TO THE MAYOR AND COUNCILLORS OF THE MACKENZIE DISTRICT COUNCIL

MEMBERSHIP OF THE PROJECTS AND STRATEGIES COMMITTEE

Graeme Page (Chairman)

Claire Barlow (Mayor)	John Bishop
Peter Maxwell	Annette Money
Graham Smith	Evan Williams

Notice is given of a meeting of the Projects and Strategies Committee to be held on Tuesday 13 March 2013 following the Finance Committee meeting

VENUE: Council Chambers, Fairlie

BUSINESS: As per Agenda attached

WAYNE BARNETT
CHIEF EXECUTIVE OFFICER

13 March 2013

PROJECTS AND STRATEGIES COMMITTEE

Agenda for Tuesday 19 March 2013

I APOLOGIES

II DECLARATIONS OF INTEREST

III MINUTES

Confirm and adopt as the correct record the Minutes of the meeting of the Projects and Strategies Committee held on 5 February 2013 including such parts as were taken with the Public Excluded.

ACTION POINTS

IV REPORTS:

1. Asset Management Monthly Report – March 2013
2. Stormwater Activity Management Plan
3. Foul Sewer Activity Management Plan

MACKENZIE DISTRICT COUNCIL

MINUTES OF A MEETING OF THE PROJECTS AND STRATEGIES COMMITTEE HELD IN THE COUNCIL CHAMBERS, FAIRLIE, ON TUESDAY 5 FEBRUARY 2013 AT 11.30 AM

PRESENT:

Graeme Page (Chairman)
Claire Barlow (Mayor)
John Bishop
Annette Money
Graham Smith
Evan Williams

IN ATTENDANCE:

Wayne Barnett(Chief Executive Officer)
Bernie Haar (Asset Manager)
Suzy Ratahi (Manager – Roading) for part of the meeting
John O'Connor (Utilities Engineer) for part of the meeting
Rosemary Moran (Committee Clerk)

I APOLOGY:

Resolved that an apology be received from Cr Maxwell.

Graham Smith Annette Money

II DECLARATIONS OF INTEREST:

There were no Declarations of Interest.

III MINUTES:

Resolved that the Minutes of the meeting of the Projects and Strategies Committee held on 4 December 2012, including such parts as were taken with the Public Excluded, be confirmed and adopted as the correct record of the meeting.

Claire Barlow/Annette Money

MATTERS UNDER ACTION:

Bridge Replacements – Morris Road

Cr Smith advised that the sale of the Morris Road bridge to the adjoining landowner had been completed.

IV REPORTS:

1. ASSET MANAGER'S MONTHLY REPORT:

This report from the Asset Manager referred to Asset Management – Project Progress – Council Priority List, Roading, Essential Services and Solid Waste

Resolved that the report be received.

Claire Barlow/Evan Williams

The Asset Manager reported that on 4 February 2013 he with the Manager – Roading and the Chairman had met on-site with Rob Glover, manager of Godley Peaks Station, to discuss options regarding the future of the **Cass River Bridge** and/or an alternative river crossing.

The Chairman referred to investigations into a **coal mine site in Albury** which were currently underway and noted the potential for damage to Council's roads should such an operation proceed.

The Chief Executive Officer undertook to investigate options for Council to minimise the financial impact on its roading budgets should a coal mining activity in the Albury area be developed.

V PUBLIC EXCLUDED:

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

Manuka Terrace Seal Extension

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
Manuka Terrace Seal Extension	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: *Manuka Terrace Seal Extension* –section 7(2)(b)(ii).

John Bishop/Graham Smith

The Committee continued in Open Meeting

IV REPORTS:

1. ASSET MANAGER'S MONTHLY REPORT (Continued):

The Utilities Engineer spoke to the Essential Services Section of the report.

Twizel Water Supply

Resolved that the unit rate quotation for an estimated cost of $54,000 from McNeill Drilling to undertake the drilling of the exploratory bores for a new source for the Twizel Water Supply be accepted.

Graham Smith /Annette Money

Asset Management System

The Asset Manager explained the options for a new Asset Management Information System which were under investigation.

Solid Waste
The Asset Manager spoke to the Solid Waste section of the report.

The Chairman undertook to convene a meeting of the Solid Waste Sub-Committee in the near future.

THERE BEING NO FURTHER BUSINESS THE CHAIRMAN DECLARED THE MEETING CLOSED AT 12.55 PM

_____

CHAIRMAN

_____

DATE

MACKENZIE DISTRICT COUNCIL

REPORT TO: PROJECTS AND STRATEGY COMMITTEE

FROM: ASSET MANAGER

SUBJECT: ASSET MANAGER'S MONTHLY REPORT

MEETING DATE: 19th MARCH 2013

REF: WAS 1/1

ENDORSED BY: CHIEF EXECUTIVE OFFICER

REASON FOR REPORT

To update the Projects and Strategy 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.

2. That price for the 200m curve re-alignment from Blair Excavation Ltd be accepted for the Minor Improvement Works on Lilybank Road.

3. The Committee note and endorse the decision made by The Mayor and Councillor Page (who had delegated authority to do so) to award the Fairlie Water Supply 2013 Renewals contract to Menzies Group Ltd at a Contract price of $182,023.

BERNIE HAAR
ASSET MANAGER

WAYNE BARNETT
CHIEF EXECUTIVE OFFICER

ASSET MANAGEMENT

Work undertaken this month included the following:

- Various solid waste issues
- Budgets
- Asset management system review
- Princes Street, revised plans for consideration
- Asset Manager's vehicle replacement – still not completed.

The Roading Manager and I attended a workshop in Timaru on the Demographic Trends and their wider implications for Canterbury and Mackenzie District. There was some very useful information presented on the projection trends in Mackenzie over the next 20 years and what this means for the type of infrastructure we will have to provide. I have copies of the presentation if anyone would like to view it, just let me know.
The Utilities Engineer and Whitestone have progressed the Utilities Services Contract Negotiations. They are not as far advanced as we had hoped, but maybe we were a little ambitious in our projections, with being the busy construction season and critical staff not being available.
We had an initial workshop to set the framework for negotiations. John met with Whitestone staff to review the payment schedule and discuss "basis of Payment" clauses.

Whitestone are reviewing rates in light of those "basis of payment" discussions and have had various internal meetings.
Process from here:

- Complete review of the contract documents
- Discuss and confirm contract rates
- Report to Council for adoption
- Aim for completion by end of April
- This may be delayed a bit as we blend in the Community Facilities negotiations.

PROJECT PROGRESS - COUNCIL PRIORITY LIST

Roading

Activity Management Plan
Plan complete and will be handed out at the meeting for adoption in April.

Sewerage

Twizel Land Purchase
No response from land owner

Activity Management Plan
Plan complete. On agenda for adoption.

Water Supply

Projects Water Supply Programme
John O'Connor will cover off all these in his part of the report.

Activity Management Plan
Plan complete and will be handed out at the meeting for adoption in April.

Stormwater

Activity Management Plan
Plan complete. On agenda for adoption.

ROADING

Roading

Environmental Maintenance

Flooding repairs are still on-going. Total spend to the end of January was $637715.45.

Most works are completed with metalling, Hamilton Road Boxed Culvert, Askins Road Ford (Concrete sleeper re-instatement) and Stoneleigh/Raincliff bridge works remaining.

Maintenance of bleeding seals was an issue in February with high ambient temperatures throughout the district, reports from all 3 towns and differing rural roads were attened to and treated.

Maintenance

Pavement Remarking is nearing completion with nearly $20,000 worth of savings achieved by limiting the amount of centre line marking throughout the district. So Far a trail section on Monavale Road is showing how much a centre line moves a vehicle towards the shoulder. Cars travel 200-300mm closer to the centre of the road on the unmarked section of Monavale Road. Hopefully we will notice a slow decrease in low shoulder/edge break repair works with no increase in traffic accidents

Reseals were competed in February with some minor complaints regarding footpaths having "tar running" on inspection there was generally only issues were residents had been parking vehicles outside their premises on the newly sealed fresh single coat chip footpath in Twizel.

Lilybank Road Reseal 2013

Mount Cook Station Road had new signs installed to warn cyclists/motorists of each other. These signs will be folded down when cycling season and logging season stop, this should increase the life span of the sign

New Signs

Coalpit Road Exploratory Consent

Resource consent has been issued for exploratory works at a potential coal extraction site on Coalpit Road. The consent is for 500 tonne for a 6-8 week extraction period, resource consent has been granted for a 6 month period to allow a buffer for the commencement of works and the extraction period. This resource consent expires 17 June 2013
If testing of the site proves worthwhile and further consents are requested, Council would need to ensure that the impacts of Coal trucks would have on the local road network are mitigated. One if not two bridges on the haul route would need to be upgraded and an in depth look at insitu pavement strength versus required capacity for increased truck movements/axle loading would need to be carried out.

Coal Stockpile

Minor Improvements

Plantation Road Curve Re-alignment – Works are completed.

