

Appendix 'C'

Asset Valuations

1. Introduction

The Council values its infrastructure assets annually.

2. Asset Values – Depreciated Replacement Cost

Table C.1 Current Infrastructural Asset and Land Values – (\$m) – As at 30 June 2008

Asset Component Class	Optimised Depreciated Replacement Cost (\$000,000)	Optimised Replacement Cost (\$000,000)
Asset Values		
Formation	603	603
Sealed Pavement Surface	28	54
Sealed Pavement Structure	204	305
Unsealed Pavement Structure	37	42
Drainage	37	74
Surface Water Channels	11	17
Footpaths	18	27
Traffic Facilities	4	7
Retaining Walls	2	2
Bridges and Culverts	90	143
Sub Total – Infrastructure Assets	1,033	1,273
Land Value	74	74
Total	1,107	1,347

Table C.2 Forecast Land Transport Asset (Optimised Depreciated Replacement Cost) & Land Values (\$1,000) – 2009/19

2008/09	Depreciation Replacement Costs Forecasted Future Values	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
	a) Asset Values										
74,043	Land	74,497	75,733	76,906	77,823	77,823	77,823	77,823	77,823	77,823	78,741
604,337	Formation	606,143	608,986	611,014	612,731	613,848	614,976	616,123	617,290	618,492	620,342
33,777	Sealed Pavement Surface	34,983	36,394	37,546	38,363	38,777	38,652	38,506	38,341	38,677	39,623
206,123	Sealed Pavement Structure (incl Conc. Kerbs)	208,746	213,161	216,615	219,814	222,332	225,013	227,870	230,900	234,123	238,379
39,259	Unsealed Pavement Structure	39,524	39,771	39,999	40,208	40,399	40,572	40,725	40,860	40,977	41,075
36,047	Drainage (Culverts)	35,329	34,604	33,877	33,147	32,414	31,678	30,940	30,200	29,462	28,724
11,355	Surface Water Channels	11,953	12,827	13,778	14,201	14,014	13,824	13,634	13,442	13,252	13,655
3,184	Traffic Facilities (Signs)	3,489	3,768	4,025	4,261	4,474	4,664	4,834	4,983	5,113	5,224
89,099	Bridges & Culverts	87,653	86,764	85,811	84,858	83,904	82,950	81,995	81,040	80,084	79,127
1,097,224	Sub Total	1,102,317	1,112,008	1,119,571	1,125,406	1,127,985	1,130,152	1,132,450	1,134,879	1,138,003	1,144,890
17,539	Footpaths	18,495	18,047	17,622	17,387	16,960	16,537	16,151	15,724	15,335	14,905
1,946	Retaining Walls	2,014	1,983	1,952	1,921	1,890	1,859	1,828	1,797	1,766	1,735
19,485	Sub Total	20,509	20,030	19,573	19,307	18,850	18,395	17,978	17,521	17,100	16,640
1,116,709	Total	1,122,826	1,132,038	1,139,144	1,144,713	1,146,835	1,148,547	1,150,428	1,152,400	1,155,103	1,161,530
999	Inflation amount	37,053	71,270	106,832	137,404	167,202	196,404	227,710	261,232	295,852	329,596
1,117,707	Total Including Inflation	1,159,879	1,203,307	1,245,976	1,282,117	1,314,037	1,344,951	1,378,138	1,413,632	1,450,955	1,491,126

3. Assumptions/Notes Regarding Valuation and Depreciation

General

- Streetlights left out due to insufficient information on current asset and future plans.
- Not all projections for future footpath expenditure are currently available.
- Inflation is included.
- The figures shown are for the end of the period, i.e. the values for 2008/09 are assumed values as at 30 June 2009.
- All amounts include an allowance for fees.
- It should be noted that at the time the forward projections of future valuations (and subsequent depreciation) were calculated in October 2008, they were based on the cost rates and vested assets assumed at that time. Since that time the expected costs that are used in this Plan to build up the programmes have been altered as explained elsewhere in the Plan. While some of these costs have changed reasonably significantly, it was felt that the effort involved in redoing this work is not warranted as the current table is already based on a consistent set of assumptions which is sufficient to show the expected long term effect of the proposed programmes. (There will be a slight over statement of values and a subsequent overstatement of the levels of depreciation).
- With the vested assets, the reduction in the current allowance for vested assets versus what was allowed in October 2008, has a very small overall effect on the valuation of over \$1 billion of assets. Therefore no change has been made to the valuation to reflect this.

