0.3%	99.7%
	Weston K&C	33,579	1.6%	98.4%
	Capital Project - Oamaru Amenity Works - Reservoir Rd	161,525	1.6%	98.4%
	Capital Project - Oamaru Town Centre Upgrade	642,559	1.6%	98.4%
	Capital Project - Palmerston Amenity Works	72,510	1.5%	98.5%
	Drainage & Culverts	866,839	0.4%	99.6%
	Renewals - Drainage	5,657,574	0.4%	99.6%
	Surface Water Channels	534,051	0.4%	99.6%
Major Drainage Control Total		10,382,801	0.5%	99.5%
Minor Safety Projects	Severn St Retaining Wall 57% Subsidy	9,253	6.1%	93.9%
	Capital Project - Avon St Retaining Wall	5,322	13.5%	86.5%
	Capital Project - Disaster Fund Work	199,117	5.5%	94.5%
	Capital Project - Traffic Safety - Minor Unallocated	729,879	2.6%	97.4%
	Renewals - Signpost/Rails	1,129,199	3.5%	96.5%
	Renewals - Traffic Safety - Minor Unallocated	288,468	2.7%	97.3%
	Renewals - Severn Street Retaining Wall	702,487	6.1%	93.9%
	Retaining Walls - Subsidised	41,829	6.1%	93.9%
Minor Safety Projects Total		3,105,553	4.0%	96.0%
New Roads and Bridges (roads)	Alma & Richards Road	9,999	13.2%	86.8%
	Corbett Road	20,040	13.2%	86.8%
	Papakaio Rd on old Railway	114,988	13.2%	86.8%
	Wansbeck Street Extension	64,508	13.2%	86.8%
	Capital Project - Harbourside Development	970,370	6.0%	94.0%
New Roads and Bridges (roads) Total		1,179,905	7.3%	92.7%
Pavement Maintenance	Pavement Unsealed	4,313,949	0.8%	99.2%
	Renewals - Unsealed Road Metalling	9,220,107	0.9%	99.1%
	Unsealed Pavement Structure	1,431,910	0.8%	99.2%
Pavement Maintenance Total		14,965,966	0.8%	99.2%
Pavement Smoothing	Pavement Basecourse - 55192	4,126,130	3.1%	96.9%
	Pavement Rehabilitation - 55192	480,705	3.3%	96.7%

RCAM Work Category	Description.	Capital Cost (\$)	% of Capital Cost proposed to be recovered through DCs	% of Capital Cost proposed to be recovered through other sources
	Traffic Safety Minor	891,518	1.3%	98.7%
	Renewals - Pavement Rehabilitation	18,662,729	3.4%	96.6%
Pavement Smoothing Total		24,161,082	3.3%	96.7%
Professional Services	Capital Project - Seal Widening & Seal Extensions	432,730	1.9%	98.1%
	Capital Improvements - NZTA Engineering Fees	857,268	1.0%	99.0%
	Renewals - NZTA Engineering Fees	513,555	1.0%	99.0%
Professional Services Total		1,803,553	1.2%	98.8%
Road Reconstruction	Seal Widening	640,137	3.7%	96.3%
	Capital Project - Access to Moeraki	72,745	5.3%	94.7%
	Capital Project - Seal Widening & Seal Extensions	15,800	5.5%	94.5%
	Capital Project - Land Purchases	37,909	5.5%	94.5%
	Renewals - Coal Pit Road Realignment	432,287	5.5%	94.5%
	Renewals - NZTA Engineering Fees	36,038	5.5%	94.5%
	Renewals - Waianakarua Road Realignment	872,901	2.8%	97.2%
Road Reconstruction Total		2,107,817	3.8%	96.2%
Seal Extension	Rural Seal Extension	433,073	9.6%	90.4%
	Stuart Street cul de sac	642	9.6%	90.4%
	Urban Seal Extension	212,543	9.6%	90.4%
	Capital Project - Disaster Fund Work	160,833	4.1%	95.9%
	Capital Project - Seal Extensions	10,917	9.6%	90.4%
	Grants Road Seal Extension	349,142	9.6%	90.4%
Seal Extension Total		1,167,150	8.9%	91.1%
Strategy Studies	Capital Project - Oamaru Campervan Dump Station	15,509	10.9%	89.1%
Strategy Studies Total		15,509	10.9%	89.1%
Traffic Services	Renewals - District Promotion Signage	5,333	9.0%	91.0%
	Signs & Railings	138,857	2.1%	97.9%
	Capital Project - Oamaru Town Centre Upgrade	2,474	4.8%	95.2%
	Financially Assisted Roading	82,568	2.1%	97.9%
	Renewals - Oamaru Litter Bins	112,141	9.0%	91.0%
	Renewals - Signpost/Rails	225,564	2.1%	97.9%
	Traffic Facilities Signs	181,422	2.1%	97.9%
Traffic Services Total		748,359	3.2%	96.8%
Minor Safety Projects and Seal widening	Capital Project - Traffic Safety-Minor Unallocated	10,333,227	3.5%	96.5%
Minor Safety Projects and Seal widening Total		10,333,227	3.5%	96.5%
Grand Total		146,616,291	3.6%	96.4%

Table 17: Wastewater Supply – Schedule of Assets

Wastewater Contributing Area	Project Name	Capital Cost (\$)	% of Capital Cost proposed to be recovered through DCs	% of Capital Cost proposed to be recovered through other sources'
Greater Oamaru				
	Oamaru - Harbour Sewer Extension	121,628	11%	89%
	Oamaru - Humber Street Pump Station	236,362	10%	90%
	Oamaru - Kakanui - Line Pond	37,826	24%	76%
	Oamaru - Kakanui - Pump Number 3	7,775	25%	75%
	Oamaru - Kakanui Pump	6,841	24%	76%
	Oamaru - Kakanui Pump Station	81,044	24%	76%
	Oamaru - TY Duncan Bypass	71,465	10%	90%
	Oamaru/Weston Trunk	80,225	11%	89%
	Oamaru Consent	80,762	8%	92%
	Oamaru Main	507,968	10%	90%
	Oamaru Pump Station Starters	56,728	10%	90%
	Oamaru Renewals	21,380	8%	92%
	Oamaru Sewer Outfall	17,886	10%	90%
	Oamaru Step Screen	32,471	10%	90%
	Oamaru - Orwell St Pumps	56,952	10%	90%
	Oamaru - Orwell St Starters	102,973	10%	90%
	Oamaru - Pipework - Humber Bridge	27,648	11%	89%
	Oamaru - Weston Sewer Connection	106,106	11%	89%
	Oamaru - Y2K Scada Upgrade	26,648	11%	89%
	Oamaru - Beach Road Wastewater Pump Station	392,730	11%	89%
	Oamaru - Kakanui Sewer Renewals 2010/2011	38,198	9%	91%
	Oamaru Sewer Other Renewals	46,429	7%	93%
	Oamaru Sewer Other Renewals 2010/2011	273,854	7%	93%
	Oamaru Wastewater Treatment Plant	4,592,139	13%	87%
	Oamaru - Orwell St Wastewater Pump Station	1,341,381	13%	87%
	Oamaru - Regina Lane Wastewater Pump Station	441,533	11%	89%
	Oamaru - Satellite Wastewater Pump Stations x 4	132,000	11%	89%
	Oamaru - Wansbeck St Reticulation Extension	17,919	100%	0%
	Oamaru - Weston Sewer Connection	19,772	11%	89%
	Oamaru - Kakanui Gravity Reticulation	620	9%	91%
	Oamaru - Kakanui Treatment Plant	44,620	30%	70%
	Oamaru Gravity Reticulation	23,316	7%	93%
	Oamaru Treatment Plant	5,238	10%	90%
	BOD Capacity Upgrade	632,579	100%	0%
Greater Oamaru Total	Grand Total	9,683,016	18%	82%
Kurow				
	Kurow Sewer Consent	25,495	10%	90%
	Kurow Sewerage Ponds	3,398	21%	79%
	Kurow Sewer Consent	55,745	16%	84%
	Kurow Sewer Consent 2010/2011	11,027	11%	89%
Kurow Total		95,665	14%	86%
Moeraki				
	Moeraki - Pooles Manhole	8,933	37%	63%
	Moeraki Consent	26,448	20%	80%
	Moeraki Sewer	199,241	39%	61%
	Moeraki STP Wetlands	3,375	22%	78%
	Moeraki Consent	89,083	17%	83%
	Moeraki Renewals - Pumps at P.Stns	14,262	15%	85%
	Moeraki Renewals 2010/2011	7,127	16%	84%
	WWTP Improvement	350,000	18%	82%
	Moeraki Gravity Reticulation	8,337	17%	83%
	Moeraki Consent – RM12.553.01	4,000	17%	83%
	Moeraki Pump Stations	500	17%	83%

Wastewater Contributing Area	Project Name	Capital Cost (\$)	% of Capital Cost proposed to be recovered through DCs	% of Capital Cost proposed to be recovered through other sources ¹
Moeraki Total		711,306	24%	76%
Ohau				
	Ohau Consent	2,000	55%	45%
Ohau Total		2,000	55%	45%
Omarama				
	Omarama Pumps x 2	5,142	24%	76%
	Omarama - Magflo	3,300	27%	73%
	Omarama Consent	43,414	15%	85%
	Omarama Consent	74,958	12%	88%
	Omarama Renewals	9,584	24%	76%
	Omarama Gravity Reticulation	15,805	10%	90%
	WWTP Improvement	273,911	14%	86%
Omarama Total		426,113	14%	86%
Otematata				
	Otematata Consent	31,855	13%	87%
	Otematata Treatment Upgrade	417,676	23%	77%
	Otematata Consent	48,968	10%	90%
	Otematata Consent 2010/2011	143,748	10%	90%
	Otematata Treatment Plant	17,197	10%	90%
Otematata Total		659,444	19%	81%
Palmerston				
	Palmerston - Horse Range Pump	900	10%	90%
	Palmerston Aerator	40,881	10%	90%
	Palmerston Consent	83,005	8%	92%
	Palmerston Pump	19,326	11%	89%
	Palmerston STP	37,346	11%	89%
	Palmerston Consent	60,734	8%	92%
	Palmerston Renewals	3,334	8%	92%
	Palmerston STP	50,066	14%	86%
	Overflow mitigation	26,921	7%	93%
	Palmerston Gravity Reticulation	4,385	7%	93%
	Palmerston Pump Stations	256,826	17%	83%
	Palmerston Treatment Plant	204,797	14%	86%
Palmerston Total		788,523	13%	87%
Grand Total		12,366,067	18%	82%

Table 18 : Water Supply – Schedule of Assets

Water Supply Contributing Area	Reticulation or Headworks	Project Name	Capital Cost (\$)	Proportion of Capital Cost proposed to be recovered through DCs'	Proportion of Capital Cost proposed to be recovered through other sources
Greater Oamaru					
	Headworks	Greater Oamaru - Avon St/KGP pumping station	223,263	13%	87%
		Greater Oamaru - Hampden/Moeraki Reservoir	57,150	20%	80%
		Greater Oamaru - Herbert/Waianakarua Chlorine Dosing Pump Spare	1,006	26%	74%
		Greater Oamaru - Kakanui - Pump Number 2	4,605	24%	76%
		Greater Oamaru - Kakanui – Pumps	7,409	23%	77%
		Greater Oamaru - Moeraki Chlorination	6,874	44%	56%
		Greater Oamaru - Brinkburn Street	22,049	7%	93%
		Greater Oamaru Chlorine System	114,733	9%	91%
		Greater Oamaru Other	45,821	10%	90%
		Greater Oamaru Reservoir Bypass Line	22,000	8%	92%
		Greater Oamaru Submersible Pump	45,368	8%	92%
		Greater Oamaru Treatment Plant	12,905,753	26%	74%
		Greater Oamaru - Waitaki Coastal Headworks Zone	10,846	12%	88%
		Greater Oamaru - Weston Pump	9,370	26%	74%
		Greater Oamaru - Weston Telemetry	11,664	26%	74%
		Greater Oamaru - Hampden/Moeraki Drinking Standard Compliance	51,476	34%	66%
		Greater Oamaru - TP Upgrade	83,374	28%	72%
		Greater Oamaru - TP Upgrade (DWSNZ)	823,764	26%	74%
		Greater Oamaru - Augmentation	5,200,000	25%	75%
		Greater Oamaru - Herbert/Waianak Drinking Standard Compliance	36,795	20%	80%
		Greater Oamaru - Herbert/Waianakarua Reservoirs	3,031	20%	80%
		Greater Oamaru - Kakanui Drinking Standard Compliance	1,104,195	30%	70%
		Greater Oamaru Water Treatment Plant Upgrade	65,260	9%	91%
		Greater Oamaru (Enfield-Weston) Drinking Standard Compliance	568,246	9%	91%
		Greater Oamaru Treatment Plant	54,199	19%	81%
		Greater Oamaru Intake	111,464	12%	88%
		Greater Oamaru - Additional sump	103,672	50%	50%
		Greater Oamaru - Planned capacity improvements	644,842	100%	0%
	Reticulation	Greater Oamaru - Enfield - Main	26,507	21%	79%
		Greater Oamaru - Enfield Renewal	21,452	23%	77%
		Greater Oamaru - Hampden/Moeraki - water main	5,389	27%	73%
		Greater Oamaru - Herbert/Waianakarua renewals	152,516	11%	89%
		Greater Oamaru - Herbert/Waianakarua	21,319	12%	88%
		Greater Oamaru - Kakanui - Main	57,458	30%	70%
		Greater Oamaru - Kakanui Main	2,418	23%	77%
		Greater Oamaru - water main	175,165	11%	89%
		Greater Oamaru Main	116,943	10%	90%
		Greater Oamaru Tunnel Pipe	244,093	11%	89%
		Greater Oamaru Renewals - Herbert / Waianakarua	4,342	13%	87%
		Greater Oamaru - Weston - Main	82,064	27%	73%
		Greater Oamaru - Weston Mains	15,552	26%	74%
		Greater Oamaru - Weston Upgrade	193,403	26%	74%
		Greater Oamaru - Enfield Renewal 2010/2011	4,515	30%	70%
		Greater Oamaru Main	660,691	16%	84%
		Greater Oamaru Renew mains	94,560	12%	88%
		Greater Oamaru Tunnel Pipe	702	10%	90%
		Greater Oamaru Pipeline renewals	225,310	30%	70%
		Greater Oamaru - Weston Mains	21,040	26%	74%
		Greater Oamaru - Weston Renewal Works 2010/2011	33,143	26%	74%
		Greater Oamaru - Hampden/Moeraki Treated Reticulation	10,087	30%	70%
		Greater Oamaru - Herbert/Waianakarua Drinking Standard Compliance	31,264	20%	80%
		Greater Oamaru - Herbert/Waianakarua Treated Reticulation	20,130	30%	70%

Water Supply Contributing Area	Reticulation or Headworks	Project Name	Capital Cost (\$)	Proportion of Capital Cost proposed to be recovered through DCs'	Proportion of Capital Cost proposed to be recovered through other sources
		Greater Oamaru - Kakanui Treated Reticulation	126,154	30%	70%
		Greater Oamaru Pump Stations	27,248	13%	87%
		OA to WE/EN Pipe	263,758	28%	72%
Greater Oamaru Total			24,975,450	27%	73%
Waihemo					
	Headworks	Dunback - Pump	4,679	20%	80%
		Dunback Consent Renewal	5,472	21%	79%
		Goodwood Consent Renewal	5,472	10%	90%
		Palmerston Chlorinator	10,798	11%	89%
		Palmerston Consent	13,943	13%	87%
		Palmerston Telemetry	27,422	1%	99%
		Palmerston Turbidity Meter	5,415	12%	88%
		Waitaki Coastal Headworks Zone	1,092	13%	87%
		Dunback Drinking Standard Compliance	10,671	40%	60%
		Goodwood Drinking Standard Compliance	43,288	30%	70%
		TP Upgrade	119,115	19%	81%
		Waitaki Coastal Township Water Scheme	766	100%	0%
		Waihemo Drinking Standard Compliance	1,806,322	25%	75%
		Waihemo Drinking Standard Upgrade	17,241	25%	75%
		Waihemo Drinking Standard Upgrade - Blue Mountain Tanks	42,213	25%	75%
	Reticulation	Dunback - Main	2,842	20%	80%
		Dunback - Replace Pipe	5,918	18%	82%
		Goodwood - water main	23,234	11%	89%
		Palmerston - Main & (52702	96,337	12%	88%
		Palmerston Main	2,430	11%	89%
		District hydraulic Analysis	4,256	100%	0%
		Goodwood Mains Renewal 2010/2011	46,534	25%	75%
		Waihemo (Goodwood - Dunback) Mains	834,867	25%	75%
Waihemo Total			3,130,327	24%	76%
Awamoko					
	Headworks	Awamoko - replace sand	4,282	26%	74%
		Awamoko Pump Station (SH 83	70,386	19%	81%
		Awamoko Warning System	2,182	18%	82%
		Waitaki Coastal Headworks Zone	342	19%	81%
		TP Upgrade	419,974	25%	75%
		Awamoko Drinking Standard Compliance	1,711	25%	75%
	Reticulation	Awamoko - value	245	18%	82%
		Awamoko Renewals	34,507	18%	82%
		Renewals - Awamoko	3,021	17%	83%
		Awamoko Renewals - Pipe 2010/2011	5,105	30%	70%
		Pipeline renewals	17,032	30%	70%
		Awamoko Treated Reticulation	5,812	30%	70%
Awamoko Total			564,599	24%	76%
Duntroon					
	Headworks	Duntroon - pump renewal	2,753	40%	60%
		Duntroon Drinking Standard Compliance	11,785	30%	70%
		Duntroon Treatment Reticulation	204	30%	70%
		Duntroon Treatment Plant/Intake	3,093	30%	70%
		TP Upgrade (DWSNZ)	220,000	30%	70%
	Reticulation	Duntroon - water main	21	38%	62%
		Pipeline renewals	603	30%	70%
Duntroon Total			238,460	30%	70%
Kauru					
	Headworks	Kauru - Intake & Pump	3,975	24%	76%

Water Supply Contributing Area	Reticulation or Headworks	Project Name	Capital Cost (\$)	Proportion of Capital Cost proposed to be recovered through DCs'	Proportion of Capital Cost proposed to be recovered through other sources		
Kauru	Reticulation	Kauru - Pressure Vessel	4,367	21%	79%		
		Kauru - reservoir roof	386	22%	78%		
		Waitaki Coastal Headworks Zone	261	24%	76%		
		Intake upgrade	115,750	24%	76%		
		TP Upgrade (DWSNZ)	301,520	30%	70%		
		Kauru Drinking Standard Compliance	9,520	30%	70%		
		Kauru - Main	4,489	22%	78%		
		Kauru - Main	17,900	24%	76%		
		Kauru - Intake & Pump 2010/2011	1,890	15%	85%		
		Kauru Pipeline renewals	8,012	30%	70%		
		Kauru Hill Treated Reticulation	3,781	30%	70%		
Kauru Total			471,851	28%	72%		
Kurow							
Kurow	Headworks	Kurow Pump	7,958	10%	90%		
		TP Upgrade - Consultant	42,583	15%	85%		
Kurow	Reticulation	Kurow Drinking Standard Compliance	126,112	16%	84%		
		Kurow Treatment Plant/Intake	76,492	16%	84%		
		Kurow Main	7	10%	90%		
		Kurow Other Renewals	11,780	10%	90%		
		Kurow renewals mains	63,434	10%	90%		
		Kurow Pipeline renewals	55,737	30%	70%		
		Kurow Treated Reticulation	84,294	13%	87%		
		Kurow Total			468,398	16%	84%
		Lower Waitaki					
		Lower Waitaki	Headworks	Lower Waitaki - Other Imp	3,346	13%	87%
Lower Waitaki - Sand Filter	8,761			26%	74%		
Lower Waitaki - replace sand	10,347			28%	72%		
Waitaki Coastal Headworks Zone	606			12%	88%		
Lower Waitaki Drinking Standard Compliance	345,240			10%	90%		
TP Upgrade	410,560			10%	90%		
Lower Waitaki Treatment Plant/Intake	4,560			10%	90%		
Lower Waitaki Pipeline renewals	11,638			30%	70%		
Lower Waitaki Treated Reticulation	40,601			30%	70%		
Additional bore	202,140			100%	0%		
Lower Waitaki Total					1,037,799	29%	71%
Ohau							
Ohau	Headworks	Ohau - Consent	2,735	44%	56%		
		Ohau Intake	1,772	38%	62%		
		Lake Ohau Drinking Standard Compliance	8,335	67%	33%		
		TP Upgrade (DWSNZ)	380,000	67%	33%		
		Lake Ohau Drinking Standard Compliance	4,864	67%	33%		
Ohau	Reticulation	Lake Ohau Treated Reticulation	888	67%	33%		
		Ohau Total			398,593	66%	34%
Omarama							
Omarama	Headworks	TP Upgrade - Consultant	20,053	40%	60%		
		Omarama Drinking Standard Compliance	94,587	40%	60%		
	Reticulation	Omarama Main	78,029	22%	78%		
		Omarama Mains Renewal/Upgrade	32,781	12%	88%		
		Omarama Reticulation Upgrade	13,603	17%	83%		
		Omarama Upgrade	64,607	27%	73%		
		Omarama Upgrade	117,380	29%	71%		
		Omarama Main Extension to Prohibition Road	16,507	10%	90%		
		Omarama Treated Reticulation	282,733	39%	61%		
		Omarama Total			720,281	32%	68%

