

**502/109/05**

**Water Supply**

**New Assets**

**Huntsbury 4 Contribution**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$30,947	\$0	\$1,949	\$0	\$28,997

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provide additional capacity for growth
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations. Existing demand estimated at 6.25% (time since completion/predicted time until design capacity reached)
<b>References:</b>	Water Supply Asset Management Plan, File PG-001-243,

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	New Reservoir at Huntsbury 4
<b>Location:</b>	Huntsbury
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct new reservoir.
<b>Implications of not doing the project:</b>	Water supply will not be available for new development.
<b>Linkages with other projects:</b>	New Reservoirs (growth).
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan

**502/109/06**

**Water Supply**

**New Assets**

**Grampian New Well**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$53,009	\$0	\$15,902	\$0	\$37,106

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations. Existing demand estimated at 30% (time since completion/predicted time until design capacity reached)
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	New Well at Grampian PS (Completed)
<b>Location:</b>	Grampian Pump Station
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct new well.
<b>Implications of not doing the project:</b>	The system will be unable to meet peak demands. Water supply will not be available for new developments.
<b>Linkages with other projects:</b>	New Wells Programme.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan

**502/109/13**

**Water Supply**

**New Assets**

**Thompsons PS**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$849,343	\$0	\$106,167	\$0	\$743,175

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of additional capacity for growth
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations. Existing demand estimated at 12.5% (time since completion/predicted time until design capacity reached)
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	New Pump Station (incl 2 wells) at Thompsons Rd, Belfast
<b>Location:</b>	Thompsons Rd, Belfast
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct new well.
<b>Implications of not doing the project:</b>	The system will be unable to meet peak demands. Water supply will not be available for new developments.
<b>Linkages with other projects:</b>	New Wells Programme.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.

**502/109/20**

**Water Supply**

**New Assets**

**Morgans Valley 2 Contribution**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$65,404	\$0	\$8,175	\$0	\$57,228

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of additional capacity for growth
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations. Existing demand estimated at 12.5% (time since completion/predicted time until design capacity reached)
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Contribution towards developer funded 250m3 concrete reservoir.
<b>Location:</b>	Morgans Valley
<b>Special features being addressed:</b>	To provide additional capacity for future development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and contribute towards.
<b>Implications of not doing the project:</b>	Water supply will not be available for new development.
<b>Linkages with other projects:</b>	New Reservoirs (growth).
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.



**502/109/8**

**Water Supply**

**New Assets**

**Moncks Spur**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$345,690	\$0	\$76,051	\$0	\$269,638

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of additional capacity for growth
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations. Existing demand estimated at 22% (time since completion/predicted time until design capacity reached)
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Moncks Spur 3 Reservoir (Completed)
<b>Location:</b>	Moncks Spur
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct reservoir.
<b>Implications of not doing the project:</b>	Water supply will not be available for new development.
<b>Linkages with other projects:</b>	New Reservoirs (growth)
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan

**522/445**

**Water Supply**

**New Assets**

**Belfast New Well**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$206,088	\$0	\$10,304	\$0	\$195,783

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations. Existing demand estimated at 5% (time since completion/predicted time until design capacity reached)
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Design and construction of a new well at Belfast Pump Station.
<b>Location:</b>	Darroch St, Belfast
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct new well.
<b>Implications of not doing the project:</b>	The system will be unable to meet peak demands. Water supply will not be available for new developments.
<b>Linkages with other projects:</b>	New Wells Programme.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.

**522/507**

**Water Supply**

**New Assets**

**Dunbars New Well**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$326,360	\$0	\$20,560	\$0	\$305,799

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of additional capacity for growth
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations. Existing demand estimated at 6.25% (time since completion/predicted time until design capacity reached)
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	New well to provide additional capacity for growth (Under Construction 2005/06).
<b>Location:</b>	Dunbars PS, Halswell
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct new well.
<b>Implications of not doing the project:</b>	The system will be unable to meet peak demands. Water supply will not be available for new developments.
<b>Linkages with other projects:</b>	New Wells Programme.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.

