



TO THE MAYOR AND COUNCILLORS OF THE MACKENZIE DISTRICT COUNCIL

Membership of the Asset and Services Committee:

Cr James Leslie (Chairman)
Claire Barlow (Mayor)
Cr Noel Jackson
Cr Evan Williams
Cr Russell Armstrong
Cr Murray Cox
Cr Graham Smith

*Notice is given of the Meeting of the Asset and Services
Committee to be held on Thursday March 20, 2014, following
the completion of the Finance Committee meeting.*

VENUE: Council Chambers, Fairlie.

BUSINESS: As per agenda attached

WAYNE BARNETT
CHIEF EXECUTIVE OFFICER



ASSET AND SERVICES COMMITTEE

Agenda for Thursday, March 20, 2014

APOLOGIES

DECLARATIONS OF INTEREST

ELECTION OF DEPUTY CHAIR

MINUTES:

Confirm and adopt as the correct record the minutes of the Asset and Services Committee Meeting held on Tuesday February 4, 2014, including such parts as were taken with the public excluded.

MATTERS UNDER ACTION

REPORTS:

1. Asset Manager's Monthly Report – March, 2014.
2. Financial Assistance Rate Review Submission.
3. Fairlie Water Supply – New Source Turbidity Monitoring.
4. Request from Hamish and Jo Lane to Remove Trees on Nixons Road.

PUBLIC EXCLUDED:

Resolve that the public, be excluded from the following part of the proceedings of this meeting namely:

1. Previous minutes of the Asset and Services Committee meeting held on Tuesday, February 4, 2014, taken in public excluded session.
2. Twizel Public Toilet Tenders.

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
Previous minutes of the Asset and Services Committee, February 4, 2014	Commercial sensitivity	48(1)(a)(i)
Twizel Public Toilet Tenders	Commercial sensitivity	48(1)(a)(i)

This resolution is made in reliance on Section 48(1)(a)(i) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act, which would be prejudiced by the holding of the whole or the relevant part of the proceedings of the meeting in public are as follows: *Previous minutes of the Asset and Services Committee. under section 7(2)(b)(ii).*

RESOLUTION TO RESUME OPEN MEETING

3

ADJOURNMENTS:

10.20am: Morning Tea

12.00pm: Lunch

MACKENZIE DISTRICT COUNCIL

MINUTES OF A MEETING OF THE ASSET AND SERVICES COMMITTEE HELD IN THE COUNCIL CHAMBERS, FAIRLIE, ON TUESDAY 4 FEBRUARY, 2014, AT 11.55am

PRESENT:

James Leslie (Chairman)
Claire Barlow (Mayor)
Cr Graham Smith
Cr Evan Williams
Cr Murray Cox
Cr Noel Jackson

IN ATTENDANCE:

Wayne Barnett (Chief Executive Officer)
Bernie Haar (Asset Manager)
Geoff Horler (Utilities Engineer)
Angie Taylor (Solid Waste Manager) – from 12.04pm
Arlene Goss (Committee Clerk)

Kevin Edgar (Envirowaste) – from 12.04pm

APOLOGIES:

An apology was tabled from Cr Russell Armstrong and Roding Manager Suzy Ratahi. There was no formal resolution.

DECLARATIONS OF INTEREST:

There were no declarations of interest.

MINUTES:

Resolved that the minutes of the meeting of the Projects and Strategies Committee held on September 3, 2013, including such parts as were taken in public excluded, be confirmed as an accurate record.

Claire Barlow/Murray Cox

Angie Taylor and Kevin Edgar joined the meeting.

REPORTS:

ASSET MANAGERS MONTHLY REPORT – FEBRUARY 2014:

The Asset Manager spoke to his report. Cr Smith asked what steps council staff were taking to lower the repair costs of the Fairlie water system. Mr Haar replied the leaks cannot be predicted. Cr Williams asked if the pumps from

Twizel could be used at the Allandale scheme. Mr Haar said no because they were built to purpose.

Roading projects: All three community boards have decided to spend their money catching up on footpath work.

There was discussion on some individual roads mentioned in the report. Regarding the Financial Assistance Rate review, we have combined with TDC to prepare a submission. Mr Haar offered to keep councillors informed on this issue and was asked to do so.

Geoff Horler spoke on the utilities section of the report. He is hopeful the Fairlie water repairs will settle down. Installing Ecan flow meters will not have an impact on the amount of water available. Noted the sewerage ponds will need to be cleaned out in the near future. The most urgent one to be cleaned is Fairlie.

Angie Taylor spoke to the report on solid waste. She has recently started a mobile phone recycling project. Questions were asked about the quantity of waste and how much was being recycled. Mr Haar said the price of recycled products is falling away so the return to the council is not high. Cr Smith questioned why the budgeted amount for education was not being spent. Ms Taylor said the nappy project was part of that, and there was also a plan to offer subsidised compost bins.

The Mayor asked about visitors to the district. Are we looking to educate holiday home owners or visitors on how to recycle waste? Ms Taylor said not yet but in the future.

Resolved:

1. That the report be received.

Evan Williams/Noel Jackson

2. That the preferred option to utilise the Roding Reserve for Tekapo Township be the continuation of the Lakeside Drive Safety Footpath.

Claire Barlow/Noel Jackson

3. That the preferred option to utilise the Roding Reserve for Twizel Township be the resurfacing of various footpaths in the worst condition in Twizel.

Claire Barlow/Noel Jackson

The committee adjourned for lunch at 12.40pm and reconvened at 1.15pm.

PUBLIC EXCLUDED:

Resolved that the public be excluded from the following part of the proceedings of this meeting namely:

1. Previous minutes of the Projects and Strategies Committee meeting held on Tuesday September 3, 2013, taken in public excluded session.
2. Recycling Processing. Kevin Edgar from Envirowaste to attend.

Graham Smith/Evan Williams

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
Previous minutes of the Projects and Strategies Committee, September 3, 2013	Commercial sensitivity	48(1)(a)(i)
Recycling Processing	Commercial sensitivity	48(1)(a)(i)
This resolution is made in reliance on Section 48(1)(a)(i) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act, which would be prejudiced by the holding of the whole or the relevant part of the proceedings of the meeting in public are as follows: <i>Previous minutes of the Projects and Strategies Committee, and Recycling Processing under section 7(2)(b)(ii).</i>		

The Asset and Services Committee continued in open meeting.

ALKALINE ADJUSTMENT OF TWIZEL WATER:

Bernie Haar spoke to his report. The deterioration of the pipe work is such that adjusting the alkaline level in the water in Twizel will not extend the life of the pipes. Mr Haar suggested noting the information and not doing anything to adjust the level.

Cr Jackson asked if this is a Twizel community board issue. The previous council made a decision to take a close watch on drinking water issues. The chief executive said this is a subject that needs to be run past both Fairlie and Twizel community boards. Cr Smith believed water issues ultimately need to come to council.

The chief executive asked Cr Smith if these issues should routinely go to community boards first. Cr Smith believed no.

In the past most things have gone to the community board first. Historically council has gone to community boards for decisions on operational capital matters. Drinking water standards are policy that the district as a whole needs to meet. But it is still important that we take community boards along with us in making a decision.

The chairman said in this case the Asset and Services Committee will make a decision:

Resolved:

1. That the report be received.

Evan Williams/Murray Cox

2. That Council accepts the recommendation by Opus International Consultancy Ltd to not dose the Twizel water supply to raise its pH as there is no long term benefit to the expected life of the AC pipe network.

Evan Williams/Graham Smith

CLOTH NAPPY PROJECT:

Angie Taylor spoke to her report on the cloth nappy project. She is planning to fund it through the waste education budget and money from the Ministry for the Environment.

She showed the councillors a modern cloth nappy. There are about 50 births a year in our district. Ms Taylor was asked about how she intended to get the message out. She will use media and local newsletters. Can also do a leaflet to hand out to expectant mothers.

Resolved:

1. That the report be received.

Claire Barlow/Noel Jackson

2. That the Council agrees to fund the proposed cloth nappy project using the waste levy provided by the Ministry for the Environment.

Claire Barlow/Noel Jackson

**THERE BEING NO FURTHER BUSINESS THE
CHAIRMAN DECLARED THE MEETING CLOSED AT 2.02 PM**

CHAIRMAN: _____

DATE: _____

Matters Under Action – Asset and Services Committee				
<i>Action</i>	<i>Date Added</i>	<i>Owner</i>	<i>Current Status</i>	<i>Date Completed</i>
Election of deputy chairperson.	4-02-14	Arlene	The election of a deputy chairperson for this committee needs to go on the agenda of the next meeting.	
Financial Assistance Rate review.	4-02-14	Bernie	MDC and TDC have combined to make a joint submission. Councillors have asked Mr Haar to keep them informed on this issue.	
Use of roading reserve funds to repair footpaths.	4-02-14	Bernie/ Suzy	Staff to go ahead with repairs and extensions to footpaths in Twizel, Tekapo and Fairlie as directed by the community boards.	
Cloth Nappy Project.	4-02-14	Bernie/ Angie	Staff to undertake the cloth nappy project using the waste levy provided by the Ministry for the Environment.	
Upgrade of recycling system in Twizel.	4-02-14	Bernie	ESL undertaking an upgrade of the current recycling sorting system in Twizel. This resolution was confirmed in open meeting of the full council on 18-2-14.	

MACKENZIE DISTRICT COUNCIL

REPORT TO: ASSETS AND SERVICES COMMITTEE

FROM: ASSET MANAGER

SUBJECT: ASSET MANAGER'S MONTHLY REPORT

MEETING DATE: 20th March 2014

REF: WAS 1/1

ENDORSED BY: CHIEF EXECUTIVE OFFICER

REASON FOR REPORT

To update the Assets and Services Committee on the progress on various projects and also the normal operation of the department for the past month.

RECOMMENDATION:

1. That the report be received.

BERNIE HAAR
ASSET MANAGER

WAYNE BARNETT
CHIEF EXECUTIVE OFFICER

ASSET MANAGEMENT

PROJECT PROGRESS

Sewerage

Twizel Land Purchase

The CEO and myself Met with the land owner and have agreed on the area of land required along with the other issues of easements for services and access. It has also been agreed that a mutually acceptable Valuer be commissioned to provide a new valuation of the land required. The philosophy being that by agreeing on the Valuer then both parties would accept the results of that value.

We are now working on that process.

Projects - Water Supply Programme

Fairlie

Separate report on the agenda to address the issue of long term turbidity monitoring.

Twizel- Proposed upgrade to meet DWS

The Utilities Engineer and I are to meet with Opus International Consultants this week to review progress.

The table below sets out the work progress and decisions required.