Water Supply Contributing Area	Reticulation or Headworks	Project Name	Capital Cost (\$)	Proportion of Capital Cost proposed to be recovered through DCs'	Proportion of Capital Cost proposed to be recovered through other sources
Otekaieke					
	Headworks	Otekaieke Consent	3,565	20%	80%
		Otekaieke WR - Consent	2,926	17%	83%
		TP Upgrade	97,457	20%	80%
	Reticulation	Pipeline renewals	4,718	30%	70%
Otekaieke Total			108,666	20%	80%
Otematata					
	Headworks	Otematata - Consent	2,013	9%	91%
		Otematata - Gallery Intake	18,040	9%	91%
		Otematata Consent	4,720	8%	92%
		Otematata Drinking Standard Compliance	1,059,578	28%	72%
		TP Upgrade	24,307	29%	71%
	Reticulation	TP Upgrade (DWSNZ)	330,000	27%	73%
		Otematata Renewals	48,409	30%	70%
		Otematata Treated Reticulation	24,884	30%	70%
Otematata Total			1,511,951	28%	72%
Stoneburn					
	Headworks	Stoneburn Pump	6,726	29%	71%
		Waitaki Coastal Headworks Zone	236	29%	71%
		TP Upgrade	250,940	40%	60%
	Reticulation	Stoneburn Main	12,456	27%	73%
		Stoneburn Mains	1,143	29%	71%
		Pipeline renewals	1,681	30%	70%
		Stoneburn Mains	42,537	30%	70%
		Stoneburn Renewals - Pump	2,177	30%	70%
		Stoneburn Treated Reticulation	7,825	30%	70%
Stoneburn Total			325,721	38%	62%
Tokarahi					
	Headworks	Tokarahi - renewals/improvements	62,331	39%	61%
		Tokarahi Header Tank	10,372	34%	66%
		Tokarahi Pump	8,981	34%	66%
		Waitaki Coastal Headworks Zone	811	33%	67%
		Tokarahi Drinking Standard Compliance	481	36%	64%
		TP Upgrade (DWSNZ)	290,751	40%	60%
	Reticulation	Tokarahi Treatment Plant/Intake	17,345	40%	60%
		Tokarahi - pipe	410	24%	76%
		Tokarahi Main	64,477	28%	72%
		Tokarahi Main & VSD's	38,029	33%	67%
		Tokarahi Mains	6,587	34%	66%
		Tokarahi Mains	57,114	35%	65%
		Tokarahi Mains - Peaks/Conlans Road	28,829	35%	65%
		Tokarahi Mains - Smilies Rd	6,713	35%	65%
		Tokarahi Mains - Stage 2	35,769	35%	65%
		Tokarahi Pump	232	35%	65%
		TP Upgrade (DWSNZ)	989	40%	60%
		Tokarahi Pump Stations	3,902	40%	60%
		Tokarahi Treated Reticulation	152,689	30%	70%
Tokarahi Total			786,812	36%	64%
Windsor					
	Headworks	Waitaki Coastal Headworks Zone	233	20%	80%
		Windsor - River Pump	2,175	19%	81%
		Windsor Pump	3,230	20%	80%
		TP Upgrade (DWSNZ)	290,751	25%	75%
		Consent	30,000	20%	80%

Water Supply Contributing Area	Reticulation or Headworks	Project Name	Capital Cost (\$)	Proportion of Capital Cost proposed to be recovered through DCs'	Proportion of Capital Cost proposed to be recovered through other sources
	Retic	Renewals - Windsor	8	18%	82%
		Pipeline renewals	1,154	30%	70%
		Windsor Renewals - Pump	6,450	21%	79%
Windsor Total			334,002	24%	76%
Grand Total			35,072,909	27%	73%

DETAILED SUPPORTING DOCUMENT

PART 2 Calculation Methodology

Definitions

Analysis Period

The period of time over which the assessment of development contributions is undertaken.

Activity Management Plans (AMP)

A plan for the management of one or more asset types that combines multidisciplinary management techniques (including technical and financial) over the lifecycle of the asset in the most cost-effective manner to provide a specified level of service. A significant component of the plan is a long term cashflow projection for the activities. (Source: *International Asset Management Manual – Australia/New Zealand Edition (NAMs Manual)*).

Capital Expenditure (CAPEX)

Expenditure used to create new assets or to increase the capacity of existing assets beyond their original design capacity or service potential. CAPEX increases the value of asset stock. (Source: *NAMs Manual*)

Contributing Area

A defined geographic area where development contributions are to be calculated by the method described herein and delivering a standard development contribution in terms of \$/Household Equivalent Unit. Contributing areas take an integrated approach to the effects of land subdivision/development and associated physical resources and assesses the overall requirements of an identified geographic area. Contributing areas should enable standard development contributions to be determined efficiently and equitably.

Community Activity

The use of land and buildings for the primary purpose of health, welfare, care, safety, education, culture and/or spiritual well-being, but excludes recreational activities. A community activity includes schools, doctors surgeries and other health professionals, churches, halls, libraries, community centres, police stations, fire stations, courthouses, probation and detention centres, government and local government offices.

Deferred Works

CAPEX that should have been undertaken at the appropriate time, however has been delayed to a later date.

Design Life

The number of years from the construction date of an asset to the date at which capacity is reached. The design life of an asset may take other variables into account such as the growth rate, expected life of an asset, financing costs and engineering considerations.

Development

Any subdivision or other development that generates a demand for Council services, such as Roading, Wastewater, Water Supply, Reserves, Community Facility and Storm Water, but does not include the pipes and lines of a network utility operator.

Development Contributions

Development contributions are contributions defined by the provisions of Part 8 Subpart 5 and Schedule 13 of LGA 2002. Contributions are assessed based on the fiscal implications of growth.

Household Equivalent Unit (HEU)

A typical residential dwelling, however representing a unit of demand for which non-residential land uses can be described by. Non-residential activities, such as accommodation and commercial, can be converted into household equivalent units

using land use differentials. Household equivalent units enables the demand of different land uses to be considered collectively.

Household Equivalent Unit Development Contribution

The household equivalent unit contribution required to be met by a unit of demand to reflect the cost of growth imposed by that unit of demand.

Effective Date

Date at which the development contributions are assessed.

Expected Life

Also known as useful life. The period over which a depreciable asset is expected to be used.

Financial Contribution

Defined by Section 108 of the Resource Management Act 1991 and collected using the provisions of the District Plan. Financial Contributions are assessed based on the environmental effects of growth.

Financial Reports

Annual reports prepared by Council and externally audited, detailing achievement from the previous financial year, at both a financial and community outcome basis.

Gross Floor Area (GFA)

The sum of the gross area of all floors and all buildings on a site, measured from the exterior faces of the exterior walls, or from the centre lines of walls separating two buildings. For the purpose of this policy this definition of GFA, excluding car parking areas, will be used.

Growth Capital Expenditure (CAPEX for Growth)

The proportion of capital expenditure required to meet the demands of growth.

Growth - Population

A growth statistic used to measure growth. In this case a household equivalent unit.

Land Use Categories

The land use activities are defined below.

Residential – means the use of land and buildings by people for the purpose of permanent living accommodation, including all associated accessory buildings, recreational activities and the keeping of domestic livestock. For the purposes of this definition, residential activity shall include emergency and refuge accommodation, and residential care facilities for up to six persons and support staff but excludes visitor accommodation and the non-commercial use of holiday homes.

Rural Residential - The Rural Residential Zone covers areas adjoining the towns of Oamaru, Weston, Otematata, Omarama and Kurow. The zone provides for very low density residential opportunities in association with these towns as an alternative to the suburban living areas typical of the District. The zones are concentrated in close proximity to the towns in order to encourage energy conservation and to enable convenient access to the employment, services and facilities in those towns. The purpose of the zone is to maintain very low density residential areas with ample open space, tree and garden plantings and with minimal adverse environmental effects experienced by residents. However, farming is likely to remain a widespread use of land in the zone and an integral part of the rural residential environment.

Accommodation – means the use of land and/or buildings for short-term, fee paying, living accommodation where the length of stay for any one visitor is not greater than 3 months at any one time, provided that this definition does not exclude the letting of individually-owned residential units. Visitor accommodation may include some centralised services or facilities, such as food preparation, dining and sanitary facilities, conference, bar and recreation facilities. Visitor accommodation includes such accommodation as camping grounds, hotels, motels, boarding houses, guesthouses, backpackers accommodation, bunkhouses, tourist houses and lodges.

Primary Industry – means any activity within the Rural general or Rural Scenic Zone that involves Arable Farming, Forestry, market Gardens/Orchards, Mineral Extraction, Specialist Livestock, Stock Fattening, Store Sheep or a multiple use of any of the above.

Primary Industry Diary – means any activity within the Rural General or Rural Scenic Zone that involves Dairying, Grazing of Dairy Livestock, Milking Sheds for Town or Factory Supply or a multiple use of any of the above.

Commercial - means the use of land and buildings for the display, offering, provision, sale or hire of goods, equipment, or services, and includes shops, markets, showrooms, restaurants, takeaway food bars, professional, commercial and administrative offices, postal services, service stations, motor vehicle sales, the sale of liquor and associated parking areas; but excludes recreational, community and service activities, home occupations or visitor accommodation.

Industrial - means the use of land and buildings for the primary purpose of manufacturing, fabricating, processing, packing, or associated storage of goods.

Land Use Differentials

Factors which are used to convert non-residential properties into household equivalent units. Impact on, benefit from and consumption of assets by different land uses can be converted into and described as household equivalent units. Land use differentials have three functions:

- 1) To determine the total growth in terms of household equivalent units.
- 2) To apportion asset capacity and growth related capital expenditure.
- 3) To enable a new subdivision or development to be converted into household equivalent units, such that the development contributions can be calculated.

Level of Service

The defined service for a particular activity (i.e. roading) or service area (i.e. street lighting) against which service performance may be measured. Service levels usually

relate to quality, quantity, reliability, responsiveness, environmental acceptability and cost. (*Source: NAMs Manual*).

Long Run Average

Average taken over a number of years, typically 10 or more for infrastructure assets.

Network Infrastructure

The provision of roads and other transport, water, wastewater, stormwater collection and management.

Renewal

Works to refurbish or replace existing facilities with facilities of equivalent capacity or performance capability.

Service Connection

A physical connection to a service provided by, or on behalf of, Waitaki District Council.

Standard Contribution

The amount of a development contribution payable for the addition of one household equivalent unit.

Statutory Obligation

Typically relating to CAPEX required to meet the demands of a statute, guideline or standard.

Surplus Capacity

Additional capacity of an asset whereby uptake of that additional capacity is not to the detriment of existing users.

Units of Demand

A measurable unit that creates demand for additional capacity or consumes surplus capacity. Often measured in terms of household equivalent units.

Weighted Average Cost of Capital (WACC)

Cost of loan funding capital works. Interest charges for the growth proportion of any capital expenditure. Do not include principal repayments.

Basic Model Description

A high level description of the model used for assessing development contributions is detailed below. The model used defines a standard development contribution for a specific unit of demand. The unit of demand is a household equivalent unit. The model calculates a **household equivalent unit contribution**.

The key concept of the approach is to define the total capital expenditure (**CAPEX for growth**) consumed by the **growth population** over a period of time. This consumption of CAPEX for growth is then apportioned among the increased number of units of demand (household equivalent units) over the same time period. This defines the long run average cost of growth per unit of demand. The result of which is defined as the **household equivalent unit (HEU) contribution**. This can be represented by the following formula.

$$\text{HEU Contribution} = \frac{\text{Sum of CAPEX for Growth Consumed In Analysis Period}}{\text{Sum of New HEU's in Analysis Period}}$$

The method can be described simplistically by the following steps.

Step 1: Assess capital expenditure for growth on an asset by asset basis using financial reports (past expenditure) and projected expenditure.

Step 2: Apportion capital expenditure for growth by the growth population (household equivalents) over the **design life** of the asset, to assess the \$/unit of demand for each asset described above.

Step 3: For each year in the **analysis period** determine the total consumption of asset capacity for each asset identified, namely the \$/unit of demand x the number units of demand.

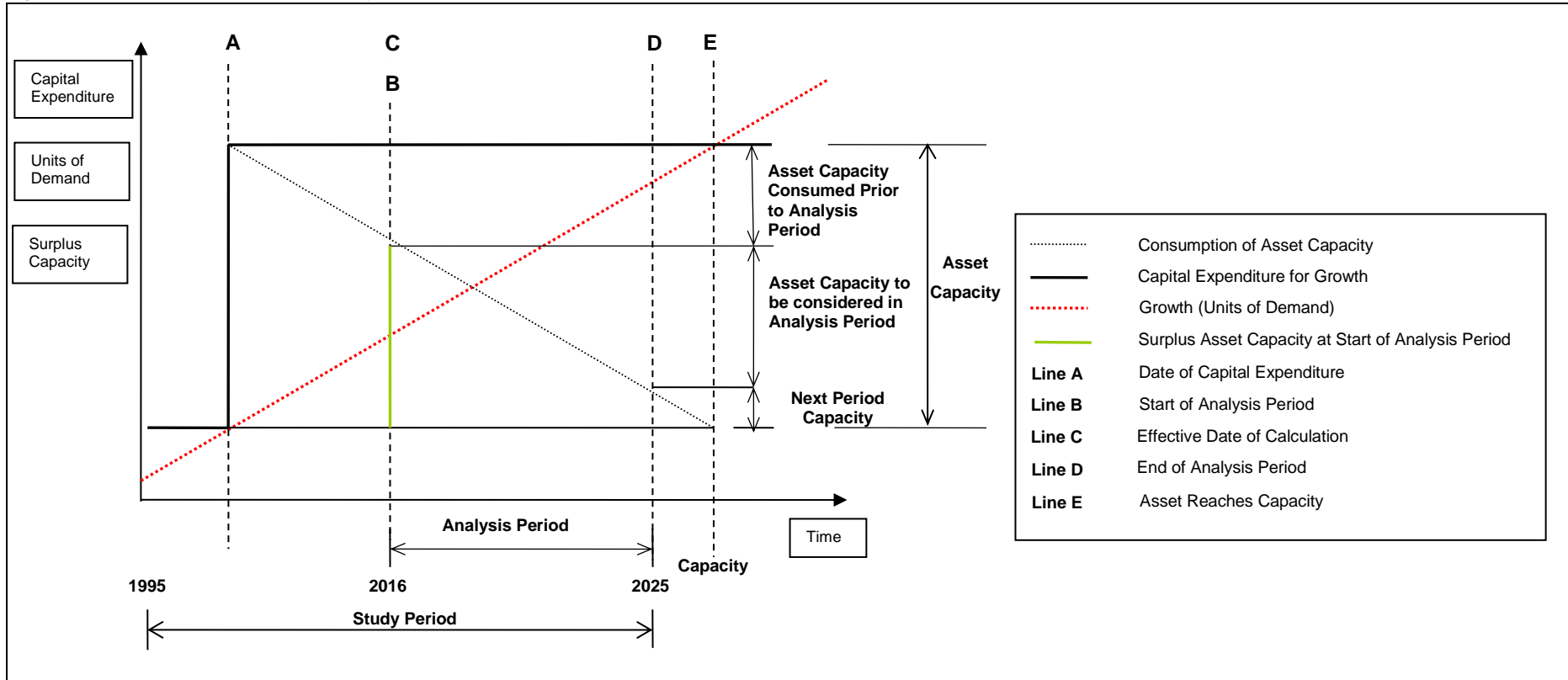
Step 4: Sum for all assets in each year in the analysis period, namely total capacity consumed in that year, measured in \$.

Step 5: Sum each year in the ten year analysis period and divide by the growth population (new household equivalents) projected over the analysis period to determine the household equivalent contribution.

Generalised Model Description

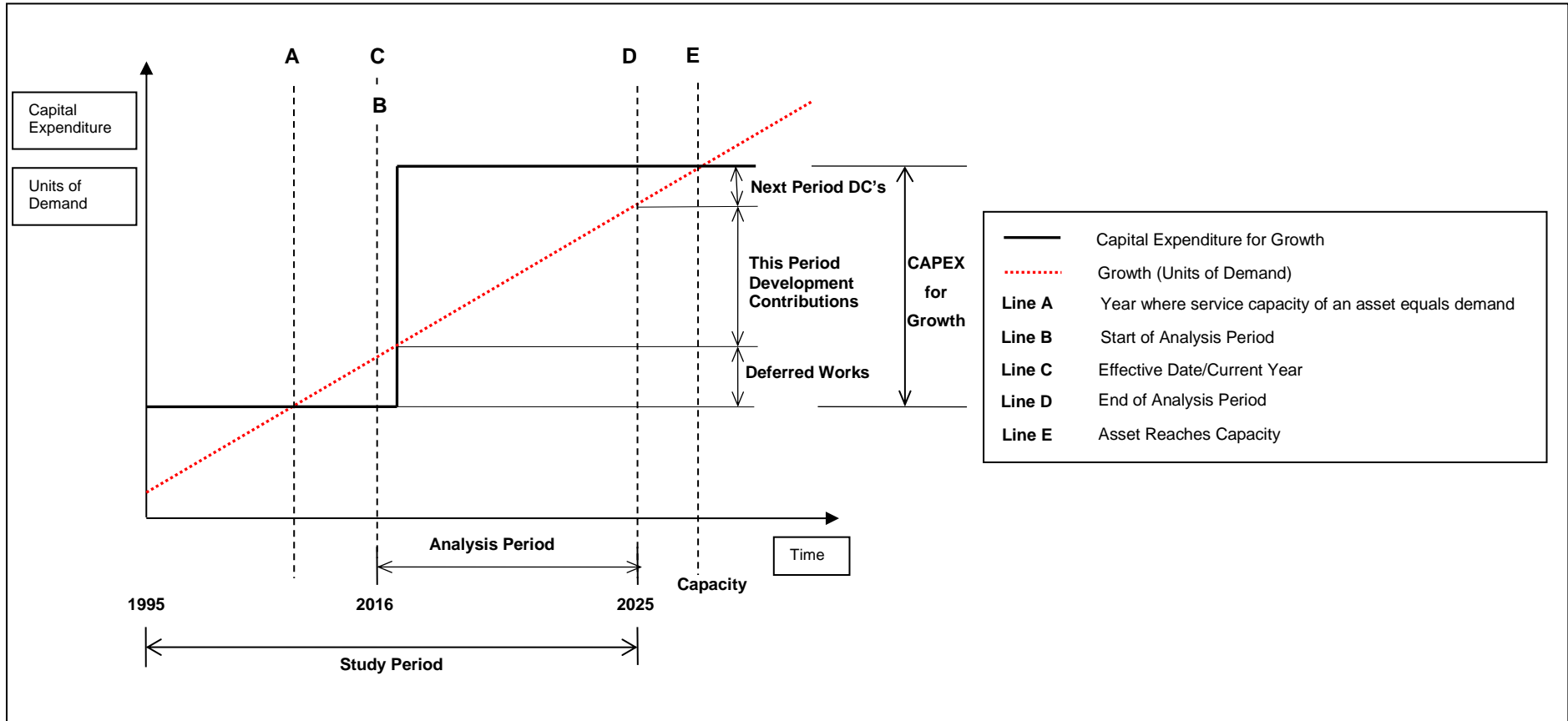
A graphical representation of the generalised model is shown below using three figures. Figure 1 describes how assets with **surplus capacity** are treated and Figure 2 how assets **constructed during** the analysis period are treated. Figure 3 demonstrates how the combination of Figure 1 and 2 are combined to assess development contributions.

Figure 1: Assets with Surplus Capacity



Asset capacity acquired during the study period, but before the analysis period (1995 to 2015), can be considered in the calculations. These are assets with **surplus capacity** at the effective date. The surplus capacity is assessed at the start of the analysis period. The surplus capacity consumed during the analysis period is assessed and apportioned amongst the growth population. Surplus capacity at the end of the analysis period is removed from the calculation and considered in subsequent calculations. Capital projects back as far as 1995 have been considered if the assets still have surplus capacity to be consumed in the analysis period.

