

## STAFF REPORT

**TO:** Chair and Members, Engineering Services Committee

**FROM:** Transportation Manager, Gary Clark

**DATE:** 07 August 2010

**SUBJECT:** **Annual Report, Transportation – RESC-10-08-03**  
Report prepared for meeting of 19 August 2010

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### GENERAL

This report sets out the different activity areas and the works completed in the last financial year 2009-2010. Details are provided for the different activity areas below with an attachment showing the projects completed in the 2009-2010 year.

### 1 OPERATIONS AND MAINTENANCE CONTRACTS

#### ***Waimea Contract 758 and Tasman Contract 757***

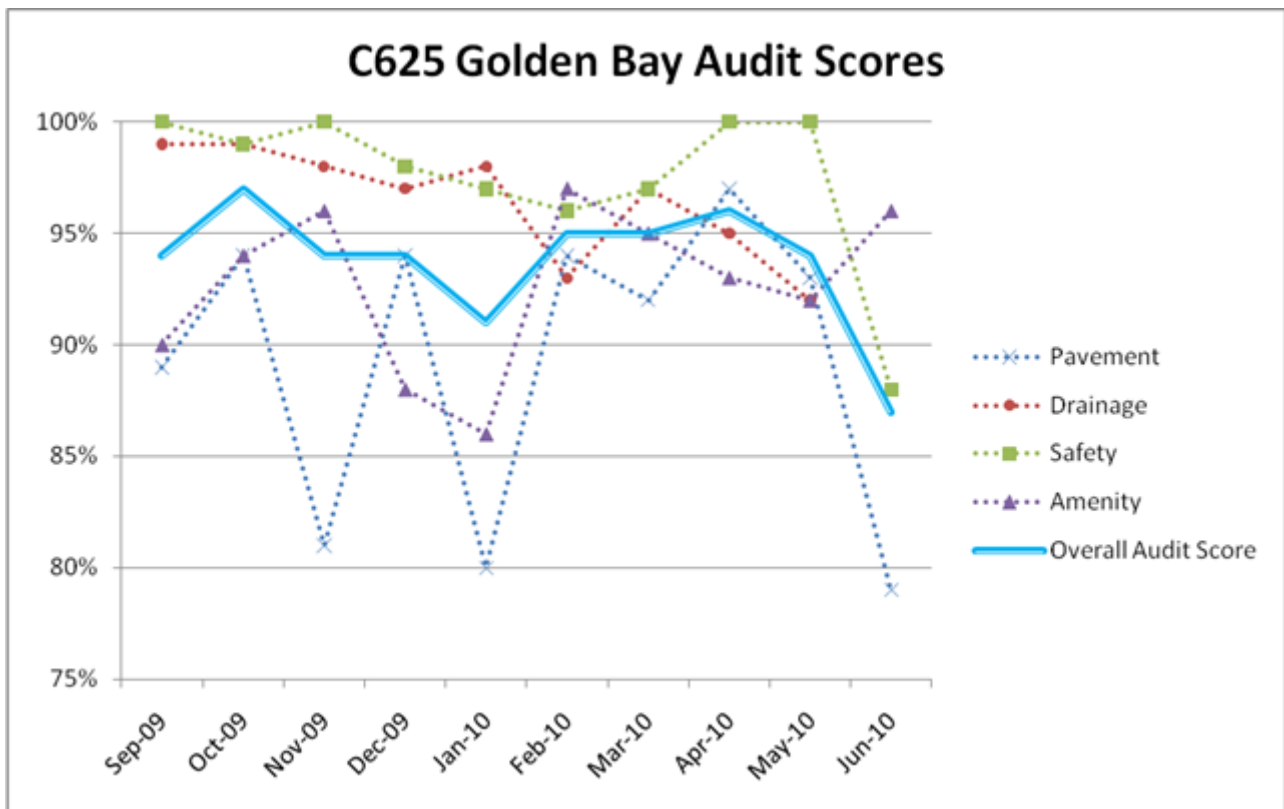
The Waimea and Tasman contracts commenced on 1 July 2009, with Downers taking over the contract from Fulton Hogan. The network has been generally well maintained since Downers have taken over. The monthly audit scores have shown a good overall standard of the network. This has shown up in a reduction in customer service requests and particularly with the sealed road network.