Plantation Road Curve

Lilybank Road Curve Realignment – A design was completed and provided to Nigel Blair for pricing. On further discussion with Nigel and the Land Owner it would appear that instead of the 100m section that was originally designed it was agreed that it would be desirable to

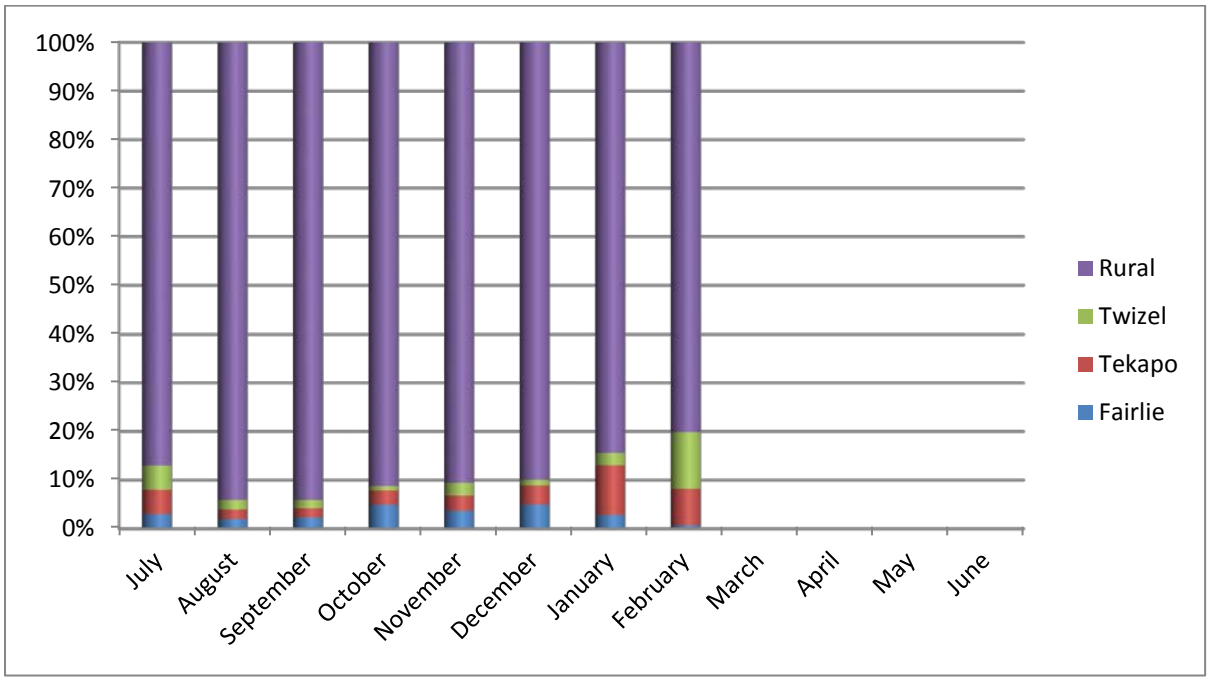
extend the works by a further 100m which would effectively ease two corners and end up with a much better result. Due to the increase in length (100m turning into 200m) the price is outside of budget indicated in previous Minor Improvement funding budgets of $35,000.00. Nigel Blair's price however is reasonable considering the extra length that could now be re-aligned.

Grey Street, Fairlie Streetscaping – Works are completed

Aorangi Drive, Lake Tekapo - Works are completed

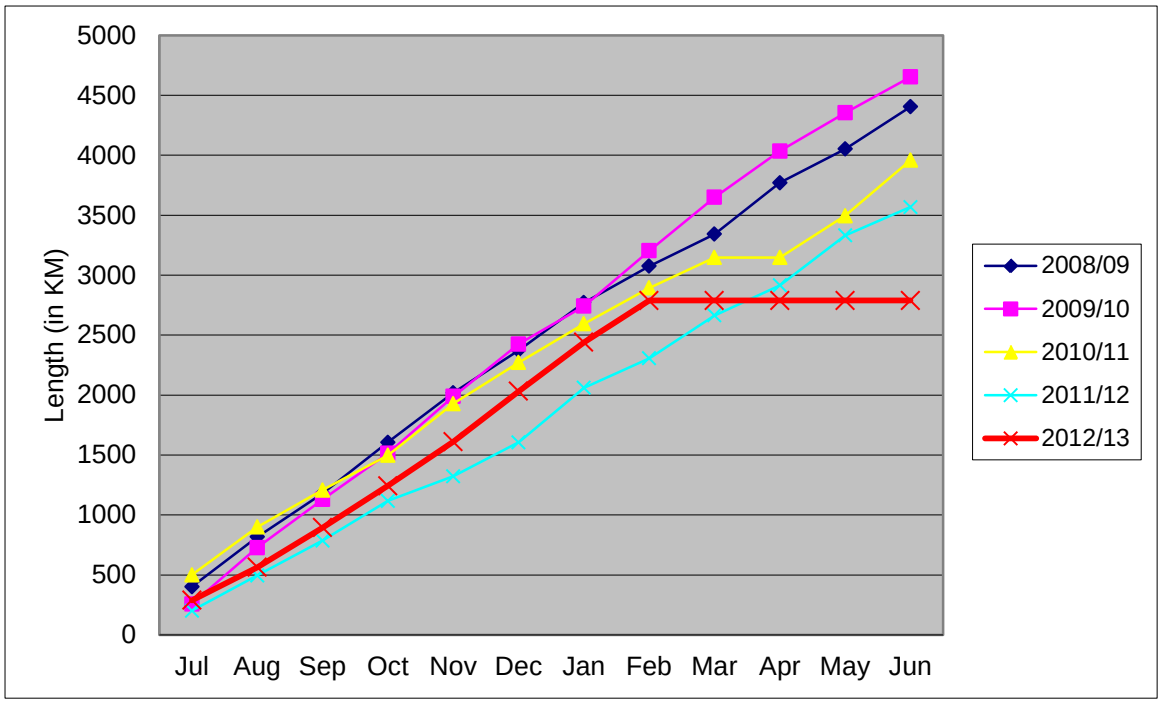
Market Place, Twizel Upgrade – Stage 2 – Contract let for Completion Date 30th November to Whitestone Ltd for $73,773.31

Amaglamated Roading Budgets Graph Showing Percentage Share



Note: Graph includes reseals/footpath surfacing completed this financial year but not Minor Improvemnets. A further graph will be presented at completion of minor improvements projects this financial year.

Unsealed Road Grading (Cumulative)



Grading is tracking higher than last year namely due to the Albury Flooding, and using a slow repair mode to see what gravels we can win back at a lower cost for repair.
Also contributing to an increase is the fortnightly grading of Braemar Road when logging operations are carried out, this helps to protect the areas that do have a small amount of insitu base material.

ESSENTIAL SERVICES

At the time of preparing this report the Contractor's claim for February had not been processed. Details of expenditure one each of the schemes will be available at the meeting.

Fairlie

Fairlie Water Supply - Renewals

Tenders for the Fairlie Water Supply 2013 Renewals were evaluated and discussed by the Mayor and Councillor Page. The following information was presented:

Tenderer	Price
Menzies Group Limited	$207,048.00
BWC Earthmoving Ltd	$212,467.48
Benchmark Construction Ltd	$222,064.00
Whitestone Contracting Ltd	$262,980.00
Hadlee and Brunton Ltd	$293,637.00
Paul Smith Earthmoving 2002 Ltd	$297,910.10

The lowest tender received was from Menzies Group Ltd. There were no tags presented in the tender from Menzies Group Ltd.

Scope of Work.

Frayne Street	$38,666
Taylor Street	$12,419.00
Hamilton Street West	$22,362.00
Hamilton Street East	$21,382.00
Denmark/Allandale Road	$53,110.00
Doon Street	$20,957.00

Budget $171,000
Spent $15,300
Balance $155,700

As the tenders received exceeded the available budget it was recommended that both the Doon Street and Hamilton Street East sections be deleted from the contract. However Councillor Page advised that, since the maintenance budget was tracking so favourably, Council could afford to complete one of those sections. It was decided that the Hamilton Street East section be included.

Preliminary and General $20,000
Denmark/Allandale Road $53,110
Frayne Street $38,666
Taylor Street $12,419
Hamilton Street West $22,362
Hamilton Street East $21,382

Contingency $7,759
Provisional Items $6,325

Total $182,023

The Elected members approved the awarding of the contract to Menzies Group at a contract price of $182,023.

Fairlie Water Supply – Maintenance

Our charmed run of no major repairs in the reticulation came an end in February with repairs totalling $8,600 being required.

On 13 March the un-modified flow of the Opihi River at SH1 was 4.344 cumecs. From 1 January 2014 on, when the unmodified flow in the Opihi River at SH1 is between 2.5 cumecs and 8.1 cumecs, significant water restrictions come into force, including a limit of two hours of any hosing/irrigation per day per property. When the flow is at or less than 2.5 cumecs a total ban on hosing/irrigation comes into force.

Test pumping was carried out at two possible alternative sources for when the Opihi River is in flood and the existing source becomes turbid.

1. Water's Spring – A hole was excavated to the base sandstone at the spring, the drain was cleaned out, and water was pumped at a rate of approximately 40 l/sec for 48 hours. The relevant levels at and an assumed datum are:

Ground level beside Spring	9.02
Water level pre-pumping	7.88
Invert of hole (top of sandstone)	5.40
Stable water level second day of pumping	7.75

The chemical analysis report has arrived and it looks good.
There appears to be the potential for this spring to be used as a permanent source for the Fairlie Water Supply. However, the turbidity at high draw-off when the river is in flood will need to be investigated.

2. Guerin's Well – Guerins well was pumped at approximately 25 l/sec for 48 hours. The pre-pump water-level was at 3.06m depth. On the second day of constant pumping the water depth settled at a depth of 4.18m. The well is 7.0m deep.

The chemical analysis for this water is not yet available.
There appears to be sufficient quantities of water available for this source to be used when the turbidity of the existing source is high. However, the turbidity of the well water when the river is in flood will need to be investigated.

Tekapo

Tekapo Water Supply

The UV plant has been installed in the old pump shed. Work on-site has come to a standstill while the contractor and engineer work through some technical issues.