Item	Outcome
1) Replacement Twizel Wellfield Pump This is a Goulds, Type 11- CNLC-1	Completed
2) Twizel Water Alkalinity and pH Adjustment The Asbestos Cement water pipe network is deteriorating from the inside with large scale replacement required from about 2020. As part of the water supply improvements it was appropriate to consider whether pH adjustment would extend the life of the AC pipe	Completed

<p>3) Twizel Reservoir Liner Replacement</p> <p>The current liner is showing areas of deterioration. With the reservoir it was necessary to consider the life of the existing liner and what technically would be required to replace it, Is leakage through the embankment from the damaged areas of liner visible? If so, could a temporary repair be made? What is anticipated remaining life of the liner? If liner replacement is to proceed, when would it be programmed?</p>	<p>A report is being prepared covering life remaining, replacement material options, cover options and advantages/disadvantages, replacement procedure issues, and replacement timing.</p> <p>The report will be put to the Assets and Services Committee for consideration when available.</p>
<p>4) Twizel water - Bench scale testing of 1um cartridges for turbidity removal</p> <p>As mentioned in the Water Supply Options report, Cartridge filtration is the most economic form of filtration for achieving log credits and has the advantage of not requiring the use of coagulants (with the resulting problem of waste disposal). However, cartridge filtration requires clean source water. Testing of 1um cartridges will be needed to gain information on the life of the cartridges and also whether they will remove sufficient small sized turbidity. A test set-up will be installed in the pump room with the sample taken downstream of the 25 um mesh filter.</p>	<p>Opus to provide details on the design and testing/monitoring procedures for the 1um cartridge turbidity removal testing, and testing duration. This is No.1 priority for the Twizel water supply work.</p>
<p>5) Twizel water — Possible alteration of Screens (Log credit reduction)</p> <p>The three screens per well have been positioned to correspond with areas giving the highest flow rates. The screens are located at depths 5.2-7.0m, 9.5-11.3m, and 13.7-15.5m. Pump intake was positioned immediately above the lowest screen so that water would flow over the motor casing to effect cooling. Video of the No. 1 well shows maximum blockage of the screens at the lowest screen. Moderate blockage of top screen, least blockage at centre screen. It is not known if screening below 10m would allow sufficient flow to be extracted from the wells. Carry out camera inspection of No. 2 Well</p>	<p>Geoff Horler to organise a camera inspection of the No. 2 well early this year. Completed</p> <p>Other issues such as well field valves, piping, flooding, etc to be considered following a joint site visit. Opus then to report on well screens condition and other issues.</p>

<p>6) Twizel Water PHRMP Will be delayed until better idea of forward programme is known. Approved PHRMP must be in place by 1 July 2014. Therefore must be submitted to DWA no later than mid-May 2014.</p>	<p>Opus to keep an eye on timing and involve Jim Graham at the appropriate time.</p>
<p>7) Twizel - Policy on Fire fighting, Domestic supplies, and (reserves) Irrigation <u>Fire fighting</u> Confirm that FW2 (PAS 4509:2008) classification required for Twizel with on-site storage in restricted supply areas (30 m3 tanks with 20 m3 for firefighting). FW3 to be allowed for Twizel CBD area. <u>Domestic Supplies</u> Water supply "on-demand" and "restricted supply" areas as shown in MDC Activity Plan (2011) Figure 3.5.6a. Restricted supply-1 unit per property per day (1,820 litres). <u>(Reserves) Irrigation</u> Will decision on irrigation supplies be made before modelling undertaken, or will modelling be used to aid decision?</p>	<p>Confirmed.</p> <p>OK.</p> <p>Keep irrigation in the model — can use as a future demand volume.</p>
<p>8) Twizel Information Reticulation Modelling What has changed since 2009? New connections Updated water records Any changes to the operating of the secondary (booster) pumps Reserve irrigation volumes?</p>	<p>List of new connections and increased demand confirmed. Model being reworked.</p>

OTHER PROJECTS FOR 2014-15

Leading up to the preparation of the 2015-25 Long Term Plan there are a number of strategy documents that will have to be reviewed and updated to comply with the current review of the Local Government Act 2002.

- Review and update the Activity Management Plans for Transportation, Water Supply, Sewerage and Stormwater.
- Prepare 30 year Infrastructure Plan.
- Complete LTP

As well as the above prep work etc, for the LTP, there are also another couple of big tasks that have to be completed within the next nine months:

- Prepare and lodge a bid to New Zealand Transport Agency with supporting information, for road funding for the next three years.
- Review and update the Road Maintenance Contract Documents and put out to tender in around 12 April 2015.

There is a large amount of work required here and it will take up a lot of staff resources and possibly some external resource as well.

A “Brief” requesting professional services to complete the Tekapo parking study has been prepared and offered to three companies for bids.

ROADING

Environmental Maintenance

No events of significance have occurred since the last report. We are still working through the flooding works, such as under-pinning bridges and re-instating a section of seal in Cannington. These works are programmed to be completed by the end of March



Opawa Stream, Rutherford Road Bridge

Maintenance – Sealed Roads

At the time of writing this report reseals are nearing completion, planned for the end of March. Clayton Road, for the majority of the 7km of seal widening, has been resealed which now completes this section of widened road. We are starting to work through our 15km of back log of resurfacing, but as expected more seals are showing signs of failure as time wears on.



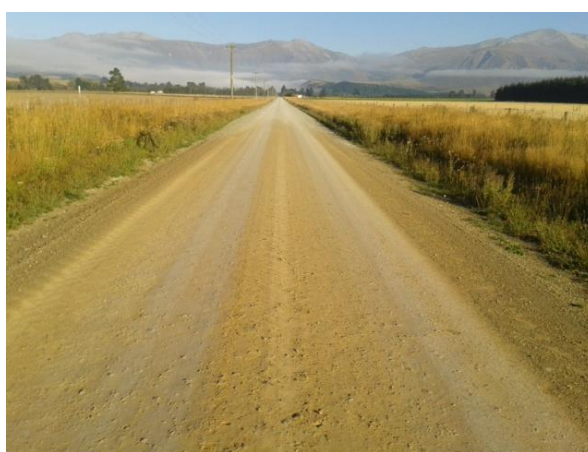
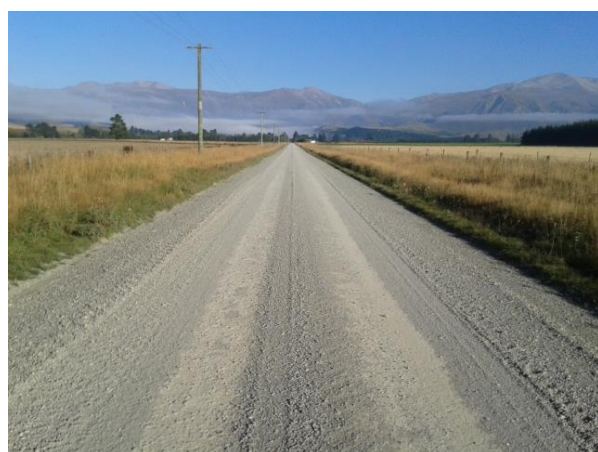
Clayton Road



Market Place, Twizel

Maintenance – Unsealed Roads

Our rotten rock trial on the end of Hamilton Road has proved very successful with minor potholing and no dust complaints. This area has also received no grading since its formation in September. Below shows the photos of the difference in dust generation, and surface condition between our normal wearing course/maintenance metal surface and the newly installed rotten rock



Alps to Ocean

There is still a large section of the A2O trail on public road, being Mount Cook Station Road (16km) and Hayman Road (approx. 22km). As a result there remain a number of concerns regarding potential traffic conflict. This has been highlighted recently by Rooney's carting rock for Meridian from Braemar Road down Hayman Road to a stock pile in preparation for

repairs of shoreline erosion on Lake Pukaki. Both Mount Cook Station Road and Hayman Roads have derestricted speed limits and are open to the general public.

We have received a number of complaints from the cycling community regarding the speed of the trucks and the flicking of gravel on our unsealed roads along with the dust nuisance. On the flip side there have been near misses reported by truck drivers to both Rooneys and Meridian, reporting cyclists riding 2 or more abreast within the wheel tracks of the unsealed road and having to take evasive action to avoid hitting them. Obviously the wheel track is the smoothest place to ride a bicycle, but it is also the obvious track that all drivers of vehicles take.

The potential for a serious conflict to take place is present on a number of our unsealed roads, but due to the high use of Hayman/Mount Cook Station Roads by cycling visitors, the chances of an incident occurring are high. While the main objective should be to construct a new cycle track adjacent to the existing public road, thus separating cyclists from the motorists, current budgets do not allow these works to happen. As a result the assets team are working in closely with Meridian to put in place whatever measure they can to reduce the risk from their operations. So far, Meridian and Rooney's have been very forthcoming with information and working with us to achieve safer speeds.

As a team we are working on developing extra appropriate signage to warn both cyclists and motorists of the conflict. We will also be undertaking a full study of the 38km to identify, cost out and prioritise safety improvements that could be made in to help to eliminate the risk until such time as the off road track is complete. This works will need to be funded out of the \$30,000 pa set aside for track maintenance.

Meridian has done a lot of local advertisements in both the Fairlie Accessible and the Twizel update warning locals of the rock cartage. Whilst these works will be complete by the end of March/middle of April, the issue will be ongoing due to Mount Cook Station logging operations restarting in the spring of 2015.



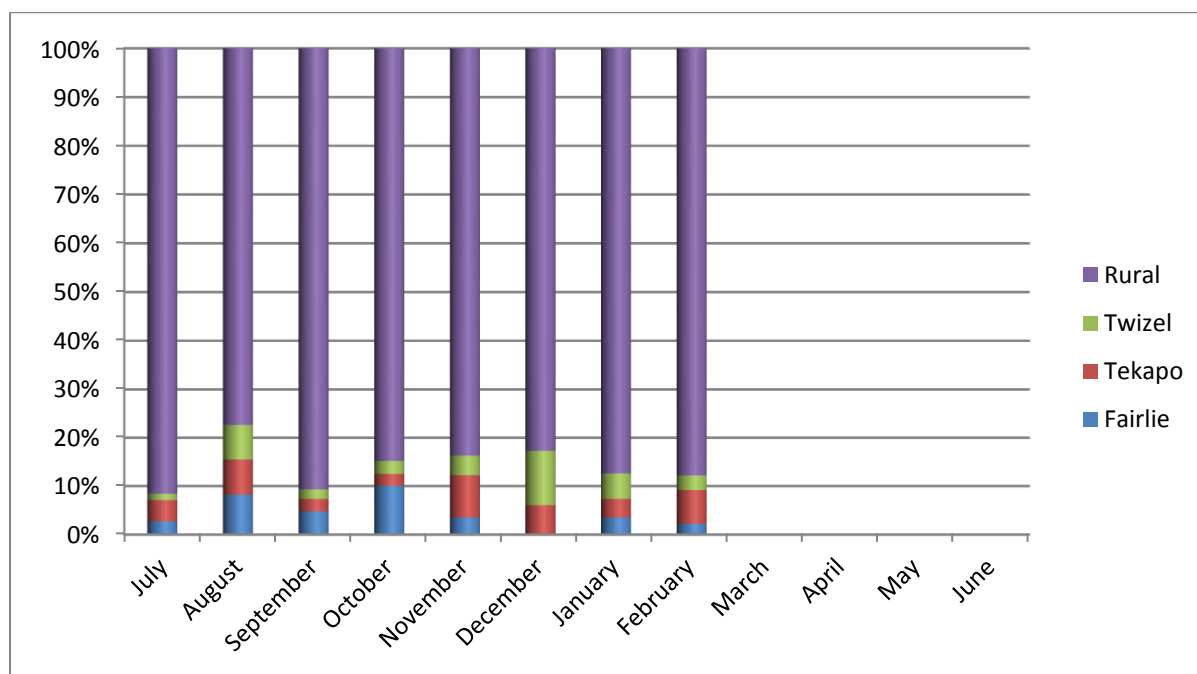
Existing 4WD Tracks available on sections of Hayman Road

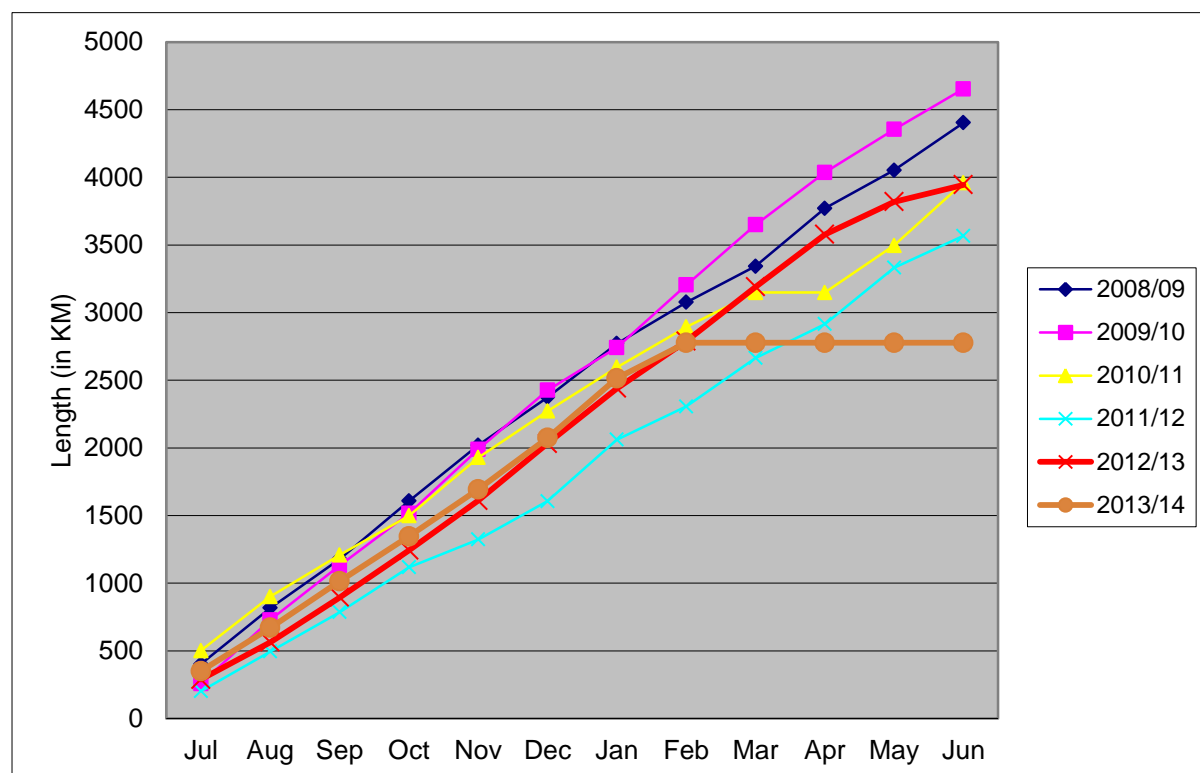
One Network

New Zealand Transport Agency has just brought a new Guideline out which changes how local roads are to be classified. All roads will be assessed nationally against these guidelines. Due to the low traffic count in the Mackenzie District the new classification guideline would mean that most roads would be classified as “Access Road – Low Volume” which is the lowest classification, with some of our busier roads potentially making it out of the bottom “Access Road – Low Volume” classification. There are some indications that the level of investment will be variable depending on the classification of the roads. Further information will come available as the NZTA’s Road Efficiency Best Practice Asset Management Group test the Provisional Customer Levels of Service (CLOs) that have been developed, but they will remain provisional until they can be fully tested through an iterative process of developing detailed performance measures for network operation and maintenance.