Unfortunately the good work standard has been offset by some issues relating to contractor inspections, programming, information management and timeliness to some customer service requests. The introduction of a new system to record faults (*RAMM Contractor*) presented challenges to both Downers and MWH. The new tool for recording faults has provided better information and it is expected that as the use of *RAMM Contractor* is improved, the management of the network will also improve.

#### ***Golden Bay Contract 625***

The Golden Bay contract includes the maintenance of State Highway 60 with a joint approach from Tasman District Council and the New Zealand Transport Agency (NZTA). This approach will continue with a contractor for the new tender expected to be confirmed soon and provides the best value for money for the Golden Bay area.

Fulton Hogan is the current contractor and provides a good level of maintenance for Golden Bay. The audit scores for the 2009-2010 year are generally at a high level. There has been a reduction in their audit scores in the last month which is being managed carefully. There were a number of pavement and drainage faults identified in the June audit. The audit score tracking is shown on the graph below.



**Murchison Contract 618**

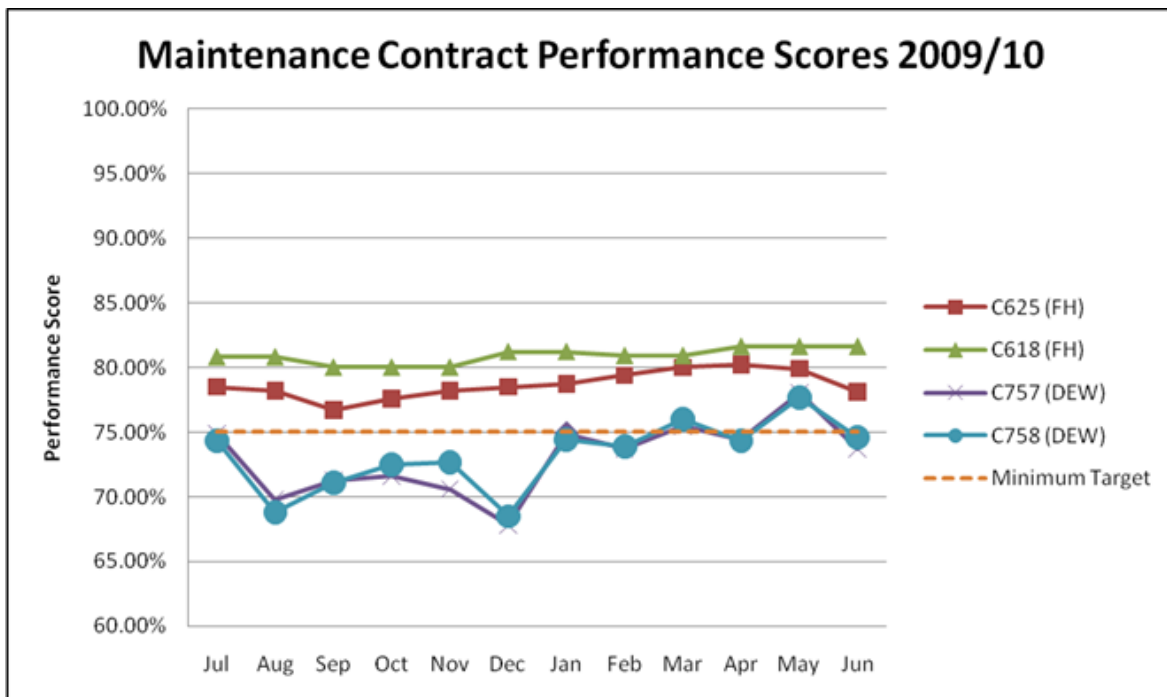
The Murchison network is in a good state for this time of the year with only some minor issues to correct. Fulton Hogan continues to be proactive in emergency responses for the various weather events which have occurred. Fulton Hogan has a very good completion rate with regard to customer service requests and the relationship between MWH is very good for this contract. The “ownership” of the Murchison network is refreshing to see and this has led to a very well managed road network for this community.

The Murchison contract was recently re-tendered and Fulton Hogan was successful in retaining this part of the road network. There were some minor changes to the level of services for the new contract and reseals will fall under a separate contract.