Twizel

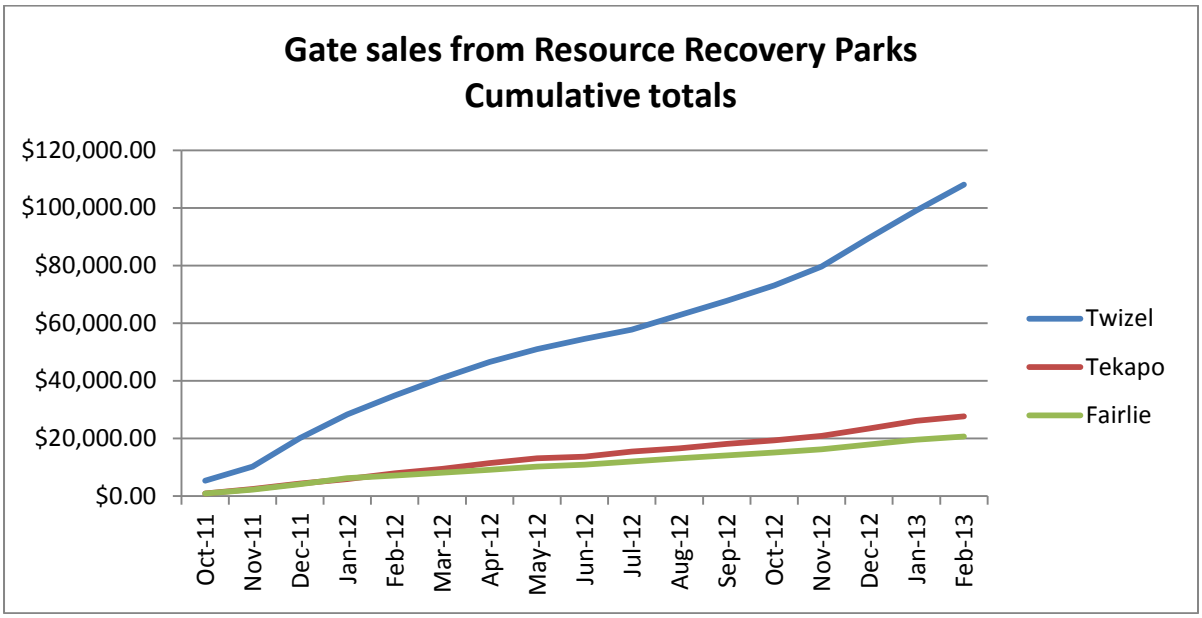
Twizel Water Supply

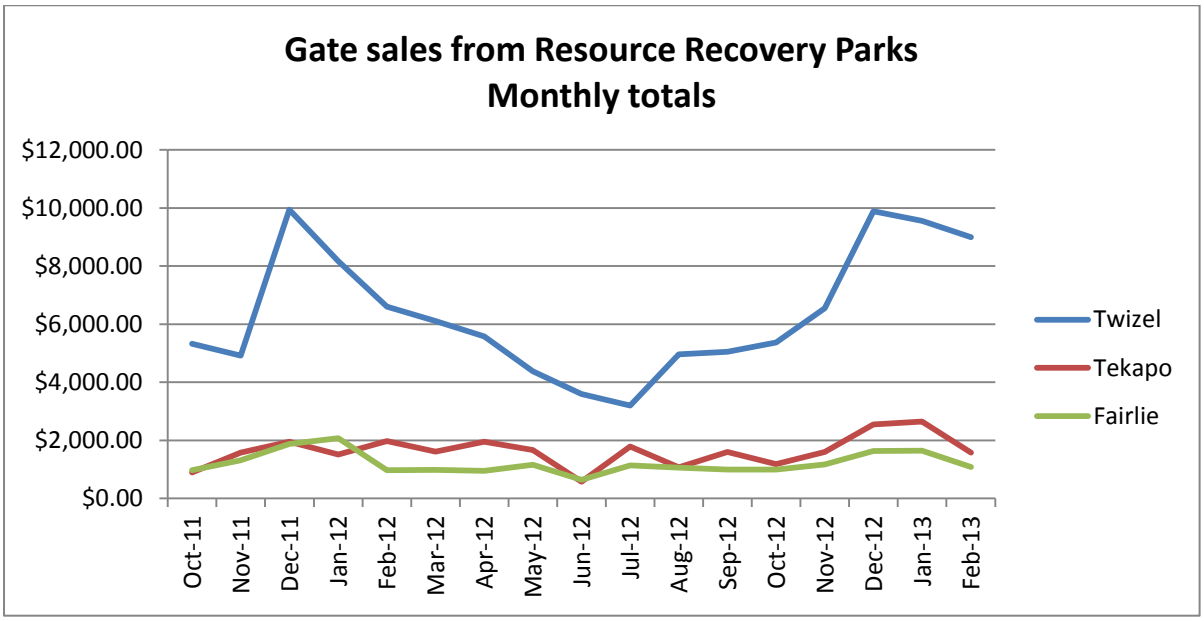
The motor on the new pump #6 burned out after a short period. The motor was replaced by the suppliers and is now operating well. Pump #1 is under repair.
The chlorine tank connection has been replaced and the concrete- trough bund has been sealed.

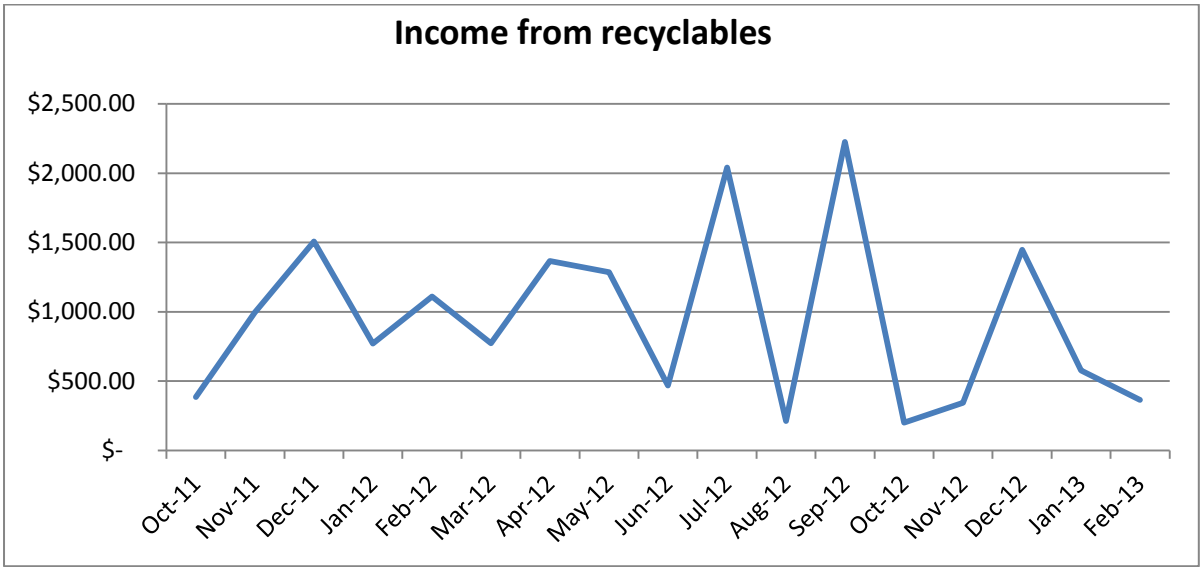
Service connection renewals are continuing and the budget will be over-spent.

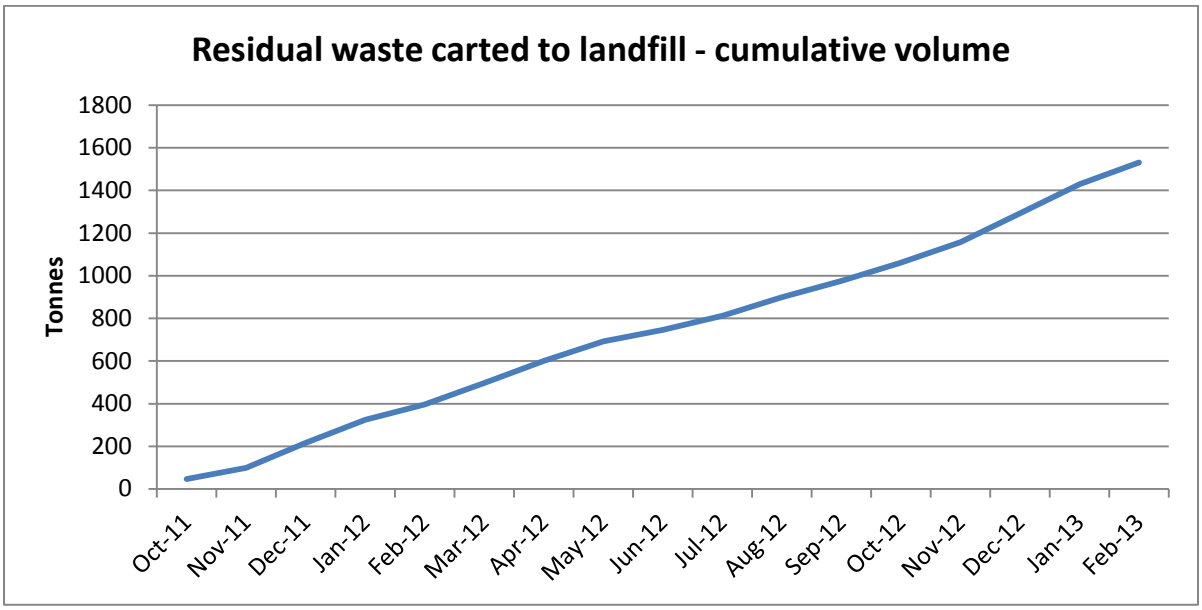
Work is in progress on two initial investigation bores to ascertain if a full investigation for a new source on Ben Ohau is warranted. Initial indications looked promising but at the time of writing this report, the test pumping was not indicating a high yield.

SOLID WASTE









Greenwaste
ESL has provided a proposal from Aoraki Contracting Ltd (Scott Aronsen) for greenwaste. In summary this includes the transport of greenwaste to a central location in Twizel and producing compost for sale in bags and in bulk. This proposal requires further consideration, particularly in terms of cost, timeframes and options for suitable locations and will be addressed at the upcoming sub-committee meeting.

Albury collection
ESL has provided an option for the Albury collection from Peter Brian. This would involve a Saturday collection of bags from four identified collection points; Mt Nessing Hall, Monavale Hall, corner Coalpit Road and Chamberlain Road, and Albury Hall. This would be for refuse, recycling and glass in the MDC bags. The cost of this service is $300 plus GST.