Sealed Pavement Surfacing

- All resealing is renewals.
- The sealed pavement surfacing value includes vested assets and growth due to vested assets.
- Improvements include extra area from pavement rehabilitations and seal widening.
- Stewart Island is included with these values but was dealt with separately due to the extra cost.
- Cost of annual renewals is based on \$5.18 per m² due to current treatment trend of high % of twin coats used as renewals. Note renewals involve approx 1 million m²pa.
- Net area has an allowance for increase in area due to pavement rehabilitations and seal widenings being wider than original.
- Assume maintain area weighted Total Useful Life (TUL) of around 13.2 years.
- From 2007/08 to 2008/09 there was a 25% increase in cost for the resealing contracts.

Formation

- The formation value includes vested assets and growth due to vested assets.
- 55% of Minor Improvements New Capital and 10% of Pavement renewals is included in the formation
- Area for each year includes all improvements through vested assets, pavement rehabilitations and seal widening.

Sealed Pavement Structure

- Future Annual depreciation is calculated from new Replacement cost divided by weighted TUL.
- Weighted TUL is 2007/08 replacement cost divided by 2007/08 annual depreciation giving 86 years.
- Weighted TUL includes the non depreciating subbase component of the replacement cost of the sealed road.
- First coat Sealing is included within Pavement cost.
- The pavement structure value includes Vested assets and growth due to vested assets.
- 100% of Minor Improvements Renewals and 90% of Pavement Renewals is included within the sealed pavement structure values.

Unsealed Pavement Structure

- No vested assets or growth due to vested assets.
- Weighted TUL is the revised 2007/08 replacement cost divided by the revised 2007/08 annual depreciation giving 16.4 years.
- Weighted TUL includes the non depreciating subbase component of the unsealed road.
- Due to the proposed future renewals (wearing course) exceeding the 2007/2008 annual depreciation the wearing course dollars have been revised.
- The proposed future renewals assume a loss rate of 7mm per year for 5 years instead of the 2007/2008 valuation assumption of 5mm per year for 5 years.
- The proposed future renewals are 35% more than the 2007/08 annual depreciation.

Drainage

- No vested assets or growth due to vested assets.
- Annual Depreciation is calculated each year from new replacement cost divided by current weighted TUL of 76 years.
- Drainage renewals do not match annual depreciation due to the current demands for renewals.
- The current demand for renewals is a reflection on this assets expected long life (80 years) and that the current age is relatively young.
- However the inventory data is based on a neighbouring authority's culvert sizes and frequency.
- The actual drainage inventory data has been collected by the maintenance contractors and will be loaded into the RAMM database in 2008/2009.
- This inventory information does not have condition data which will need to be collected so SDC will have a more complete picture of the drainage asset.

Surface Water Channels

- Annual Depreciation is calculated each year from new replacement cost divided by current weighted TUL of 75.9 years.
- The surface water channel's value includes vested assets and growth due to vested assets.

Traffic Facilities

- Due to the new multi year pavement markings contracts it is now assumed that the markings do depreciate over 1.5 years.
- The traffic services value includes vested assets and growth due to vested assets.

Bridges

- No vested assets or growth due to vested assets.
- No growth related level of service improvements.
- New capital is level of service improvements.
- Bridge renewals do not match annual depreciation due to the current relatively low demands for renewals.
- The current demand for renewals is a reflection on these assets expected long life (43 to 120 years) and the current average age being relatively young (37 years).