As with all the road maintenance contracts *RAMM Contractor* will be used to manage the issues with the road network. This is expected to provide a better tracking system of faults and better targeted maintenance.

**Summary of Road Maintenance Contracts**

The graph below shows the maintenance performance scores for the financial year 2009 to 2010.



As shown, the performance of Downers at the start of the contract was below the minimum target level for Waimea and Tasman. It has taken approximately six months for them to understand the road network and obtain suitable resources to manage the two contracts. Changes to staff have also improved the level of service.

The other contracts have remained fairly consistent over the year.

## 2 ASSET CONDITON AND PERFORMANCE

### ***Pavement Rehabilitation***

The total length of pavement rehabilitation that was carried out in 2009-2010 was around 4.5 kms on the sealed road network. The expected length of rehabilitation works as noted in the Tasman Resource Management Plan is between six and eight kilometres per year. The funding criteria for this work activity, as set by NZTA, make it very difficult for Tasman District Council to meet. This is due to the low volumes roads. However our failures can occur very quickly and are directly related to the high volume of heavy vehicles on some of these roads. We have identified this as an issue and will be gathering more traffic count data to provide a better justification for these types of works.

One section on the Motueka Valley Highway was not completed due to the late completion of other works associated with this contract. This section will be completed in October 2010.

### ***Sealed Road Resurfacing***

A number of roads were resealed across the whole district. A total of around 71 kilometres was resealed which exceeds the level of service identified in the Annual Plan.

The areas that were sealed included 8.2 kilometres in Golden Bay, 5.1 kilometres in Murchison and 57.5 kilometres in the Waimea/Tasman areas.

The treatment selection included a mixture of chip sealing combinations and asphaltic concrete. Emulsified bitumen was used as the binder material in the urban areas of Richmond and Motueka because of the key benefit of less health and safety risk in these populated areas.

### ***Pavement Condition***

Surveys of the road network were carried out in April 2010. These surveys included a RAMM Condition Rating and Roughness assessment.

The network roughness has remained fairly static since 2000 with the District's road roughness remaining at a good level. Road roughness is not an issue for our road network.

The trends in the condition rating data suggest that the road network is deteriorating slightly. However the reduction is not significant. Trends also show that track rutting is increasing and this will require further investigation in 2010-2011 financial year.

The Condition Index (CI) is a composite index based on a number of elements including alligator cracking, scabbing, pot holes, patches and flushing. The CI has increased slightly which shows a reduction in the condition of our road network. Most of the elements used in the CI however are showing a slight increase in frequency. Nevertheless the road network has a CI value of 0.78 for rural and 1.90 for the urban areas. The overall network CI is 0.89. Anything below 2.0 is considered to be very good.

### ***Bridges***

Routine inspections of the bridges of the District continue with a further 236 vehicle and 13 footbridges surveyed. Ten bridges had detailed investigations and structural maintenance in these reports has been prioritised. This and the work that was completed in 2008-2009 detailed inspections will form part of the ranking matrix for bridge renewal programme.

In the two year period from 2008 to 2010 a total of 63 bridges had a detailed inspection undertaken. These inspections included all posted bridges with the individual postings checked on all bridges. Going forward the number of bridges that will require a full detailed inspection will reduce.

Contract 789 was recently let to carry out repairs of Rough Island Bridge and Patarau Bridge. These two bridges have areas of corroding reinforcing and pre-stressing tendons. This work will be completed this financial year.