Recycling income
There has been some discussion over the income from recyclables as it appeared this had been decreasing over the past year. The income from metals had been omitted from the overall income, which now appears to be more positive (as shown in the graph above). One factor that has decreased recycling income is a drop in the sale prices for a range of materials. The average sale price for recyclables in November 2011 was $44 per tonne compared to

$16.10 per tonne in November 2012. Ways to improve the quality and volume of our recyclables is an ongoing issue.

Digital TV changeover
I am finalising recycling options for TV's for the upcoming digital changeover on 28 April. MfE have funding available for a recycling scheme known as TV Takeback and I am weighing up the advantages of this versus our current e-scrap recycling. Either way, we are able to accept TV's for recycling at all three recovery parks.

Bluewater
We are working with Bluewater and ESL to improve the separation of waste from the accommodation units and Peppers restaurant, and to improve the separation of refuse and recycling. Separate areas for bins for the units and the restaurant are being set up this week and I will monitor the quality of recycling following this.

Clinical waste
There have been issues in Canterbury with the disposal of clinical waste from residential properties and businesses, such as veterinary clinics. This can present health and safety issues for waste handlers. The introduction of wheelie bins in the Mackenzie has reduced this hazard due to limited handling and ESL has reported that there have been no recent issues. Discussions are underway between Community & Public Health, ECan and TA's to develop a common message to the public for the correct disposal of clinical waste and I will continue to work with ESL on this issue.

MACKENZIE DISTRICT COUNCIL

REPORT TO: PROJECTS AND STRATEGY COMMITTEE

SUBJECT: STORMWATER ACTIVITY MANAGEMENT PLAN

MEETING DATE: 19th MARCH 2013

REF: WAS ½

FROM: ASSET MANAGER

ENDORSED BY: CHIEF EXECUTIVE OFFICER

REASON FOR REPORT:

To provide adopt the Stormwater Activity Management Plan as the framework for the 2009-2019 LTP.

RECOMMENDATIONS:

1. That the report be received.
2. That the Stormwater Activity Management Plan be adopted as policy for the future direction of that activity.

BERNIE HAAR
ASSET MANAGER

WAYNE BARNETT
CHIEF EXECUTIVE OFFICER

BACKGROUND

The Activity Management Plans were reviewed and re-written ahead of the production of the 2009-2019 LTP. This then became the basis for the long term projections for maintenance and capital expenditure for the period. It also sets the levels of service that are proposed to be delivered during that time.

On completion of the LTP process the AMP was further amended to reflect the outcome of the submission process and the approved long term funding strategy.

Councillors and the Mayor were given copies of the AMP in December 2012 for review and comment. I have attached the executive summary of the Stormwater Activity Management Plan as a précis of it to avoid having to print of the whole document again. If any Councillor requires another copy then one can be provided.

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Activity Management Plan for Stormwater (AMP) has been developed to provide the Mackenzie District Council (MDC) with a long term management tool for the Stormwater asset. It sets out the current asset condition, what issues are currently and likely to impact on the asset and the costs associated with maintaining, operating, renewing, developing and disposing of the asset.

In terms of population, the Mackenzie District is the third smallest territorial authority in New Zealand with a normally resident population of approximately 4,000, with limited growth. In contrast to its small population, the area of the District is large, comprising 745,562 hectares. Fairlie, Lake Tekapo and Twizel are the main towns and there are villages at Albury, Kimbell, Burkes Pass and Mount Cook.

1.2 PURPOSE OF STORMWATER ASSET MANAGEMENT PLANNING

The purpose of this AMP is to provide a tool combining management, planning, financial, engineering and technical practices to ensure that the level of service required by customers is provided at the lowest long term cost to the community. The plan is intended to demonstrate to customers that Council is managing the assets responsibly and that they will be regularly consulted over the price/quality trade-offs resulting from alternative levels of service.

1.3 PLAN LEVEL

MDC considers the required sophistication of their plan in the short to medium term need not progress beyond a **"Core"** planning level, as:

- the cost at this time to move to an advanced plan would provide little significant benefit to Council or its' customers
- the size, complexity and use of the assets is consistent with a rural sparsely populated district
- the risks associated with failure are low

This AMP is one of the Council's suite of plans that together describe the services and workload that the community sees as important for the Council to provide and sustain. They outline the basic methodologies Council will use to achieve the strategic objectives promoted in the MDC LTCCP 2009 – 2019 and thus move towards achieving the "outcomes" and the citizens' "vision" of the society they wish to be a part of.

1.4 SCOPE OF ASSET MANAGEMENT PLAN

This revision provides a update to Version 3 of the AMP produced by Mackenzie District Council. It provides a medium to long term indication of asset management requirements and specific work programmes over the planning period from 1 July 2012 to 30 June 2021.

The plan will continue to be periodically reviewed to incorporate, as appropriate new asset information and improved knowledge of customer expectations. The objective is to optimise life cycle asset management activities and provide a greater degree of confidence in financial forecasts.

1.5 STORMWATER ASSET MANAGEMENT ACTIVITY

Council is responsible for the management of stormwater assets with an optimised depreciated replacement cost of $2,926,330 (July 2010 valuation). For 2011/12 Council has budgeted to spend $95,000 on maintaining, operating and renewing these assets (including staff, overhead costs and depreciation).

The following list summarises the MDC Asset Management activities:

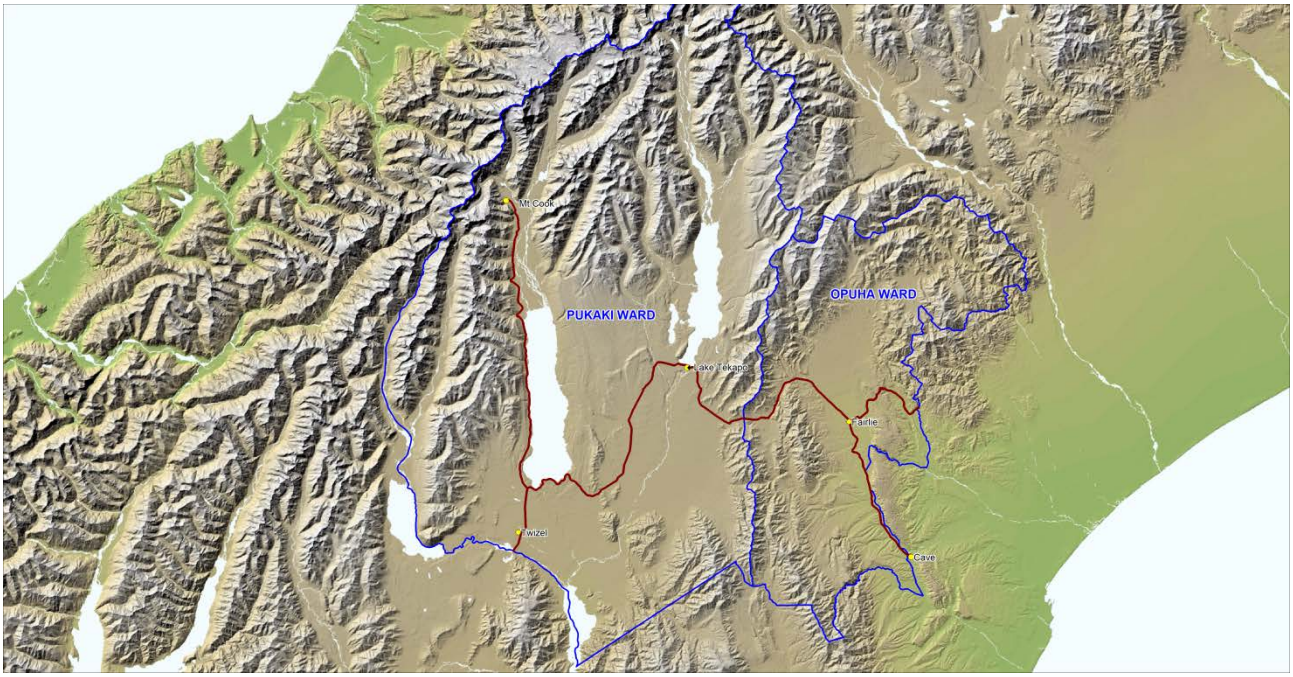
- Asset Management
- Safety Management
- Stormwater Maintenance
- Stormwater Data Management
- Project Management
- Environmental Management
- Network Inspections
- Legislative Compliance Management
- Network Management
- Customer Management

1.6 ASSET DESCRIPTION

1.6.1 LOCATION

Figure 1.1 shows the location of the district within the Canterbury Region

Figure 1.1 – Map of Mackenzie District



The Mackenzie District is bounded in the north and east by the Timaru and Waimate Districts, in the south by the Waitaki District and to the West by the Southern Alps/ Westland District boundary. There are two wards: **Pukaki** which in effect takes in the Mackenzie Basin and **Opuha** being the remaining area to the west of a line following the upper reaches of the Hakataramea River through Burkes Pass to Mt Musgrove in the Two Thumb Range.

The backbone of the roading network in the district is provided by the following State Highways which are the responsibility of the New Zealand Transport Agency (NZTA).

State Highway 8	Timaru - Fairlie - Lake Tekapo - Twizel - Omarama
State Highway 79	Fairlie - Geraldine
State Highway 80	Twizel - Mt Cook Village

The Mackenzie District Stormwater consists of a network of pipes and swales in the towns of Fairlie, Tekapo and Twizel. Stormwater is discharged either to ground or water after being flushed through treatment facilities. These are generally grassed swales or vegetated treatment areas.

1.6.2 THE ASSET

The Stormwater asset includes all Council owned pipelines, manholes open drains and related infrastructure within the District as shown in Table 1.1.