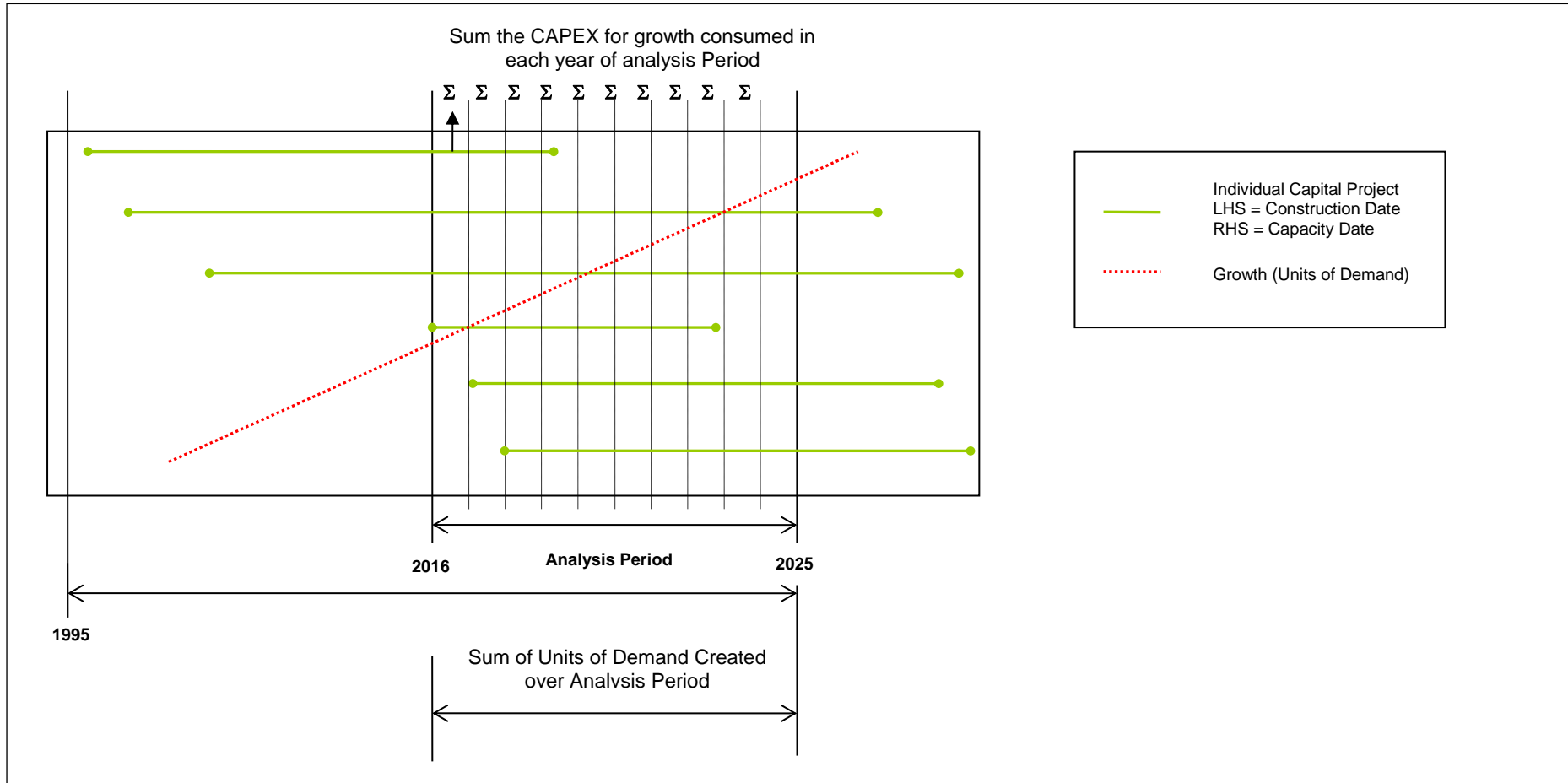
Figure 2: Assets Created During Analysis Period



Asset capacity **acquired during** the analysis period is also considered. The consumption of asset capacity during the analysis period is apportioned to the growth population. Surplus capacity at the end of the analysis period is removed from the calculation and considered in subsequent calculations.

The key objective of the model is to recover the cost of growth for every capital project over a period of time, namely the date until capacity is reached. The model descriptions in Figures 1 and 2 above both use one capital project as an example. To assess the household equivalent unit development contribution, the effect of these two diagrams on every capital project providing additional capacity for growth are considered. Figure 3 below demonstrates how each capital project is considered, where each horizontal line represents a CAPEX for growth project.

Figure 3: Assessing Household Equivalent Unit Development Contributions



Where units of demand = household equivalent units then:

HEU Contribution	=	$\frac{\text{Sum of CAPEX for Growth Consumed In Analysis Period}}{\text{Sum of New Household Equivalent Units in Analysis Period}}$
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PART 3 Detailed Model Elements

The more detailed aspects of the development contribution calculations are identified below. These are relevant to water, wastewater and roading at this stage.

Cost Components

- **Capital Expenditure;**
- **CAPEX for growth apportionments;**
- **Interest Costs;**
- **Inflation;**

Growth Assessments

- **Growth Projections**
- **Land Use Differentials** - Household Equivalent Unit(unit of demand) Conversion for Non-Residential Activities;

Specific Assessment Matters

Capital Expenditure

Only capital expenditure (CAPEX) is considered in the model. All Operational Expenditure is excluded, including internal overheads. Capital expenditure is identified from two sources, namely:

1. **Activity Management Plans (AMPs)** – projected expenditure
2. **Financial Reports** – historic expenditure

The Activity Management Plans are used for assessing projected CAPEX. The AMPs are formal planning documents that include long term expenditure forecasts. Council has a statutory obligation to ensure these documents are as accurate as possible, namely:

1. An implicit requirement under Local Government Amendment Act 1996 and Local Government Act (LGA) 2002 to have activity management plans.
2. Council has a statutory requirement under LGA 2002 to prepare a Long Term Plan (LTP). The LTP must project all expenditure, revenue, asset value, depreciation, debt levels and other liabilities for no less than 10 years. The LTP populates the annual plan for first 3 years following adoption, with exception reporting required where variations occur.
3. LGA 2002 requires CAPEX to be defined into three categories, namely i) Growth, (ii) Renewal and (iii) Level of Service Shifts/Other.
4. Audit – Office of the Auditor General – The LTP will be subject to audit.

CAPEX for Growth Apportionments

The CAPEX identified can be apportioned into five cost drivers. These being:

- Growth,
- Renewal,
- Level of Service,
- Statutory,
- Deferred Works/Other (see definitions).

The growth apportionment is the only cost driver used for assessing development contributions, however determining the others can aid in this process. The growth portion has been assessed using the following methods. These are:

1. Benefits Approach - using asset design life to approximate the growth percentage.
2. Assessed using Professional Judgement.

1. Benefits Approach: The first step determines if a project provides a benefit to the future community and as a consequence the council incurs capital expenditure. For

example a renewal project that renews an asset to its original condition is considered to be 100% renewal.

Where the first step is deemed to apply to a project then the design life is used to assess the growth percentage (benefit) to the future community. The method used for the second step is explained below for each activity.

Water Supply and Wastewater

The number of household equivalent units (HEU) at capacity is compared to the household equivalent units at construction, namely:

$$\text{Growth Percentage} = \frac{(\text{HEU}_{cap} - \text{HEU}_{con})}{\text{HEU}_{cap}}$$

Where: HEU_{con} = household equivalent units at construction

HEU_{cap} = household equivalent units at capacity

This approach provides for a systematic allocation of the growth component and a very good approximation of the growth related capital expenditure. For a longer design life, the percentage attributable to growth is higher, however the growth costs are consumed over a greater number of years. The converse of this can be said for applying a shorter design life, namely a low growth percentage, with the growth cost being consumed over a shorter period.

Roading

For Roothing projects, the existing and future vehicle activity is used instead of household equivalent units to apportion the benefit to the future community.

The vehicle activity is quantified using the vehicle characteristics described in a 2001 review of the Cost Allocation Model. The Cost Allocation Model supports the Road Users Charges used by Central Government. The vehicle characteristics are:

1. Power Vehicle (PV): measures the drivers imposed costs resulting from the need to provide resources for motorists themselves. These include signs, road markings and landscaping;
2. Equivalent Standard Axles (ESA): measures vehicle road wear costs resulting from the fourth power of the axle weights of vehicles;
3. Gross Vehicle Weight (GVW): measures vehicle strength imposed road costs, such as bridge strength;
4. Passenger Car Equivalent (PCE): measures the vehicles space related road costs, such as the additional road space (i.e. construction of additional traffic lanes) required to alleviate traffic congestion;
5. Residual: not all transport expenditure is directly caused by a vehicle characteristic so in some cases a portion is allocated to Residual, e.g. environmental damage.

Each vehicle characteristics has a different growth rate. The typical vehicle activity and the property growth for each land use category are detailed in the Land Use Differentials section.

The driver for each type of Roothing project is split across the above vehicle characteristics. This method therefore considers both the project driver and the rate of growth in vehicle characteristics to calculate the overall growth portion.

The residual portion of traffic related projects are not included in the growth portion. These costs are non-traffic related therefore they are not linked to additional demand, and therefore not passed onto the future community.

The assumed design life and resulting growth % for WDC's Roothing programme are summarised in the following table.

Table 19 : Roading Growth Portion

RCAM Work Category	Capacity Design	Growth Portion
Amenity/Safety Maintenance	20	4.0%
Bridge Renewals	75	23.1%
Carriageway Lighting	20	10.2%
Cycleway Construction	10	5.8%
Maintenance Chip Seals and Thin Asphalt Surfacing	10	2.7%
Major Drainage Control	20	1.3%
Major Drainage Control	10	0.6%
Minor Safety Projects	10	5.9%
New Roads and Bridges (roads)	20	10.2%
Pavement Maintenance	10	1.5%
Pavement Smoothing	20	6.1%
Professional Services	10	1.7%
Road Reconstruction	20	9.8%
Traffic Services	10	0.0%

2. Professional Judgement – There are some projects where professional judgement is the only tool available to make an assessment of growth. Professional judgment may consider other components of the activity first, namely renewal and level of service.

As new information becomes available the Monitoring and Review process identified in the Policy (Part 1) will make adjustments to the calculation where appropriate.

Interest Costs

Council intends to recover the interest costs associated with debt funding any growth related capital expenditure using development contributions. The weighted average cost of capital (WACC) methodology is used to estimate the cost of debt funding the growth portion of the capital expenditure.

The method uses a net present value approach to improve intergenerational equity and therefore improve on the overarching principles of dealing with both present and future communities.

The growth cost (including interest) is determined using the following formula:

$$\text{Growth Cost (including interest)} = \text{Growth Capex} + \text{WACC}$$

$$\text{Where WACC} = \text{Interest Factor} \times \text{Debt Funding Ratio} \times \text{Growth Capex}$$

Debt Funding Ratio - Not all projects will require debt funding. This ratio is an estimate of the percentage that will require debt funding. The debt funding analysis considers whether the development contributions account is either in surplus or deficit depending on existing balances, growth costs incurred and development contributions income received. The analysis considers the existing debt, future growth costs (10 yrs) and the anticipated future development contributions income (10 yrs). The weighted average of the debt percentages over 10 years gives the debt funding ratio.

The interest factor is based on the net present value of future interest payments made over the life of the loan. The net present value is applicable because the development contribution model converts all costs into real (current day) dollars.

Table 20 : Interest Factor

Term of Loan (Yrs)	Interest Factor
1	0.05
2	0.07
3	0.10
4	0.12
5	0.14
6	0.17
7	0.19
8	0.21
9	0.23
10	0.25
11	0.27
12	0.29
13	0.31
14	0.33
15	0.35

Term of Loan (Yrs)	Interest Factor
16	0.37
17	0.39
18	0.41
19	0.42
20	0.44
21	0.46
22	0.47
23	0.49
24	0.50
25	0.52
30	0.59
50	0.79
75	0.92

Interest Rate Used = 5.3%

Repayment Period = Design Life / Payback Period (yrs)

Not all projects will require debt funding and this ratio is an attempt to estimate the percentage that will. This percentage is then used to calculate the interest costs on the CAPEX for growth and hence, the amount to be recovered through development contributions.

The calculation of the debt funding ratio is outlined in the Tables in Part 1. These have been prepared for each activity type in each contributing area. These tables demonstrate the relationship between existing debt, future growth costs (10 yrs) and the anticipated future income (10 yrs) from development contributions. A weighting of the debt position against the 10 year growth cost determines the debt percentage. Calculating a weighted average of these debt percentages gives the debt funding ratio.

Inflation

Inflation is applied to all projects prior to the effective date of the analysis (retrospective CAPEX), namely those with surplus capacity.

As we are assessing long run incremental average cost of growth (i.e. including past projects) it is important to have all projects in today's dollars, namely 1 July 2015.

Inflation is applied using the following formula and Statistics NZ indices:

$$\text{Escalation} = 0.5 \times (L-L')/L' + 0.5 \times (C-C')/C'$$

Where:

L = Labour Cost Index: Private Sector: Industry Group –
Construction: All Salary and Wage Rates. Published by
Statistics New Zealand: (Series ref LC1Q: SA49P1)

C = Producers Price Index: Inputs: Industry Group –
Construction: Published by Statistics New Zealand: (Series
ref PP1Q: SNE)

' = represents the base year index.

Growth Projections

These have been estimated using the best information available. Source data can be broken down into three groups, namely:

- The latest growth projections prepared by Rationale (WDC Growth Projections to 2045_July 2014) were used to inform the 2015 LTP. These projections have been applied for projecting residential and non-residential growth with the exception of the sources below.
- The Rural Water Supplies, Future Design Assessment report, Waugh August 2009 has been used to project the growth in demand for the rural/restricted water supplies.
- Historic Statistics New Zealand data.

- Site Specific Projections – One off studies completed by Council for specific projects.

Growth projections are converted into **units of demand** or household equivalent units. These are used to apportion the growth cost to define a **household equivalent unit contribution**. Assessing total household equivalent units involves converting non-residential land uses i.e. accommodation, into household equivalent units and adding this to the number of dwellings. This is completed using land use differentials. These differentials are described in the following section.

Land Use Differentials

Land use differentials enable all development and subdivision types (residential and non-residential) to be considered in the calculations. Non-residential activities can be described using a common unit of demand, which in this case is the household equivalent unit. Land use differentials are used to convert non-residential activities into household equivalent units.

The land use differentials are used in several different ways in the calculation of development contributions, these being:

1. **Describe growth in terms of units of demand (household equivalent units)** – Apply *factors* (land use differentials) to the existing or past property mix (i.e. residential, accommodation, industrial) to define all property activities as household equivalent units. These *factors* represent the average impact of a non-residential land use in terms of household equivalent units and vary for different activities. Once the property mix (i.e. commercial, accommodation etc) is defined in terms of household equivalent units, growth percentages can be applied to assess the total units of demand in future years.
2. **Apportioning asset capacity** – the model apportions asset capacity using the units of demand (household equivalent units) defined in point 1. above.

These apportionments include surplus capacity at the start of the analysis period, capacity consumed during the analysis period and surplus capacity remaining at the end of the analysis period.

3. **Determining the number of** household equivalent unit contributions payable at the time of subdivision or development - a non-residential subdivision or development can be converted into household equivalent units to enable a total development contribution payable to be calculated. See Part 4 for the detailed method of application.

The detailed methodologies and formulas used to develop the above land use differentials are explained in the following section for water supply, wastewater and roading.

Water Supply Land Use Differential

The water supply differentials for each land use category are designed to assess the growth impact on the water supply network for both the type (land use) and the size of a development.

The methodology calculates the household equivalent units for a typical property and then converts this to a differential for each land use. The water supply differential can be used to assess any subdivision or development.

The equation used to calculate the water supply differential consists of two specific cost components. The working charge and the network charge.

Equation 1: Water Supply Differential

$$\text{Water Supply Differential} = \text{Working Charge} + \text{Network Charge}$$

The working charge is to mitigate the effects on the water network from additional consumption. The objective here is to recognise the marginal cost of the additional development in terms of water consumption i.e. it recognises the type of land use and the size of that development.

The network charge is a fixed charge by land use category. This component of the charge is based on the additional capacity required for fire fighting.

The derivation of the separate factors, are described in the following section.

Working Charge Factor (WCF)

The methodology and the steps in the working charge factor calculation process are explained below.

Step 1: The Water Supply working charge factor (WS WCF) represents the relative water consumption of non-residential activities compared to residential activities with the same GFA. The assumptions used to calculate the working charge factor for each land use are shown in Table 21.

The total consumption figures by water use type (toilets, showering, food preparation, irrigation etc.) were provided by the Metcalf and Eddy textbook, Wastewater Engineering Treatment and Reuse, 2000.

Each water use type is apportioned across the land use categories based on their estimated consumption for the same GFA. For example a commercial area will use around 20% of the toilet water compared to a residential area of equal size using 47%.

Summing the factor of the portion of total water use and the percentage apportioned to a land use gives the percentage impact for each land use category. The impact of each land use category relative to the residential impact is the working charge factor.

Step 2: The median GFA represents a typical sized property for each land use and accounts for the size of each land use property type. The median GFA was calculated from the WDC Rates Database. The median was considered the best representation of a typical property as it reduces the impact of outlying data.

Step 3: The working charge HEU's are linked to the size of a typical property relative to a residential dwelling. This reflects the number of household equivalent units for the typical property. The formula is shown below in Equation 2.

Equation 2: Working Charge HEU's for a Typical Property

$$HEU's = WS\ WCF \times \frac{GFA_{Typical}}{Residential\ GFA}$$

Where:

WS WCF = Water Supply Working Charge Factor of each land use.

Residential GFA = Gross Floor Area of a typical residential dwelling, 120m².

GFA_{Typical} = GFA of a typical property for each land use.

The three steps are shown in Table 21.

Table 21: Water Supply Working Charge Factor Calculation Matrix

Water Use Type	Portion of Total Water Consumption	Relative Water Consumption for a GFA			
		Residential	Commercial	Industrial	Accommodation
Toilets	12%	47%	20%	5%	28%
Shower/Bathroom	10%	63%	0%	0%	37%
Food Preparation	5%	44%	25%	5%	26%
Cleaning	5%	41%	25%	10%	24%
Laundry	8%	47%	18%	8%	27%
Irrigation	20%	63%	0%	0%	37%

Water Use Type	Portion of Total Water Consumption	Relative Water Consumption for a GFA			
		Residential	Commercial	Industrial	Accommodation
Industrial	5%	0%	0%	100%	0%
Others	14%	25%	40%	20%	15%
Public Service	6%	0%	0%	0%	0%
Leakages	15%	0%	0%	0%	0%
	100%				
Percentage Impact by Land Use		36%	12%	10%	21%
Step 1. Water Supply Working Charge Factor (WS WCF)		1	0.33	0.27	0.59
Step 2. Typical Sized Property		120m ²	260m ²	220m ²	530m ²
Step 3. Working Charge for a Typical Property (HEU's)		1 per dwelling	0.72	0.50	2.60

The above apportionment of the total consumption ensures there is no double dipping. An example of double dipping is where a visitor uses local accommodation. Their total water consumption is unlikely to be fully undertaken at their place of accommodation. They are likely to also use commercial businesses and perhaps other residential properties. Similarly permanent residents go to work for a large portion of their day. Therefore an individual's total water consumption cannot be attributed to one land use category.

The above differential methodology was validated using data obtained from the WDC Water Usage Database for Oamaru. A sample of metered households and business were analysed over a two year period to calculate the estimated daily usage for each land use. The total usage over a period of time was converted to a daily usage per square meter of GFA. This figure was then used to estimate the daily usage of a median sized property.

The estimated working charge factors using this method are shown in the following table. The figures represent the usage relative to that of a residential dwelling. The estimated WCF from the water usage data compare well with the figures calculated using the working charge factor methodology.

Table 22: Water Supply Estimated Working Charge Factor

Land Use	L / m ² / day	Median Gross Floor Area	Daily Usage (L/day)	Estimated WCF of a Typical Property
Residential	8.1	120m ²	967	1.0
Commercial	2.6	260m ²	687	0.71
Industrial	2.2	220m ²	483	0.50
Accommodation	5.1	530m ²	2,680	2.77

Network Charge Factor (NCF)

The network charge component considers the charge for additional infrastructure over and above that required for consumption.

The network charge is to cover the provision for fire flows. Fire flows demand greater infrastructure capacity than that needed for consumption (working charge). The land use category and location of that land use has an effect on the infrastructure Council is required to supply for fire fighting. The detailed methodology used to calculate the Network Charge Factors is shown in Appendix B. These are summarised in the following table.