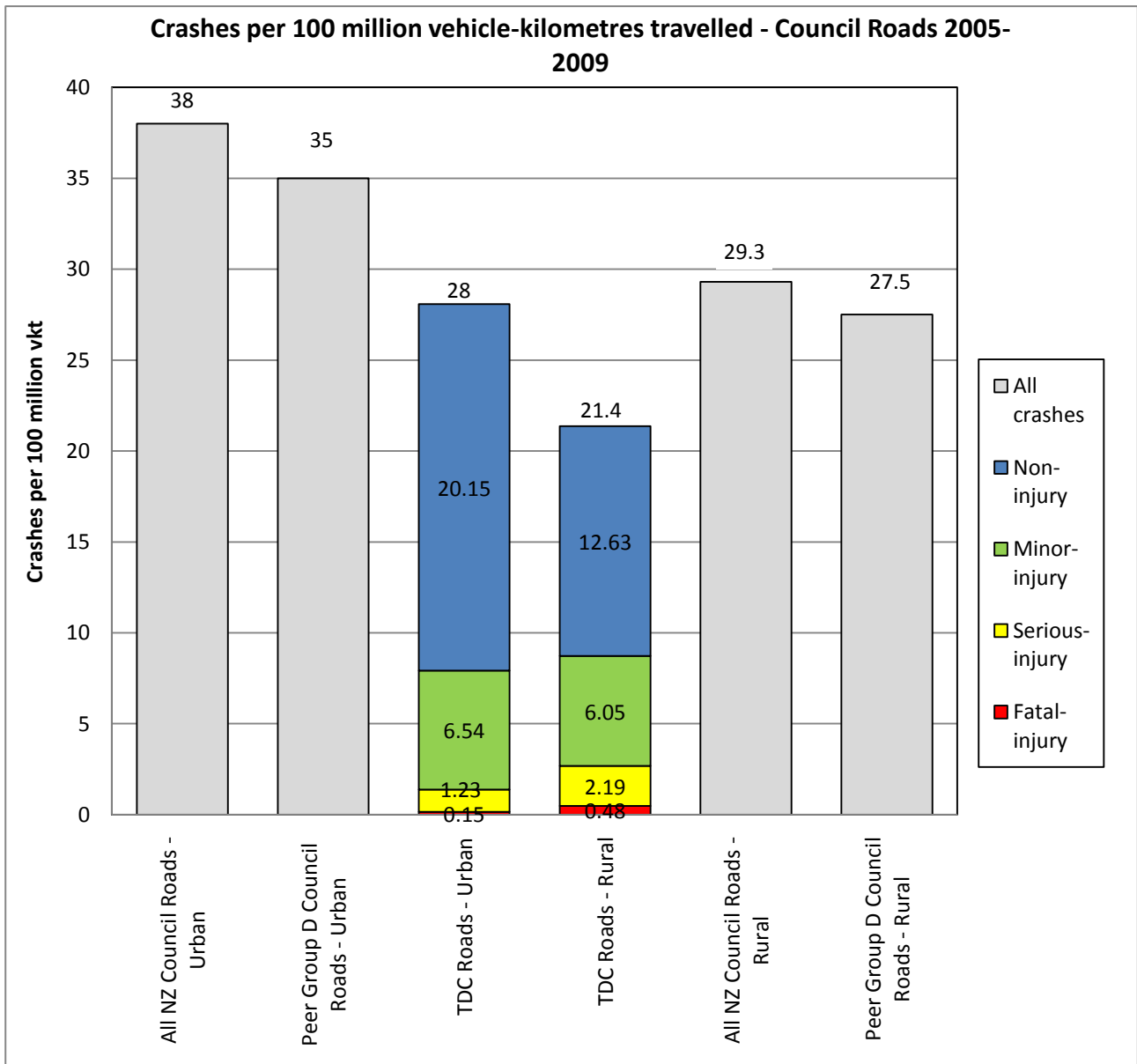
The McCallum and Baxter timber bridges are currently being replaced with concrete box culverts.

The bridge maintenance contract was let with Adcock and Donaldson being given the three-year programme to address matters arising from the bridge inspections and priority ranking matrix.

### ***Road Safety***

The review of the crash data is showing that crash records are remaining static or possibly a slight increasing trend. This increase is in line with the increase in the amount of traffic on our roads. The number of fatal crashes is averaging around 2-3 per year. However it is important to note that there have been two fatal crashes reported on Tasman District Council roads so far in 2010.

Tasman District has a very good crash rate compared with its peers across the country which is shown in the graph below. The graph shows the crash rate per 100 million vehicles-kilometres travelled.



The graph above clearly shows that Tasman District roads are relatively safe compared to equivalent peer groups. While this is pleasing we still have a lot of work to do in areas relating to loss of control crashes on curves and motorcyclists.