Table 1.1 – Stormwater assets included in this plan

Asset Description	Sub-Asset Description	Quantity
Lines		15496m
Manholes		184
Open Drains		6,211
Treatment Facilities	The facility that serves Lochinver subdivision is still under the control of the developer. It will transfer to Council in the future.	1.9 ha

Note
The stormwater network does not include the drainage control assets consist of kerb and channel, surface water channels, catchpits, soakpits, side drains, and culverts of less than 3.4 m2 cross sectional area. These are included in the Transportation AMP as Roading Assets.

1.7 KEY STAKEHOLDERS AND CUSTOMERS

Key Stakeholders
The Council as the ultimate owner of assets. Other key stakeholders of the stormwater network include:

- Regional council
- Owners and operators of inter-connecting or separate stormwater networks, specifically those owned and managed by Lake Tekapo Enterprises Ltd.

Funding Partners
Funding is provided by several parties and in particular the following are significant contributors:

- Ratepayers – Rates provide funding for maintenance and operation of the networks
- Developers – By constructing infrastructure and vesting it in the Council plus providing the required financial contributions

Customer Groups
MDC's customers fall into three different groups: associated service providers, users and the wider community. These are detailed in Table 1.2.

Table 1.2 – MDC Stormwater Customer Groups

Customer Group	Description	Customers
Associated Service Providers	These are other service providers who rely on the stormwater network	• Contractors
Users	Those who directly benefit from the service	• Ratepayers • Drivers • Pedestrians and cyclists
The Wider Community	Non-users that are affected if the service is not provided	• Citizens • Tourists • Residents who live in the three towns • Local businesses – to control stormwater from entering their business and allow customer access

Other Parties
Other parties with an interest in MDC's AMP include Council employees, consultants and contractors who manage and work on the asset.

1.8 LEVEL OF SERVICE

Council's current and target levels of service as defined in the draft 2012-2022 LTP are summarised in Table 4.1 and are summarised below.

- Council provides a reliable stormwater system which prevents houses from flooding
- Council will respond promptly to reports of flooding and customer requests

These show how levels of service contribute to the community outcomes and provide a technical measure that enables Council to monitor current levels of service against target levels of service.

The current LOS are documented as a combination of:

- LTP LOS documentation based on real or perceived customer feedback
  Contract processes which describe the contractors response to events such as system blockages in stormwater systems or flooding events.

The current LOS can be improved by:

- Augmentation of existing information e.g. clearer reporting response to events and the expected results and their associated costs.
- Utilisation of a LOS model defining quality, quantity, location, and timeframe. This would accurately record over time events that cause disruption to property and then look to solutions to minimise that disruption taking into account the risk of leaving the LOS as it is.

1.9 FUTURE DEMAND

The Mackenzie District Stormwater network caters for the three towns of Fairlie, Tekapo and Twizel. The districts population of approximately 4,000 is low and the growth at approximately 2.3% (since the 2001 census) is well below the national average of 7.8%.

Future demand on the network will be driven by residential subdivision and commercial development.

These areas sustained considerable growth during the period 2003-2009, but since then have slowed down significantly. That period of growth created a large number of sections in Twizel that will take some time to develop.

In Tekapo planning during that period catered for large areas to be developed and infrastructure was designed and installed to cater for that. Resource consents were also obtained for that growth area. Therefore it is unlikely that there will be an increase in demand outside those already planned for.

1.10 RISK MANAGEMENT

Risk management is “the systematic application of management policies, procedures and practices to the task of identifying, analysing, evaluating, treating and monitoring those risks that could prevent a Local Authority from achieving its strategic or operational objectives or plans, or from complying with its legal obligations”.

There is currently no formal Risk Management process being implemented for the stormwater activity within council. This in itself is a significant risk. A risk management strategy has been described in Section 8 of this AMP. The use of this strategy as outlined in the Improvement Plan should be completed with high priority. In particular issues surrounding emergency management and insurance require full review and inclusion in this plan.

1.11 LIFE CYCLE MANAGEMENT PLANS

Life cycle management plans outline what is work planned to keep the assets operating at the current levels of service defined in Section 4 while optimising lifecycle costs. The overall objective of the Life Cycle Management Plan is:

To maintain performance measures to ensure that the current strategies do not consume the asset leading to an unexpected increase in maintenance/renewal expenditure in the future.

In this AMP the lifecycle management plan has been separated into asset groups. Each Lifecycle Management plan covers the following:

- **Background Data** including current capacity and performance, current condition and historical data including costs.

- **Operations and Maintenance Plan** covering planning for on-going day to day operation and maintenance to keep assets serviceable and prevent premature deterioration or failure.

- **Renewal/Replacement Plan** covering Major work which restores an existing asset to its original capacity or its required condition (e.g. pipeline replacement, replanting treatment facilities).

- **Asset Development Plan** covering the creation of new assets (including those created through subdivision and other development) or works which upgrade or improve an existing asset beyond its existing capacity or performance in response to changes in usage or customer expectations.

- **Disposal Plan** covering activities associated with the disposal of a decommissioned asset.

1.11.1 ASSET CONDITION AND PERFORMANCE

The basis of the lifecycle management plans is the current condition and performance of the asset. This allows comparison with the prescribed level of service, and from this a gap analysis can be completed to determine future work requirements.

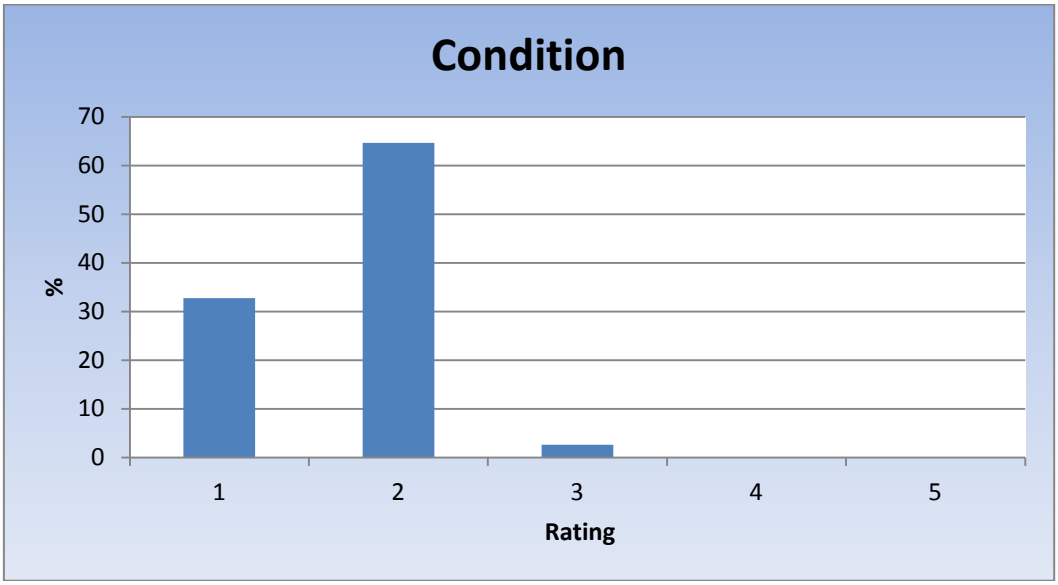
Currently MDC undertakes some condition and performance analysis of the network relying on internal CCTV inspections and the practical experience and knowledge of the engineering staff to provide a gauge of the networks overall performance. This knowledge is used extensively for planning purposes. Although adequate for the purpose, it would useful to extend the new Asset Register in ArcGIS to record and analyse the condition and performance of the network to be more objective in its planning methodology.

Ongoing condition surveys of the asset components are undertaken and results recorded within Asset Register. Council needs to keep up the internal CCTV inspection programme so that the sample results can be extrapolated out across the other similar pipe networks. Intermediate and long term planning of asset renewal is then be based on the results of these surveys, the performances obtained compared to that desired, the remaining expected life of the asset component and the decision making processes outlined (see appendix VI) within this plan.

1.11.1.1 Asset Condition

Specific condition for each asset is not currently measured but internal inspections of representative sections of the network are carried out and the results extrapolated across the network. There is good condition information for Stormwater assets with no assets having a rating of 4 or greater. The majority (65%) have a condition rating of “Good”

Figure 1.2 – Condition Data for Stormwater Assets



Notes: 1 = **Very Good Condition** - Only normal maintenance required
2 = **Minor Defects Only** - Minor maintenance required (5%)
3 = **Maintenance Required to Return to Accepted Level of service** - Significant maintenance required (10-20%)
4 = **Requires Renewal** - Significant renewal/upgrade required (20-40%)
5 = **Asset Unserviceable** - Over 50% of asset requires replacement

There are no pipelines that are graded as requiring renewal and only a small section, graded three (1500m)in Fairlie that requires monitoring as to the amount of deterioration and possible replacement. These pipes are provisionally programmed for replacement in 2021/22.

1.11.2 ROUTINE MAINTENANCE PLAN

Current practice is to apply a combination of "reactive" condition driven and network lifecycle depreciation techniques to determine the work necessary to maintain the network within pre-determined financial constraints (see charts in Appendix VI). The majority of maintenance is reactive so budgets have been based on historical expenditure. Increases to costs for some asset groups are projected in future due to vested assets from developers.

1.11.3 RENEWAL/REPLACEMENT PLAN

This plan is recommending the renewal of replace the stormwater pipeline in Regent Street and part of the stormwater line behind properties in Sloane Street.

1.11.4 ASSET DEVELOPMENT PLAN

This plan is not recommending any improvement works to the existing Stormwater infrastructure.

1.11.5 ASSET DISPOSAL PLAN

In general Council has no specific plans for disposal of components of the stormwater asset.

1.12 FUNDING IMPACT STATEMENT

As at 1 July 2010 the total optimised replacement cost of the Stormwater Infrastructure was assessed to be $4,736,691. The total o ptimised depreciated replacement cost was assessed to be $3,448,422. The annual depreciation or decline in service potential has been determined to be $57,148 per annum.