Table 23: Network Charge Factors per Property

Land Use Category	Network Charge Factor (NCF)
Residential	1.00
Commercial	2.92
Industrial	2.92
Accommodation	3.25

Impact Factors

The working charge and network charge are combined using two impact factors:

1. Working Charge Impact Factor (WCIF),
2. Network Charge Impact Factor (NCIF).

These recognise the relative infrastructure costs of the working charge (consumption) and the network charge components of the water supply infrastructure. Appendix B details the calculation of the two impact factors which are shown below:

Working Charge Impact Factor (WCIF) = 60%

Network Charge Impact Factor (NCIF) = 40%

The combination of the working and network charge factors, and the impact factors provides the final formula for calculating the number of household equivalent units for a typical property.

Equation 3 : Water Supply HEU Formula

$HEU's = [WCF \times WCIF] + [NCF \times NCIF]$

The combination of the working and network charge are summarised in the following table.

Table 24 : Total HEU of Typical Property by Land Use

Land Use Category	WCF	WCIF	NCF	NCIF	HEU's of Typical Property
Residential	1.0	60%	1.0	40%	1
Commercial	0.72	60%	2.92	40%	1.60
Industrial	0.50	60%	2.92	40%	1.47
Accommodation	2.60	60%	3.25	40%	2.86

The above figures can be converted to land use differentials based on the typical GFA. Note the water supply land use differentials are separated into the two components as only the WCF component is dependent on the size of the development.

Table 25 : Water Supply Differentials

Land Use Category	Typical GFA	Working Charge	Network Charge
Residential	120 m ²	1.0 DE per dwelling	
Commercial	260 m ²	0.17 HEU per 100m ²	1.17 HEU per property
Industrial	220 m ²	0.14 HEU per 100m ²	1.17 HEU per property
Accommodation	530 m ²	0.29 HEU per 100m ²	1.30 HEU per property

Part 4 shows how the water supply differentials can be used to assess the total household equivalent units for a non-residential subdivision or development.

Wastewater Land Use Differential

The wastewater differential does not have the same difficulties as the water supply differential. The network charge component of the water differential equation can be removed, as sewerage assets do not have the requirement for additional facilities such as fire fighting. The same working charge factor conversion method used for water supply is applied to wastewater. The wastewater working charge factor conversion is shown in Equation 4. The working charge factor of a typical property represents the impact on the wastewater network in household equivalent units. This can be converted to a differential for each land use (HEU's per 100m² of GFA).

Equation 4: Wastewater HEU for a Typical Property

$$\text{HEU's} = \text{WW WCF} \times \frac{\text{GFA}_{\text{Typical}}}{\text{Residential GFA}}$$

Where:

WW WCF = Wastewater Working Charge Factor of each land use.

Residential GFA = Gross Floor Area of a typical residential dwelling, 120m².

GFA_{Typical} = GFA of a typical property for each land use.

The assumptions used to calculate the wastewater working charge factor for each land use are shown below. Part 4 shows how the differentials can be used to assess the total HEU's for a non-residential subdivision or development.

Table 26: Wastewater Working Charge Factor Calculation Matrix

Wastewater Use Type	Portion of Wastewater Generated	Wastewater Use Type Apportionments to each Land Use			
		Residential	Commercial	Industrial	Accommodation
Toilets	16%	47%	20%	5%	28%
Shower/Bathroom	13%	63%	0%	0%	37%
Food Preparation	6%	44%	25%	5%	26%
Cleaning	6%	41%	25%	10%	24%
Laundry	9%	47%	18%	8%	27%
Irrigation	0%	63%	0%	0%	37%
Industrial	6%	0%	0%	100%	0%
Others	18%	25%	40%	20%	15%
Public Service	8%	0%	0%	0%	0%
Leakages	18%	0%	0%	0%	0%
	100%				
Percentage Impact by Land Use		30%	15%	12%	17%
1. Wastewater Working Charge Factor		1	0.51	0.41	0.59
2. Typical Sized Property		120m ²	260m ²	220m ²	530m ²
3. HEU's for a Typical Property		1.0	1.10	0.75	2.60
4. Wastewater Differential (HEU per 100m ²)		1.0 per dwelling	0.43 per 100m ²	0.34 per 100m ²	0.49 per 100m ²

Roading Land Use Differential

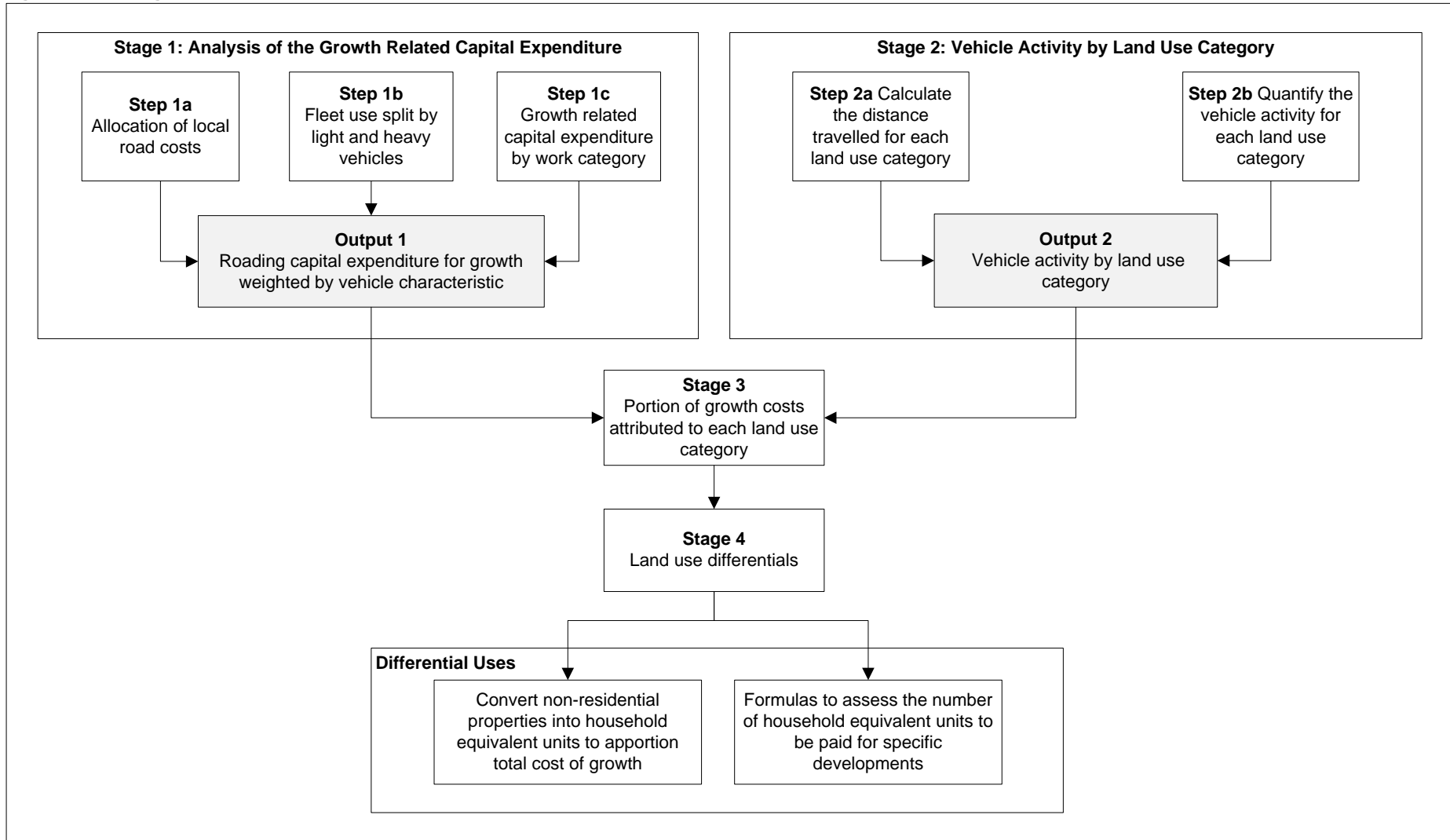
The differential model was prepared with assistance from Abley Transportation Engineers Ltd. The model is based on trip generation and therefore asset utilisation by each land use category. The land use categories considered for roading development contributions are:

- Rural Residential
- Commercial
- Industrial
- Accommodation
- Primary Industry
- Primary Industry – Dairy

Note the Primary Industry land use category is used solely to calculate the credit applicable to a land use conversion from pastoral farming to a dairy farm.

The model uses the findings of a study carried out by a working group in 2001. The group was chaired by the Ministry of Transport and included members from Transfund, Transit and the Treasury. The group reviewed the Cost Allocation Model used to determine road user charges. The results from the study are referred to as the Review of the Cost Allocation Model (RCAM). The methodology and the use of the differentials are shown in the diagram over leaf. A detailed explanation of the steps within each stage of the process is provided in the following section.

Figure 4: Roding Differential Calculation Process



Stage 1: Analysis of the Growth Related Capital Expenditure

The aim of the first stage is to identify and quantify the drivers of the growth related capital expenditure for roading.

Step 1a – Allocation of Local Road Costs

All projects within the roading capital programme can be allocated to one of the 18 RCAM work categories shown below. Each category of work is then split across specific drivers identified by RCAM, namely vehicle characteristics. The vehicle characteristics define the key drivers requiring roading capital expenditure, they are described below:

1. Power Vehicle (PV): measures the drivers imposed costs resulting from the need to provide resources for motorists themselves. These include signs, road markings and landscaping;
2. Equivalent Standard Axles (ESA): measures vehicle road wear costs resulting from the fourth power of the axle weights of vehicles;
3. Gross Vehicle Weight (GVW): measures vehicle strength imposed road costs, such as bridge strength;
4. Passenger Car Equivalent (PCE): measures the vehicles space related road costs, such as the additional road space (i.e. construction of additional traffic lanes) required to alleviate traffic congestion;
5. Residual: not all road expenditure is directly caused by a vehicle characteristic so in some cases a portion is allocated to Residual, e.g. environmental damage.

A portion of each work category can be attributed to one, some or all of the vehicle characteristics. RCAM has defined the specific proportions in each work category related to each vehicle characteristic. These are shown below.

Table 27 Allocation of Local Road Costs

RCAM Work Category	Allocation of Local Road Costs					
	PV.km	ESA.km	GVW.km	PCE.km	Residual	TOTAL
Amenity/Safety Maintenance	37%	0%	0%	0%	63%	100%
Bridge Renewals	51%	3%	27%	0%	19%	100%
Carriageway Lighting	0%	0%	0%	0%	100%	100%
Cycleway Construction	0%	0%	0%	0%	100%	100%
Maintenance Chip Seals	2%	31%	28%	0%	39%	100%
Major Drainage Control	0%	20%	0%	0%	80%	100%
Minor Safety Projects	70%	0%	0%	30%	0%	100%
New Roads and Bridges (roads)	15%	15%	0%	70%	0%	100%
Pavement Maintenance	11%	22%	2%	0%	65%	100%
Pavement Smoothing	10%	80%	0%	0%	10%	100%
Professional Services	12%	20%	7%	0%	61%	100%
Road Reconstruction	76%	24%	0%	0%	0%	100%
Seal Extension	28%	72%	0%	0%	0%	100%
Strategy Studies	36%	43%	1%	16%	4%	100%
Traffic Services	63%	0%	0%	0%	37%	100%

Step 1b – Fleet Use Split by Light and Heavy Vehicles

RCAM also considers the type of vehicle for each vehicle characteristic. The fleet can be split into light and heavy vehicles, heavy being any vehicle over 3.5 tonnes. These percentages are shown below.

Table 28: Split of Fleet by Light and Heavy Vehicles

Vehicle Characteristics	PV.km		ESA.km		GVW.km		PCE.km	
	Light	Heavy	Light	Heavy	Light	Heavy	Light	Heavy
Fleet Use	96.8%	3.2%	26.9%	73.1%	59.0%	41.0%	87.4%	12.6%

Step 1c –Growth Related Capital Expenditure by Work Category

All growth related projects are attributed to a RCAM work category. The growth CAPEX consumed is used as a weighting to define the portion attributed to each RCAM work category. The 10 year total of the growth CAPEX for each of the work categories is shown below. All non growth CAPEX and third party funding (FAR – Financial Assistance Rat) have been excluded from the calculation.

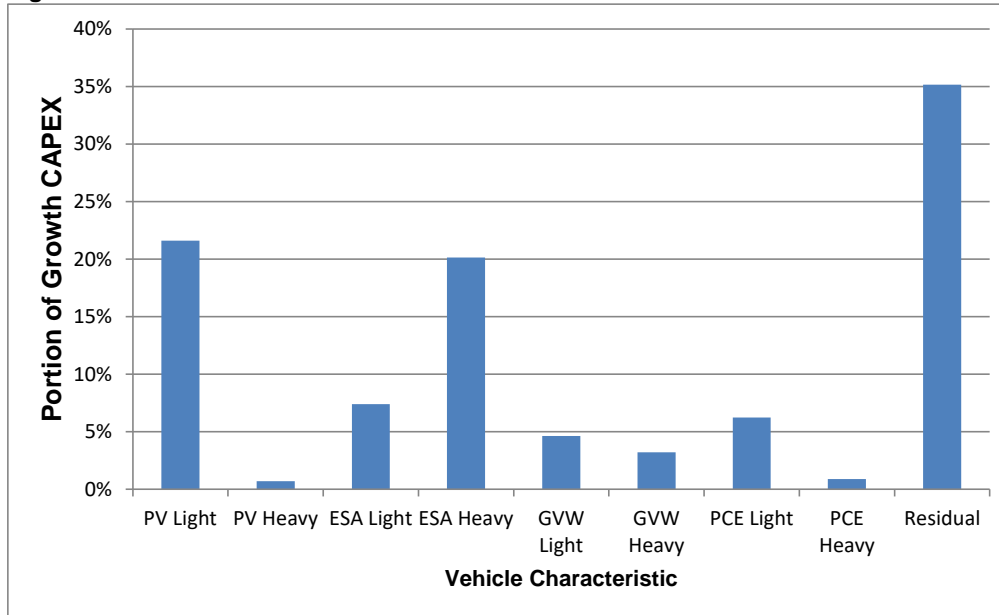
Table 29: Growth Related Capital Expenditure by Work Category

RCAM Work Category	Portion of Growth CAPEX by Work Category
Amenity/Safety Maintenance	2.9%
Bridge Renewals	5.5%
Carriageway Lighting	2.9%
Cycleway Construction	14.9%
Maintenance Chip Seals and Thin Asphalt Surfacing	22.5%
Major Drainage Control	1.5%
Minor Safety Projects	15.6%
New Roads and Bridges (roads)	3.5%
Pavement Maintenance	3.2%
Pavement Smoothing	18.3%
Professional Services	0.6%
Road Reconstruction	3.4%
Seal Extension	4.5%
Strategy Studies	0.1%
Traffic Services	0.7%
TOTAL	100%

Output 1 - Roading Capital Expenditure for Growth Weighted by Vehicle Characteristic

The above three tables can be combined to apportion the growth CAPEX to each vehicle characteristic. The percentage for each work category is then summed to provide a total for each vehicle characteristic. This total represents the portion of the growth CAPEX related to each vehicle characteristic. The result of combining steps 1a, 1b and 1c is shown in the following graph.

Figure 5: Growth CAPEX Attributed to Vehicle Characteristics



For example 21.6% of the future growth related expenditure is caused by the impact from the increase in light powered vehicles.

Stage 2: Vehicle Activity by Land Use Category

The aim of the second stage is to quantify the vehicle activity generated by each land use.

Step 2a – Calculate the Distance Travelled for each Land Use Category

Using daily vehicle trip generation rates and an average vehicle trip length,² the total vehicle kilometres travelled by each land use can be calculated. The average trip length and daily trip generation rates were provided by Abley Transportation Engineers. The property growth in each land use category and the median sized property were determined using the WDC Rates Database and the Commercial Accommodation Monitor.

Table 30: Estimation of Total Distance Travelled by Land Use

Land use	Unit of Measure	WDC 10 Year Property Growth	Daily Vehicle Trip Generation (trips /day/unit)	Typical Property	Trips per Day of a Typical Property	Average Trip Length (km)	Total Daily Distance by Land Use (km)
Residential Accommodation	Dwelling	440	5.5 trips per dwelling.	1 dwelling	5.5	8.7	21,040
Commercial	Unit or GFA m ²	9	4.8 trips per unit.	11 units	52.8	13.6	6,509
Industrial	GFA m ²	63	0.50 trips per m ² GFA.	260m ²	130.0	8.7	71,275
Primary Industry	GFA m ²	15	0.181 trips per m ² GFA.	220m ²	39.8	8.7	5,088
Primary Industry - Dairy	Hectares	1	0.1 trips/100ha + 4.9 vpd.	400ha	5.3	43.5	231
Rural Residential	Hectares	33	1.4 trips/200ha + 4.9 vpd.	200ha	6.3	43.5	9,185
	Dwelling	19	4.9 trips per dwelling.	1 dwelling	4.9	13.6	1,263

Step 2b – Quantify the Vehicle Activity for each Land Use Category

The weighting factors used to convert the daily distance travelled into vehicle characteristics are shown below. The split of the fleet into light and heavy vehicles for each land use is also shown. These factors were provided by Abley Transportation Engineers.

Table 31: Weighting Factors and Fleet Use Portions

Land use	Fleet Use		ESA factor per trip		GVW factor per trip (t)	
	% Light	% Heavy	Light	Heavy	Light	Heavy
Residential	98.8%	1.2%	0.00	1.0	1.4	25
Accommodation	99.0%	1.0%	0.02	1.0	1.4	25
Commercial	99.0%	1.0%	0.02	1.0	1.4	25
Industrial	89.3%	10.7%	0.02	1.0	1.4	25
Primary Industry	92.5%	7.5%	0.02	1.0	1.6	25
Primary Industry - Dairy	78.0%	22.0%	0.02	1.6	1.6	34
Rural Residential	98.8%	1.2%	0.00	1.0	1.4	25

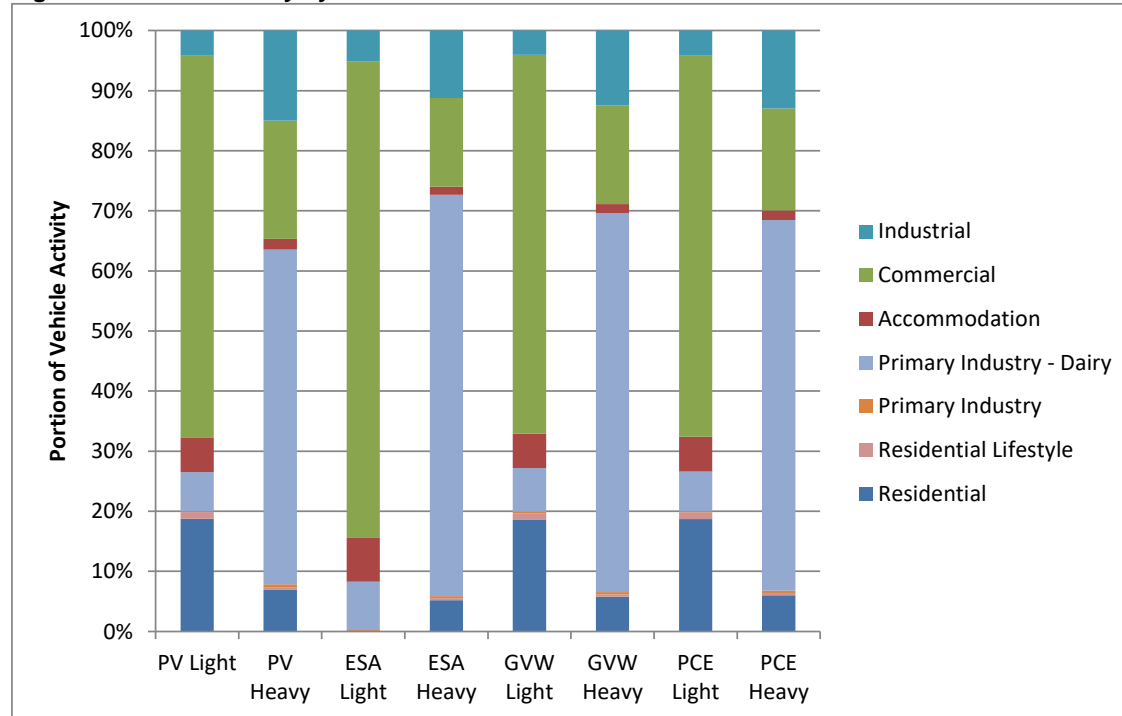
The formulas used to convert the daily distance travelled into vehicle activity are shown below:

- PV = annual kilometres x fleet use %
 ESA = annual kilometres x ESA factor x fleet use %
 GVW = annual kilometres x GVW factor x fleet use %
 PCE = 7/8 x PV.km + 1/8 x GVW.km

Output 2 - Vehicle Activity by Land Use

The combination of Table 30 and Table 31 is shown in the following graph. The percentages represent the portion of each vehicle characteristic that can be attributed to each land use. For example, 18.7% of the light powered vehicle activity is created by the residential sector.