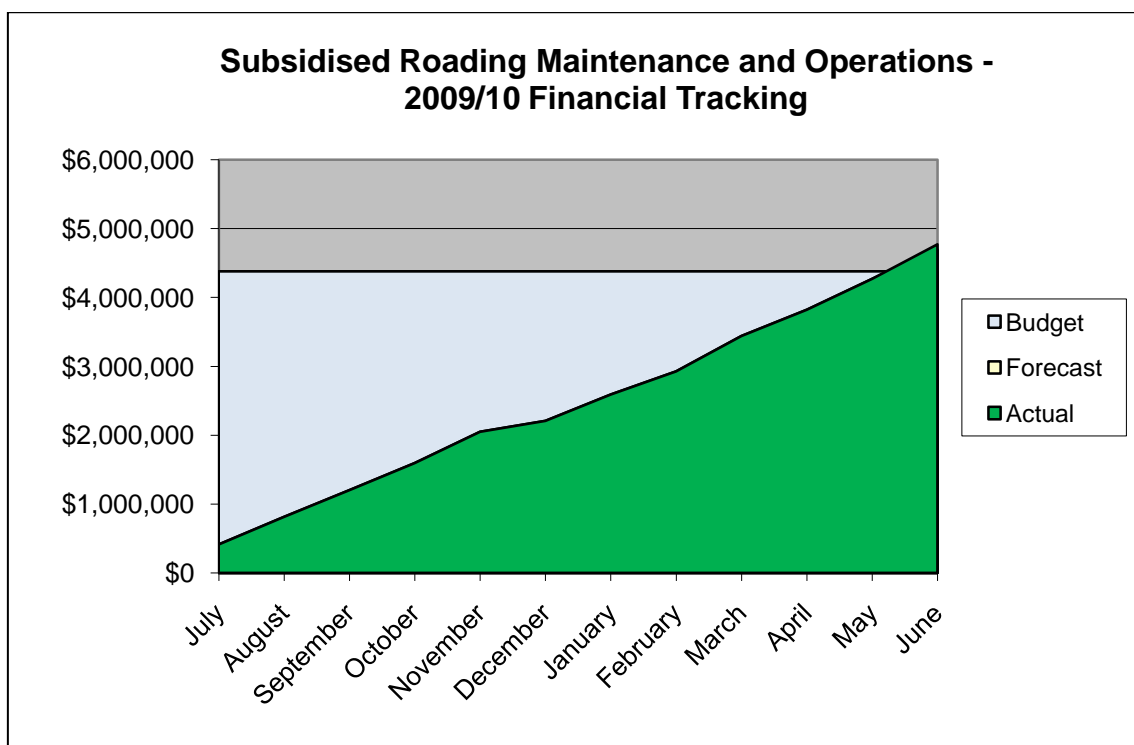
### 3 SUBSIDISED EXPENDITURE

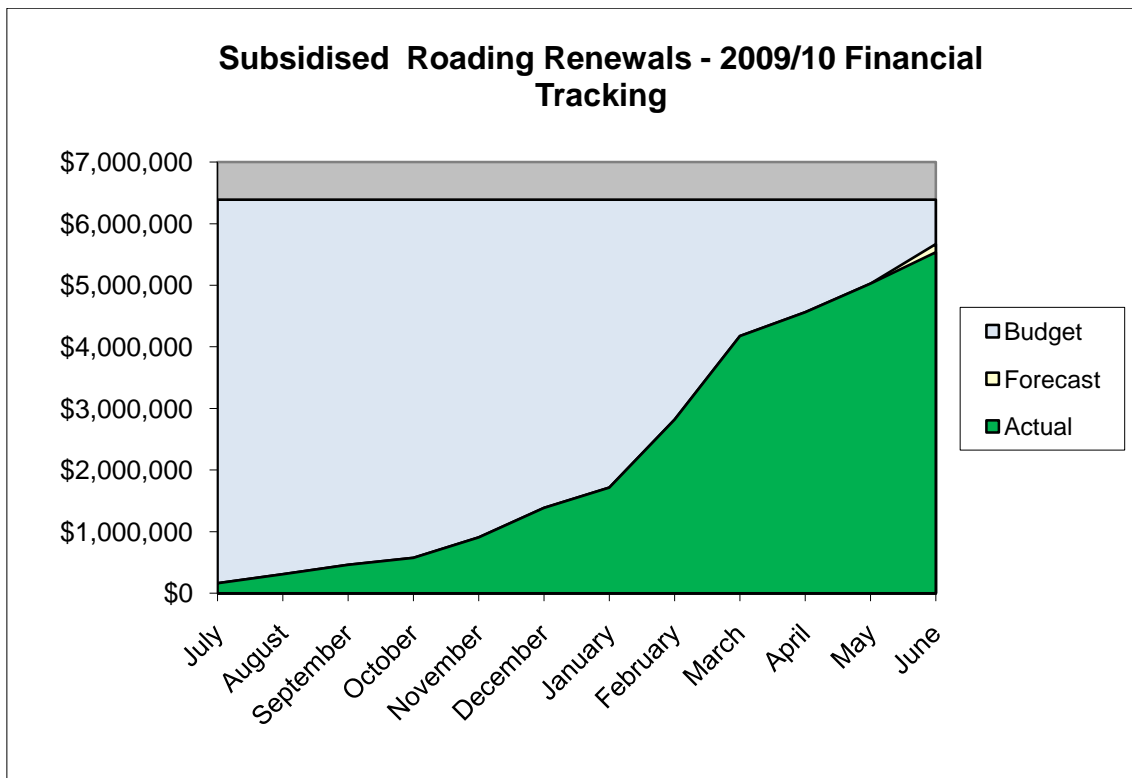
The subsidised roading budget was underspent in the 2009-2010 financial year as a result of warmer than normal winter months and issues relating to NZTA funding criteria associated with pavement rehabilitations. Any underspend in the subsidised work for NZTA is now automatically carried over to the next financial year. This is due to NZTA allocating roading funds in three block amounts. Accordingly our budgets are set from

2009 to 2012. This allows certainty in the work programme and the ability to carry out larger works in any three-year period by shifting any funding into the following year. The table below sets out the Subsidised Expenditure.

Maintenance and Operation of Local Roads	Allocated \$	Total Expenditure to 30 June 2010 \$
Sealed pavement maintenance	639,370	1,018,920
Unsealed pavement maintenance	321,200	338,350
Routine drainage maintenance	195,000	154,320
Structures maintenance	330,000	256,600
Environmental maintenance	1,130,000	1,079,300
Traffic services maintenance	450,000	408,070
Operational traffic management	12,000	2,060
Cycle path maintenance	25,000	250
Network and asset management	1,278,500	1,515,680
Maintenance and Operation of Special Purposes Roads	93,000	132,820