	Annual Plan ($000)	Budget 2012/13 ($000)	Forecast 2013/14 ($000)	Forecast 2014/15 ($000)	Forecast 2015/16 ($000)	Forecast 2016/17 ($000)	Forecast 2017/18 ($000)	Forecast 2018/19 ($000)	Forecast 2019/20 ($000)	Forecast 2020/21 ($000)	Forecast 2021/22 ($000)
SOURCES OF OPERATING FUNDING											
General rates, uniform annual general charges, rates penalties	-	-	-	-	-	-	-	-	-	-	-
Targeted rates (other than a targeted rate for water supply)	84	79	84	53	46	43	9	15	25	13	61
Subsidies and grants for operating purposes	-	-	-	-	-	-	-	-	-	-	-
Fees, charges, and targeted rates for water supply	-	-	-	-	-	-	-	-	-	-	-
Internal charges and overheads recovered	11	9	17	27	35	45	74	68	74	79	71
Local authorities fuel tax, fines, infringement fees, and other receipts	-	-	-	-	-	-	-	-	-	-	-
Total operating funding (A)	95	88	101	80	81	88	83	83	99	92	132
APPLICATION OF OPERATING FUNDING											
Payments to staff and suppliers	16	29	43	22	22	29	24	25	33	27	28
Finance costs	-	-	-	-	-	-	-	-	-	-	-
Internal charges and overheads applied	23	-	-	-	-	-	-	-	-	-	27
Other operating funding applications	-	-	-	-	-	-	-	-	-	-	-
Total applications of operating funding (B)	39	29	43	22	22	29	24	25	33	27	55
Surplus (deficit) of operating funding (A-B)	56	59	58	58	59	59	59	58	66	65	77
SOURCES OF CAPITAL FUNDING											
Subsidies and grants for capital expenditure	-	-	-	-	-	-	-	-	-	-	-
Development and financial contributions	-	-	-	20	-	-	93	-	-	-	-
Increase (decrease) in debt	-	-	-	-	-	-	-	-	-	-	-
Gross proceeds from sale of assets	-	-	-	-	-	-	-	-	-	-	-
Lump sum contributions	-	-	-	-	-	-	-	-	-	-	-
Total sources of capital funding (C)	-	-	-	20	-	-	93	-	-	-	-
APPLICATIONS OF CAPITAL FUNDING											
Capital expenditure											
To meet additional demand	-	-	-	-	-	-	-	-	-	-	-
To improve the level of service	-	-	-	-	-	-	-	-	-	-	-
To replace existing assets	-	-	-	-	-	-	-	-	-	937	-
Increase (decrease) in reserves	56	59	58	78	59	59	152	58	66	(872)	77
Increase (decrease) of investments	-	-	-	-	-	-	-	-	-	-	-
Total applications of capital funding (D)	56	59	58	78	59	59	152	58	66	65	77
Surplus (deficit) of capital funding (C-D)	(56)	(59)	(58)	(58)	(59)	(59)	(59)	(58)	(66)	(65)	(77)
Funding balance ((A-B) + (C-D))	-	-	-	-	-	-	-	-	-	-	-

The forecast total Mackenzie District Community Board expenditure stormwater for 2011/12for operations, maintenance renewals and development totals $57,890 (inclusive of all administration costs and professional service fees). 20% ($11,636) of budgeted expenditure is to be spent on maintenance and operation with 0% to be spent on renewals. The remaining 80% is used to fund depreciation and administration costs. The full budget and forecast are shown in Appendix III.

A check of the annual renewal expenditure against the Annual Depreciation (AD) for each asset component gives an indication whether the renewal expenditure is appropriate for the age and condition of the network. For asset components nearing the end of their expected lives a figure greater than the depreciated costs would be expected to be spent. For situations where the asset component is new or only partially through the expected life the budgeted expenditure would be expected to be less than the AD with the balance banked so as funding will be available when required. Table 1.3 shows the 2011/12forecast renewal expenditure compared to the AD.

Table 1.3 – Comparison between Forecast Expenditure and Annual Depreciation

Asset Type	2012/13 Renewals Forecast	Annual Depreciation Cost
Pipelines	$0	$56,000

1.13 ASSET MANAGEMENT PRACTICES

MDC employ an Asset Manager, a Utilities Engineer and an Engineering Technician who are responsible for the management of the stormwater asset.

Management planning is actioned in-house generally based on the knowledge of the Asset Manager/Utilities Engineer assisted by the council's contractors and by such planning tools as the ArcGIS Asset Register software and excel spreadsheets.

Occasionally elements of the management of the network may be competitively tendered to consultancy services.

Routine maintenance is undertaken through a competitively tendered contract of normally 3 to 5 year duration.

MDC accounts for revenue and expenditure on an accrual basis. All works are identified through a job cost ledger with appropriate breakdown level to be able to monitor and report on revenues and expenditure. All external reports are prepared in compliance with Generally Accepted Accounting Principles.

1.13.1 ASSET MANAGEMENT PROCESSES

Council uses the LTP process to identify community concerns and issues which are incorporated into levels of service that are expressed by performance measures written into the professional services and physical works contracts. The satisfactory execution of these performance measures result in levels of service compliance that ensures the MDC's outcomes are achieved and the community vision of a district they wish to live in is accomplished.

Well documented standards and processes exist for an on-going inspection programme.

Maintenance and renewal costs are recorded in the general ledger.

There is no formal risk management process.

1.13.2 ASSET MANAGEMENT SYSTEMS

The MapInfo Geographic Information System database is used as the inventory management system and should be the depository for all the available asset data.

Other systems operated by the Council are:

- MapInfo Geographic Information System
- NCS Corporate financial management system
- NCS electronic plan record system
- Hardcopy plan filing systems

The Council is moving its GIS platform from Mapinfo to ArcGis from 24th October 2011. This is essentially the same type of system as Mapinfo and when staff are fully trained, will continue to provide a good Asset Register and have the ability to further enhance that.

1.14 PLAN IMPROVEMENT AND MONITORING

This AMP has previously been reviewed and updates incorporated including improvements to move towards "Core" level Asset Management. Council is committed to a continual improvement as outlined in Section 10. A key objective is to dovetail the asset management planning process with the other key planning processes particularly the Community Plan (LTP).

1.15 KEY ASSUMPTIONS AND CONFIDENCE LEVEL

There are a number of significant assumptions that have been made in the development of this AMP as outlined below.

1.15.1 ASSET DATA

In preparing the plan, data in the MAPINFO database as at September 2011 has been taken as the verified network asset. As a result of the recent revaluation and the move to ArcGis significant validation checks were carried out on the data.

Table 9.1 gives the assessed data confidence quality of the MDC RAMM and spreadsheet data tables as described in the 2010 Water, Wastewater, Stormwater and Solid Waste Assets "Mackenzie District Infrastructure Revaluation" report.

1.15.2 LEVELS OF SERVICE

These have been based on Levels of Service (LOS) outlined in the 2012-2022 LTCCP and updated in the 2011/12 Annual Plan. It is assumed that customer consultation completed as part of the LTP process has been taken into account in the development of these LOS.

Changes in government requirements in future may affect future LOS.

1.15.3 DEMAND

Although the population remains static within the district, other demand factors are based on limited information. No specific consultation or research has been completed to determine future demand on the network. There is a moderate level of confidence in future demand based on limited input information.

1.15.4 LIFE CYCLE MANAGEMENT

The knowledge of the practitioners directly providing this activity, both on a day-to-day basis and historically, has been relied upon. These practitioners include Council's staff, Council's consultants and staff of the various physical works contractors.

1.15.5 FINANCIAL FORECASTS

Key assumptions made in the financial forecasts are as follows:
(Inflation figures have been provided by Business and Economic Research Limited.)

	30-Jun-12	30-Jun-13	30-Jun-14	30-Jun-15	30-Jun-16	30-Jun-17	30-Jun-18	30-Jun-19	30-Jun-20	30-Jun-21	30-Jun-22
Road	0.043	0.038	0.031	0.035	0.031	0.03	0.032	0.035	0.037	0.034	0.035
Property	0.039	0.03	0.029	0.029	0.03	0.031	0.028	0.028	0.03	0.033	0.033
Water	0.045	0.042	0.039	0.035	0.037	0.038	0.035	0.035	0.038	0.041	0.041
Energy	0.055	0.048	0.047	0.047	0.05	0.051	0.046	0.045	0.05	0.054	0.054
Staff	0.026	0.025	0.024	0.024	0.026	0.026	0.024	0.023	0.026	0.027	0.027
Other	0.036	0.024	0.032	0.032	0.034	0.035	0.034	0.033	0.033	0.036	0.035
Earthmoving	0.055	0.041	0.034	0.029	0.03	0.033	0.035	0.038	0.041	0.043	0.044
Pipelines	0.057	0.052	0.044	0.037	0.038	0.042	0.045	0.048	0.052	0.055	0.057

Table 3 Adjustors: % per annum change

- Council will continue to fund the level of service currently set out in this AMP
- The dollar values shown in this Plan are September 2011 dollars adjusted for inflation applicable to this Activity.
- Some renewal costs are rough order of cost estimates that will need to be further researched and refined
- No account has been taken of the impacts related to the development, acceptance and implementation of the Risk Management Plan
- Assumptions made on Total Useful Life and Residual Useful Lives of the assets in relation to the asset valuation.
- The asset data is considered to be reliable and fit for the purpose for developing the long term financial forecasts.

Any other specific assumption

MACKENZIE DISTRICT COUNCIL

REPORT TO: PROJECTS AND STRATEGY COMMITTEE

SUBJECT: FOUL SEWER ACTIVITY MANAGEMENT PLAN

MEETING DATE: 19th MARCH 2013

REF: WAS ½

FROM: ASSET MANAGER

EDORSED BY: CHIEF EXECUTIVE OFFICER

REASON FOR REPORT

To provide adopt the Foul Sewer Activity Management Plan as the framework for the 2009-2019 LTP.