The third element is the development of the performance measures and targets, which will effectively determine how the categories and customer levels of service translate into specific maintenance, operational and investment decisions. This work has started and will be completed during 2014. Once this framework is completed we will then know the direct effect this will have on the Mackenzie District Roding Network.

Amaglamated Roding Budgets Graph Showing Percentage Share



Unsealed Road Grading (Cumulative)

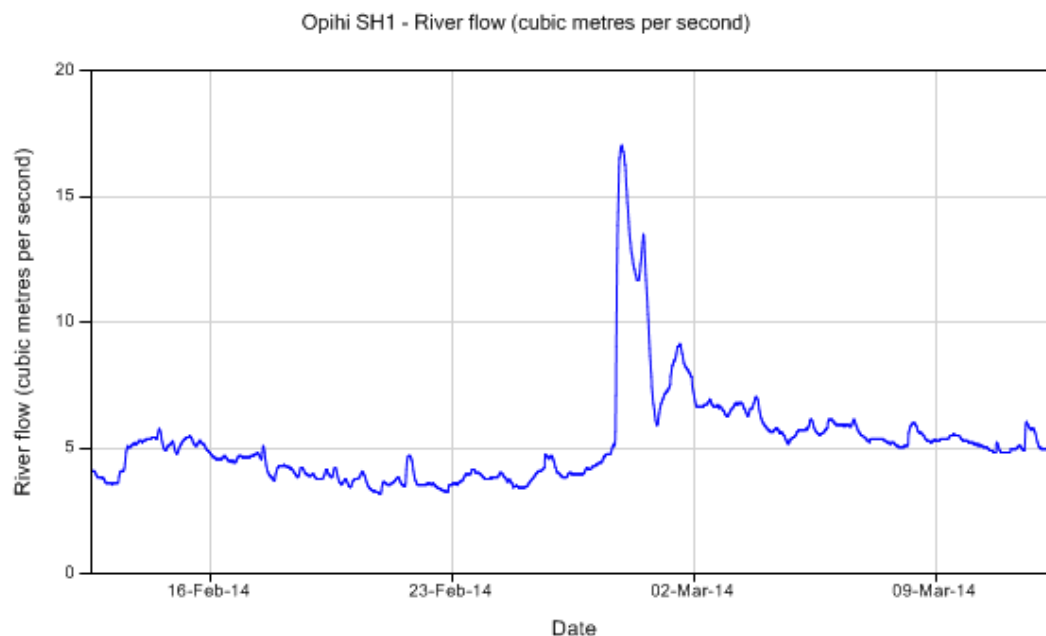
ESSENTIAL SERVICES

FAIRLIE

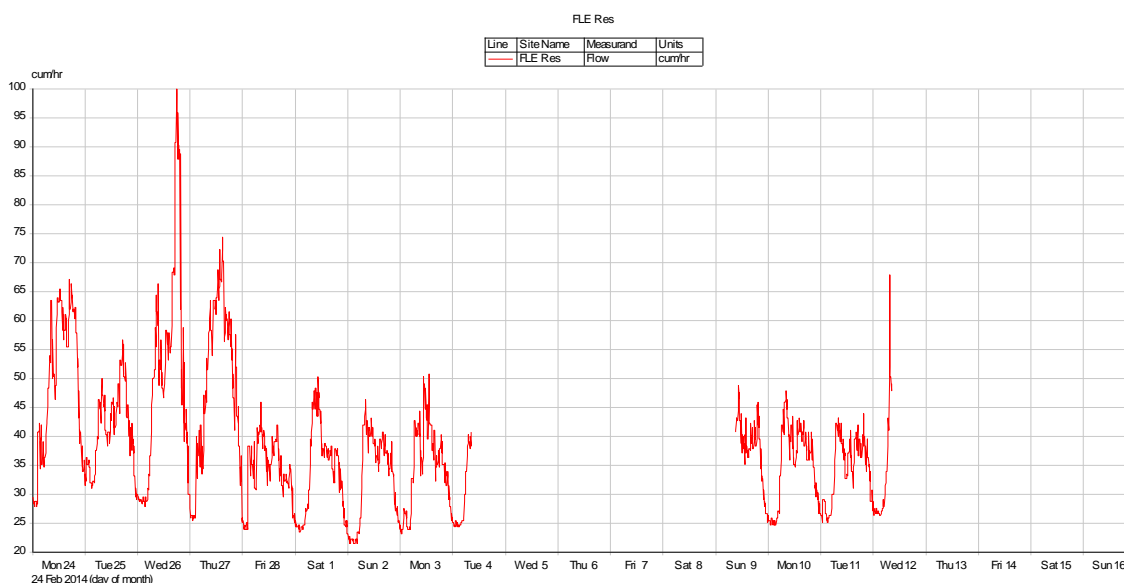
Water:

Operation and Maintenance expenditure is \$46,990 over budget YTD and is likely to remain that way. There have been no major issues with the Fairlie. Due to the flows in Opihi River being below 8.1 cubic metres per second level as per our water consent. Water restrictions have to be put in place for all those off the Three Springs water supply.

Graph below from ECAN web site.



Fairlie Flows



Capex budget used YTD \$105,120. More toby and lateral line upgrades are to be carried out in parts of town ahead of the planned footpath upgrades.

The Magflow meter has been purchased for installation near the treatment shed of the Three Spring water supply.

OPUS is in the stage of developing a model for a slow sand filter for the scheme. It is hoped to start the testing of the turbidity of the alternate spring this month.

Wastewater:

Operations and maintenance expenditure is \$14,255 on budget YTD.

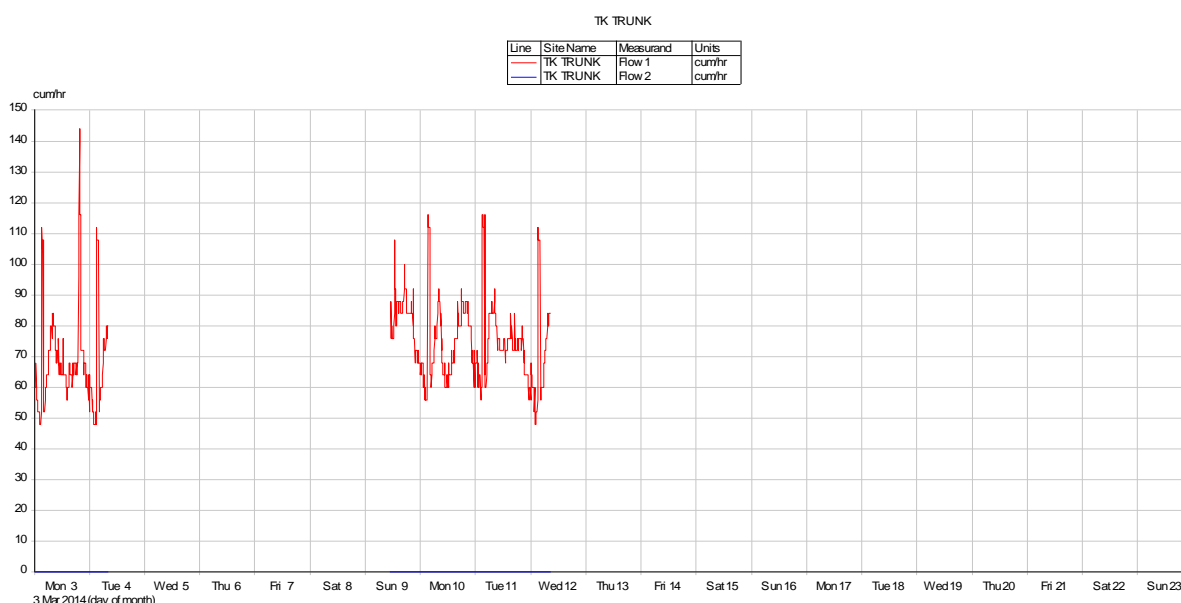
Stormwater:

Operations and maintenance expenditure is \$1,235 under budget YTD.

TEKAPOWater:

Operation and maintenance expenditure is \$40,042 is over budget YTD and will likely stay that way. Since the last report things have settled down in Tekepo.

Weekly water usage

Wastewater:

Operations and maintenance expenditure is \$23,187 under budget YTD. There have no problems with the scheme over the last month.

Stormwater:

Operations and maintenance expenditure is \$3,614 over budget YTD due mainly to extra maintenance of the stormwater ditch in Murray Park.

TWIZELWater:

Operation and maintenance expenditure is \$54,623 is on budget YTD. There were a number of faulty service valves that were replaced since the last report most of these were on rider mains.

Capex budget for service connection replacement is \$42,388 which has gone over budget by \$2,392 this was due to the number of problem tobies also some more complex than others to fix.

Opus is hoping to start the filtration trials this month to determine if cartridge filtration will be suitable to remove the turbidity from the water supply. Preliminary design is underway for the upgrade of the plant in the pump shed.

A number of Asbestos Cement water main samples will be collected by the end of the month and sent for analysis to determine the remaining life. With this information we will have a better understanding of the condition of the AC pipe in Twizel and be able to plan for its eventual replacement CCTV was carried out on Number Two well which turned out to be

different to that of Number one in that there is only one screen also not as deep. Casing has quite a build-up of Biotic/corrosion deposits which will need cleaning somehow.

Wastewater:

Operations and maintenance expenditure is \$18,476 which is running on budget YTD.

Stormwater:

Operations and maintenance expenditure is \$1,687 is under budget YTD.

SOLID WASTE

Increase in bin counts

Envirowaste have advised that the number of bins emptied in each kerbside collection is increasing. It is considered that this increase in wheelie bin usage is due to additional use of holiday homes and increased awareness of the collection now that it has been operating for several years. There is also a continued increase in the number of wheelie bins provided as new homes are built with 85 new sets of bins provided throughout the district since the introduction of wheelie bins in October 2011.

Where properties are utilising the kerbside collection more, this leads to increased disposal costs for the Council with no additional income to counter this increase. Properties that are provided with new sets of bins do generate additional income through the solid waste charge being added to rates as new bins are provided. The solid waste charge is currently \$250 per annum. Depending on the usage trend of wheelie bins, it is recommended that the solid waste charge may need to be reviewed.