As shown in the table above the total carry over to the 2010-2011 financial year of subsidised maintenance and renewals budgets will be around \$460,000. There are underspends and overspends across the two work activity areas. This will result in an increase of funds available for subsidised works in the 2010-2011 financial years. The graphs below show the financial tracking for maintenance and operations.





This shifting of funds into this financial year will enable Tasman District Council to carry out works that better meet our needs of our road network. Such works will include pre-seal repairs, extending the length of annual reseals, better road marking and delineation and improving drainage.

#### 4 EMERGENCY WORKS

The programme for carrying out emergency works extends back to events in 2008-2009. There has been a strong focus to have all emergency works completed as soon as possible. The delays to date have occurred as a result of land negotiations, discussions with the Department of Conservation and investigating the extent of the damage. The table below provides details of the different projects.

Date	Allocation from NZTA in 2009/10 \$	Spend in 2009/10 \$	Carryover or Shortfall to Complete \$	Comment
2008/09 completed sites	402,227	402,227	0	Abel Tasman Drive Ligar Bay, McCallum Road 2 sites, Upper Aniseed Valley Road, Kaiteriteri-Sandy Bay Culvert 7, East Takaka Road 2 sites.
2008/09 sites to complete	141,773	20,973	120,800 carryover plus 59,200 shortfall	Abel Tasman Drive Wainui Bay delayed for HPT, awarded to contractor. Kaiteriteri-Sandy Bay Culvert 8 Piletech option not pursued, being priced. Sealing of culvert 7 site.