Figure 6: Vehicle Activity by Land Use



Stage 3: Cost of Growth by Land Use

The two outputs can be combined to provide the portion of growth costs that should be funded from each land use category. The growth costs allocated to each land use category are a function of both the number of new properties and the relative vehicle impact created by a typical property. An exception to this are the residual costs, which are apportioned based on the portion of property growth in each land use category.

The results are shown in the following pie chart graph. The property growth by land use category is also shown to highlight the impact of vehicle activity considerations. For example the growth in commercial properties is less than 11% of the total property growth however the vehicle activity created by commercial growth nearly 39% of the growth costs. This is due to the high trip generation rates and heavy vehicles activity generated by a commercial development.

Figure 7: Growth Costs to be Funded by each Land Use Category

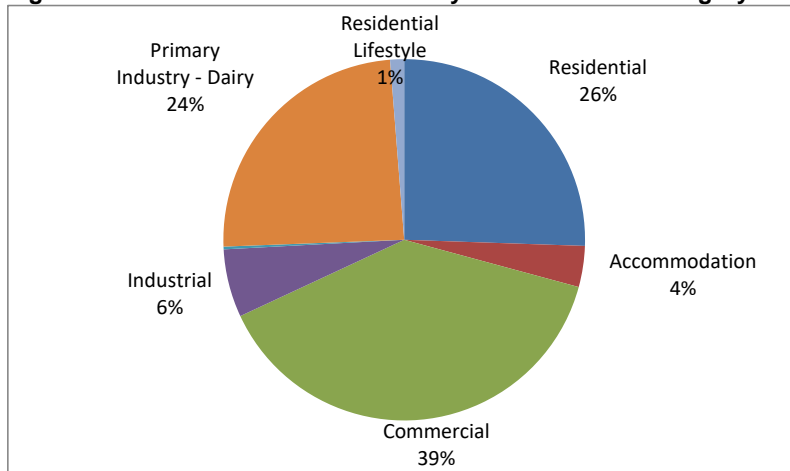
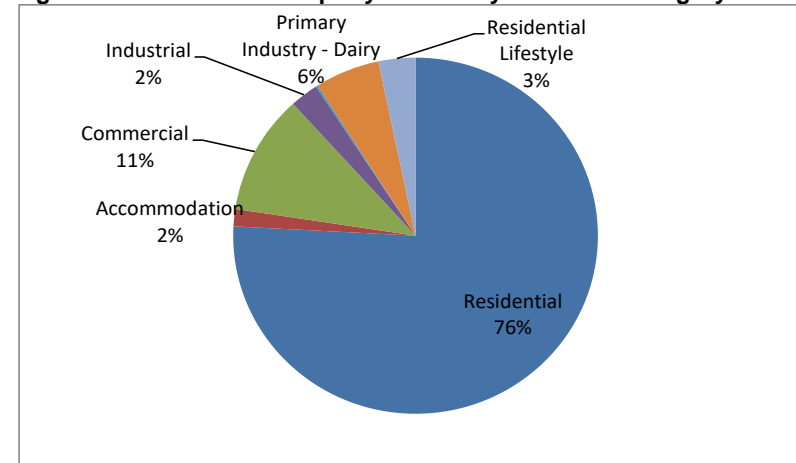


Figure 8: Total 10 Year Property Growth by Land Use Category



Stage 4: Land Use Differentials

The cost of growth for each land use category is shared over all future properties within each land use based on the projected 10 year growth. The non-residential land use categories are normalised relative to residential, assuming a residential dwelling equals 1 HEU. The normalised figures represent the impact of a typical property in household equivalent units for each land use. This can then be converted to a land use differential based on the median sized property.

Table 32: Land Use Rooding Differentials

Land Use	Portion of Growth Costs	Property Growth (2016 – 2025)	Cost of Growth per Property	HEU's of a Typical Property	Median Size Property	Differential per Unit of Measure	Unit of Measure
Residential	21.2%	440	0.05%	1.00	1 dwelling	1	per dwelling
Accommodation	3.0%	9	0.34%	6.98	11 accomm units	0.63	per accomm unit
Commercial	32.3%	63	0.51%	10.61	260m ²	4.08	per 100m ²
Industrial	5.1%	15	0.34%	7.14	220m ²	3.24	per 100m ²
Primary Industry	0.2%	1	0.20%	4.25	400ha	1.06	per 100 Ha
Primary Industry - Dairy	20.2%	33	0.61%	12.56	200ha	6.28	per 100 Ha
Rural Residential	1.0%	19	0.05%	1.14	1 dwelling	1.14	per dwelling

Note: The differential for Primary Industry - Dairy is 5.22 per 100Ha, this being the difference between Primary Industry and Primary Industry - Dairy (6.28-1.06 = 6.22).

Due to the immaterial change in the figures (less than 4%), the differentials from the 2012 Policy have been retained for the purpose of assessing contributions.

PART 4 Assessing Contributions for Subdivisions and Developments

Introduction

The primary objective of this section is to provide a means for calculating a fair development contribution for a non-residential development of any type and size. This section describes the methodology used to assess the number of household equivalent units for development or subdivision. Part 3.0 describes in detail how the differentials were derived.

Land Use Differentials Table

The following table summarises the differentials for each activity used to calculate the number of HEU's for a non-residential subdivision or development based on a standard measure of size.

Table 33: Land Use Differentials

Land Use Category	Household Equivalent Units per Measure of Size Shown		
	Water Supply ⁽ⁱ⁾	Wastewater ⁽ⁱⁱ⁾	Roading
Residential	1 HEU / dwelling	1 HEU / dwelling	1 HEU / dwelling
Rural Residential	1 HEU / dwelling	1 HEU / dwelling	1.14 HEU / dwelling
Commercial	0.17 HEU / 100m ² + 1.17 HEU /property	0.43 HEU / 100m ²	4.18 HEU / 100m ² GFA
Industrial	0.14 HEU / 100m ² + 1.17 HEU /property	0.34 HEU / 100m ²	3.34 HEU / 100m ² GFA
Accommodation	0.29 HEU / 100m ² + 1.30 HEU /property	0.49 HEU / 100m ²	0.65 HEU / accomm unit
Primary Industry - Dairy	N/A - Assumed to be rural schemes only.		5.44 HEU / 100 Ha ⁽ⁱⁱⁱ⁾

(i) These water supply differentials are only required to assess urban unrestricted schemes. Rural restricted water supply schemes are based on a development contribution per cubic meter of water.

(ii) These differentials are to be used to assess the demand on wastewater infrastructure for wastewater that does not fall within the definition of trade waste contained in the operative Waitaki District Trade Waste Bylaw applying at the time consent is granted. Development contributions payable for discharge of trade wastes will be the subject of an individual assessment.

(iii) The roading differential for Primary Industry – Dairy has already accounted for the existing pastoral use of a dairy conversion.

Additional Notes:

a) A residential dwelling is always 1 Household Equivalent Unit.

b) Gross Floor Area (GFA) is defined, as 'the sum of the gross area of the several floors of all buildings on a site, measured from the exterior faces of the exterior walls, or from the centre lines of walls separating two buildings'. For the purpose of this policy this definition of GFA, excluding car parking areas, will be used.

Development Contributions

The development contributions payable per household equivalent unit, point or per cubic metre (1,000L) of water are summarised overleaf.

Table 34 : Summary of Development Contributions

Water Supply		Wastewater	Roading
On-demand Supplies	Per HEU	Per HEU	District Wide
Kurow	\$1,730	Kakanui	\$2,837
Oamaru	\$3,956	Kurow	\$483
Omarama	\$3,476	Moeraki	\$4,248
Otematata	\$3,399	Lake Ohau	\$34
Waihemo (Palmerston)	\$3,938	Oamaru	\$2,837
		Omarama	\$2,021
Restricted Supplies	Per 1m³ of Water	Otematata	\$1,727
Awamoko	\$1,231	Palmerston	\$1,770
Dunback	\$2,188		
Duntroon	\$702		
Goodwood	\$2,188		
Hampden/Moeraki	\$2,198		
Herbert/Waianakarua	\$2,198		
Kakanui	\$2,198		
Kauru	\$1,361		
Lake Ohau	\$10,032		
Lower Waitaki	\$1,158		
Oamaru	\$2,198		
Otekaieke	\$577		
Palmerston	\$2,188		
Stoneburn	\$1,065		
Tokarahi	\$1,125		
Windsor	\$1,088		

Calculation of Household Equivalent Units

The proposed differential equation for calculating the number of household equivalent units for non-residential development or subdivision is shown below. The equation can be applied for water supply, wastewater and roading development contributions. The non-residential land use categories to be assessed using differentials are shown above in Table 33.

The calculations for water supply are required solely for the non-restricted urban schemes. For the restricted schemes the water supply development contributions

are based on the number of cubic meters of water or points required by any development, subdivision or additional connection.

The differential equation is designed to assess the growth impact on the network for both the land use type and the size of a development. The equation returns the number of household equivalent units.

Equation 5: HEU Calculation for a Non-Residential Development

$\text{Number of HEU's} = \frac{\text{Differential} \times \text{Size of the Development}}{\text{Unit of Measure}}$

Where:

- Differential** = Land Use Differential as per Table 33.
- Size of the Development** = Measured in the units shown in Table 33.
- Unit of Measure** = Unit of measure for the development, i.e. 100m², 100 Ha, accommodation unit, dwelling.

This can then be multiplied by the standard development contribution as shown in Table 34. The remissions shown in the Remissions section will also be considered.

Assessment of Unknown Size

If the Gross Floor Area (GFA) is unknown, which may be the case at the subdivision and land use consent stage, then the following table should be used to estimate the GFA.

Table 35: Gross Floor Area (GFA) Estimates

Category	Building Coverage	No. of Floors
Residential	Assume one dwelling per lot	
Rural Residential	Assume one dwelling per lot	
Accommodation	45%	2
Commercial	75%	1
Industrial	75%	1

When an estimate of the GFA is used in the development contribution assessment (usually at subdivision consent) then Council will only charge 75% of the calculated contribution at this stage.

A family flat or ‘granny flat’ means self-contained living accommodation, whether contained within a residential unit or located separately to a residential unit on the same site, which is occupied by a family member who is dependent in some way on the household living in the residence.

Example 1. A residential subdivision - Creation of a new residential section in Kurow.

Activity	Unit of Measure	Differential Equation	No. of HEU's	Remission	DC / HEU	Development Contribution
Water HEU's	per dwelling	= 1 x 1 =	1.00	0.0	\$1,730	\$1,730
Wastewater HEU's	per dwelling	= 1 x 1 =	1.00	0.0	\$483	\$483
Roading HEU's	per dwelling	= 1 x 1 =	1.00	0.5	\$968	\$484
Total Development Contributions						\$2,697

Example 2. A commercial development - Creation of a commercial building in Oamaru with a gross floor area of 200m².

Activity	Unit of Measure	Differential Equation	No. of HEU's	Remission	DC / HEU	Development Contribution
Water HEU's	per 100m ² GFA	= 0.17 x 200m ² / 100m ² + 1.17 / property =	1.51	0.0	\$3,956	\$5,974
Wastewater HEU's	per 100m ² GFA	= 0.43 x 200m ² / 100m ² =	0.86	0.0	\$2,837	\$2,440
Roading HEU's	per 100m ² GFA	= 4.18 x 200m ² / 100m ² =	8.36	0.0	\$968	\$8,092
Total Development Contributions						\$16,506

Self-contained living accommodation means having its own kitchen and bathroom facilities, including an oven or stove and a toilet.

Development contributions payable for family flats are as follows:

Gross Floor Area (GFA) equal or less than 60m² = ½ x HEU

Gross Floor Area (GFA) greater than 60m² = 1 x HEU

Examples

Fictional example calculations are shown overleaf. These demonstrate how the differential equation can be applied to calculate the development contributions for a subdivision or development. They also show how water supply contributions are calculated for the restricted water schemes.

Example 3. Increased volume of water to an existing consumer - A property in Stoneburn requires an additional 10 points of water per day. A point of water in Stoneburn equals 1,000L or 1.0m³.

Activity	Unit of Measure	No. of Points	No. of m ³	Remission	DC / m ³	Development Contribution
Water HEU's	per point of water	10	10	0.0	\$1,065	\$10,650
Wastewater HEU's	n/a			0.0		n/a
Roading HEU's	n/a			0.0		n/a
Total Development Contributions						\$10,650

Example 4. A dairy farm development - An existing pastoral piece of land in Tokarahi is being converted to a 150 hectare dairy farm. The farm requires 15 points of water per day. A point of water in Tokarahi equals 1,800L or 1.8m³.

Activity	Unit of Measure	No. of Points	No. of m ³	Remission	DC / m ³	Development Contribution
Water HEU's	per point of water	15	27	0.0	\$1,125	\$30,375
Wastewater HEU's	n/a			0.0		n/a
		Differential Equation	No. of HEU's		DC / HEU	Development Contribution
Roading HEU's	per 100 Hectares	= 5.44 x 150 Ha / 100 Ha =	8.16	0.0	\$968	\$7,899
Total Development Contributions						\$38,274

APPENDICES

Appendices A – Disclosure Tables

Water Supply

Table 36: Water Supply Capital Expenditure for Development Contributions (Excluding GST) by Work Type

Water Supply Contributing Area	Capital Cost					Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs/ Cubic Meter of Water Appportioning Growth Cost 2015-2024	Contribution Per Cubic Meter of Water / Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)	Percentage Attributable to Growth					
WATER SUPPLY - Awamoko										
Reticulation	0	0	0	0	0%	684	0	684	40	17
Pump Stations	0	0	0	0	0%	9,105	0	9,105	40	227
Intakes	0	0	0	0	0%	0	0	0	40	0
Storage	0	0	0	0	0%	0	0	0	40	0
Consents	0	0	0	0	0%	0	0	0	40	0
Conveyance	0	0	0	0	0%	0	0	0	40	0
Treatment Facilities	390,000	419,974	97,500	292,500	25%	952	28,729	29,681	40	739
Forward Design	0	0	0	0	0%	0	0	0	40	0
Flow Metering	0	0	0	0	0%	0	0	0	40	0
Asset Management Systems	3,000	3,894	0	3,000	0%	0	0	0	40	0
New Scheme	0	0	0	0	0%	0	0	0	40	0
Renewals/Upgrades	0	0	0	0	0%	9,522	0	9,522	40	237
Unspecified Expenditure	0	0	0	0	0%	438	0	438	40	11
Total Water Supply - Awamoko	393,000	423,868	97,500	295,500	25%	20,702	28,729	49,431	40	1,231
WATER SUPPLY - Duntroon										
Reticulation	0	0	0	0	0%	48	0	48	67	1
Pump Stations	0	0	0	0	0%	0	0	0	67	0
Intakes	0	0	0	0	0%	759	0	759	67	11
Storage	0	0	0	0	0%	0	0	0	67	0
Consents	0	0	0	0	0%	0	0	0	67	0
Conveyance	0	0	0	0	0%	0	0	0	67	0
Treatment Facilities	0	0	0	0	0%	45,453	0	45,453	67	676

Water Supply Contributing Area	Capital Cost					Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs/ Cubic Meter of Water Apportioning Growth Cost 2015-2024	Contribution Per Cubic Meter of Water / Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)	Percentage Attributable to Growth					
Forward Design	0	0	0	0	0%	0	0	0	67	0
Flow Metering	0	0	0	0	0%	0	0	0	67	0
Asset Management Systems	6,000	7,658	0	6,000	0%	0	0	0	67	0
New Scheme	0	0	0	0	0%	0	0	0	67	0
Renewals/Upgrades	0	0	0	0	0%	968	0	968	67	14
Unspecified Expenditure	0	0	0	0	0%	0	0	0	67	0
Total Water Supply - Duntroon	6,000	7,658	0	6,000	0%	47,227	0	47,227	67	702
WATER SUPPLY - Kauru										
Reticulation	0	0	0	0	0%	3,839	0	3,839	31	125
Pump Stations	0	0	0	0	0%	578	0	578	31	19
Intakes	0	0	0	0	0%	13,881	0	13,881	31	454
Storage	0	0	0	0	0%	814	0	814	31	27
Consents	30,000	30,000	0	30,000	0%	0	0	0	31	0
Conveyance	0	0	0	0	0%	0	0	0	31	0
Treatment Facilities	280,000	301,520	84,000	196,000	30%	997	20,243	21,240	31	694
Forward Design	0	0	0	0	0%	0	0	0	31	0
Flow Metering	0	0	0	0	0%	0	0	0	31	0
Asset Management Systems	3,000	3,894	0	3,000	0%	0	0	0	31	0
New Scheme	0	0	0	0	0%	0	0	0	31	0
Renewals/Upgrades	0	0	0	0	0%	1,260	0	1,260	31	41
Unspecified Expenditure	0	0	0	0	0%	38	0	38	31	1
Total Water Supply - Kauru	313,000	335,414	84,000	229,000	27%	21,407	20,243	41,651	31	1,361
WATER SUPPLY - Kurow										
Reticulation	200,000	211,358	0	200,000	0%	5,461	0	5,461	18	300
Pump Stations	0	0	0	0	0%	650	0	650	18	36
Intakes	0	0	0	0	0%	4,828	0	4,828	18	265
Storage	0	0	0	0	0%	0	0	0	18	0
Consents	0	0	0	0	0%	0	0	0	18	0
Conveyance	0	0	0	0	0%	0	0	0	18	0
Treatment Facilities	0	0	0	0	0%	11,023	0	11,023	18	606

Water Supply Contributing Area	Capital Cost					Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs/ Cubic Meter of Water Apportioning Growth Cost 2015-2024	Contribution Per Cubic Meter of Water / Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)	Percentage Attributable to Growth					
Forward Design	0	0	0	0	0%	0	0	0	18	0
Flow Metering	0	0	0	0	0%	0	0	0	18	0
Asset Management Systems	6,000	7,125	0	6,000	0%	0	0	0	18	0
New Scheme	0	0	0	0	0%	0	0	0	18	0
Renewals/Upgrades	0	0	0	0	0%	9,513	0	9,513	18	523
Unspecified Expenditure	0	0	0	0	0%	0	0	0	18	0
Total Water Supply - Kurow	206,000	218,482	0	206,000	0%	31,475	0	31,475	18	1,730
WATER SUPPLY - Lower Waitaki										
Reticulation	0	0	0	0	0%	4,431	0	4,431	80	56
Pump Stations	0	0	0	0	0%	0	0	0	80	0
Intakes	150,000	202,140	150,000	0	100%	440	18,194	18,634	80	234
Storage	0	0	0	0	0%	0	0	0	80	0
Consents	0	0	0	0	0%	0	0	0	80	0
Conveyance	0	0	0	0	0%	0	0	0	80	0
Treatment Facilities	0	0	0	0	0%	67,164	0	67,164	80	845
Forward Design	0	0	0	0	0%	0	0	0	80	0
Flow Metering	0	0	0	0	0%	0	0	0	80	0
Asset Management Systems	6,000	6,851	0	6,000	0%	0	0	0	80	0
New Scheme	0	0	0	0	0%	0	0	0	80	0
Renewals/Upgrades	0	0	0	0	0%	1,440	0	1,440	80	18
Unspecified Expenditure	0	0	0	0	0%	410	0	410	80	5
Total Water Supply - Lower Waitaki	156,000	208,990	150,000	6,000	96%	73,885	18,194	92,079	80	1,158
WATER SUPPLY - Ohau										
Reticulation	0	0	0	0	0%	180	0	180	7	24
Pump Stations	0	0	0	0	0%	0	0	0	7	0
Intakes	0	0	0	0	0%	422	0	422	7	57
Storage	0	0	0	0	0%	0	0	0	7	0
Consents	0	0	0	0	0%	481	0	481	7	65
Conveyance	0	0	0	0	0%	0	0	0	7	0
Treatment Facilities	0	0	0	0	0%	72,590	0	72,590	7	9,748