Retaining Walls

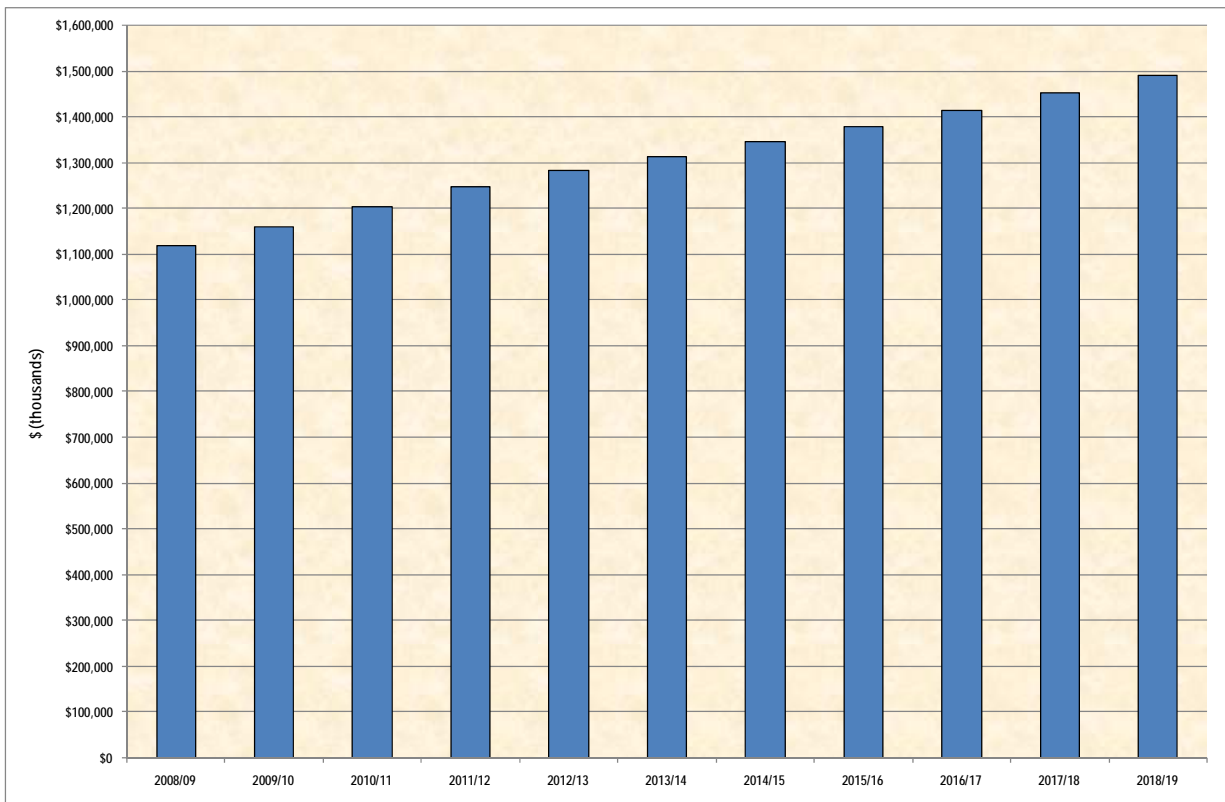
- This asset's replacement value is \$2.3 million however this asset is incomplete as only the data on retaining walls on the sealed roads has been collected. Also Stewart Island's retaining and sea walls inventory data has not been collected. The \$1.3 million in 2009/10 is for storm damage repairs to Stewart Island's retaining walls. When these repairs are completed the inventory data will be collected and entered into RAMM, boosting the value of these. At this stage the forward projected values do not include an allowance for these.

4. Vested Assets

The amount allowed for vested assets for the years 2008/2009 onwards are all that are currently known of or expected. There are currently no known developments which would result in vested assets for the years 2013/2014 and also from 2017/2018 onwards.

Vested asset dollars have been calculated at replacements rates.