Education projects

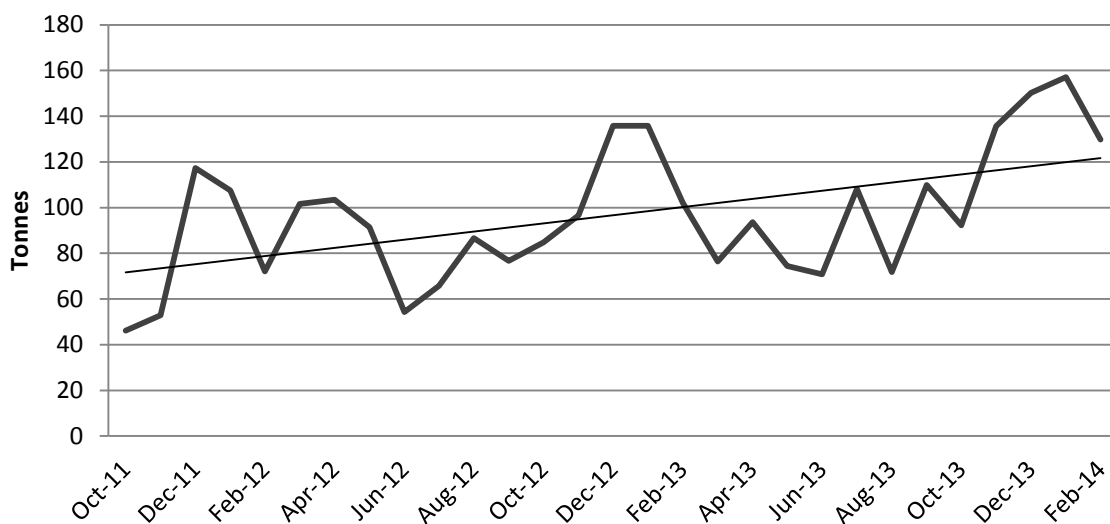
Mobile phone recycling collection: The collection of mobile phones ran for approximately one month, with 55 phones plus a number of chargers being collected. These have now been sent to the Starship recycling programme, where they will be recycled or refurbished with profits going to the Starship Air Ambulance.

Cloth nappy packs: Cloth nappy packs are now being sold from the Council offices in Fairlie and Twizel with a good initial response being received.

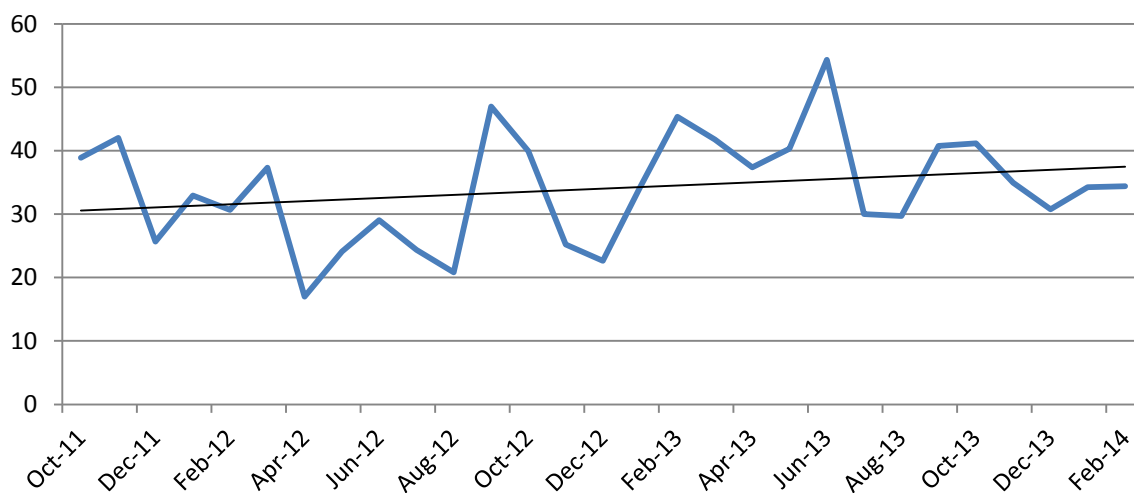
Recycling sort line upgrade – Twizel Resource Recovery Park

Envirowaste have received the final specifications and pricing for the new recycling sorting system to be installed in Twizel and are in the process of confirming the final details. It is expected there will be approximately three months to manufacture and install the new sorting system, so it is anticipated the new system will be operational by spring.

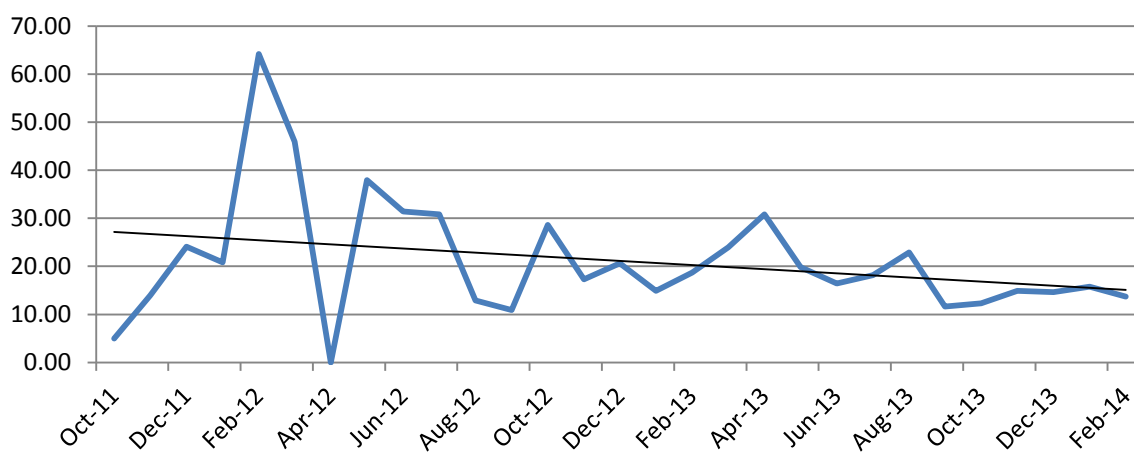
Waste Carted to Landfill



Percentage of waste diverted



Percentage of recycling sent to landfill as residual waste



MACKENZIE DISTRICT COUNCIL

REPORT TO: ASSETS AND SERVICES COMMITTEE

SUBJECT: FINANCIAL ASSISTANCE RATE REVIEW SUBMISSION

MEETING DATE: 20TH MARCH 2014

REF: WAS 2/4/7

FROM: MANAGER – ROADING

ENDORSED BY: CHIEF EXECUTIVE OFFICER

PURPOSE OF REPORT:

To review Councils submission on the funding assistance rate review prior to being lodged with NZTA. Submissions close on the 28th of March 2014.

STAFF RECOMMENDATIONS:

1. That the report be received.
2. That the attached submission on the financial assistance rate be approved for submission to New Zealand Transport Agency.

SUZY RATAHI
MANAGER – ROADING

WAYNE BARNETT
CHIEF EXECUTIVE OFFICER

BACKGROUND:

First Round of Consultation

In May 2013 a discussion document looking at the principles involved in the FAR was released; briefly Council's submission included:

- i. The exclusion of NZTA Highways and NZ Police from the review which make up two-thirds of the spend from the National Land Transport Fund;
- ii. The FAR should support the sustainability of communities;
- iii. The status quo even though it was not proposed as an option and it was Mackenzie District Council's preference;
- iv. The minimum FAR of 43%, which dated back to 1959 should be removed;

As a Local Authority we are accountable to our community to provide a road network that is safe, reliable and robust, generally termed as "fit for purpose". Our network must meet the needs of residents, visitors, businesses, some of which contribute substantially to the New Zealand economy and our rural farming community, the foundation of New Zealand's export earnings.

The funding for this is principally capital value based rates with some financial assistance funding provided from NZTA for a portion of the road network activities. Any reduction in financial assistance will have an impact and shortfall will either have to be funded by the community or level of service reduced.

NZTA's PROPOSAL FROM THE FIRST ROUND OF THE CONVERSATION PROCESS

What is proposed?

A new national "co-investment rate" is proposed

The co-investment rate is new term for base FAR (FAR is used in the paper for simplicity).

Most Councils will have the same base FAR and this will be in the 49-52% range.

This is derived from the amount of money available in the National Land Transport Fund.

How will the FAR be set?

NZTA's options discussions document suggests that most Councils would be funded at the same level, with a higher FAR (proposed at 70% or 75%) for the 25% of TLA's that have a greatest difficulty to fund and maintain their networks. However, we would have concerns about the mechanism to determine those TLA's in the 25%. As an example we would have expected Chatham Islands to fit within the top 25%.

NZTA has suggested 5 options based on individual or combined metrics:

One	Index Of Deprivation (a measure of the relative wealth of the residents in an area)
Two	<u>Rating Capital Value</u> Rating Unit (a measure of the relative wealth of the ratepayers in an area)
Three	Options One and Two combined (two measures of the relative wealth)
Four	<u>Lane km of local road</u> Rateable Capital Value (a combination of measures of size of the roading activity and relative wealth)
Five	Options One and Four combined (one measure of the size of the roading activity and two measures of the relative wealth)

THE EFFECT ON MACKENZIE DISTRICT COUNCIL

Operations, Maintenance and Renewals

Mackenzie District Council is not in the top 25% in any of the options presented. This means a reduction in Funding Assistance Rate from the current 53% to the national co-investment rate of 49% or 52%.

This is a reduction in funding from NZTA of between \$52,000 and \$130,000 depending upon the actual co-investment rate.

Minor Improvements

This is currently funded at 63% (10% over base rate) with an approved allocation for Mackenzie District of \$250,000 per annum. This is predominantly used to fund bridge replacements due to previous changes in NZTA funding rules. i.e. renewal projects have to be first call on a RCA's minor improvement allocation. The proposal cuts any minor improvement allocation back to the new "co-investment" rate

Emergency Reinstatement

Currently emergency works are funded at a higher FAR based on the ability to pay and the cost/severity of the event.

Recently Mackenzie has made claims of \$1.78 million (2012-2014). Whilst significant expenditure for the Mackenzie rate payer to fund, it is less than 1% of the Emergency Works spent across the country. The average FAR received for this assistance package was 79% and provided a financial benefit of \$490k over our base FAR (53%). The Emergency Reinstatement Work Category is designed to assist RCA's to reinstate access and services quickly without a severe impact on normal budgets.

Whilst it is accepted by RCA's that minor events are covered under the Environmental Maintenance Work Category. The current definition for Work Category 141 provides for

“unforeseen significant expenditure that arises from a defined, major, short-duration natural event” This definition allows for a sensible debate to be had with NZTA staff over what is a significant unforeseen event and what level of funding it should achieve. Without supporting information on the event even when there is no relevant information to support a claim for a localised event to confirm whether or not the event is a 20 or 50 year annual recurrence interval.

The proposal to define a significant unforeseen event as one that has a greater than 20 or 50 year annual recurrence interval would appear to be sound in principle, but be problematic to accurately define.

Administration Activities

Currently a fee is paid equating to 2.25% of the maintenance and renewal budget to fund management of the roading activity.

Whilst any discussion about the change of level for the administration rate was not in the discussion document, the new options discussions document proposes that that approved organisations actual, fair and proportional administration costs for each activity should be included as part of the direct cost for those activities and funded at the approved organisations’ funding assistance rate for the relevant activity.

Administration activities funded as direct cost will further erode funding for actual maintenance work as allocation is unlikely to be increased for the addition of these costs.

SUBMISSION

Submission on: **Funding Assistance Rates – Options Discussion Document**

To: Clare Sinnott

By: **Mackenzie District Council**
P O Box 52
Fairlie 7949

Contact for Enquiries: Mayor Claire Barlow

Telephone: 03 685 9010

Email: mayor@mackenzie.govt.nz

Date: 28th March 2014

CONTEXT

Mackenzie District Council (MDC) wishes to thank the New Zealand Transport Agency (NZTA) for the opportunity to submit on the funding assistance rate (FAR) Review Options Discussion Document. This submission has been prepared in response to the recently released NZTA's Options Discussion Document. The NZTA have asked some leading questions to obtain feedback from Road Controlling Authorities (RCA's).

The first stage of the review involved looking at the role of funding assistance rates and what principles should sit behind them. NZTA looked at whether the way funding assistance rates are currently set and applied is consistent with that role and the new principles as set by NZTA. NZTA decided that the current system does not wholly fit those principles and as a result developed a new provisional funding assistance rates framework

Mackenzie District Council's submission to the original funding assistance rate (FAR) Review was supportive of the status quo. However, NZTA have come out with their second round of conversation which ignores the status quo, and discusses the implementation of a new provisional framework.