Water Supply Contributing Area	Capital Cost					Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs/ Cubic Meter of Water Apportioning Growth Cost 2015-2024	Contribution Per Cubic Meter of Water / Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)	Percentage Attributable to Growth					
Forward Design	0	0	0	0	0%	0	0	0	7	0
Flow Metering	0	0	0	0	0%	0	0	0	7	0
Asset Management Systems	6,000	7,658	0	6,000	0%	1,034	0	1,034	7	139
New Scheme	0	0	0	0	0%	0	0	0	7	0
Renewals/Upgrades	0	0	0	0	0%	0	0	0	7	0
Unspecified Expenditure	0	0	0	0	0%	0	0	0	7	0
Total Water Supply - Ohau	6,000	7,658	0	6,000	0%	74,707	0	74,707	7	10,032
WATER SUPPLY - Omarama										
Reticulation	0	0	0	0	0%	7,663	0	7,663	15	523
Pump Stations	0	0	0	0	0%	0	0	0	15	0
Intakes	0	0	0	0	0%	0	0	0	15	0
Storage	0	0	0	0	0%	0	0	0	15	0
Consents	0	0	0	0	0%	0	0	0	15	0
Conveyance	0	0	0	0	0%	0	0	0	15	0
Treatment Facilities	0	0	0	0	0%	20,891	0	20,891	15	1,425
Forward Design	0	0	0	0	0%	0	0	0	15	0
Flow Metering	0	0	0	0	0%	0	0	0	15	0
Asset Management Systems	6,000	7,658	0	6,000	0%	0	0	0	15	0
New Scheme	0	0	0	0	0%	0	0	0	15	0
Renewals/Upgrades	0	0	0	0	0%	22,389	0	22,389	15	1,528
Unspecified Expenditure	0	0	0	0	0%	0	0	0	15	0
Total Water Supply - Omarama	6,000	7,658	0	6,000	0%	50,944	0	50,944	15	3,476
WATER SUPPLY - Otekaieke										
Reticulation	0	0	0	0	0%	0	0	0	13	0
Pump Stations	0	0	0	0	0%	0	0	0	13	0
Intakes	0	0	0	0	0%	0	0	0	13	0
Storage	0	0	0	0	0%	0	0	0	13	0
Consents	0	0	0	0	0%	880	0	880	13	69
Conveyance	0	0	0	0	0%	0	0	0	13	0
Treatment Facilities	90,000	96,917	18,000	72,000	20%	53	5,933	5,986	13	468

Water Supply Contributing Area	Capital Cost					Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs/ Cubic Meter of Water Apportioning Growth Cost 2015-2024	Contribution Per Cubic Meter of Water / Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)	Percentage Attributable to Growth					
Forward Design	0	0	0	0	0%	0	0	0	13	0
Flow Metering	0	0	0	0	0%	0	0	0	13	0
Asset Management Systems	3,000	3,894	0	3,000	0%	0	0	0	13	0
New Scheme	0	0	0	0	0%	0	0	0	13	0
Renewals/Upgrades	0	0	0	0	0%	517	0	517	13	40
Unspecified Expenditure	0	0	0	0	0%	0	0	0	13	0
Total Water Supply - Otekaieke	93,000	100,811	18,000	75,000	19%	1,450	5,933	7,383	13	577
WATER SUPPLY - Otematata										
Reticulation	0	0	0	0	0%	3,151	0	3,151	22	144
Pump Stations	0	0	0	0	0%	0	0	0	22	0
Intakes	0	0	0	0	0%	804	0	804	22	37
Storage	0	0	0	0	0%	0	0	0	22	0
Consents	0	0	0	0	0%	276	0	276	22	13
Conveyance	0	0	0	0	0%	0	0	0	22	0
Treatment Facilities	0	0	0	0	0%	63,990	0	63,990	22	2,922
Forward Design	0	0	0	0	0%	0	0	0	22	0
Flow Metering	0	0	0	0	0%	0	0	0	22	0
Asset Management Systems	6,000	7,658	0	6,000	0%	0	0	0	22	0
New Scheme	0	0	0	0	0%	0	0	0	22	0
Renewals/Upgrades	0	0	0	0	0%	6,221	0	6,221	22	284
Unspecified Expenditure	0	0	0	0	0%	0	0	0	22	0
Total Water Supply - Otematata	6,000	7,658	0	6,000	0%	74,443	0	74,443	22	3,399
WATER SUPPLY - Stoneburn										
Reticulation	0	0	0	0	0%	8,576	0	8,576	25	346
Pump Stations	0	0	0	0	0%	982	0	982	25	40
Intakes	0	0	0	0	0%	0	0	0	25	0
Storage	0	0	0	0	0%	0	0	0	25	0
Consents	30,000	31,102	0	30,000	0%	0	0	0	25	0
Conveyance	0	0	0	0	0%	0	0	0	25	0
Treatment Facilities	230,000	247,677	92,000	138,000	40%	332	15,964	16,297	25	658

Water Supply Contributing Area	Capital Cost					Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs/ Cubic Meter of Water Apportioning Growth Cost 2015-2024	Contribution Per Cubic Meter of Water / Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)	Percentage Attributable to Growth					
Forward Design	0	0	0	0	0%	0	0	0	25	0
Flow Metering	0	0	0	0	0%	0	0	0	25	0
Asset Management Systems	0	0	0	0	0%	0	0	0	25	0
New Scheme	0	0	0	0	0%	0	0	0	25	0
Renewals/Upgrades	3,000	3,894	0	3,000	0%	481	0	481	25	19
Unspecified Expenditure	0	0	0	0	0%	34	0	34	25	1
Total Water Supply - Stoneburn	263,000	282,673	92,000	171,000	35%	10,406	15,964	26,370	25	1,065
WATER SUPPLY - Tokarahi										
Reticulation	0	0	0	0	0%	53,793	0	53,793	93	580
Pump Stations	0	0	0	0	0%	2,048	0	2,048	93	22
Intakes	0	0	0	0	0%	1,352	0	1,352	93	15
Storage	0	0	0	0	0%	1,914	0	1,914	93	21
Consents	0	0	0	0	0%	0	0	0	93	0
Conveyance	0	0	0	0	0%	0	0	0	93	0
Treatment Facilities	270,000	290,751	108,000	162,000	40%	43	15,740	15,783	93	170
Forward Design	0	0	0	0	0%	0	0	0	93	0
Flow Metering	0	0	0	0	0%	0	0	0	93	0
Asset Management Systems	3,000	3,894	0	3,000	0%	85	0	85	93	1
New Scheme	0	0	0	0	0%	0	0	0	93	0
Renewals/Upgrades	0	0	0	0	0%	29,275	0	29,275	93	316
Unspecified Expenditure	0	0	0	0	0%	152	0	152	93	2
Total Water Supply - Tokarahi	273,000	294,646	108,000	165,000	40%	88,663	15,740	104,402	93	1,125
WATER SUPPLY - Windsor										
Reticulation	0	0	0	0	0%	0	0	0	30	0
Pump Stations	0	0	0	0	0%	933	0	933	30	31
Intakes	0	0	0	0	0%	0	0	0	30	0
Storage	0	0	0	0	0%	0	0	0	30	0
Consents	30,000	30,000	6,066	23,934	20%	0	3,780	3,780	30	126
Conveyance	0	0	0	0	0%	0	0	0	30	0
Treatment Facilities	273,000	294,646	67,500	205,500	25%	0	26,638	26,638	30	888

Water Supply Contributing Area	Capital Cost					Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs/ Cubic Meter of Water Apportioning Growth Cost 2015-2024	Contribution Per Cubic Meter of Water / Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)	Percentage Attributable to Growth					
Forward Design	0	0	0	0	0%	0	0	0	30	0
Flow Metering	0	0	0	0	0%	0	0	0	30	0
Asset Management Systems	0	0	0	0	0%	0	0	0	30	0
New Scheme	0	0	0	0	0%	0	0	0	30	0
Renewals/Upgrades	0	0	0	0	0%	1,252	0	1,252	30	42
Unspecified Expenditure	0	0	0	0	0%	46	0	46	30	2
Total Water Supply - Windsor	303,000	324,646	73,566	229,434	24%	2,231	30,418	32,650	30	1,088
WATER SUPPLY - Greater Oamaru										
Reticulation	0	0	0	0	0%	113,638	0	113,638	543	209
Pump Stations	0	0	0	0	0%	24,494	0	24,494	543	45
Intakes	100,000	103,672	50,000	50,000	50%	5,374	22,458	27,831	543	51
Storage	0	0	0	0	0%	5,678	0	5,678	543	10
Consents	0	0	0	0	0%	0	0	0	543	0
Conveyance	5,200,000	5,200,000	1,300,000	3,900,000	25%	0	478,012	478,012	543	880
Treatment Facilities	610,000	644,842	610,000	0	100%	1,229,347	133,028	1,362,375	543	2,508
Forward Design	0	0	0	0	0%	0	0	0	543	0
Flow Metering	0	0	0	0	0%	0	0	0	543	0
Asset Management Systems	0	0	0	0	0%	924	0	924	543	2
New Scheme	0	0	0	0	0%	0	0	0	543	0
Renewals/Upgrades	11,372,000	13,296,323	0	11,372,000	0%	128,707	0	128,707	543	237
Unspecified Expenditure	0	0	0	0	0%	7,114	0	7,114	543	13
Total Water Supply - Greater Oamaru	17,282,000	19,244,837	1,960,000	15,322,000	11%	1,515,276	633,497	2,148,773	543	3,956
WATER SUPPLY - Waihemo										
Reticulation	100,000	113,749	0	100,000	0%	69,410	0	69,410	57	1,219
Pump Stations	0	0	0	0	0%	1,157	0	1,157	57	20
Intakes	0	0	0	0	0%	0	0	0	57	0
Storage	0	0	0	0	0%	0	0	0	57	0
Consents	0	0	0	0	0%	3,112	0	3,112	57	55
Conveyance	0	0	0	0	0%	0	0	0	57	0
Treatment Facilities	0	0	0	0	0%	144,039	0	144,039	57	2,530

Water Supply Contributing Area	Capital Cost					Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs/ Cubic Meter of Water Appportioning Growth Cost 2015-2024	Contribution Per Cubic Meter of Water / Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)	Percentage Attributable to Growth					
Forward Design	0	0	0	0	0%	0	0	0	57	0
Flow Metering	0	0	0	0	0%	0	0	0	57	0
Asset Management Systems	6,000	7,125	0	6,000	0%	2,348	0	2,348	57	41
New Scheme	0	0	0	0	0%	0	0	0	57	0
Renewals/Upgrades	0	0	0	0	0%	4,017	0	4,017	57	71
Unspecified Expenditure	0	0	0	0	0%	128	0	128	57	2
Total Water Supply - Waihemo	106,000	120,874	0	106,000	0%	224,210	0	224,210	57	3,938
District Totals	19,412,000	21,585,875	2,583,066	16,828,934	13%	2,237,025	768,719	3,005,744		

Table 37: Water Supply – Debt Funding Ratio – 10 Year Net Growth Cost versus Revenue Assessment

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Cubic Meters of Water / HEUs 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	Cumulative Contributions Received (2015/16 \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
Awamoko										
Existing Debt									0	
2015	0	0	0	0	4	4,762	4,762	4,762	-4,762	0%
2016	0	0	0	0	4	4,801	4,978	9,563	-9,563	0%
2017	390,000	419,974	97,500	97,500	4	4,841	5,213	14,404	83,096	85%
2018	0	0	0	97,500	4	4,881	5,440	19,285	78,215	80%
2019	0	0	0	97,500	4	4,921	5,678	24,207	73,293	75%
2020	0	0	0	97,500	4	4,962	5,945	29,169	68,331	70%
2021	0	0	0	97,500	4	5,003	6,238	34,172	63,328	65%
2022	3,000	3,894	0	97,500	4	5,044	6,548	39,216	58,284	60%
2023	0	0	0	97,500	4	5,086	6,854	44,303	53,197	55%
2024	0	0	0	97,500	4	5,128	7,175	49,431	48,069	49%
	393,000	423,868	97,500	97,500	40	49,431	58,830			68%
Duntroon										
Existing Debt									0	
2015	0	0	0	0	6	4,020	4,020	4,020	-4,020	0%
2016	0	0	0	0	6	4,162	4,315	8,182	-8,182	0%
2017	0	0	0	0	6	4,309	4,640	12,491	-12,491	0%
2018	0	0	0	0	6	4,461	4,972	16,953	-16,953	0%
2019	3,000	3,461	0	0	7	4,619	5,329	21,571	-21,571	0%
2020	0	0	0	0	7	4,782	5,729	26,353	-26,353	0%
2021	0	0	0	0	7	4,950	6,172	31,303	-31,303	0%
2022	0	0	0	0	7	5,125	6,653	36,428	-36,428	0%
2023	0	0	0	0	8	5,306	7,150	41,734	-41,734	0%
2024	3,000	4,197	0	0	8	5,493	7,685	47,227	-47,227	0%
	6,000	7,658	0	0	67	47,227	56,665			0%
Kauru										
Existing Debt									0	
2015	30,000	30,000	0	0	3	4,012	4,012	4,012	-4,012	0%
2016	0	0	0	0	3	4,046	4,194	8,058	-8,058	0%
2017	280,000	301,520	84,000	84,000	3	4,079	4,393	12,137	71,863	86%
2018	0	0	0	84,000	3	4,113	4,583	16,250	67,750	81%

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Cubic Meters of Water / HEUs 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	Cumulative Contributions Received (2015/16 \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
2019	0	0	0	84,000	3	4,147	4,784	20,396	63,604	76%
2020	0	0	0	84,000	3	4,181	5,009	24,577	59,423	71%
2021	0	0	0	84,000	3	4,216	5,256	28,793	55,207	66%
2022	3,000	3,894	0	84,000	3	4,251	5,517	33,044	50,956	61%
2023	0	0	0	84,000	3	4,286	5,775	37,329	46,671	56%
2024	0	0	0	84,000	3	4,321	6,046	41,651	42,349	50%
	313,000	335,414	84,000	84,000	31	41,651	49,570			68%
Kurow										
Existing Debt									6,870	
2015	0	0	0	0	2	3,939	3,939	3,939	2,931	43%
2016	100,000	103,672	0	0	1	1,719	1,782	5,658	1,212	18%
2017	103,000	110,916	0	0	1	1,749	1,884	7,407	-537	-8%
2018	0	0	0	0	1	1,780	1,983	9,187	-2,317	-34%
2019	0	0	0	0	1	1,811	2,089	10,997	-4,127	-60%
2020	0	0	0	0	1	1,842	2,207	12,839	-5,969	-87%
2021	0	0	0	0	3	4,581	5,712	17,420	-10,551	-154%
2022	3,000	3,894	0	0	3	4,633	6,013	22,053	-15,183	-221%
2023	0	0	0	0	3	4,684	6,313	26,738	-19,868	-289%
2024	0	0	0	0	3	4,737	6,627	31,475	-24,605	-358%
	206,000	218,482	0	0	18	31,475	38,549			0%
Lower Waitaki										
Existing Debt									58,863	
2015	0	0	0	0	8	8,839	8,839	8,839	50,024	85%
2016	3,000	3,110	0	0	8	8,919	9,247	17,759	41,104	70%
2017	0	0	0	0	8	9,000	9,692	26,759	32,104	55%
2018	0	0	0	0	8	9,081	10,121	35,840	23,023	39%
2019	0	0	0	0	8	9,164	10,572	45,004	13,859	24%
2020	0	0	0	0	8	9,246	11,078	54,250	4,613	8%
2021	3,000	3,740	0	0	8	9,330	11,633	63,580	-4,717	-8%
2022	0	0	0	0	8	9,414	12,220	72,994	-14,131	-24%
2023	150,000	202,140	150,000	150,000	8	9,500	12,802	82,494	126,369	61%
2024	0	0	0	150,000	8	9,585	13,411	92,079	116,784	56%
	156,000	208,990	150,000	150,000	80	92,079	109,614			56%

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Cubic Meters of Water / HEUs 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	Cumulative Contributions Received (2015/16 \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
Ohau										
Existing Debt									100,000	
2015	0	0	0	0	1	7,471	7,471	7,471	92,529	93%
2016	0	0	0	0	1	7,471	7,745	14,941	85,059	85%
2017	0	0	0	0	1	7,471	8,045	22,412	77,588	78%
2018	0	0	0	0	1	7,471	8,326	29,883	70,117	70%
2019	3,000	3,461	0	0	1	7,471	8,619	37,354	62,646	63%
2020	0	0	0	0	1	7,471	8,951	44,824	55,176	55%
2021	0	0	0	0	1	7,471	9,314	52,295	47,705	48%
2022	0	0	0	0	1	7,471	9,697	59,766	40,234	40%
2023	0	0	0	0	1	7,471	10,068	67,237	32,763	33%
2024	3,000	4,197	0	0	1	7,471	10,452	74,707	25,293	25%
	6,000	7,658	0	0	7	74,707	88,688			67%
Omarama										
Existing Debt									25,641	
2015	0	0	0	0	2	7,501	7,501	7,501	18,140	71%
2016	0	0	0	0	1	1,788	1,854	9,289	16,352	64%
2017	0	0	0	0	1	1,815	1,955	11,104	14,537	57%
2018	0	0	0	0	1	1,843	2,053	12,947	12,694	50%
2019	3,000	3,461	0	0	1	1,871	2,158	14,817	10,824	42%
2020	0	0	0	0	1	1,899	2,275	16,716	8,925	35%
2021	0	0	0	0	2	8,430	10,511	25,147	494	2%
2022	0	0	0	0	2	8,514	11,052	33,661	-8,020	-31%
2023	0	0	0	0	2	8,599	11,588	42,259	-16,619	-65%
2024	3,000	4,197	0	0	2	8,684	12,150	50,944	-25,303	-99%
	6,000	7,658	0	0	15	50,944	63,096			5%
Otekaieke										
Existing Debt									0	
2015	0	0	0	0	1	716	716	716	-716	0%
2016	0	0	0	0	1	721	748	1,438	-1,438	0%
2017	90,000	96,917	18,000	18,000	1	726	782	2,164	15,836	88%
2018	0	0	0	18,000	1	731	814	2,894	15,106	84%
2019	0	0	0	18,000	1	736	849	3,630	14,370	80%

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Cubic Meters of Water / HEUs 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	Cumulative Contributions Received (2015/16 \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
2020	0	0	0	18,000	1	741	887	4,371	13,629	76%
2021	0	0	0	18,000	1	746	930	5,116	12,884	72%
2022	3,000	3,894	0	18,000	1	750	974	5,867	12,133	67%
2023	0	0	0	18,000	1	755	1,018	6,622	11,378	63%
2024	0	0	0	18,000	1	761	1,064	7,383	10,617	59%
	93,000	100,811	18,000	18,000	13	7,383	8,782			73%
Otematata										
Existing Debt									57,162	
2015	0	0	0	0	5	17,086	17,086	17,086	40,076	70%
2016	0	0	0	0	3	10,428	10,811	27,514	29,648	52%
2017	0	0	0	0	3	10,513	11,321	38,027	19,135	33%
2018	0	0	0	0	3	10,600	11,812	48,627	8,535	15%
2019	3,000	3,461	0	0	3	10,687	12,330	59,314	-2,152	-4%
2020	0	0	0	0	3	10,775	12,910	70,089	-12,927	-23%
2021	0	0	0	0	0	1,069	1,333	71,158	-13,996	-24%
2022	0	0	0	0	0	1,082	1,404	72,239	-15,077	-26%
2023	0	0	0	0	0	1,095	1,475	73,334	-16,172	-28%
2024	3,000	4,197	0	0	0	1,108	1,550	74,443	-17,281	-30%
	6,000	7,658	0	0	22	74,443	82,033			18%
Stoneburn										
Existing Debt				0						
2015	0	0	0	0	2	2,547	2,547	2,547	-2,547	0%
2016	30,000	31,102	0	0	2	2,567	2,661	5,114	-5,114	0%
2017	230,000	247,677	92,000	92,000	2	2,586	2,785	7,700	84,300	92%
2018	0	0	0	92,000	2	2,606	2,905	10,306	81,694	89%
2019	0	0	0	92,000	2	2,626	3,030	12,933	79,067	86%
2020	0	0	0	92,000	2	2,646	3,171	15,579	76,421	83%
2021	0	0	0	92,000	3	2,667	3,325	18,246	73,754	80%
2022	3,000	3,894	0	92,000	3	2,687	3,488	20,933	71,067	77%
2023	0	0	0	92,000	3	2,708	3,649	23,641	68,359	74%
2024	0	0	0	92,000	3	2,729	3,818	26,370	65,630	71%
	263,000	282,673	92,000	92,000	25	26,370	31,379			81%