**522/507**

**Water Supply**

**New Assets**

**New Wells for growth**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$1,768,000	\$0	\$0	\$0	\$1,768,000

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	The planning, design and construction of new wells.
<b>Location:</b>	Various locations within Christchurch.
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and plan & construct new wells.
<b>Implications of not doing the project:</b>	The system will be unable to meet peak demands. Water supply will not be available for new developments.
<b>Linkages with other projects:</b>	New Wells Programme, Well Renewals.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan



**522/511**

**Water Supply**

**New Assets**

**Submains**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$265,000	\$0	\$0	\$0	\$265,000

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	The planning, design and construction of new submains.
<b>Location:</b>	Various locations within Christchurch.
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and plan & construct new submains.
<b>Implications of not doing the project:</b>	Water supply will not be available for new developments.
<b>Linkages with other projects:</b>	New Mains.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan

**522/512**

**Water Supply**

**New Assets**

**Additional Infrastructure for Developments**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$790,000	\$0	\$0	\$0	\$790,000

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of additional capacity for growth
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Council contributions towards infrastructure provided by developers with greater capacity than required to service their development alone.
<b>Location:</b>	Various locations within Christchurch.
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and contribute towards developer provided infrastructure.
<b>Implications of not doing the project:</b>	New infrastructure does not have capacity for future growth. Inefficient extensions to council network constructed.
<b>Linkages with other projects:</b>	New Mains.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.

**522/513**

**Water Supply**

**New Assets**

**New Mains**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$6,227,379	\$0	\$0	\$0	\$6,227,379

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	The planning, design and construction of sewer mains to service new development.
<b>Location:</b>	Various locations within Christchurch.
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and plan & construct new mains.
<b>Implications of not doing the project:</b>	Water supply will not be available for new developments.
<b>Linkages with other projects:</b>	New Submains and Mains Renewals
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan

**522/544**

**Water Supply**

**New Assets**

**New Secondary Station**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$1,040,000	\$0	\$0	\$0	\$1,040,000

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Planning, design and construction new secondary pump stations.
<b>Location:</b>	Various locations within Christchurch.
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct new secondary stations.
<b>Implications of not doing the project:</b>	Water supply will not be available for new developments.
<b>Linkages with other projects:</b>	New Reservoirs.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.



**522/545**

**Water Supply**

**New Assets**

**New Reservoirs (growth)**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$1,000,000	\$0	\$0	\$0	\$1,000,000

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	The planning, design and construction of new reservoirs to provide storage for growth on hills areas.
<b>Location:</b>	Various locations within Christchurch.
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct new reservoirs.
<b>Implications of not doing the project:</b>	Water supply will not be available for new developments.
<b>Linkages with other projects:</b>	New Secondary Stations.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.

**522/604**

**Water Supply**

**New Assets**

**New Pump Stations**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$4,500,000	\$0	\$0	\$0	\$4,500,000

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	The planning, design and construction of 2 new water supply pump stations
<b>Location:</b>	Various locations within Christchurch - Northern Area, West
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct new pump stations.
<b>Implications of not doing the project:</b>	Water supply will not be available for new developments.
<b>Linkages with other projects:</b>	New Wells Programme
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan

**522/619**

**Water Supply**

**New Assets**

**Land Purchase for Pump Station**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$900,000	\$0	\$0	\$0	\$900,000

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Purchase of land to construct new pump stations & wells on.
<b>Location:</b>	Various locations within Christchurch.
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and purchase land for new pump stations.
<b>Implications of not doing the project:</b>	There will be nowhere to put new pump stations and an inability for the system to meet future demands.
<b>Linkages with other projects:</b>	New Wells, New Pump Stations.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan

**522/660**

**Water Supply**

**New Assets**

**Unallocated Headworks**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$1,725,000	\$0	\$0	\$0	\$1,725,000

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Planning, design and construction/installation of miscellaneous headworks items.
<b>Location:</b>	Various locations within Christchurch.
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and plan & construct new headworks items.
<b>Implications of not doing the project:</b>	The system will be unable to meet demand. Unable to support new development. No budget available to fund miscellaneous items.
<b>Linkages with other projects:</b>	Additional infrastructure for developments.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan



**5x**

**Water Supply**

**New Assets**

**Mt Pleasant Water Supply Cost Share**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$315,000	\$0	\$0	\$0	\$315,000

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan. File PG-001-243

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Water Mains Reservoir and Pump Station
<b>Location:</b>	Mt Pleasant
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct mains, reservoir and pump station.
<b>Implications of not doing the project:</b>	Water supply will not be available for new development.
<b>Linkages with other projects:</b>	Local Cost Share Areas
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan. File PG-001-243

## Water Supply

## New Assets

## Huntsbury Water Supply Cost Share



### COSTS

Total	Renewal	Backlog	Unallocated	Growth
\$205,000	\$0	\$0	\$0	\$205,000

### COST ALLOCATION

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan. File PG-001-224

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Local Cost Share Area for Water Mains, Reservoir and Pump Station
<b>Location:</b>	Huntsbury
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct mains, reservoir and pump station.
<b>Implications of not doing the project:</b>	Water supply will not be available for new development.
<b>Linkages with other projects:</b>	Local Cost Share Areas
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan. File PG-001-244