WHAT IS PROPOSED?

A new national “co-investment rate” is proposed

The co-investment rate is new term for base FAR.

Most Councils will have the same base FAR and this will be in the 49-52% range.

This is derived from the amount of money available in the National Land Transport Fund.

How will the FAR be set?

NZTA’s options discussions document suggests that most Councils would be funded at the same level, with a higher FAR (proposed at 70% or 75%) for the 25% of RCA’s that have a greatest difficulty to fund and maintain their networks. However, we would have concerns about the mechanism to determine those RCA’s in the 25%. As an example we would have expected Chatham Islands to fit within the top 25%.

NZTA has suggested 5 options based on individual or combined metrics:

One	Index Of Deprivation (a measure of the relative wealth of the residents in an area)
Two	<u>Rating Capital Value</u> Rating Unit (a measure of the relative wealth of the ratepayers in an area)
Three	Options One and Two combined (two measures of the relative wealth)
Four	<u>Lane km of local road</u> Rateable Capital Value (a combination of measures of size of the roading activity and relative wealth)
Five	Options One and Four combined (one measure of the size of the roading activity and two measures of the relative wealth)

THE EFFECT ON MACKENZIE DISTRICT COUNCIL

Operations, Maintenance and Renewals

Mackenzie District Council is not in the top 25% in any of the options presented. This means a reduction in Funding Assistance Rate from the current 53% to the national co-investment rate of 49% or 52%.

This is a reduction in funding from NZTA of between \$52,000 and \$130,000 depending upon the actual co-investment rate.

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This is currently funded at 63% (10% over base rate) with an approved allocation for Mackenzie District of \$250,000 per annum. This is predominantly used to fund bridge replacements due to previous changes in NZTA funding rules. i.e. renewal projects have to be first call on a RCA’s minor improvement allocation. The proposal cuts any minor improvement allocation back to the new “co-investment” rate

Emergency Reinstatement

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Recently Mackenzie has made claims of \$1.78 million (2012-2014). Whilst significant expenditure for the Mackenzie rate payer to fund, it is less than 1% of the Emergency Works spent across the country. The average FAR received for this assistance package was 79% and provided a financial benefit of \$490k over our base FAR (53%). The Emergency Reinstatement Work Category is designed to assist RCA's to reinstate access and services quickly without a severe impact on normal budgets.

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Administration activities funded as direct cost will further erode funding for actual maintenance work as allocation is unlikely to be increased for the addition of these costs.

WHAT ARE MACKENZIE DISTRICT COUNCILS CONCERNS?

Do the options support the Growth Agenda?

Many of the Government's policies focus on economic growth. This appears to be absent from the FAR review, so Councils that are investing in infrastructure to support economic development are not supported. Many Councils experiencing growth in transport intensive industries such as dairy farming, production forestry and large tourist use are worse off under the FAR review. This appears to be odds with the growth agenda.

The National “co-investment rate”

The co-investment rate is derived from the amount of money available in the National Land Transport Fund.

This in turn is influenced by the Government Policy Statement on Land Transport Funding. Effectively the amount of money allocated to State Highways (and projects like RoNS) affect the amount available to local authorities. In our submission to the first stage of conversation we noted that this approach needs to be looked at more thoroughly.

Within the consultation document the activities that receive a higher “co-investment rate” as being less efficient as the local Authorities don’t have “enough skin in the game” (*pg 26 NZTA Options Discussion Document*). The idea being, that the less local share an authority has to contribute, there will be a corresponding reduction in the drive for efficiency. This is a difficult statement to comprehend when State Highways receive a 100% “co-investment rate” and therefore do not have any skin in the game to drive efficiencies.

Ability to fund the Local Share

The FAR represents a joint investment of nationally derived funds through petrol taxes and road user charges, and locally derived funds through rates.

The reason for different financial assistance rates is in recognition of the differences across the country. While the models presented appear fair and reasonable, in practice the impact across the country is quite inequitable when it comes to real dollars.

The methods used to reflect ability to pay suggest ‘wealth’ and ability to pay is the same thing. If measured by capital value this is unreasonable for valuable primary production as value of producing land does not equate to cash flow. Council has real concerns that the investment put on its roading network by ratepayers and NZTA in the past, to achieve a level of service that is appropriate for the transportation of primary produce, will have been squandered if investment levels are not maintained.

RCA’s such as the Mackenzie can have at least 30% of the land in their district non rateable i.e. owned by Crown entities such as Department of Conservation and New Zealand Defence Department.

The consultation document appears to discount the use of the deprivation index as a metric; this appears unusual given its wide use across central government, particularly education, health services, sanitary services and drinking water compliance.

FUNDING ASSISTANCE RATES (FAR) REVIEW – OPTIONS DISCUSSION DOCUMENT

Mackenzie District Council's responses to questions raised

PFR1 Overall do you think the provisional funding assistance rates framework would support the optimal land transport outcomes being achieved within the available financial resources?

No, as there is inequity across the various RCAs when compared on a per ratepayer base. The FAR represents a joint investment of nationally derived funds through petrol taxes and road user charges, and locally derived funds through rates. The reason for different financial assistance rates is in recognition of the differences across the country. While the models presented appear fair and reasonable, in practice the impact across the country is quite inequitable when it comes to real dollars. The methods used to reflect ability to pay suggest 'wealth' and ability to pay are same thing. If measured by capital value this is unreasonable for valuable primary production as assets do not equate to cash flow.

RCAs, such as the Mackenzie, have significant areas of the land in their district non-rateable as it is owned by Crown entities.

The consultation document appears to discount the use of the deprivation index as a metric; this appears unusual given its wide use across central government, particularly education, health services, sanitary services and drinking water compliance.

Do you think it would facilitate an integrated and appropriately consistent land transport network throughout the country? Why? /Why not?

No, because Rural RCA's are going to have to significantly increase their rate line to maintain their networks. Some RCAs will chose to maintain the current levels of service by supplementing the roading activity directly with extra rate input. As a contrast there will be others who will be unable to raise the extra "local share" and inevitable cut the level of service to meet the reduced budget as those RCAs have already driven out any in-efficiencies in the operation. Council has real concerns that the investment put on its roading network by ratepayers and NZTA in the past, to achieve a level of service that is appropriate for the transportation of primary produce, will have been squandered if investment levels are not maintained.

PFR2 Is there anything you particularly like or dislike about the provisional framework? If so why, and what effect do you think that part of the framework would have?

The Mackenzie District Council has reservations about the provisional framework because the cost of roading provision is ignored. NZTA states that the differences in FAR should reflect the ability (or inability) to raise the local share, not the difference in costs. (refer section 5.3 FAR Document) This ignores the relative differences in what it costs to provide roading services. Comparing

the relevant cost to provide funded transportation services across a range of RCA's indicates that the cost per person ranges from less than \$50 to over \$500 per year, with Mackenzie District being around \$310 per person per year. Clearly those local authorities that have a higher cost per person have, to use a term that NZTA seems to be enamoured with in the report, a whole lot more "skin in the game" than their metropolitan counterparts to drive efficiencies. In fact all small rural local authorities, such as Mackenzie, that strive to keep rates at a reasonable level, have a greater investment than just skin in their network they have real blood, sweat and tears.

Ability to pay is a combination of the proportion and the amount.

The NZTA share is a 'tax' which is derived to support the wider community and provide for those less able to provide for themselves. Without considering the disproportionate amounts being funded by different Council's to provide roading services, the FAR review is of limited benefit.

OVERALL NLTF CO-INVESTMENT RATE

OCIR1 For the reasons discussed in section 4 of this document, the appropriate range for the overall NLTF co-investment rate is from 50% to 53%. Where should the overall NLTF co-investment rate sit within the 50% to 53% range? Why do you consider that that is the most appropriate overall division of costs between local communities and direct land transport system users?

Our previous submission supported the status quo as did many other RCA's for the base co-investment rate. The reason for Mackenzie, in particular is that there are few rate payers providing a significant roading network for the tourist traffic, both national and international, that use our network. A 50:50 split is putting an unfair burden on a small number of rate payers. For example, on Lilybank Road, Lake Tekapo, we have effectively 5 rate payers funding the local share on a road that provides access to a large Department of Conservation block (that pays no rates) and a ski field that has 800 vehicle movements a day, most of which are not rate payers in the Mackenzie. The combined rates from those 5 properties plus the current NZTA contribution do not cover the cost of maintenance on that road.

COUNCILS' FUNDING ASSISTANCE RATES

Council 1 What do you think is the best way for us to use funding assistance rates bands? In particular:

What proportion of councils do you think we should include in the bands that receive funding assistance rates that are higher than the overall NLTF co-investment rate? The options we have modelled in this document have 25% of councils in those bands. Is that the optimal proportion? Should only the five councils that would find it the hardest to find the local share be included in the bands with higher rates? 10% of councils? A third?

NZTA has not provided in its conversation process sufficient detail to make a judgement on where the cut off should be. All that we can say is that Mackenzie District Council is able to fund the local share and maintain the network, at a reasonable level of service even though there is a back log of reseals. It should be noted however, that roading expenditure cannot be taken in isolation from funding any of its other core activities as at the moment this

Council is faced with meeting Drinking Water Standard compliance across at least 3 of its communities with an estimated capital cost of over \$6,000,000.00. These are projects to be completed over the next four years and the cost will be over and above our current level of expenditure. So any reduction in co-investment rate would be difficult to absorb.

Rather than a range of rates, only the exceptional cases are being considered for a higher level of funding.

This means 75% of Councils are treated the same irrespective of the metrics and the option considered. This compresses the “co-investment” range significantly, typically increasing the “co-investment” in metropolitan areas (where the cost per person is low) and reducing the “co-investment” in rural areas where the cost per person is high).

This is not a fair reflection of the differences approach that many Councils supported in the first round of conversation.

The discussion within the document states that if some authorities get more than the national co-investment rate, then others will receive less; this is not demonstrated in the tables showing the rates under each option.

Should we include some councils in a band that receives the overall NLTF co-investment rate (with some other councils receiving a higher rate, and the remaining councils in a band that receives a rate that is lower than the overall co-investment rate)? If so, what proportion of councils should be included in the band on the overall NLTF co-investment rate and what proportions of councils should be included in the higher bands and the lower band?

Yes, but the ability to define that in a transparent way have not been provided and would most likely would be problematical to implement.

There is a definite difference between urban and rural, as noted in Councils response to question PFR2, the inequities in cost per person, compared rural TLA’s and the metropolitan TLA’s is significant, and would support a band system that recognised this, i.e. metropolitans in one band receiving a lower co-investment rate of approximately 40% and another band for the remaining TLA’s with a resulting higher co-investment, Which would even out the current inequity in cost per person.

How many different bands should we use?

The current 2 band system, even with the discussion document supplied has a lack of a shared understanding of what those current bands should seek to achieve, as a consequence it is unclear whether any improved transparency would be available by having more bands. Any system of bands needs to have a clear and transparent process to determine those bands that is defensible and quantifiable to the direct land transport system users and local communities. The Council has concerns that the evidence to support the current two band system with 25% of RCA’s being the exception is not available. We would suggest this is confirmed by the questions being asked by NZTA about how many bands there should be, and whether the range should be “10% of councils? A third?” or the 25% of Councils as proposed (as per question Council 1)

Council 2 Which of our five current options for metrics, or combinations of metrics, we could use as proxies for councils’ relative ability to raise the local share do you prefer?