RECOMMENDATIONS:

1. That the report be received.
2. That the Foul Sewer Activity Management Plan be adopted as policy for the future direction of that activity.

BERNIE HAAR
ASSET MANAGER

WAYNE BARNETT
CHIEF EXECUTIVE OFFICER

BACKGROUND

The Activity Management Plans were reviewed and re-written ahead of the production of the 2009-2019 LTP. This then became the basis for the long term projections for maintenance and capital expenditure for the period. It also sets the levels of service that are proposed to be delivered during that time.

On completion of the LTP process the AMP was further amended to reflect the outcome of the submission process and the approved long term funding strategy.

Councillors and the Mayor were given copies of the AMP in December 2012 for review and comment. I have attached the executive summary of the Foul Sewer Activity Management Plan as a précis of it to avoid having to print of the whole document again. If any Councillor requires another copy then one can be provided.

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Activity Management Plan for Foul Sewer (AMP) has been developed to provide the Mackenzie District Council (MDC) with a long term management tool for the Foul Sewer asset. It sets out the current asset condition, what issues are currently and likely to impact on the asset and the costs associated with maintaining, operating, renewing, developing and disposing of the asset.

In terms of population, the Mackenzie District is the third smallest territorial authority in New Zealand with a normally resident population of approximately 4,000, with limited growth. In contrast to its small population, the area of the District is large, comprising 745,562 hectares. Fairlie, Lake Tekapo and Twizel are the main towns and there are villages at Albury, Kimbell, Burkes Pass and Mount Cook.

1.2 PURPOSE OF FOUL SEWER ASSET MANAGEMENT PLANNING

The purpose of this AMP is to provide a tool combining management, planning, financial, engineering and technical practices to ensure that the level of service required by customers is provided at the lowest long term cost to the community. The plan is intended to demonstrate to customers that Council is managing the assets responsibly and that they will be regularly consulted over the price/quality trade-offs resulting from alternative levels of service.

1.3 PLAN LEVEL

MDC considers the required sophistication of their plan in the short to medium term need not progress beyond a **"Core"** planning level, as:

- the cost at this time to move to an advanced plan would provide little significant benefit to Council or its' customers
- the size, complexity and use of the assets is consistent with a rural sparsely populated district
- the risks associated with failure are low

This AMP is one of the Council's suite of plans that together describe the services and workload that the community sees as important for the Council to provide and sustain. They outline the basic methodologies Council will use to achieve the strategic objectives promoted in the MDC LTCCP 2009 – 2019 and thus move towards achieving the "outcomes" and the citizens' "vision" of the society they wish to be a part of.

1.4 SCOPE OF ASSET MANAGEMENT PLAN

This revision provides a update to Version 3 of the AMP produced by Mackenzie District Council. It provides a medium to long term indication of asset management requirements and specific work programmes over the planning period from 1 July 2012 to 30 June 2021.

The plan will continue to be periodically reviewed to incorporate, as appropriate new asset information and improved knowledge of customer expectations. The objective is to optimise life cycle asset management activities and provide a greater degree of confidence in financial forecasts.

1.5 FOUL SEWER ASSET MANAGEMENT ACTIVITY

Council is responsible for the management of Foul Sewer assets with an optimised depreciated replacement cost of $12,220,170 (July 2010 valuation For 2011/12 Council has budgeted to spend $498,000 on maintaining, operating and renewing these assets (including staff, overhead costs and depreciation).

The following list summarises the MDC Asset Management activities:

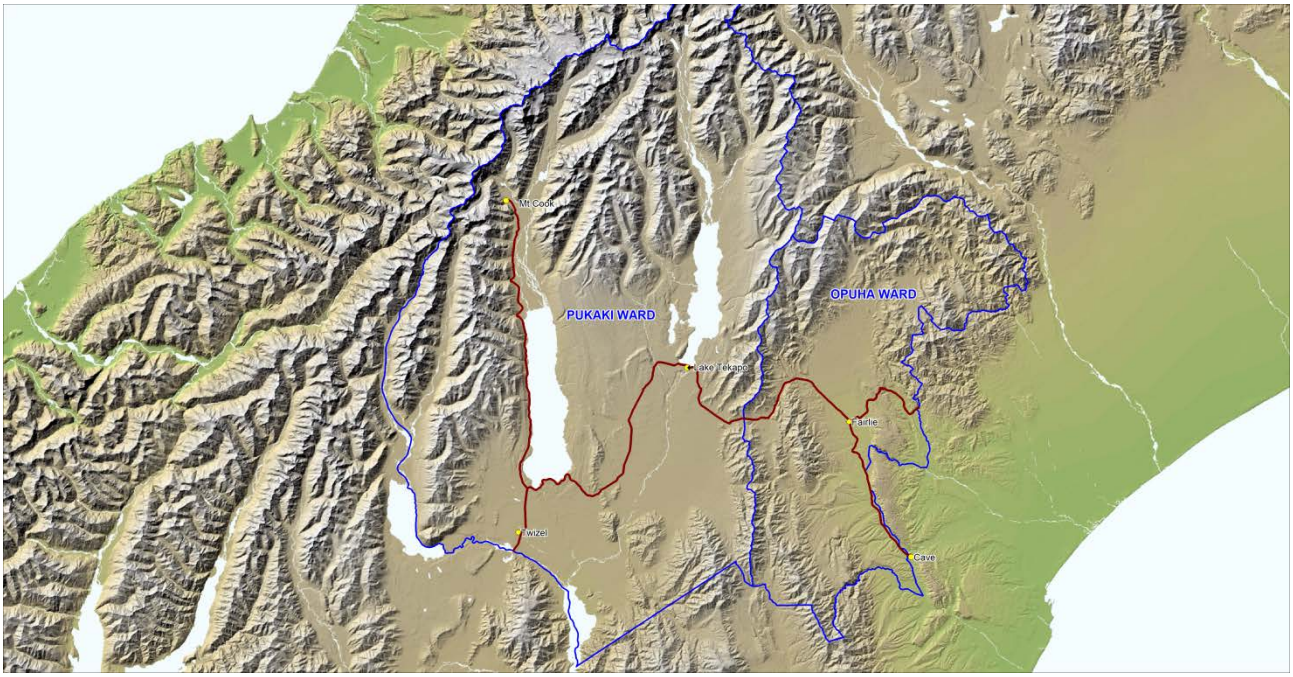
- Asset Management
- Safety Management
- Foul Sewer Maintenance
- Foul Sewer Data Management
- Project Management
- Environmental Management
- Network Inspections
- Legislative Compliance Management
- Network Management
- Customer Management

1.6 ASSET DESCRIPTION

1.6.1 LOCATION

Figure 1.1 shows the location of the district within the Canterbury Region

Figure 1.1 – Map of Mackenzie District



The Mackenzie District is bounded in the north and east by the Timaru and Waimate Districts, in the south by the Waitaki District and to the West by the Southern Alps/ Westland District boundary. There are two wards: **Pukaki** which in effect takes in the Mackenzie Basin and **Opuha** being the remaining area to the west of a line following the upper reaches of the Hakataramea River through Burkes Pass to Mt Musgrove in the Two Thumb Range.

The backbone of the roading network in the district is provided by the following State Highways which are the responsibility of the New Zealand Transport Agency (NZTA).

State Highway 8	Timaru - Fairlie - Lake Tekapo - Twizel - Omarama
State Highway 79	Fairlie - Geraldine
State Highway 80	Twizel - Mt Cook Village

The Mackenzie District Foul Sewers consists of a network of pipes conveying effluent to oxidation ponds in the towns of Fairlie, Tekapo, Twizel and Burkes Pass. In every case the effluent that exits the oxidation ponds after treatment discharges to ground.

1.6.2 THE ASSET

The Foul Sewer asset includes all Council owned pipelines, manholes and related infrastructure within the District as shown in Table 1.1.

Table 1.1 – Foul Sewer assets included in this plan

Asset Description	Sub-Asset Description	Quantity
Lines		74078m
Manholes		184
Treatment Facilities	Each of the four schemes are treated with oxidation pond wastewater treatment systems	4

1.7 KEY STAKEHOLDERS AND CUSTOMERS

Key Stakeholders
The Council as the ultimate owner of assets. Other key stakeholders of the Foul Sewer network include:

- Regional council
- Owners and operators of inter-connecting or separate Foul Sewer networks, specifically those owned and managed by Lake Tekapo Enterprises Ltd.

Funding Partners
Funding is provided by several parties and in particular the following are significant contributors:

- Ratepayers – Rates provide funding for maintenance and operation of the networks
- Developers – By constructing infrastructure and vesting it in the Council plus providing the required financial contributions

Customer Groups
MDC's customers fall into three different groups: associated service providers, users and the wider community. These are detailed in Table 1.2.

Table 1.2 – MDC Foul Sewer Customer Groups

Customer Group	Description	Customers
Associated Service Providers	These are other service providers who rely on the Foul Sewer network	• Contractors • Commercial operators
Users	Those who directly benefit from the service	• Ratepayers • Residents and holiday home owners • Commercial properties • Industrial users
The Wider Community	Non-users that are affected if the service is not provided	• Ratepayer and residents • Tourists • Local businesses

Other Parties
Other parties with an interest in MDC's AMP include Council employees, consultants and contractors who manage and work on the asset.

1.8 LEVEL OF SERVICE

Council's current and target levels of service as defined in the draft 2012-2022 LTP are summarised in Table 4.1 and are summarised below.

- The sewerage systems are managed without risk to public health
- Sewage is able to be disposed of without significant disruption.
- Safe discharge of wastewater

These show how levels of service contribute to the community outcomes and provide a technical measure that enables Council to monitor current levels of service against target levels of service.

The current LOS are documented as a combination of:

- LTP LOS documentation based on real or perceived customer feedback
- Contract processes which describe the contractors response to events such as system blockages or discharges.