Date	Allocation from NZTA in 2009/10 \$	Spend in 2009/10 \$	Carryover or Shortfall to Complete \$	Comment
2008/09 Special Purpose Roads (100% subsidy)	615,000	518,860	Estimated 30,000 carryover	7 sites on Totaranui Road and 1 site on Pupu Springs Valley Road completed. Survey for land requirements to be completed.
November 2009 immediate response	179,786	179,786	0	Includes preliminary work at Turner's Bluff.
November 2009 completed sites	45,000	59,228	0	Matiri Valley Road.
November 2009 sites to complete	183,694	169,466	14,228 carryover plus 206,000 shortfall	Wairoa Gorge Nucor guardrail to be installed. Aniseed Hill 40% complete. Cobb Valley 50% complete.
May 2010 immediate response	417,650	417,650	0	Completed.
May 2010 sites to complete	140,000 allocated in 2010/11			17 sites, estimated cost \$80k - \$100k. Funding allocated by NZTA in 2010/11.

The most recent event in the Tapawera area in May 2010 was largely an immediate response and clean up event with any damage to Council assets being relatively minor. There are 17 sites which will require further work including geotechnical investigations which are due to be completed shortly. These works are considered to be minor with the total costs expected to be around \$100,000. The total repair bill for this event is expected to be around \$520,000. The breakdown in costs is provided below:

Physical Works Stage 1 and 2	Total
Motueka Valley Highway	\$113,159.23
Tapawera-Baton Road	\$161,415.44
Dovedale Road	\$825.00
Graham Valley North branch	\$1,667.50
Herring Stream Road	\$758.20
Hinetai Road	\$2,633.00
Motueka River West Bank Road	\$10,694.50
Rocky River Road	\$4,247.85
Sherry River Road	\$3,414.00



Waiwhero Road	\$4,139.95
Wangapeka River Road	\$26,827.24
Tadmor-Bushend Road	\$442.00
Graham Valley South branch Road	\$618.20
Big Pokororo Road	\$300.00
Wangapeka West Bank Road	\$9,098.00
Hall Road	\$3,075.50
Riwaka Valley Road	\$2,646.75
Brooklyn Valley Road	\$21,298.90
Kaiteriteri-Sandy Bay Road	\$5,997.75
Pomona Road	\$1,307.00
Tokongawa Drive	\$2,269.00
Williams Road	\$4,874.00
Sandy Bay-Marahau Road	\$1,067.50
Starnes Road	\$1,238.00
Riwaka-Sandy Bay Road	\$332.50
Aniseed Valley Road	\$210.00
Lord Rutherford Road North	\$210.00
Riwaka-Kaiteriteri Road	\$262.50
Other damage patrols	\$2,650.00
<b>Subtotal</b>	<b>\$387,679.51</b>
Fees – Stage 1 and 2	\$29,970.49
<b>Total costs stage 1 and 2</b>	<b>\$417,650 00</b>

<b>Fees - Stage 3 (to 30 June 2010)</b>	<b>\$9,943.00</b>
Estimated cost of remaining works and fees	
Wangapeka West Bank Road	\$17,000.00
Hinetai Road	\$26,000.00
Baton Valley Road	\$2,000.00
Graham Valley North Branch	\$3,000.00
Brooklyn Valley Road	\$7,000.00
Factory Road	\$12,000.00
Rocky River Road	\$10,000.00
<b>Subtotal</b>	<b>\$79,000.00</b>

Stage 3 estimated costs will be included in the geotechnical options report. Total estimated costs including contingency and allowance for fees and consents is \$79,000 to complete stage 3.

NZTA have approved \$140,000 for Stage 3 works, at 49% subsidy rate. Based on the above estimate, actual costs should be less than the approved amount.

There are some other tasks that are yet to be estimated and programmed for completion. These include work on the Motueka Valley Highway and in the vicinity of Twin Bridges at Glenrae. The funding for this work will come from our Emergency Works allocation for the 2009-2010 financial year as well as some from this current year.

A report will be provided for the next Engineering Services Committee meeting that will set out detailed costs associated with the event along with a programme to complete the remaining tasks. This report will also provide some discussion about the Emergency Works Budget and a recommendation for Council to consider increasing the current allocation of \$700,000 per year.