Why?
Our previous submission supported the status quo as did many other RCA's for the base co-investment rate. Mackenzie District Council has seen nothing in the current conversation document to encourage us to change our position.
<i>Council 3 What other metrics or combination of metrics could we use as proxies for councils' relative ability to raise the local share? Why do you consider those to be the appropriate metrics?</i>
In an ideal world the cost to provide roading services, portrayed as a cost per person residing in the district, would be the same across all RCAs.
<i>Council 4 If we use an approach to setting councils' normal funding assistance rates that uses a number of different metrics, should we give different weightings to the different metrics? If so, what differential weightings should we use and why?</i>
No, the more this discussion goes on the more complicated the process would appear to be and less transparent about how the co-investment rate would be obtained. Without the benefit of a detailed economic analysis it is difficult to answer effectively this and many of the other questions posed. Our position is that the setting of funding assistance rates needs to be simple, transparent and defensible, so that the New Zealand public and ratepayers alike, can understand the outcome.
<i>Council 5 Should there be a maximum council funding assistance rate? If so, what should that maximum rate be</i>
No, there should not be a maximum co-investment rate, Mackenzie District Council believe however that the current minimum FAR should be eliminated, as previously submitted. In particular there should be no maximum limit in relation to emergency funding.
<i>Council 6 Overall what combination of factors and approaches do you think we should use to set councils' funding assistance rates?</i>
<i>Council 7 How often should councils' funding assistance rates be re-set?</i>
The co-investment rate needs to be locked in for at least the Council's Long Term Plan period as a minimum.
<u>EMERGENCY WORKS</u>
<i>EW1 What types of natural events and/or reinstatement works should elevated emergency works funding assistance rates be applied to? Why?</i>
The normal range should be without restriction should be for any event that generates "unforeseen significant expenditure that arises from a defined, major, short-duration natural event" The list would include but not limited to

- Rain/flooding events
- Snowfall
- Wind storm
- Earthquake
- Tsunami
- Rural Fire

EW2 If elevated emergency works funding assistance rates are only applied where an approved organisation incurs significant expenditure in responding to 'out of the ordinary short-duration natural events' (ie natural events that events are unusual, or are of unusually large magnitude or severity, for the particular area where they occur) what method should be used for determining whether or not an event is 'out of the ordinary'?:

A statement of principle.

Why?

“A statement of principle” would allow for a sensible debate to be had with NZTA staff over what is a significant unforeseen event and what level of funding it should achieve. Without supporting information on the event, even when there is no relevant information to support a claim for a localised event to confirm whether or not the event is a 20 or 50 year annual recurrence interval.

The proposal to define a significant unforeseen event in terms of an “Annual Return Period” would appear to be sound in principle but be problematic to accurately define particularly with localised events where there is a lack of supporting evidence.

For example New Zealand’s climate is such that we have events where a thunderstorm, or similar, can form over our mountainous regions, dumping an excess amount of rain over a short duration. The effect of that on the catchment and the infrastructure contained within can be catastrophic. How would this be defined within an annual return period on that small catchment? Who would define the level of funding to repair the infrastructure?

EW3 How should any elevated emergency works funding assistance rates be set?

A rate tied to an approved organisation’s normal funding assistance rate?

Why?

The current regime for determining the amount of co-investment has worked well in the past as it takes into account the severity of the impact of the costs incurred by the event and the RCAs ability fund the “local share”. The Christchurch earthquake is a good example of a very severe event that could happen anywhere that could put crippling costs on the RCA in the affected area.

EW4 Should there be a set maximum elevated emergency works funding assistance rate? If so, what should that set maximum be?

No, there should be no maximum elevated funding rates for the reasons noted above.

WAITANGI NATIONAL TRUST

WNT1 Are there any additional options for setting the funding assistance rate(s) for the private carriageways within the Waitangi National Trust estate that we should consider (other than the options already discussed in this document)?

WNT2 What approach do you think we should take to setting the funding assistance rate(s) for the private carriageways within the Trust estate? Why do you prefer that approach?

DEPARTMENT OF CONSERVATION (DOC)

DOC1 Which DoC carriageways should be eligible for funding from the NLTF? Why?

Mackenzie District does not believe that there should be any carriageways funded from the NLTF as DoC are already funded from central government and pay no rates to any RCA.

DOC2 Are there any additional options for setting the funding assistance rate(s) for DoC carriageways that are eligible for funding from the NLTF that we should consider (other than the options already discussed in this document)?

DOC3 What approach do you think we should take to setting the funding assistance rate(s) for the DoC carriageways that are eligible for funding from the NLTF? Why do you prefer that approach?

TARGETED ENHANCED FUNDING ASSISTANCE RATES

TEFAR1 Are there any things that the Transport Agency should take into account when considering whether or not to use, or setting up, a targeted enhanced funding assistance rate in addition to the matters discussed in section 9 of this document?

Transitioning in changes to funding assistance rates

TRANS1 How should any changes to funding assistance rates be transitioned in?

Mackenzie District Council's view is that if 75% of RCA's are going to have a co-investment rate of 49% as indicated in the options discussion document, then those Councils that are going to receive a significant reduction of co-investment rate should have reduced rate phased in over a period which would provide for no more than a 1% reduction per annum. Those Councils that are receiving a lift in their co-investment rate should also have the same phasing period.

OTHER KEY ISSUES

One Road Network Classification

However, we are aware of another review, the One Network Classification, which we understand is likely to be, tied to funding assistance rates, where national classifications and customer levels of service would be set and funding would be further eroded through that process.

MACKENZIE DISTRICT COUNCIL

REPORT TO: ASSET AND SERVICES COMMITTEE

SUBJECT: FAIRLIE WATER SUPPLY - NEW SOURCE TURBIDITY MONITORING

MEETING DATE: 20th MARCH 2014

REF: WAS 16/27

FROM: ASSET MANAGER

ENDORSED BY: CHIEF EXECUTIVE OFFICER

PURPOSE OF REPORT:

For council consider a report from Opus International Consultants Ltd to determine the most appropriate way to carry out the turbidity monitoring required and the confirm the expenditure.

STAFF RECOMMENDATIONS:

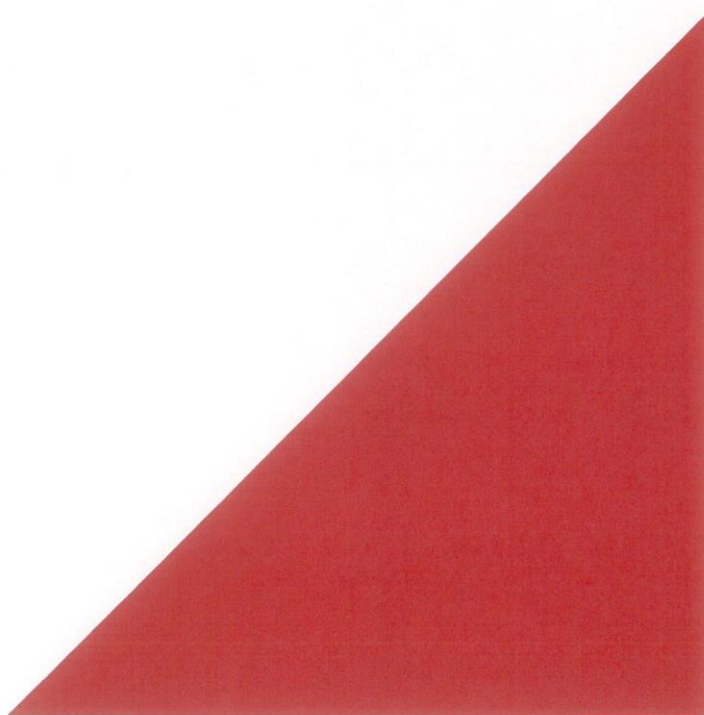
1. That the report be received.
2. That “Option One” in the Opus report be confirmed as the most effective way to gather the required reliable data without undue cost.

ATTACHMENTS:



Mackenzie District Council

**Fairlie Water Supply
New Source –
Turbidity Monitoring
(Options Report)**



Contents

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1 Introduction

This report describes the options for turbidity monitoring for a new water source for the Fairlie water supply. The turbidity monitoring is to confirm the suitability of this source as an alternative to the existing spring supply during freshes in the Opihi River. It has been prepared as part of the overall water supply upgrade for Fairlie to meet the New Zealand Drinking Water Standards (DWSNZ 2005, revised 2008).

2 Background

Currently water is abstracted from a spring that feeds Three Springs Creek (known as *Three Springs*) which is a tributary of the Opihi River. It is located adjacent to State Highway 8 approximately 9 km north-west of Fairlie (Figure 1). This source provides water for a small roadside treatment plant which is close to the intake (998m away). The treatment consists of disinfection using chlorine gas. The treatment plant also houses a turbidimeter that monitors the turbidity of the water at 15 minute intervals. Chlorinated water is then distributed to the consumers of the Fairlie Township and Kimbell settlement. The average daily volume treated is 1160 m³/day with a peak daily volume of 1932 m³/day. The maximum consented water take is 28L/s (2,419 m³/day).

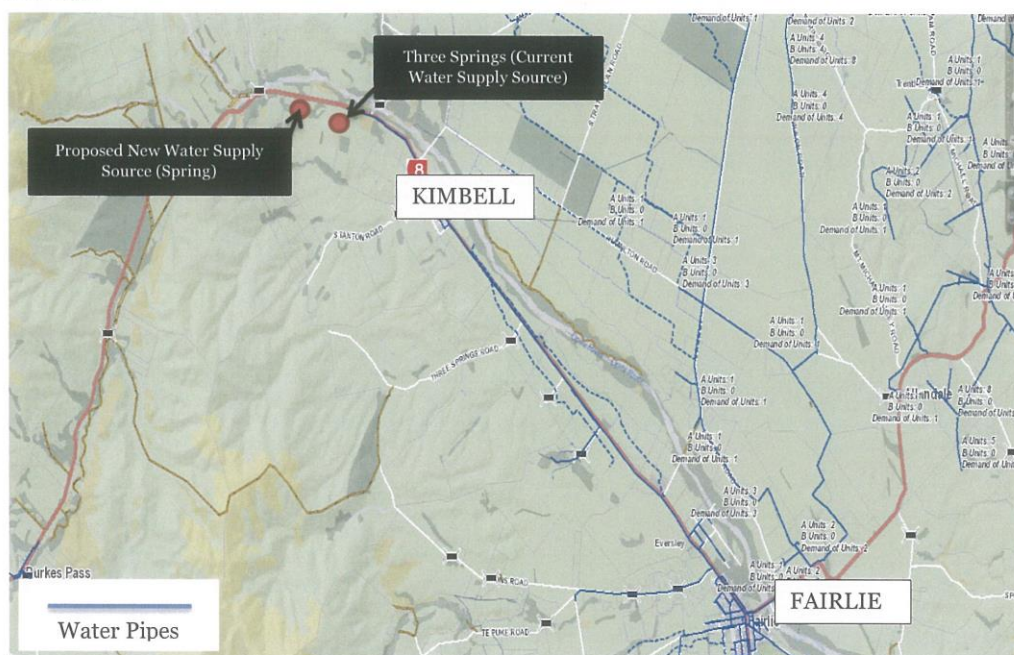


Figure 1. Current water supply (3 springs) and new water supply source location

The water quality at the current source is typical of spring supplies and meets the required standards normally. However, it appears to be hydraulically connected to the nearby Opihi River as the water quality (in particular turbidity) deteriorates when the river is in flood. During these times the turbidity and *E. Coli* counts rise significantly. For instance, the turbidity rose rapidly to 42.5 NTU on 02 August 2010 and then dropped back to 2.5 NTU over two weeks. It then took another week for the turbidity to drop back from 2.5 NTU to 0.4 NTU (Figure 2).

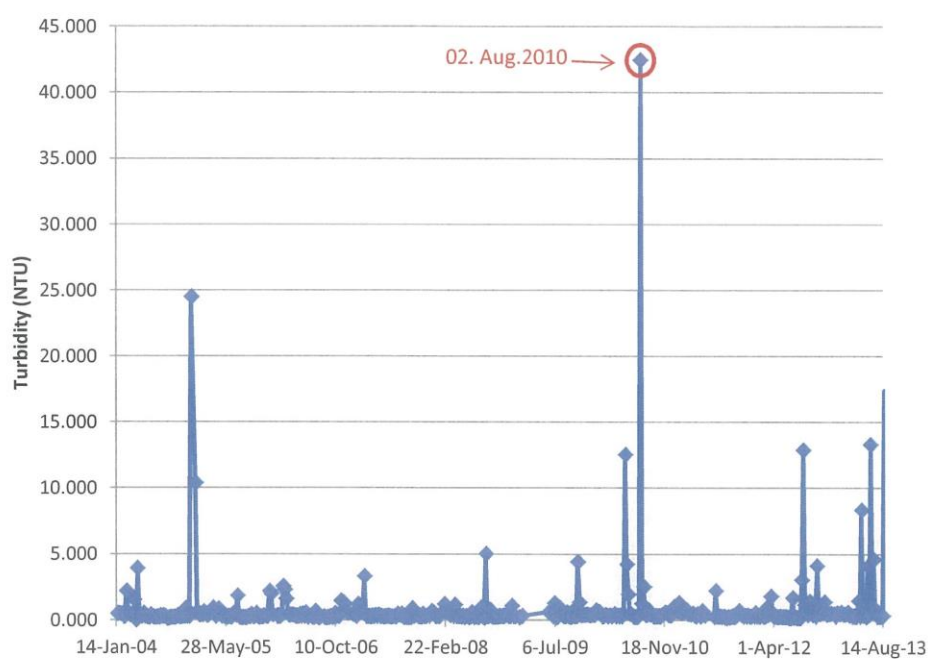


Figure 2. Average weekly Turbidity data form current water supply source (3 springs)

Using an alternative water supply source has been proposed to serve Fairlie/Kimble when the Opihi River is in flood. Turbidity monitoring for this new source is essential (in particular when river is in flood) before any other action is taken to confirm that this source is not hydraulically connected to the Opihi River.