Table C.3 Forecast Land Transport Asset Value – 2009/19 Optimised Depreciated Replacement Cost

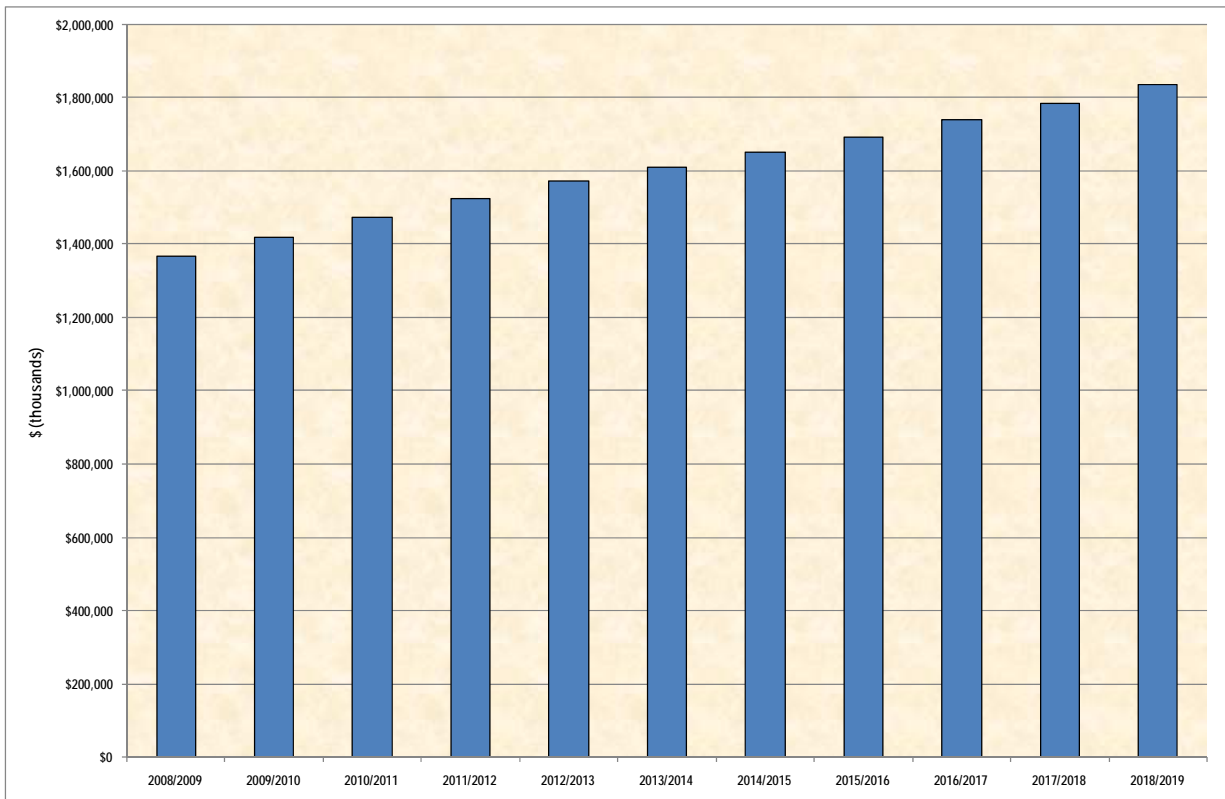


Note this graph includes inflation.

Table C.4 Forecast Land Transport Asset (Optimised Replacement Cost) & Land Values (\$1,000) – 2009/19