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Cubic Meters of Water / HEUs 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	Cumulative Contributions Received (2015/16 \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
Tokarahi										
Existing Debt										
2015	0	0	0	0	9	10,065	10,065	10,065	-10,065	0%
2016	0	0	0	0	9	10,147	10,519	20,212	-20,212	0%
2017	270,000	290,751	108,000	108,000	9	10,229	11,015	30,441	77,559	72%
2018	0	0	0	108,000	9	10,312	11,492	40,753	67,247	62%
2019	0	0	0	108,000	9	10,395	11,993	51,148	56,852	53%
2020	0	0	0	108,000	9	10,480	12,556	61,628	46,372	43%
2021	0	0	0	108,000	9	10,565	13,172	72,193	35,807	33%
2022	3,000	3,894	0	108,000	9	10,650	13,824	82,843	25,157	23%
2023	0	0	0	108,000	10	10,736	14,468	93,579	14,421	13%
2024	0	0	0	108,000	10	10,823	15,143	104,402	3,598	3%
	273,000	294,646	108,000	108,000	93	104,402	124,248			47%
Windsor										
Existing Debt										
2015	30,000	30,000	6,066	6,066	3	3,265	3,265	3,265	2,801	49%
2016	0	0	0	6,066	3	3,265	3,385	6,649	-583	-3%
2017	270,000	290,751	67,500	73,566	3	3,265	3,516	10,166	63,400	87%
2018	0	0	0	73,566	3	3,265	3,639	13,805	59,761	83%
2019	0	0	0	73,566	3	3,265	3,767	17,572	55,994	78%
2020	0	0	0	73,566	3	3,265	3,912	21,483	52,083	74%
2021	0	0	0	73,566	3	3,265	4,071	25,554	48,012	69%
2022	3,000	3,894	0	73,566	3	3,265	4,237	29,791	43,775	65%
2023	0	0	0	73,566	3	3,265	4,400	34,191	39,375	60%
2024	0	0	0	73,566	3	3,265	4,568	38,759	34,807	56%
	303,000	324,646	73,566	73,566	30	32,649	38,759			73%
Greater Oamaru										
Existing Debt										
2015	7,435,000	7,435,000	1,300,000	1,300,000	74	308,226	308,226	308,226	1,444,802	82%
2016	1,400,000	1,451,409	350,000	1,650,000	50	194,461	201,602	502,686	1,600,342	76%
2017	1,310,000	1,410,683	310,000	1,960,000	50	196,383	211,476	699,069	1,713,959	71%
2018	1,005,000	1,120,004	0	1,960,000	51	198,329	221,024	897,398	1,515,630	63%
2019	1,000,000	1,153,715	0	1,960,000	51	200,300	231,089	1,097,698	1,315,330	55%

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Cubic Meters of Water / HEUs 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	Cumulative Contributions Received (2015/16 \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
2020	1,000,000	1,198,121	0	1,960,000	52	202,295	242,374	1,299,993	1,113,035	46%
2021	1,000,000	1,246,798	0	1,960,000	53	209,195	260,823	1,509,187	903,841	37%
2022	1,000,000	1,298,036	0	1,960,000	54	211,179	274,118	1,720,366	692,662	29%
2023	1,005,000	1,354,337	0	1,960,000	54	213,187	287,291	1,933,554	479,474	20%
2024	1,127,000	1,576,734	0	1,960,000	55	215,220	301,104	2,148,773	264,255	11%
	17,282,000	19,244,837	1,960,000	1,960,000	543	2,148,773	2,539,126			59%
Waihemo										
Existing Debt									531,486	
2015	0	0	0	0	4	14,125	14,125	14,125	517,361	97%
2016	0	0	0	0	6	22,197	23,012	36,322	495,164	93%
2017	53,000	57,073	0	0	6	22,473	24,201	58,795	472,691	89%
2018	0	0	0	0	6	22,755	25,359	81,550	449,936	85%
2019	0	0	0	0	6	23,042	26,584	104,592	426,894	80%
2020	50,000	59,906	0	0	6	23,334	27,957	127,926	403,560	76%
2021	0	0	0	0	6	23,654	29,492	151,580	379,906	71%
2022	3,000	3,894	0	0	6	23,929	31,060	175,509	355,977	67%
2023	0	0	0	0	6	24,208	32,623	199,717	331,769	62%
2024	0	0	0	0	6	24,493	34,266	224,210	307,276	58%
	106,000	120,874	0	0	57	224,210	268,679			80%
	19,412,000	21,585,875	2,583,066		1,318	3,005,743	3,558,018			

Wastewater**Table 38: Wastewater Capital Expenditure for Development Contributions (excluding GST) by Work Type**

Wastewater Contributing Area	Capital Cost				Percentage Attributable to Growth	Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs Apportioning Growth Cost 2015-2024	Contribution Per Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)						
WASTEWATER - Kurow										
Reticulation	0	0	0	0	0.0%	0	0	0	14	0
Pump Stations	0	0	0	0	0.0%	0	0	0	14	0
Intakes	0	0	0	0	0.0%	0	0	0	14	0
Storage	0	0	0	0	0.0%	408	0	408	14	29
Consents	0	0	0	0	0.0%	6,389	0	6,389	14	454
Conveyance	0	0	0	0	0.0%	0	0	0	14	0
Treatment Facilities	0	0	0	0	0.0%	0	0	0	14	0
Forward Design	0	0	0	0	0.0%	0	0	0	14	0
Flow Metering	0	0	0	0	0.0%	0	0	0	14	0
Asset Management Systems	0	0	0	0	0.0%	0	0	0	14	0
Renewals/Upgrades	0	0	0	0	0.0%	0	0	0	14	0
Unspecified Expenditure	0	0	0	0	0.0%	0	0	0	14	0
Total Wastewater - Kurow	0	0	0	0	0.0%	6,797	0	6,797	14	483
WASTEWATER - Moeraki										
Reticulation	50,000	51,836	0	50,000	0.0%	891	0	891	15	58
Pump Stations	0	0	0	0	0.0%	53	0	53	15	3
Storage	0	0	0	0	0.0%	0	0	0	15	0
Consents	0	0	0	0	0.0%	5,166	0	5,166	15	335
Conveyance	0	0	0	0	0.0%	7,609	0	7,609	15	493
Treatment Facilities	0	0	0	0	0.0%	34,448	0	34,448	15	2,232
Forward Design	0	0	0	0	0.0%	0	0	0	15	0
Flow Metering	0	0	0	0	0.0%	0	0	0	15	0
Asset Management Systems	60,000	76,583	0	60,000	0.0%	0	0	0	15	0
New Scheme	0	0	0	0	0.0%	15,000	0	15,000	15	972
Renewals/Upgrades	0	0	0	0	0.0%	2,376	0	2,376	15	154
Unspecified Expenditure	0	0	0	0	0.0%	0	0	0	15	0
Total Wastewater - Moeraki	110,000	128,419	0	110,000	0.0%	65,543	0	65,543	15	4,248

Wastewater Contributing Area	Capital Cost				Percentage Attributable to Growth	Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs Apportioning Growth Cost 2015-2024	Contribution Per Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)						
WASTEWATER - Ohau										
Reticulation	0	0	0	0	0.0%	0	0	0	13	0
Pump Stations	0	0	0	0	0.0%	0	0	0	13	0
Intakes	0	0	0	0	0.0%	0	0	0	13	0
Storage	0	0	0	0	0.0%	0	0	0	13	0
Consents	0	0	0	0	0.0%	431	0	431	13	34
Conveyance	0	0	0	0	0.0%	0	0	0	13	0
Treatment Facilities	0	0	0	0	0.0%	0	0	0	13	0
Forward Design	0	0	0	0	0.0%	0	0	0	13	0
Flow Metering	0	0	0	0	0.0%	0	0	0	13	0
Asset Management Systems	0	0	0	0	0.0%	0	0	0	13	0
New Scheme	0	0	0	0	0.0%	0	0	0	13	0
Renewals/Upgrades	0	0	0	0	0.0%	0	0	0	13	0
Unspecified Expenditure	0	0	0	0	0.0%	0	0	0	13	0
Total Wastewater - Ohau	0	0	0	0	0.0%	431	0	431	13	34
WASTEWATER - Omarama										
Reticulation	0	0	0	0	0.0%	1,393	0	1,393	13	103
Pump Stations	0	0	0	0	0.0%	651	0	651	13	48
Intakes	0	0	0	0	0.0%	0	0	0	13	0
Storage	30,000	31,102	0	30,000	0.0%	0	0	0	13	0
Consents	0	0	0	0	0.0%	10,109	0	10,109	13	751
Conveyance	0	0	0	0	0.0%	0	0	0	13	0
Treatment Facilities	250,000	273,911	35,039	214,961	14.0%	0	13,543	13,543	13	1,005
Forward Design	0	0	0	0	0.0%	0	0	0	13	0
Flow Metering	0	0	0	0	0.0%	0	0	0	13	0
Asset Management Systems	0	0	0	0	0.0%	1,527	0	1,527	13	113
Renewals/Upgrades	0	0	0	0	0.0%	0	0	0	13	0
Unspecified Expenditure	0	0	0	0	0.0%	0	0	0	13	0
Total Wastewater - Omarama	280,000	305,013	35,039	244,961	12.5%	13,680	13,543	27,223	13	2,021

Wastewater Contributing Area	Capital Cost				Percentage Attributable to Growth	Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs Apportioning Growth Cost 2015-2024	Contribution Per Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)						
WASTEWATER - Otematata										
Reticulation	0	0	0	0	0.0%	0	0	0	21	0
Pump Stations	0	0	0	0	0.0%	0	0	0	21	0
Intakes	0	0	0	0	0.0%	0	0	0	21	0
Storage	0	0	0	0	0.0%	0	0	0	21	0
Consents	0	0	0	0	0.0%	4,764	0	4,764	21	224
Conveyance	0	0	0	0	0.0%	0	0	0	21	0
Treatment Facilities	100,000	100,000	0	100,000	0.0%	31,935	0	31,935	21	1,503
Forward Design	0	0	0	0	0.0%	0	0	0	21	0
Flow Metering	0	0	0	0	0.0%	0	0	0	21	0
Asset Management Systems	0	0	0	0	0.0%	0	0	0	21	0
New Scheme	0	0	0	0	0.0%	0	0	0	21	0
Renewals/Upgrades	0	0	0	0	0.0%	0	0	0	21	0
Unspecified Expenditure	0	0	0	0	0.0%	0	0	0	21	0
Total Wastewater- Otematata	100,000	100,000	0	100,000	0.0%	36,698	0	36,698	21	1,727
WASTEWATER - Palmerston										
Reticulation	0	0	0	0	0.0%	0	0	0	21	0
Pump Stations	0	0	0	0	0.0%	11,830	0	11,830	21	561
Intakes	0	0	0	0	0.0%	0	0	0	21	0
Storage	0	0	0	0	0.0%	2,121	0	2,121	21	101
Consents	0	0	0	0	0.0%	7,863	0	7,863	21	373
Conveyance	0	0	0	0	0.0%	0	0	0	21	0
Treatment Facilities	0	0	0	0	0.0%	14,204	0	14,204	21	674
Forward Design	0	0	0	0	0.0%	0	0	0	21	0
Flow Metering	0	0	0	0	0.0%	0	0	0	21	0
Asset Management Systems	0	0	0	0	0.0%	0	0	0	21	0
New Scheme	0	0	0	0	0.0%	0	0	0	21	0
Renewals/Upgrades	225,000	242,293	1,845	223,155	0.8%	380	900	1,280	21	61
Unspecified Expenditure	0	0	0	0	0.0%	0	0	0	21	0
Total Wastewater - Palmerston	225,000	242,293	1,845	223,155	0.8%	36,398	900	37,298	21	1,770

Wastewater Contributing Area	Capital Cost				Percentage Attributable to Growth	Historic Expenditure Growth Cost (Capacity) Consumed 2015-2024	Future Expenditure Growth Cost (Capacity) Consumed 2015-2024	TOTAL Expenditure Growth Cost (Capacity) Consumed 2015-2024	Weighted Average No. of HEUs Apportioning Growth Cost 2015-2024	Contribution Per Household Equivalent Unit (\$)
	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Funded by Other Sources (2015/16 \$)						
WASTEWATER - Oamaru and Kakanui										
Reticulation	3,200,000	3,902,931	0	3,200,000	0.0%	58,372	0	58,372	226	258
Pump Stations	0	0	0	0	0.0%	184,619	0	184,619	226	817
Intakes	0	0	0	0	0.0%	0	0	0	226	0
Storage	0	0	0	0	0.0%	4,373	0	4,373	226	19
Consents	0	0	0	0	0.0%	3,371	0	3,371	226	15
Conveyance	0	0	0	0	0.0%	0	0	0	226	0
Treatment Facilities	1,650,000	1,789,368	550,000	1,100,000	33.3%	290,569	83,515	374,084	226	1,655
Forward Design	0	0	0	0	0.0%	0	0	0	226	0
Flow Metering	0	0	0	0	0.0%	0	0	0	226	0
Asset Management Systems	0	0	0	0	0.0%	0	0	0	226	0
New Scheme	0	0	0	0	0.0%	0	0	0	226	0
Renewals/Upgrades	0	0	0	0	0.0%	4,280	0	4,280	226	19
Unspecified Expenditure	0	0	0	0	0.0%	12,316	0	12,316	226	54
Total Wastewater - Oamaru	4,850,000	5,692,299	550,000	4,300,000	11.3%	557,900	83,515	641,415	226	2,837
										0
District Totals	5,565,000	6,468,024	586,883	4,978,117	0	717,447	97,958	815,405	324	

Table 39: Wastewater – Debt Funding Ratio – 10 Year Net Growth Cost versus Revenue Assessment

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Household Equivalent Units 2015- 2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	Cumulative Contributions Received (2015/16 \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
Kurow										
Existing Debt									0	
2015	0	0	0	0	2	878	878	878	-878	0%
2016	0	0	0	0	1	330	342	1,207	-1,207	0%
2017	0	0	0	0	1	336	362	1,543	-1,543	0%
2018	0	0	0	0	1	342	381	1,885	-1,885	0%
2019	0	0	0	0	1	348	401	2,233	-2,233	0%
2020	0	0	0	0	1	354	424	2,587	-2,587	0%
2021	0	0	0	0	2	1,036	1,291	3,623	-3,623	0%
2022	0	0	0	0	2	1,047	1,359	4,670	-4,670	0%
2023	0	0	0	0	2	1,058	1,426	5,728	-5,728	0%
2024	0	0	0	0	2	1,069	1,496	6,797	-6,797	0%
	0	0	0		14	6,797	8,360			0%
Moeraki										
Existing Debt									0	
2015	0	0	0	0	2	9,532	9,532	9,532	-9,532	0%
2016	50,000	51,836	0	0	1	6,074	6,297	15,605	-15,605	0%
2017	0	0	0	0	1	6,145	6,618	21,751	-21,751	0%
2018	0	0	0	0	1	6,218	6,929	27,969	-27,969	0%
2019	30,000	34,611	0	0	1	6,291	7,258	34,260	-34,260	0%
2020	0	0	0	0	1	6,365	7,627	40,625	-40,625	0%
2021	0	0	0	0	1	6,127	7,640	46,752	-46,752	0%
2022	0	0	0	0	1	6,195	8,041	52,947	-52,947	0%
2023	0	0	0	0	1	6,263	8,440	59,211	-59,211	0%
2024	30,000	41,972	0	0	1	6,333	8,860	65,543	-65,543	0%
	110,000	128,419	0		15	65,543	77,241			0%

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Household Equivalent Units 2015- 2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	Cumulative Contributions Received (2015/16 \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
Ohau										
Existing Debt									0	
2015	0	0	0	0	1	42	42	42	-42	0%
2016	0	0	0	0	1	44	45	86	-86	0%
2017	0	0	0	0	1	44	47	129	-129	0%
2018	0	0	0	0	1	44	49	173	-173	0%
2019	0	0	0	0	1	44	51	217	-217	0%
2020	0	0	0	0	1	44	52	261	-261	0%
2021	0	0	0	0	1	43	53	303	-303	0%
2022	0	0	0	0	1	43	55	346	-346	0%
2023	0	0	0	0	1	43	57	388	-388	0%
2024	0	0	0	0	1	43	60	431	-431	0%
	0	0	0		13	431	511			0%
Omarama										
Existing Debt									0	
2015	0	0	0	0	2	4,075	4,075	4,075	-4,075	0%
2016	30,000	31,102	0	0	0	881	913	4,956	-4,956	0%
2017	125,000	134,607	17,313	17,313	0	895	964	5,851	11,463	66%
2018	125,000	139,304	17,725	35,039	0	909	1,014	6,760	28,278	81%
2019	0	0	0	35,039	0	924	1,066	7,684	27,354	78%
2020	0	0	0	35,039	0	939	1,125	8,623	26,415	75%
2021	0	0	0	35,039	2	4,581	5,711	13,204	21,834	62%
2022	0	0	0	35,039	2	4,627	6,005	17,831	17,208	49%
2023	0	0	0	35,039	2	4,673	6,297	22,504	12,535	36%
2024	0	0	0	35,039	2	4,720	6,603	27,223	7,815	22%
	280,000	305,013	35,039		13	27,223	33,774			62%
Otematata										
Existing Debt									0	
2015	100,000	100,000	0	0	5	8,593	8,593	8,593	-8,593	0%
2016	0	0	0	0	3	5,182	5,372	13,775	-13,775	0%
2017	0	0	0	0	3	5,223	5,625	18,998	-18,998	0%

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Household Equivalent Units 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	Cumulative Contributions Received (2015/16 \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
2018	0	0	0	0	3	5,265	5,867	24,263	-24,263	0%
2019	0	0	0	0	3	5,307	6,123	29,570	-29,570	0%
2020	0	0	0	0	3	5,350	6,410	34,920	-34,920	0%
2021	0	0	0	0	0	437	545	35,357	-35,357	0%
2022	0	0	0	0	0	442	574	35,799	-35,799	0%
2023	0	0	0	0	0	447	602	36,246	-36,246	0%
2024	0	0	0	0	0	452	633	36,698	-36,698	0%
	100,000	100,000	0		21	36,698	40,343			0%
Palmerston										
Existing Debt									0	
2015	0	0	0	0	1	1,932	1,932	1,932	-1,932	0%
2016	0	0	0	0	2	3,748	3,885	5,680	-5,680	0%
2017	225,000	242,293	1,845	1,845	2	3,790	4,081	9,470	-7,625	-413%
2018	0	0	0	1,845	2	3,833	4,271	13,303	-11,458	-621%
2019	0	0	0	1,845	2	3,877	4,473	17,179	-15,335	-831%
2020	0	0	0	1,845	2	3,921	4,698	21,100	-19,256	-1044%
2021	0	0	0	1,845	2	3,987	4,971	25,088	-23,243	-1260%
2022	0	0	0	1,845	2	4,028	5,229	29,116	-27,271	-1478%
2023	0	0	0	1,845	2	4,070	5,485	33,186	-31,341	-1699%
2024	0	0	0	1,845	2	4,112	5,753	37,298	-35,453	-1922%
	225,000	242,293	1,845		21	37,298	44,779			0%
Greater Oamaru										
Existing Debt									0	
2015	300,000	300,000	0	0	45	130,112	130,112	130,112	-130,112	0%
2016	700,000	725,705	0	0	18	52,965	54,910	183,077	-183,077	0%
2017	700,000	753,800	0	0	18	53,299	57,395	236,375	-236,375	0%
2018	250,000	278,608	50,000	50,000	19	53,636	59,774	290,012	-240,012	-480%
2019	900,000	1,038,343	500,000	550,000	19	53,978	62,276	343,990	206,010	37%
2020	400,000	479,249	0	550,000	19	54,325	65,087	398,315	151,685	28%
2021	400,000	498,719	0	550,000	22	60,251	75,121	458,566	91,434	17%

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Household Equivalent Units 2015- 2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	Cumulative Contributions Received (2015/16 \$)	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
2022	400,000	519,214	0	550,000	22	60,598	78,659	519,164	30,836	6%
2023	400,000	539,040	0	550,000	22	60,948	82,134	580,113	-30,113	-5%
2024	400,000	559,622	0	550,000	22	61,302	85,765	641,415	-91,415	-17%
	4,850,000	5,692,299	550,000		226	641,415	751,233			0%
District Totals	5,565,000	6,468,024	586,883		324	815,405	956,240			

Roading

Table 40: Roading - Capital Expenditure for Development Contributions (Excluding GST) by Project Type