3 New Water Supply Source

The proposed new water supply source is a spring located adjacent to State Highway 8 approximately 1.5 km upstream of current water supply source (*Three springs*) as shown in Figures 1 and 3.

The nearest power supply is a farm building located adjacent to State Highway 8 approximately 350 m South-East of the new spring.



Figure 3. New water supply source, spring

4 Screen

An all-welded, continuous-slot, cylindrical screen will be placed at the new water supply spring. This is primarily to keep the hole open by retaining coarse gravels from the formation around the screen, backfilling the hole. Figure 4 shows the screen set-up in the spring hole. Screen installation is necessary and applicable for all the turbidity monitoring options in this report.

The outlet pipe has been sized as 200mm with a control valve. This has been chosen based on maximum consented water take (28 l/s) from the spring to the water treatment plant. An overflow pipe will be installed for any extra flow at the screen.

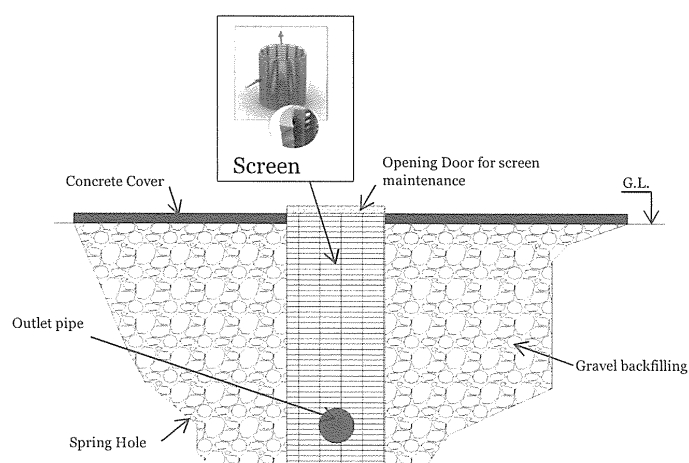


Figure 4. Schematic of Screen Set up cross section inside of spring hole (Not to Scale)

Table 1 shows the technical data for this screen. This cylindrical screen provides a maximum 43l/s discharge flow entry.

Table 1. Technical Data for Screen

Manufacture by	Johnson Screens
Screen Shape	Cylindrical
Outside Diameter (OD)	557mm
Effective Screen Length	1500 mm
Slot Size	4.00 mm
Velocity	0.03 m/s
Backwash	NO

The screen set-up for the Fairlie water supply new source has a Rough Order Cost (ROC) of \$21,450+GST.

5 Turbidimeter

The options of two types of turbidimeter are shown below:

<p>1. HACH 1720E Low Range Turbidimeter</p> <ul style="list-style-type: none"> • Not recommended for turbidities above 10NTU, this would require increased cleaning of the system • Recommended flow rate 0.2 to 0.750 L/min • Ability to work with either mains electricity or solar power <p>This device is similar to Fairlie's current Turbidimeter and the cost for the device (excluding installation) is \$5500</p>
<p>2. HACH ULTRATURB plus sc Turbidity Sensor</p> <ul style="list-style-type: none"> • Self-cleaning therefore requires less maintenance • Recommended flow rate 0.2 to 1 L/min • Ability to work with either mains electricity or solar power <p>The cost of the device (excluding installation) is \$7500</p>

As shown above, the cost of the HACH ULTRATURB is higher than the HACH 1720E but it is recommended due to the lower maintenance requirements. This will reduce the on-going cost as there is less reliance on regular maintenance being undertaken. This maintenance is essential for reliable information to be obtained. The costs of the following options are estimated based on using the "HACH ULTRATURB plus sc Turbidity Sensor".

6 Turbidity Monitoring Options

The turbidity of the screened water from the new spring, must be measured over a period of time to confirm the suitability of using this source as an alternative. Therefore, the suggested options together with their advantages/disadvantages and costs are as follows:

6.1 Option 1 – Completely Temporary Pipeline

Option 1 involves having a temporary pipe from the spring to the Turbidimeter building (Figure 5). The pipe route has been chosen based on the shortest distance (approximately 350m).

This option has the advantage that no permanent structure works are required before making the decision to use the spring as the new water supply source. Also, no detailed design is required for the pipeline. Pipeline construction would be quick and easy.

However, if in the future, Mackenzie District Council decided to install a permanent pipeline, the temporary sampling pipeline would no longer be useable and must be removed. It may also cause disruption to the farmer and his stock.



Figure 5. Completely Temporary Pipeline (Option 1) – Outline Route

Option 1 has a rough order cost (ROC) of \$24025 + C 5T

6.2 Option 2 – Partially Permanent Pipeline

Option 2 combines having a permanent buried pipeline (130 m) with a temporary hose pipeline (300 m) from the spring to the Turbidimeter building as shown in Figure 6. The pipe route has been chosen based on the permanent pipeline being extended in the direction of the road (a total 430m).

The advantage of having a partially permanent system is that it can be extended to the Water Treatment Plant (WTP) easily in the future. Also this route does not cause any disruption to the farm.

However, the expensive permanent infrastructure would become redundant if this spring is not used as a new water supply source because of abnormal turbidity. Also, detailed design would be required for permanent pipeline and construction of buried pipe takes additional time.

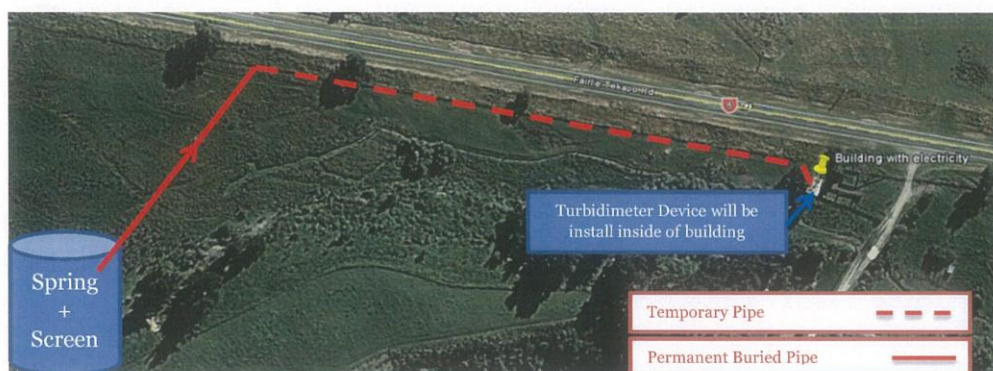


Figure 6. Partially Permanent Pipeline (Option 2) – Outline Route

A partially permanent pipeline (option 2) for the Fairlie water supply new source has a Rough Order Cost (ROC) of \$71,995+GST.

6.3 Option 3 – Turbidimeter on site

Option 3 is an onsite turbidimeter with a Solar power supply and protected shed which would be installed around the spring. Only a short temporary pipeline would be required and this option would give more reliable data as there is less chance of solids settling out of solution.

The problem with this solution would be the Solar based energy required. The battery back-up may not be sufficient during extended dull periods and some data could be missed.

A Turbidimeter on site (option 3) for the Fairlie water supply new source has a Rough Order Cost (ROC) of \$48,455+GST.

6.4 Option 4 – Sampling and laboratory testing

Option 4 is manual sampling and laboratory testing for turbidity when the Opihi River is in flood. A major problem with this option is the difficulty in managing the correct time for sampling. For instance, it would be difficult to take a sample if the River fresh happens outside normal working hours. However, this option provide lowest capital cost for turbidity monitoring.

A sampling and laboratory testing option (option 4) for the Fairlie water supply new source has a Rough Order Cost (ROC) of \$30,277.50 + GST (We have allowed for 25 sampling visits).

7 Turbidity Monitoring Options Summary

A summary of the advantages/disadvantages and costs for the turbidity monitoring options are shown in the table 2 below.

Option	Advantages	Disadvantages	Cost
Option 1- Temporary Pipeline	<ul style="list-style-type: none"> • No permanent structure required • Fast Construction • No detailed design required for pipeline 	<ul style="list-style-type: none"> • The temporary sampling pipe is only useable for the monitoring duration 	\$24,025 + GST
Option 2 Partially Permanent Pipeline	<ul style="list-style-type: none"> • Permanent pipeline extension would be easily extended after the source confirmation 	<ul style="list-style-type: none"> • Highest Cost • The expensive permanent pipeline becomes useless if the water quality of source is determined unsuitable • Detailed design required for the pipeline 	\$71,995 + GST
Option 3 Turbidmeter on Site	<ul style="list-style-type: none"> • No permanent structure required • Less data error • Accuracy of data collection 	<ul style="list-style-type: none"> • Solar based energy required. 	\$48,455 + GST
Option 4 Sampling and laboratory testing	<ul style="list-style-type: none"> • No permanent structure required • Low Cost 	<ul style="list-style-type: none"> • Hard to manage the correct time for sampling and there is a risk that some data would be missed 	\$30,277.50 + GST

Note: The cost of options includes all items listed in the Appendix.

8 Conclusions and Recommendation

The new spring is suspected to have a hydraulic connection to the nearby Opihi River, the same as the current source; therefore it is not sensible to construct an expensive permanent pipeline before water quality confirmation. Therefore using the permanent pipeline (option 2) does not seem suitable.

With Options 3 and 4 there is the chance to miss some data readings. With option 3, because of the lack of sun light (in particular winter time) and with option 4 due to samples needing to be taken when it is not possible to get samples.

Option 1, temporary pipeline appears to be the most suitable option. The construction process would be simple, there is has little risk of data missing and has reasonable capital cost.

Therefore it is recommended that Option 1 be carried out to provide turbidity monitoring at Fairlie water supply new source.

Appendix

Options for turbidity monitoring system include:

	DESCRIPTION
Option 1	Screen Set-up
	HACH ULTRATURB plus sc Turbidity Sensor
	DN32 MDPE with required fitting
Option 2	Screen Set-up
	HACH ULTRATURB plus sc Turbidity Sensor
	DN32 MDPE with required fitting
	DN 200 PVC-O Series II
Option 3	Screen Set-up
	HACH ULTRATURB plus sc Turbidity Sensor with Solar power supply
Option 4	Screen Set-up
	Travel and Sampling
	Laboratory test fee

BACKGROUND:

All Council urban water supplies are required to meet the NZ Drinking Water Standards (NZDWSNZ 2005, Revised 2008) as part of that compliance Council now has an approved (by the Ministry of Health) a Public Health Risk Management Plan. That plan sets out the improvements required and the time frames agreed to bring full compliance to the Fairlie Water Supply.

Turbidity in the existing water supply is a significant problem and will require a extensive treatment to remove that turbidity. Before embarking on that path Council and the Community Board have been looking at other options. Being:-

- 1 A new source on the Waters property that is reported to remain clear even when the Opihi River is turbid, or
- 2 A well on the Guerin property, beside the Chlorinator shed that could be used when the existing source is turbid and UV treatment would not be effective.

Flow testing has been completed on both sources and both will deliver the required 28l/sec, so the next step is to confirm the clarity of the source on the “Waters” property over an extended period.

ISSUES AND OPTIONS:

The issues and options have been well canvassed in the Opus report.

CONSIDERATIONS:

Legal Considerations:

na

Financial Considerations:

The report has estimates for each of the options but they are summarized here for convenience.