2008/2009	Replacement Cost Forecasted Future Values	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
	a) Asset Values										
74,043	Land	74,497	75,733	76,906	77,823	77,823	77,823	77,823	77,823	77,823	78,741
604,337	Formation	606,143	608,986	611,014	612,731	613,848	614,976	616,123	617,290	618,492	620,342
66,624	Sealed Pavement Surface	67,028	67,688	68,120	68,503	68,762	69,021	69,280	69,539	69,798	70,181
306,403	Sealed Pavement Structure	308,210	311,745	314,196	316,279	317,558	318,881	320,248	321,660	323,115	325,463
45,310	Unsealed Pavement Structure	45,615	45,920	46,225	46,530	46,835	47,140	47,445	47,750	48,055	48,360
73,754	Drainage	73,944	74,129	74,316	74,501	74,687	74,871	75,055	75,241	75,430	75,623
17,619	Surfaced Water Channels	19,164	21,324	23,333	24,677	24,807	24,936	25,066	25,197	25,331	26,682
7,400	Traffic Facilities	7,584	7,762	7,941	8,120	8,298	8,475	8,653	8,831	9,013	9,199
142,873	Bridges and Culverts	142,928	142,983	143,038	143,093	143,148	143,203	143,258	143,313	143,368	143,423
1,338,362	Sub Total - Infrastructural Assets	1,345,113	1,356,270	1,365,090	1,372,259	1,375,767	1,379,326	1,382,953	1,386,644	1,390,425	1,398,013
27,418	Foolpaths	27,467	28,059	28,135	28,236	28,537	28,643	28,754	28,905	29,016	29,167
2,361	Retaining Walls	2,361	2,361	2,361	2,361	2,361	2,361	2,361	2,361	2,361	2,361
29,779	Sub Total	29,828	30,420	30,496	30,597	30,898	31,004	31,115	31,266	31,377	31,528
1,368,141	Total	1,374,941	1,386,690	1,395,586	1,402,856	1,406,665	1,410,330	1,414,068	1,417,910	1,421,801	1,429,541
0	Inflation amount	45,373	87,302	130,882	168,390	205,084	241,169	279,893	321,419	364,160	405,647
1,368,141	Total Including Inflation	1,420,314	1,473,992	1,526,468	1,571,245	1,611,749	1,651,499	1,693,961	1,739,329	1,785,961	1,835,188

Table C.5 Forecast Land Transport Asset Value – 2009/2019 Replacement Cost



5. Revaluation Date

- a) Date of the last revaluation: 30 June 2008
- Person or firm who did the last revaluation:
 Infrastructure Assets – MWH New Zealand Ltd
 Land – MWH New Zealand Ltd (using Valuation NZ data)
- b) Due date of the next revaluation: 30 June 2009

6. Valuation Confidence

The following Table C.6 indicates how confident the Council is that the latest valuation gives a true and fair indication of the total value of the assets.

Table C.6 Data Confidence

Asset Description	Confidence	Comments
Land	B – Reliable	Assumed reserve widths
Formation	B – Reliable	Assumed extra widths
Sealed Pavement Surface	A – Highly Reliable	No assumptions made
Sealed Pavement Structure	B – Reliable	Assumed depths and extra widths
Drainage	C – Uncertain	Data based on neighbouring authority
Footpaths	B – Reliable	Assumed construction ages
Surface Water Channels	B – Reliable	Assumed construction ages
Traffic Facilities	B – Reliable	Assumed construction ages
Retaining Walls	B – Reliable	Assumed construction ages
Bridges and Major Culverts	B – Reliable	Assumed construction ages

Based on NZ Infrastructure Asset Valuation and Depreciation Guidelines – Version 2.0 Table 4.3.1: Data Confidence Grading System.

7. Issues

- Work needs to be done to improve the drainage valuation data.
- Minor structures and threshold treatments need to be included in RAMM inventory and valued.
- Road sump valuation should be added into the roading valuation.
- Stewart Island retaining and sea walls need to be included in the RAMM inventory and valued after the storm damage repairs have been completed in 2009/10.

8. Future Action and Improvements

Schedule Future Improvement Priorities

Ref. No.	Item	Appendix Relative Urgency						Comments
		1	2	3	4	5	6	
C1	Work needs to be done to improve the drainage valuation data					✓		
C2	Minor structures and threshold treatments need to be included in RAMM inventory and valued					✓		
C3	Road sump valuation should be added into the roading valuation					✓		Has been done as part of utilities valuation but should be included as part of roading valuation in RAMM
C4	Stewart Island retaining and sea walls need to be included in the RAMM inventory and valued after the storm damage repairs have been completed in 2009/10					✓		

Key:

- 1 = Extremely urgent (needs to be addressed now)
- 2 = Very urgent
- 3 = Urgent
- 4 = Reasonably or fairly urgent
- 5 = Not urgent
- 6 = A good idea for some time in the future