## Water Supply

### New Assets

### Worsleys Spur Water Cost Share



#### COSTS

Total	Renewal	Backlog	Unallocated	Growth
\$650,000	\$0	\$0	\$0	\$650,000

#### COST ALLOCATION

<b>Primary Driver:</b>	Provision of capacity for growth.
<b>Secondary Driver:</b>	
<b>Capacity discussion:</b>	All work (100%) is attributable to growth. Actual capacities have not been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan. File WS-003-003-12

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Cost Share established in 1999 for Land Purchase, Tank Relocation and construction of a Pump Station and Rising Main.
<b>Location:</b>	Worsleys Spur
<b>Special features being addressed:</b>	To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and construct water supply.
<b>Implications of not doing the project:</b>	Water supply not available for new development.
<b>Linkages with other projects:</b>	Local Cost Share Areas.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan. File WS-003-003-12

**502/104/10**

**Water Supply**

**Renewal & Replacement**

**Burnside Well Replacement**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$345,588	\$0	\$51,838	\$0	\$293,749

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of additional capacity for growth
<b>Secondary Driver:</b>	Replacement of asset that has reached the end of its useful life
<b>Capacity discussion:</b>	Well replacement has been completed. Actual capacity has been used in calculations.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Replacement Well at Burnside Pump Station (Completed)
<b>Location:</b>	Burnside Park
<b>Special features being addressed:</b>	Lifecycle asset management. Planning for future demand.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and replace well.
<b>Implications of not doing the project:</b>	The system will be unable to meet current or future demands.
<b>Linkages with other projects:</b>	Well Replacements.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.



**502/104/11**

**Water Supply**

**Renewal & Replacement**

**Picton PS**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$1,351,210	\$643,169	\$0	\$0	\$708,040

## **COST ALLOCATION**

<b>Primary Driver:</b>	Renewal of asset that has reached the end of its useful life
<b>Secondary Driver:</b>	Provision of additional capacity for growth
<b>Capacity discussion:</b>	Picton PS is replacing the Clarence & Mandeville Pump Stations. Clarence and Mandeville Pump stations capacity from 2001 WSAMP has been used. Picton capacity is the capacity of the new station.
<b>References:</b>	Water Supply Asset Management Plan 2001 & 2004 revisions

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Replacement of Clarence and Mandeville Pump Stations with a new Pump Station at Picton Ave.
<b>Location:</b>	Picton Ave
<b>Special features being addressed:</b>	Lifecycle asset management. Planning for future demand.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and replace pump stations.
<b>Implications of not doing the project:</b>	The system will be unable to meet current or future demands.
<b>Linkages with other projects:</b>	Well Replacements, New Wells.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.

**502/104/21**

**Water Supply**

**Renewal & Replacement**

**Farrington Well Replacement**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$265,161	\$0	\$38,116	\$0	\$227,044

## **COST ALLOCATION**

<b>Primary Driver:</b>	Provision of additional capacity for growth
<b>Secondary Driver:</b>	Replacement of asset that has reached the end of its useful life
<b>Capacity discussion:</b>	Well replacement has been completed. Actual capacity has been used in calculations. Old well had a capacity of 46 L/s new well has capacity of 320 L/s.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Replacement Well at Farrington Pump Station (Completed)
<b>Location:</b>	Farrington Pump Station
<b>Special features being addressed:</b>	Lifecycle asset management. Planning for future demand.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and replace well.
<b>Implications of not doing the project:</b>	The system will be unable to meet current or future demands.
<b>Linkages with other projects:</b>	Well renewals, new wells.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.

**522/314**

**Water Supply**

**Renewal & Replacement**

**Worcester PS**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$892,622	\$414,494	\$0	\$0	\$478,127

## **COST ALLOCATION**

<b>Primary Driver:</b>	Replacement of asset that has reached the end of its useful life
<b>Secondary Driver:</b>	Provision of additional capacity for growth
<b>Capacity discussion:</b>	Capacity from Asset Management Plan
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Renewal of Fitzgerald PS with new PS at New Site (Worcester)
<b>Location:</b>	Worcester St
<b>Special features being addressed:</b>	Lifecycle asset management. Planning for future demand.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and replace pump stations.
<b>Implications of not doing the project:</b>	The system will be unable to meet current or future demands.
<b>Linkages with other projects:</b>	Well renewals, new wells
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan

**522/414**

**Water Supply**

**Renewal & Replacement**

**Hills Road**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$204,000	\$36,252	\$0	\$0	\$167,747

## **COST ALLOCATION**

<b>Primary Driver:</b>	Replacement of asset that has reached the end of its useful life
<b>Secondary Driver:</b>	Provision of additional capacity for growth
<b>Capacity discussion:</b>	The new well is expected to produce 280 m3/hr
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Replacement of Well 3 at Hills Rd PS
<b>Location:</b>	Hills Rd
<b>Special features being addressed:</b>	Lifecycle asset management. Planning for future demand.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and replace well.
<b>Implications of not doing the project:</b>	The system will be unable to meet current or future demands.
<b>Linkages with other projects:</b>	Well renewals, new wells.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan



**522/419**

**Water Supply**

**Renewal & Replacement**

**Westmorland 2 Reservoir Replacement**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$595,400	\$14,333	\$0	\$31,066	\$550,000

## **COST ALLOCATION**

<b>Primary Driver:</b>	Replacement of tank that has reached the end of its useful life
<b>Secondary Driver:</b>	Provision of additional capacity for growth
<b>Capacity discussion:</b>	Reservoir capacity from Water Supply AMP. 250m3 reservoir being replaced with a 400m3 reservoir.
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Design & Construction of replacement reservoir at Westmorland 2 site.
<b>Location:</b>	Westmorland 2 Reservoir Site
<b>Special features being addressed:</b>	Lifecycle asset management. Planning for future demand.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and replace reservoir.
<b>Implications of not doing the project:</b>	The system will be unable to meet current or future demands.
<b>Linkages with other projects:</b>	Other renewal works.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.

**522/517**

**Water Supply**

**Renewal & Replacement**

**Replacement Mains**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$26,876,000	\$16,057,908	\$0	\$0	\$10,818,092

## **COST ALLOCATION**

<b>Primary Driver:</b>	Replacement of assets that have reached the end of their useful life
<b>Secondary Driver:</b>	Additional capacity for growth
<b>Capacity discussion:</b>	Analysis of historical mains replacement shows 47% of mains replaced are made bigger than the pipe they are replacing. With a 7% overall increase in pipe capacity (by cross sectional area)
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Replacement programme of water mains that have reached the end of their useful lives. Some with pipes of greater capacity than the pipes which they are replacing.
<b>Location:</b>	Various locations within Christchurch.
<b>Special features being addressed:</b>	Lifecycle asset management. Planning for future demand.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and the replacement of mains with the same or greater capacity.
<b>Implications of not doing the project:</b>	Maintenance costs will rise significantly. Increased loss of service to customers while broken mains are repaired.
<b>Linkages with other projects:</b>	New Mains Programme.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.

**522/519**

**Water Supply**

**Renewal & Replacement**

**Replacement Wells**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$3,462,564	\$445,544	\$0	\$0	\$3,017,020

## **COST ALLOCATION**

<b>Primary Driver:</b>	Replacement of Wells that have reached the end of their useful life
<b>Secondary Driver:</b>	Provision of additional capacity for growth
<b>Capacity discussion:</b>	New well estimated to produce 250m <sup>3</sup> /hr (average capacity of recently completed wells)
<b>References:</b>	Water Supply Asset Management Plan

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Replacement of wells which have reached the end of their useful lives for capacity or quality reasons.
<b>Location:</b>	Various locations within Christchurch.
<b>Special features being addressed:</b>	Lifecycle asset management. Planning for future demand.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered include do nothing and replace pump stations.
<b>Implications of not doing the project:</b>	The system will be unable to meet current or future demands.
<b>Linkages with other projects:</b>	Other well replacements, new wells.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan

**522/634**

**Water Supply**

**Renewal & Replacement**

**Harewood Pump Station Renewal**



## **COSTS**

<b>Total</b>	<b>Renewal</b>	<b>Backlog</b>	<b>Unallocated</b>	<b>Growth</b>
\$605,267	\$80,732	\$0	\$0	\$524,534

## **COST ALLOCATION**

<b>Primary Driver:</b>	Replacement of well that has reached the end of its useful life.
<b>Secondary Driver:</b>	Provision of additional capacity for growth.
<b>Capacity discussion:</b>	New well estimated to produce 250m <sup>3</sup> /hr (average capacity of recently completed wells). Replacement pump station will be much bigger than existing station.
<b>References:</b>	Water Supply Asset Management Plan.

## ATTRIBUTES

<b>Project Manager:</b>	City Water & Waste
<b>Work Planned:</b>	Consenting, Design & Construction of replacement pump station at a new site.
<b>Location:</b>	Harewood
<b>Special features being addressed:</b>	Replacement of assets that have reached the end of their useful lives. To provide capacity for new development.
<b>A statement of the outcomes being addressed (LoS, Community Outcomes):</b>	A City of People who Value and Protect the Natural Environment. An Attractive and Well-designed City.
<b>Options considered:</b>	Options considered included, do nothing, renew pump station and renew pump station with greater capacity.
<b>Implications of not doing the project:</b>	The system will be unable to meet current or future demands.
<b>Linkages with other projects:</b>	Replacement Wells.
<b>Location of other relevant supporting information:</b>	Water Supply Asset Management Plan.