Project Type	Capital Cost			Growth Funded (2015/16 \$)	Funded by Other Sources (2015/16 \$'s)	Growth Portion	Historic Expenditure Growth Cost (Capacity) Consumed (2015-2024)	Future Expenditure Growth Cost (Capacity) Consumed (2015-2024)	TOTAL Expenditure Growth Cost (Capacity) Consumed (2015-2024)	Weighted Average No. of HEU's Apportioning Growth Cost 2015-2024	Development Contributions Per Household Equivalent Unit (2015/16 \$)
	2015-24 Total Capital (2015/16 \$)	2015-24 Total Capital Cost (Adj \$)	2015-24 Total Capital Net Cost to Council (2015/16 \$)								
Alma & Richards Road	0	0	0	0	0	-	891	0	891	1,646	0.54
Beach Road Realignment	0	0	0	0	0	-	0	0	0	1,646	0.00
Bridges	0	0	0	0	0	-	11,753	0	11,753	1,646	7.14
Bridges - 59% Subsidy	0	0	0	0	0	-	3,831	0	3,831	1,646	2.33
Bridges - 60% Subsidy	0	0	0	0	0	-	7,693	0	7,693	1,646	4.67
Bridges - 69% Subsidy	0	0	0	0	0	-	4,419	0	4,419	1,646	2.68
Bridges - Bowalley 57% Subsidy	0	0	0	0	0	-	1,332	0	1,332	1,646	0.81
Bridges - Breakneck Rd 57% Subsidy	0	0	0	0	0	-	15	0	15	1,646	0.01
Bridges - Humber Street 57% Subsidy	0	0	0	0	0	-	47	0	47	1,646	0.03
Bridges - Lake Ohau #s 95 & 96 - 57% Subsidy	0	0	0	0	0	-	3,165	0	3,165	1,646	1.92
Bridges - Ngapara 57% Subsidy	0	0	0	0	0	-	80	0	80	1,646	0.05
Car Parks - Steward Street	0	0	0	0	0	-	356	0	356	1,646	0.22
Corbett Road	0	0	0	0	0	-	1,592	0	1,592	1,646	0.97
Drainage	0	0	0	0	0	-	256	0	256	1,646	0.16
Historic Precinct Roading	0	0	0	0	0	-	1,832	0	1,832	1,646	1.11
Humber Street Carpark	0	0	0	0	0	-	0	0	0	1,646	0.00
Lakes Centre Carpark Development	0	0	0	0	0	-	10,177	0	10,177	1,646	6.18
Oamaru Town Centre	0	0	0	0	0	-	2,714	0	2,714	1,646	1.65
Omarama Footpaths Upgrade	0	0	0	0	0	-	677	0	677	1,646	0.41
Omarama Walway SH8	0	0	0	0	0	-	159	0	159	1,646	0.10
Palmerston K&C	0	0	0	0	0	-	982	0	982	1,646	0.60
Papakaio Rd on old Railway	0	0	0	0	0	-	12,021	0	12,021	1,646	7.30
Pavement Basecourse - 55192	0	0	0	0	0	-	87,675	0	87,675	1,646	53.25
Pavement Rehabilitation - 55192	0	0	0	0	0	-	11,070	0	11,070	1,646	6.72
Pavement Surfacing	0	0	0	0	0	-	9,976	0	9,976	1,646	6.06
Pavement Unsealed	0	0	0	0	0	-	2,011	0	2,011	1,646	1.22
Renewals - District	0	0	0	0	0	-	356	0	356	1,646	0.22
Promotion Signage	0	0	0	0	0	-	4,969	0	4,969	1,646	3.02
Renewals - Oamaru Footpaths	0	0	0	0	0	-	241	0	241	1,646	0.15
Reservoir Rd Street Light	0	0	0	0	0	-	1,669	0	1,669	1,646	1.01
Reservoir Road Footpath	0	0	0	0	0	-	158	0	158	1,646	0.10
Richmond Road Culvert	0	0	0	0	0	-	31,783	0	31,783	1,646	19.30
Rural Seal Extension	0	0	0	0	0	-	14,003	0	14,003	1,646	8.51
Seal Widening	0	0	0	0	0	-	394	0	394	1,646	0.24
Severn St Retaining Wall 57% Subsidy	0	0	0	0	0	-	0	0	0	1,646	0.00
Signs	0	0	0	0	0	-	0	0	0	1,646	0.00

Project Type	2015-24 Total Capital (2015/16 \$)	2015-24 Total Capital Cost (Adj \$)	Capital Cost 2015-24 Total Capital Net Cost to Council (2015/16 \$)	Growth Funded (2015/16 \$)	Funded by Other Sources (2015/16 \$'s)	Growth Portion	Historic Expenditure Growth Cost (Capacity) Consumed (2015-2024)	Future Expenditure Growth Cost (Capacity) Consumed (2015-2024)	TOTAL Expenditure Growth Cost (Capacity) Consumed (2015-2024)	Weighted Average No. of HEU's Apportioning Growth Cost 2015-2024	Development Contributions Per Household Equivalent Unit (2015/16 \$)
Signs & Railings	0	0	0	0	0	-	555	0	555	1,646	0.34
Street Lighting	0	0	0	0	0	-	8,802	0	8,802	1,646	5.35
Stuart Street cul de sac	0	0	0	0	0	-	28	0	28	1,646	0.02
Surface Water Channels	0	0	0	0	0	-	129	0	129	1,646	0.08
Traffic Safety Minor	0	0	0	0	0	-	885	0	885	1,646	0.54
Tyne Street Carpark	0	0	0	0	0	-	1,185	0	1,185	1,646	0.72
Urban Seal Extension	0	0	0	0	0	-	15,499	0	15,499	1,646	9.41
Wansbeck Street Extension	0	0	0	0	0	-	5,961	0	5,961	1,646	3.62
Weston K&C	0	0	0	0	0	-	356	0	356	1,646	0.22
Weston K&C/Lighting	0	0	0	0	0	-	405	0	405	1,646	0.25
Capital Project - Access to Moeraki	0	0	0	0	0	-	2,387	0	2,387	1,646	1.45
Capital Project - Avon St Retaining Wall	0	0	0	0	0	-	442	0	442	1,646	0.27
Capital Project - Lake Centre Carpark Development	0	0	0	0	0	-	931	0	931	1,646	0.57
Capital Project - Oamaru Amenity Works -Reservoir Rd	0	0	0	0	0	-	1,560	0	1,560	1,646	0.95
Capital - Seal Widening & Seal Extensions	0	0	0	0	0	-	527	0	527	1,646	0.32
Capital Improvements - NZTA Engineering Fees	0	0	0	0	0	-	60	0	60	1,646	0.04
Capital Project - Land Purchases	0	0	0	0	0	-	1,277	0	1,277	1,646	0.78
Capital Project - North End Business Park	0	0	0	0	0	-	0	0	0	1,646	0.00
Capital Project - Oamaru Campervan Dump Station	0	0	0	0	0	-	1,014	0	1,014	1,646	0.62
Capital Project - Disaster Fund Work	0	0	0	0	0	-	11,217	0	11,217	1,646	6.81
Capital Project - Duntroon Amenity Works	16,611	19,303	16,611	878	15,733	5.3%	46	256	302	1,646	0.18
Capital Project - Hampden Amenity Works	110,738	128,687	110,738	5,854	104,885	5.3%	307	1,705	2,012	1,646	1.22
Capital Project - Harbourside Development	0	0	0	0	0	-	35,250	0	35,250	1,646	21.41
Capital Project - Herbert Amenity Works	16,611	19,303	16,611	878	15,733	5.3%	46	256	302	1,646	0.18
Capital Project - Kakanui Amenity Works	55,369	64,343	55,369	2,927	52,442	5.3%	154	853	1,006	1,646	0.61
Capital Project - Kurow Amenity Works	194,899	226,489	194,899	10,302	184,597	5.3%	541	3,001	3,542	1,646	2.15
Capital Project - Maheno Amenity Works	16,611	19,303	16,611	878	15,733	5.3%	46	256	302	1,646	0.18
Capital Project - Moeraki Amenity Works	55,369	64,343	55,369	2,927	52,442	5.3%	347	853	1,200	1,646	0.73
Capital Project - Oamaru Town Centre Upgrade	400,000	464,832	400,000	6,263	393,737	1.6%	1,767	1,824	3,591	1,646	2.18

Project Type	2015-24 Total Capital (2015/16 \$)	2015-24 Total Capital Cost (Adj \$)	Capital Cost 2015-24 Total Capital Net Cost to Council (2015/16 \$)	Growth Funded (2015/16 \$)	Funded by Other Sources (2015/16 \$'s)	Growth Portion	Historic Expenditure Growth Cost (Capacity) Consumed (2015-2024)	Future Expenditure Growth Cost (Capacity) Consumed (2015-2024)	TOTAL Expenditure Growth Cost (Capacity) Consumed (2015-2024)	Weighted Average No. of HEU's Apportioning Growth Cost 2015-2024	Development Contributions Per Household Equivalent Unit (2015/16 \$)
Capital Project - Ohau Amenity Works	33,221	38,606	33,221	1,756	31,465	5.3%	92	512	604	1,646	0.37
Capital Project - Omarama Amenity Works	121,812	141,555	121,812	6,439	115,373	5.3%	1,712	1,876	3,588	1,646	2.18
Capital Project - Otematata Amenity Works	110,738	128,687	110,738	5,854	104,885	5.3%	593	1,705	2,298	1,646	1.40
Capital Project - Palmerston Amenity Works	332,215	386,060	332,215	17,561	314,654	5.3%	8,942	5,115	14,057	1,646	8.54
Capital Project - Reservoir Road	0	0	0	0	0	-	3,253	0	3,253	1,646	1.98
Capital Project - Seal Extensions	0	0	0	0	0	-	20,698	0	20,698	1,646	12.57
Capital Project - Shag Point Amenity Works	16,611	19,303	16,611	878	15,733	5.3%	46	256	302	1,646	0.18
Capital Project - Weston Amenity Works	177,181	205,899	177,181	9,366	167,815	5.3%	491	2,728	3,220	1,646	1.96
Capital Project - Traffic Safety - Minor Unallocated	0	0	0	0	0	-	4,326	0	4,326	1,646	2.63
Maintenance and Operation of Local Roads	0	0	0	0	0	-	0	0	0	1,646	0.00
New and Improved Infrastructure for Local Roads	9,343,345	11,021,582	4,190,416	306,795	3,883,621	7.3%	244,697	178,789	423,486	1,646	257.22
Programme business case development	112,840	117,040	47,464	1,079	46,385	2.3%	0	971	971	1,646	0.59
Resilience improvements	3,649,782	3,814,931	1,529,027	11,835	1,517,193	0.8%	8,770	9,641	18,411	1,646	11.18
Renewals - Bowalley Bridge	0	0	0	0	0	-	588	0	588	1,646	0.36
Renewals - Breakneck Rd Bridge	0	0	0	0	0	-	1,996	0	1,996	1,646	1.21
Renewals - Bridges	0	0	0	0	0	-	21	0	21	1,646	0.01
Renewals - Carparks	213,390	247,976	213,390	11,280	202,110	5.3%	1,296	3,286	4,581	1,646	2.78
Renewals - Coal Pit Road Realignment	0	0	0	0	0	-	14,125	0	14,125	1,646	8.58
Renewals - Drainage	0	0	0	0	0	-	1,543	0	1,543	1,646	0.94
Renewals - Footpaths District Wide	4,408,490	5,107,690	4,408,490	228,317	4,180,173	5.2%	45,746	130,842	176,588	1,646	107.26
Renewals - Humber Street Bridge	0	0	0	0	0	-	836	0	836	1,646	0.51
Renewals - Kakanui Bridge	0	0	0	0	0	-	743	0	743	1,646	0.45
Renewals - Lake Ohau Bridge	0	0	0	0	0	-	5,360	0	5,360	1,646	3.26
Renewals - Nenthom Diggings Bridge	0	0	0	0	0	-	75	0	75	1,646	0.05
Renewals - Ngarapa Bridge	0	0	0	0	0	-	556	0	556	1,646	0.34
Renewals - NZTA Eng Fees	0	0	0	0	0	-	3,131	0	3,131	1,646	1.90
Renewals - Oamaru Litter Bins	86,975	91,082	86,975	7,828	79,147	9.0%	1,030	3,498	4,528	1,646	2.75
Renewals - Pavement Rehabilitation	0	0	0	0	0	-	40,871	0	40,871	1,646	24.82
Renewals - Resurfacing	0	0	0	0	0	-	31,156	0	31,156	1,646	18.92
Renewals - Signpost/Rails	0	0	0	0	0	-	2,054	0	2,054	1,646	1.25

Project Type	2015-24 Total Capital (2015/16 \$)	2015-24 Total Capital Cost (Adj \$)	Capital Cost 2015-24 Total Capital Net Cost to Council (2015/16 \$)	Growth Funded (2015/16 \$)	Funded by Other Sources (2015/16 \$'s)	Growth Portion	Historic Expenditure Growth Cost (Capacity) Consumed (2015-2024)	Future Expenditure Growth Cost (Capacity) Consumed (2015-2024)	TOTAL Expenditure Growth Cost (Capacity) Consumed (2015-2024)	Weighted Average No. of HEU's Apportioning Growth Cost 2015-2024	Development Contributions Per Household Equivalent Unit (2015/16 \$)
Renewals - Slaughter Yard Bridge	0	0	0	0	0	-	1,450	0	1,450	1,646	0.88
Renewals - Street Lighting	0	0	0	0	0	-	2,623	0	2,623	1,646	1.59
Renewals - Traffic Safety- Minor Unallocated	0	0	0	0	0	-	3,406	0	3,406	1,646	2.07
Renewals - Unsealed Road Metalling	0	0	0	0	0	-	6,023	0	6,023	1,646	3.66
Renewals - Waianakarua Road Realignment	0	0	0	0	0	-	1,654	0	1,654	1,646	1.00
Renewals of Local Roads	42,694,517	51,087,089	19,194,377	1,222,120	17,972,256	6.4%	60,918	372,671	433,589	1,646	263.35
Renewals- Severn Street Retaining Wall	0	0	0	0	0	-	27,747	0	27,747	1,646	16.85
Transport Planning	657,050	787,308	295,948	6,726	289,222	2.3%	400	3,818	4,218	1,646	2.56
Walking and Cycling Facilities	478,644	581,322	0	0	0	-	0	0	0	1,646	0.00
DISTRICT TOTAL	63,303,018	74,782,732	31,624,073	1,868,738	29,755,335	5.9%	868,986	724,711	1,593,697	1,646	967.98

Table 41: Roading – Debt Funding Ratio – 10 Year Net Growth Cost versus Revenue Assessment

Year	2015-2024 Total Capital Cost (2015/16 \$)	2015-2024 Total Capital Cost (Adj \$)	Growth Funded Portion (2015/16 \$)	Cumulative Growth Cost (2015/16 \$)	New Household Equivalent Units 2015-2024	2015-2024 Contributions Received (2015/16 \$)	2015-2024 Contributions Received (Adj \$)	2015-2024 Cumulative Contributions Received	Net Debt (2015/16 \$) + = deficit - = surplus	Debt Funding Ratio
Existing Debt										
2015	7,961,908	7,961,908	182,893	182,893	153	148,166	148,166	148,166	84,437	33%
2016	7,402,742	7,633,477	189,819	372,712	155	150,254	154,938	298,420	116,731	26%
2017	6,515,853	6,916,395	201,317	574,029	157	152,376	161,743	450,796	158,401	24%
2018	8,013,339	8,783,452	277,412	851,441	160	154,531	169,382	605,327	274,011	30%
2019	5,968,148	6,873,492	193,995	1,045,436	162	156,721	180,495	762,048	304,014	27%
2020	6,223,563	7,533,872	161,026	1,206,462	167	162,052	196,170	924,100	295,718	23%
2021	5,553,630	7,060,382	167,171	1,373,633	170	164,160	208,699	1,088,261	291,457	20%
2022	5,159,809	6,891,378	152,807	1,526,440	172	166,299	222,107	1,254,560	270,693	17%
2023	5,058,398	7,096,134	148,511	1,674,951	174	168,469	236,335	1,423,029	243,465	14%
2024	5,445,628	8,032,242	193,788	1,868,738	176	170,670	251,736	1,593,699	259,312	13%
DISTRICT TOTAL	63,303,018	74,782,732	1,868,738		1,646	1,593,699	1,929,771	Debt Funding Ratio		22%

Appendices B – Additional Water Supply Calculations – Network Charge Factor and Impact Factor

Water Supply Network Charge Calculations

The Network Charge Factor has been calculated considering the requirements of the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice. The basis for this cost calculation is described below.

The NCF is assessed relative to a residential dwelling (Household Equivalent Unit). Fire risk classifications, including relative proportions of that fire risk have been applied to each land use category.

The calculation of NCF considers two separate components of a networks fire fighting capabilities:

1. Pipes and Hydrants
2. Storage

The portion of the seven General Fire Code Rating and Mixes was allocated for each land use category.

Table 42 : Fire Codes by Land Use

Land Use Category	General Fire Code Rating and Mix					
	FW1	FW2	FW3	FW4	FW5	FW6
Residential	0%	90%	10%	0%	0%	0%
Commercial	0%	0%	47.5%	52.5%	0%	0%
Industrial	0%	0%	47.5%	52.5%	0%	0%
Accommodation	0%	0%	29.0%	71.0%	0%	0%

The pipe cost calculation table is shown below. The pipe costs assume Code FW2 is a 100mm pipe and that each step up in risk classification is an increase in pipe capacity of 100%.

Table 43: Pipe Cost Calculation

Fire Risk Classification	Water Flow (L/s)	Pipe Diameter (mm)	Pipe Diameter Required (mm)	Unit Cost per Meter (\$/m)
FW2	25	103	100	\$84
FW3	50	146	150	\$140
FW4	100	206	200	\$210
FW5	150	252	250	\$250
FW6	200	291	300	\$300

The hydrant costs are calculated based on the figures extracted from a recent valuation. The hydrant distances are based on the requirements of the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice.

Table 44 : Hydrant Cost Calculation

Fire Risk Classification	Max. no. of Fire Hydrants to Provide Flow	Hydrant Cost (\$)	Unit Cost per Meter (\$/m)	Pipe & Hydrant Cost (\$/m)
FW2	2	\$1,000	\$4.94	\$88.94
FW3	3	\$1,500	\$8.33	\$148.33
FW4	4	\$2,000	\$9.88	\$219.88
FW5	6	\$2,500	\$12.35	\$262.35
FW6	8	\$3,000	\$14.81	\$314.81

The pipe and hydrant costs can be converted to a combined differential for each land use using the figures shown in Table 42. The pipe and hydrant differentials are shown in the following table.

Table 45: Pipe and Hydrant Cost Differential

Land Use Category	Relative Pipe + Hydrant Costs (\$/m)	Pipe + Hydrant Differentials
Residential	\$95	1.0
Commercial	\$186	2.0
Industrial	\$186	2.0
Accommodation	\$199	2.1

The storage cost calculations are based on the volume required for each of the classification categories as per the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice.

Table 46: Storage Calculation

Fire Risk Classification	Volume (m ³)	Cost (\$/m ³)	Storage Cost (\$)	Storage Differential
FW2	45	750	\$33,750	1.0
FW3	180	500	\$90,000	2.7
FW4	540	350	\$189,000	5.6
FW5	1080	300	\$324,000	9.6
FW6	2160	290	\$626,400	18.6

These are converted to a storage differential for each land use using the figures shown in Table 42. The storage differentials are shown below.

Table 47 : Storage Differentials

Land Use Category	Relative Storage Differentials	Storage Differentials
Residential	1.17	1.00
Commercial	4.21	3.61
Industrial	4.21	3.61
Accommodation	4.75	4.07

The NCF calculation assumes 50:50 allocation of the pipe/hydrant costs and the storage costs. The combination of the two components and the final Network Charge Factors is shown below.

Table 48 : Final Network Charge Factors by Land Use

Land Use Category	Pipe + Hydrant Differentials	Storage Differentials	Network Charge Factor (NCF)
Residential	1.00	1.00	1.00
Commercial	1.96	3.61	2.92
Industrial	1.96	3.61	2.92
Accommodation	2.10	4.07	3.25

The application of the NCF is described in Part 3 of the Detailed Supporting Document.

Impact Factor Calculations – WCIF and NCIF

There are two impact factors namely the Working Charge Impact Factor (WCIF) and the Network Charge Impact Factor (NCIF). These recognise the relative cost of the working (consumption) and the network components (fire fighting) of the Water Supply infrastructure.

The impact factors are based on the valuation of the four main components of a Water Supply network :

- Treatment
- Storage
- Reticulation
- Pumping

The calculation also considers the portion of each component that is driven by consumption and fire fighting.

The table below summarises the calculation of the Impact Factors. The Working Charge % represents the portion of each asset component that is driven by water consumption.

Table 49 : Impact Factor Calculations

Asset Component	Percentage of Network Value	Working Charge %	Network Charge %
Reticulation	32%	30%	70%
Treatment	20%	100%	0%
Pumping	5%	30%	70%
Storage	44%	75%	25%
TOTAL	100%	0.6	0.4

The rounded impact factors are shown below. The application of the Impact Factors is described in Part 3 of the Detailed Supporting Document.

Working Charge Impact Factor (WCIF)	60%
Network Charge Impact Factor (NCIF)	40%