## **5 LEVELS OF SERVICE**

The levels of service and associated performance measures were reviewed and altered as part of the 2009-2019 Activity Management Plan preparation. The Activity Management Plans were adopted in July 2009. This is the first year for reporting against these measures. Appendix H of the Activity Management Plans provides details of the performance measures.

In the Transportation area 15 of the 19 performance measures were achieved. Accordingly four were not. The four that were not are listed below:-

- A Surface Condition Index (SCI) of 96.1% was achieved against a target of 97.5%.
- 96 complaints for footpath maintenance were received against a target of less than 35.
- 81.4% of faults were fixed within the timeframes against a target of 90%.
- There were four crashes at known frost sites in 2009 against a target of nil.

Works planned for the 2010-2011 financial year will endeavour to address the areas of the levels of service that did not meet the targets. Such measures include better delineation and road safety education programmes to address crashes.

The need to provide more funding in the footpath activity area has been discussed and the next Engineering Services Committee meeting will include a programme for these works and how they are going to be funded. *RAMM Contractor* will improve the recording and fixing of faults for the contractor going forward with an all faults works list which has already been prepared for Waimea and Tasman contract areas. This has allowed work to be identified and a targeted work programme to be prepared. The 2010-2011 financial year will see more work carried out on the network as a result of the underspend from the previous year. More investigations will also be carried out on the road asset.

## **6 RIVERS ANNUAL REPORT**

### ***Asset Condition and Performance***

This year once again saw very little disruption to the annual operations and maintenance programme (AOMP) resulting from flood events. There were no significant flood events during the period that required additional funding. The AOMP Priority 1 works were 98%

completed as at 30 June 2010 with the remaining scheduled works in progress. The river protection assets in the X and Y classified areas are being maintained to a standard consistent with annual maintenance requirements identified in the Rivers Activity Management Plan.

The original allocated AOMP maintenance programme for the year was \$1,400,302. There was an additional \$62,981 of work undertaken, mainly involving the disposal of crack willow which was interspersed with other scheduled bitter willow layering and mechanical clearing works which were not originally identified in the AOMP schedule. This brought the total expenditure on AOMP works to \$1,463,283. This was the first year of maintenance works carried out by the new rivers maintenance contractor Ferguson Bros Limited.

Generally the contractor has been meeting the required maintenance programme requirements. There have been a few quality related issues mainly relating to rock grading for Category-1 rivers however these were promptly addressed by the contractor.

All maintenance work has been undertaken under the Tasman District Council global consent NN01019L and discharge permit NN000425 for the control of vegetation. There were no reported compliance issues relating to the AOMP and additional works programme or for any approved River Z works. No complaints were received from Nelson-Marlborough Fish and Game or the Department of Conservation relating to any river works.

There were 18 approved applications for Tasman District Council funding assistance for River Z which effectively committed the funding budget well before the end of the financial year. However due to weather and other circumstances, not all approved River Z works were completed by the end of the financial year. Accordingly the remaining amounts will be carried over to undertake the works in the 2010-2011 financial year.

One gravel relocation project was completed in the Upper Takaka River and was carried out under the existing global resource consent NN010109 as the work was carried out in the dry bed section of the Takaka River.

The existing rivers global resource consent NN010109 is due to expire on 30 June 2011. Preparation for a new resource consent application is underway and is programmed to be lodged with Tasman District Council by November 2010.

Planning for the Motueka Flood Control upgrade commenced in 2009-2010 and will extend over a three year period with construction of the planned mitigation works to commence in 2012-2013. An all-encompassing public consultation process has been carried out during the last year and options are being developed with the aid of a detailed risk analysis evaluation about to get underway. The key focus of the flood control works is to provide an effective solution that has an acceptable risk to the community and is affordable.

### ***Rivers Maintenance Contract 760***

The new Rivers Maintenance Contract 760 commenced on 1 July 2009 for a two-year term with a right of a further three annual renewals.

At the end of the first year the contractor has achieved an average monthly performance score of 77.50% which is above the required performance levels in the contract.

The Tasman District Council *CONFIRM* system is still not meeting the entire requirement as originally intended for the management of the contract and recording Asset Management data.

## **7 RECOMMENDATION**

**THAT the Annual Report - Transportation (RESC10-07-03) be received by the Engineering Services Committee.**

Gary Clark  
**Transportation Manager**