Option	Advantages	Disadvantages	Cost
Option 1- Temporary Pipeline	<ul style="list-style-type: none"> • No permanent structure required • Fast Construction • No detailed design required for pipeline 	<ul style="list-style-type: none"> • The temporary sampling pipe is only useable for the monitoring duration 	\$24,025 + GST

Option 2 . Partially Permanent Pipeline	<ul style="list-style-type: none"> • Permanent pipeline extension would be easily extended after the source confirmation 	<ul style="list-style-type: none"> • Highest Cost • The expensive permanent pipeline becomes useless if the water quality of source is determined unsuitable • Detailed design required for the pipeline 	\$71,995 + GST
Option 3 Turbidimeter on Site	<ul style="list-style-type: none"> • No permanent structure required • Less data error • Accuracy of data collection 	<ul style="list-style-type: none"> • Solar based energy required. 	\$48,455 + GST
Option 4 Sampling and laboratory testing	<ul style="list-style-type: none"> • No permanent structure required • Low Cost 	<ul style="list-style-type: none"> • Hard to manage the correct time for sampling and there is a risk that some data would be missed 	\$30,277.50 + GST

As there is no guarantee that the new supply in the Waters property will prove to a clear supply, it doesn't make sense to lay any permanent pipe on the off chance that it may be required in the future.

Option 1 is the preferred and cheapest way to gather accurate data on the turbidity of the source water over an extended period. As the turbidimeter can be used again if the source proves unsuitable then the unrecoverable cost will be \$14,025.00.

Other Considerations:

na

ASSESSMENTS OF OPTIONS:

The issues and options have been well canvassed in the Opus report.

CONCLUSION:

As there is no guarantee that the new supply in the Waters property will prove to a clear supply, it doesn't make sense to lay any permanent pipe on the off chance that it may be required in the future.

Option 1 is the preferred and cheapest way to gather accurate data on the turbidity of the source water over an extended period. As the turbidimeter can be used again if the source proves unsuitable then the unrecoverable cost will be \$14,025.00.

MACKENZIE DISTRICT COUNCIL

REPORT TO: ASSET AND SERVICES COMMITTEE

SUBJECT: REQUEST FROM HAMISH AND JO LANE TO REMOVE TREES ON NIXONS ROAD IN ROAD RESERVE

MEETING DATE: 20th MARCH 2014

REF: 2/6/22

FROM: ROADING MANAGER

ENDORSED BY: CHIEF EXECUTIVE OFFICER

PURPOSE OF REPORT:

To present to the Mackenzie District Council a request from Hamish and Jo Lane complete works to allow an over width corridor to be established on Nixons Road so that a transportable house can be moved on to the property at the end of the road.

STAFF RECOMMENDATIONS:

1. That the report be received.
2. That the Council considers the request to allow the establishment of an over width corridor on Nixons Road and advise the applicant.

SUZY RATAHI
MANAGER – ROADING

WAYNE BARNETT
CHIEF EXECUTIVE OFFICER

INTRODUCTION

On March 11th Suzy Ratahi, Roading Manager met with Hamish and Jo Lane and Council contractor Gray Brosnahan, to discuss trimming of trees in road reserve, to allow cartage of a transportable home up to Rockarden at the top end of Nixons Road. The initial request was to provide a ten to eleven metre over width corridor for the transportable house to pass. On seeing the scope of works the Roading Manager advised she'd need to do some research on the historical importance of the four Oak trees, and to discuss the request that Council pays for these and other trimming works required to allow free passage of the transportable home.

On discussing the over width corridor and the request that Council pays for the establishment of it, with Bernie Haar, Asset Manager, we identified issues with the request, in particular the removal of some trees. We agreed that any cost associated with establishing the over width corridor should be borne by the applicant. A letter was sent to Mr. Lane on the 11th of March detailing staff position and outlining the process from here, see attached. Subsequently Mr Lane was advised that he could make a formal request for Council to have the staff position reviewed. Mr. Lane has indicated his request to take that option and a letter was received from him outlining his current position with supporting information from Rural Transport, Barwoods, and the family that originally planted the trees and the current adjacent land owner on the 14th of March.

ISSUES AND OPTIONS:

The trees as pictured do have a significant aesthetic value. Whilst they are in the road reserve, Nixons Road is a low volume un-sealed road that has little traffic serving rural properties, therefore the level of service for it is to provide generally one way free passage for a three tier stock truck up the centre of the road with occasional passing opportunities. Generally Nixons Road meets that service level now. There may be ongoing works required trimming some trees, as there are on a number of rural roads, to allow for the 4.5m clearance as required by a 3-teir stock truck.

Whilst the current adjacent land owner, David Hadorn, has indicated that he would be agreeable to the removal of the two northern trees, he has also stated in his email to Mr. Lane, "I think it would be a huge shame to have to do this (sic) and I would much prefer that you take the house around the north side of these trees the short distance through your paddock and then back onto the road"



There are a number of other trees that require trimming or removal, these being the willows as pictured, on the Northern side, in the second photo and the Poplars, on both sides of the road, as pictured in the third photo



The aerial photography below depicts the location of the trees and a possible through route through the Rockarden property. This however, would have its own issues with the marsh area as pictured below.



**CONCLUSION:**

Staffs opinion is that the four Oak trees have an aesthetic value which would be a pity to lose. They are not identified in our District Plan as significant trees. The removal of two of the four Oak trees straddling the road could have a detrimental effect to the health and stability of the remaining 30-50 year (approximate) old trees. The removal of the Poplars and the Willows as shown in the aerial photography are of a lower amenity value and staff would not oppose their removal. Further investigations are being undertaken at present by Mr. Lane to see if the building of a haul road around the trees would be possible.

Whilst the Council is obliged to maintain a corridor for rural access on its local roads, it is not obliged to provide an over width corridor, and as such staff believe that it is entirely appropriate that the applicant bears the cost of any approved works. We believe the Council has the right to determine the extent of any physical works.

ATTACHMENTS:

1. Letter to Hamish and Jo Lane
2. Letter and supporting information from Hamish and Jo Lane



Mackenzie District Council

11th March 2014

H Lane
Clayton Road
17 RD
FAIRLIE

Dear Hamish,

RE: ACCESS FOR OVER WIDTH LOAD ON NIXONS ROAD.

It was good to meet on site this morning to get a full understanding of the issues and the extent of works required to provide the 10 - 11 metre clearway required to transport your new dwelling to the site.

Having reviewed the site and discussed the requirements with my manager I can see no easy solution to your problem.

As you will be aware Nixons Road is a low volume un-sealed road that has little traffic serving rural properties, therefore the level of service for it is to provide generally one way free passage for a three tier stock truck up the centre of the road with occasional passing opportunities. Generally Nixons Road meets that service level now.

So, if you still intend to pursue the option of a transportable dwelling to the proposed site at the end of Nixons Road then the following issues will need to be worked through:

Approval of all effected parties will need to be obtained, especially for tree removal. That approval will also have to come from Council as well. When I say Council I mean the elected arm of Council not just staff as there are some really nice trees in the way that will need either removed or severely pruned back to the point that the health of the tree is put at risk. I know these trees are on road reserve but they have a significant aesthetic value and have been there for a long time and also appear very healthy.

Secondly, if approval is obtained from all parties then all costs will fall on you as Council does not require the same clearway that you do and does not need to provide it for the one off access for a transportable dwelling. Any tree removal will have to be completed using a suitably experienced contractor working under an approved traffic management plan and all tree trunks and slash removed from the road reserve, finally being left in a tidy condition.

As to the other matter of reforming the road verge to allow the transporter to track further over in the one location as discussed, this work if approved, will have to be completed to Council's

satisfaction and reinstated on completion including surface water channels and cut outs. This work will also be at your cost.

If you still want to proceed with obtaining the necessary clearway to complete your project, then you will need to get the written approval of all the effected adjacent land owners where you wish to remove of cut back trees and then provide evidence of that to Council in order for them to finally consider your request to remove the trees on the road reserve.

I know there are time pressures on to get this done so you will need to get the information to us as soon as possible so that we can request Council approval. The first available Council meeting we can channel any request through will be 29th April and the information will need to be provide to me a fortnight before that date in order to get it on the agenda for discussion.

I also took the opportunity to discuss your building project with our Building Team and they suggest that we remind you that if a building is being constructed out of district, you will require a Project Information Memorandum from MDC that will then be provided to the authority issuing consent for the building. If you have any queries about the consenting process, contact Christine Scannell on 03 6859017.

Yours faithfully



Suzy Ratahi

Roading Manager

389 Clayton Road,
RD 17,
Fairlie.
13th March 14, 2014

Dear Suzy and Bernie,

Thank you for your letter regarding our request to remove and trim trees at our new property at 555 Nixon's Road which will allow a new dwelling on site. We are very excited about our new purchase of this farm but as you are well aware there is no house on the place.

We have attached letters from David Hadorn (adjacent neighbor of the oak trees in question), Warren Goodman (whose mother planted the oaks), Barwood Transport and Rural Transport.

We need 8.8 metre minimum clearway to transport our dwelling to its site. Other than going through a very soft swamp our only option is to remove the 2 Oak trees on the northern side of the Road.

Could you please clarify your statement that the trees in question "A significant aesthetic value" are registered in the district plan?

There are some matters we would like to discuss further with you but in the immediate future clarification of the the above will suffice.

Hoping this information can enable us to get a positive outcome for all parties.

We would appreciate a prompt answer and if we need to be heard at a council meeting we would request it to be as soon as possible.

A response by email and a phone call will be greatly appreciated.

Kind regards
Hamish & Jo Lane

Phone 0275614056
hamish@peterwalsh.co.nz

14. Mar. 2014 0:40

RURAL
TRANSPORT LTD

Cnr East and South Streets
PO Box 104, Ashburton
New Zealand
Telephone 03 308 4079
Facsimile 03 308 3664

To whom it may concern
I am writing to support Hamish & Jo Lane in their application to have the trees at the top of Nixons Rd either Trimmed or removed as now they have grown the overhanging branches scratch our stock crates as well as catch on the nets. Also the mirrors on our spreader truck are constantly getting hit with branches

yours faithfully
Kenzy Williams
for Rural Transport.

KUROW:
Telephone 03 436 0849
Facsimile 03 436 0036

FAIRLIE:
Telephone 03 685 8911
Mobile 0274 436 287
Facsimile 03 685 8499

GERALDINE:
Telephone 03 692 2850
Mobile 0274 328 440
Facsimile 03 692 2851



114 Allandale Rd Fairlie

Ph 03 685 8583

Fax 03 685 8543

To Whom It May Concern

In Regard to overhead clearance for stock trucks as they are 4.25 metres high, there needs to be a clearance of 4.5 metres from overhead objects.

Regards

A handwritten signature in blue ink that reads "S Barwood".

Shannon Barwood

Hamish Lane

From: David Hadorn [dhadorn@gmail.com]
Sent: Thursday, 13 March 2014 3:29 p.m.
To: hamish@peterwalsh.co.nz
Subject: Oak trees on Nixons Rd

Dear Hamish

In follow-up to our telephone conversations earlier today, I appreciate your kindly asking for my approval to remove the two oak trees on the north side of Nixons Rd (adjacent to the letter boxes). I realise that I do not have any legal standing to withhold consent, as such, but it's nice to be asked.

So, IF there is no alternative way to get your transportable house onto the desired site, you have my approval to have these trees removed - leaving in place the two trees on 'my' (south) side of the road. (Please make sure this latter proviso is clearly conveyed to whoever does the deed, in the event removal proves necessary.)

As we discussed, however, I think it would be a huge shame to have to do this and I would much prefer that you take the house around the north side of these trees the short distance through your paddock and then back onto the road. I very much hope that Fulton Hogan determines that this is feasible with sufficient shingle spread over the wet area. Perhaps you could let me know what they decide.

Thanks, and I look forward to having you and your family for neighbours.

Best regards
David

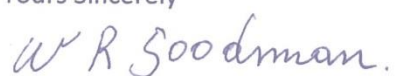
David Hadorn
 459 Nixons Rd
 Fairlie
 027 901 1467

14-03-14

To whom it may concern,

I Warren Goodman the past owner of the property, Rockarden on Nixon's road give the new owners Hamish and Jo Lane permission to do what they feel necessary with the oak trees my Mother planted.

Yours Sincerely

A handwritten signature in dark ink that reads "W R Goodman." The signature is written in a cursive, slightly slanted style.

Warren Goodman