The current LOS can be improved by:

- Augmentation of existing information e.g. clearer relationships between alternative service levels for pipeline replacement and their associated costs.
- Utilisation of a LOS model defining quality, quantity, location, and timeframe. This would accurately record over time events that cause disruption to the service impact on public health including the safe disposal of effluent and then look to solutions to minimise that disruption taking into account the risk of leaving the LOS as it is.

1.9 FUTURE DEMAND

The Mackenzie District Foul Sewer network caters for the four towns of Fairlie, Tekapo, Twizel and Burkes Pass. The districts population of approximately 4,000 is low and the growth at approximately 2.3% (since the 2001 census) is well below the national average of 7.8%.

Future demand on the network will be driven by residential subdivision and commercial development.

These areas sustained considerable growth during the period 2003-2009, but since then have slowed down significantly. That period of growth created a large number of sections in Twizel that will take some time to develop.

In Tekapo planning during that period catered for large areas to be developed and infrastructure was designed and installed to cater for that. Resource consents were also obtained for that growth area. Therefore it is unlikely that there will be an increase in demand outside those already planned for.

1.10 RISK MANAGEMENT

Risk management is “the systematic application of management policies, procedures and practices to the task of identifying, analysing, evaluating, treating and monitoring those risks that could prevent a Local Authority from achieving its strategic or operational objectives or plans, or from complying with its legal obligations”.

There is currently no formal Risk Management process being implemented for the foul sewer activity within council. This in itself is a significant risk. A risk management strategy has been described in Section 8 of this AMP. The use of this strategy as outlined in the Improvement Plan should be completed with high priority. In particular issues surrounding emergency management and insurance require full review and inclusion in this plan.

1.11 LIFE CYCLE MANAGEMENT PLANS

Life cycle management plans outline what is work planned to keep the assets operating at the current levels of service defined in Section 4 while optimising lifecycle costs. The overall objective of the Life Cycle Management Plan is:

> ***To maintain performance measures to ensure that the current strategies do not consume the asset leading to an unexpected increase in maintenance/renewal expenditure in the future.***

In this AMP the lifecycle management plan has been separated into asset groups. Each Lifecycle Management plan covers the following:

- **Background Data** including current capacity and performance, current condition and historical data including costs.

- **Operations and Maintenance Plan** covering planning for on-going day to day operation and maintenance to keep assets serviceable and prevent premature deterioration or failure.

- **Renewal/Replacement Plan** covering Major work which restores an existing asset to its original capacity or its required condition (e.g. pipeline replacement, replanting treatment facilities).

- **Asset Development Plan** covering the creation of new assets (including those created through subdivision and other development) or works which upgrade or improve an existing asset beyond its existing capacity or performance in response to changes in usage or customer expectations.

- **Disposal Plan** covering activities associated with the disposal of a decommissioned asset.

1.11.1 ASSET CONDITION AND PERFORMANCE

The basis of the lifecycle management plans is the current condition and performance of the asset. This allows comparison with the prescribed level of service, and from this a gap analysis can be completed to determine future work requirements.

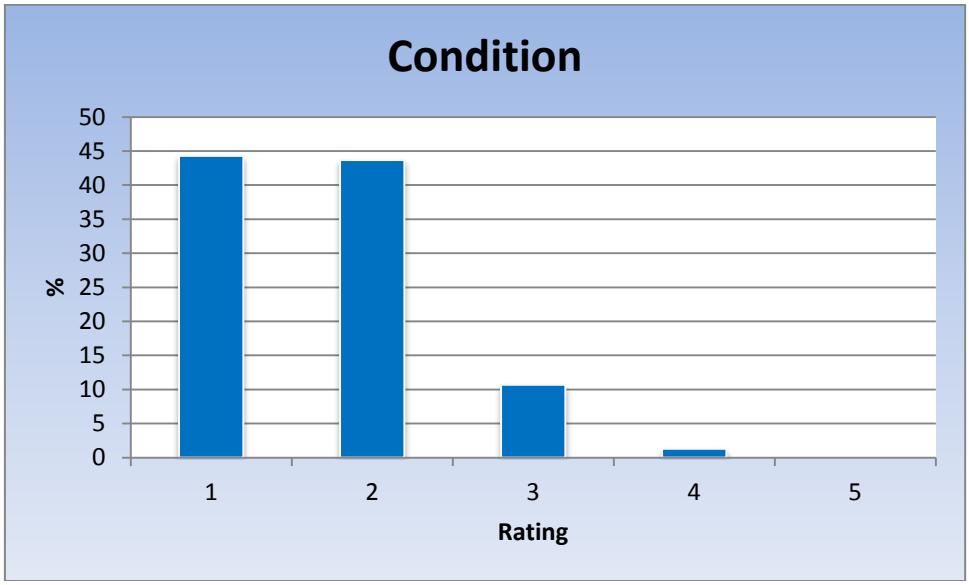
Currently MDC undertakes some condition and performance analysis of the network relying on internal CCTV inspections and the practical experience and knowledge of the engineering staff to provide a gauge of the networks overall performance. This knowledge is used extensively for planning purposes. Although adequate for the purpose, it would useful to extend the new Asset Register in ArcGIS to record and analyse the condition and performance of the network to be more objective in its planning methodology.

Ongoing condition surveys of the asset components are undertaken and results recorded within Asset Register. Council needs to keep up the internal CCTV inspection programme so that the sample results can be extrapolated out across the other similar pipe networks. Intermediate and long term planning of asset renewal is then be based on the results of these surveys, the performances obtained compared to that desired, the remaining expected life of the asset component and the decision making processes outlined (see appendix I) within this plan.

1.11.1.1 Asset Condition

Specific condition for each asset is not currently measured but internal inspections of representative sections of the network are carried out and the results extrapolated across the network. There is good condition information for Foul Sewer assets with the majority of assets graded at 2 or better (88%). Only 1% of the network is graded as having a rating of 4 and no asset is graded as requiring replacement.

Figure 1.2 – Condition Data for Foul Sewer Assets



Notes: 1 = **Very Good Condition** - Only normal maintenance required
2 = **Minor Defects Only** - Minor maintenance required (5%)
3 = **Maintenance Required to Return to Accepted Level of service** - Significant maintenance required (10-20%)
4 = **Requires Renewal** - Significant renewal/upgrade required (20-40%)
5 = **Asset Unserviceable** - Over 50% of asset requires replacement

There are no pipelines that are graded as requiring renewal and 3% showing a grade of 4 that suggests a need to replace. This equates to 965m of pipework in Fairlie. It is not planned to programme the replacement of this pipework, but rather put it on a regular review and inspection regime to monitor the deterioration to replace at the optimum time.

1.11.2 ROUTINE MAINTENANCE PLAN

Current practice is to apply a combination of "reactive" condition driven and network lifecycle depreciation techniques to determine the work necessary to maintain the network within pre-determined financial constraints (see charts in Appendix I). The majority of maintenance is reactive so budgets have been based on historical expenditure. Increases to costs for some asset groups are projected in future due to vested assets from developers.

1.11.3 RENEWAL/REPLACEMENT PLAN

This plan is recommending the following renewal works to the existing Foul Sewer infrastructure.

- Twizel, land purchase around existing oxidation ponds, including legal costs

- Fairlie, pipeline replacement. The pipework in Fairlie is getting old and being impacted with tree root intrusion, so it is suggested that Council budgets for the replacement of one section of pipe as required.
- Tekapo, Upgrade existing pump station on Lakeside Drive to replace aging equipment and to cater for increased demand.
- Tekapo and Fairlie, Replace aerators at oxidation ponds.

1.11.4 ASSET DEVELOPMENT PLAN

This plan is not recommending any improvement works to the existing Foul Sewer infrastructure.

- Twizel, construct rapid infiltration basins and associated pipework to redirect the effluent disposal from the current disposal trench into the RIBs. The existing trench would be decommissioned at that time.
- Twizel, Construct a new rising main from Mackenzie Park pump station to the oxidation ponds. This work is programmed for 2018/19, but will only be constructed if demand puts pressure on the current systems to the point they cannot cope.

1.11.5 ASSET DISPOSAL PLAN

In general Council has no specific plans for disposal of components of the Foul Sewer asset.

1.12 FINANCIAL FORECASTS

As at 1 July 2010 the total optimised replacement cost of the Foul Sewer Infrastructure was assessed to be $18,398,363. The total optimised depreciated replacement cost was assessed to be $12,220,170. The annual depreciation or decline in service potential has been determined to be $239,536 per annum.

	Annual Plan ($000)	Budget 2012/13 ($000)	Forecast 2013/14 ($000)	Forecast 2014/15 ($000)	Forecast 2015/16 ($000)	Forecast 2016/17 ($000)	Forecast 2017/18 ($000)	Forecast 2018/19 ($000)	Forecast 2019/20 ($000)	Forecast 2020/21 ($000)	Forecast 2021/22 ($000)
SOURCES OF OPERATING FUNDING											
General rates, uniform annual general charges, rates penalties	-	-	-	-	-	-	-	-	-	-	-
Targeted rates (other than a targeted rate for water supply)	514	380	402	374	335	398	394	453	475	471	431
Subsidies and grants for operating purposes	-	-	-	-	-	-	-	-	-	-	-
Fees, charges, and targeted rates for water supply	-	-	-	-	-	-	-	-	-	-	-
Internal charges and overheads recovered	-	22	43	62	83	48	65	29	64	78	93
Local authorities fuel tax, fines, infringement fees, and other receipts	23	-	-	-	-	-	-	-	-	-	-
Total operating funding (A)	537	402	445	436	418	446	459	482	539	549	524
APPLICATION OF OPERATING FUNDING											
Payments to staff and suppliers	153	160	194	186	165	191	200	187	208	225	211
Finance costs	-	-	-	-	-	-	-	-	-	-	-
Internal charges and overheads applied	122	16	17	16	17	18	13	49	47	37	29
Other operating funding applications	-	-	-	-	-	-	-	-	-	-	-
Total applications of operating funding (B)	275	176	211	202	182	209	213	236	255	262	240
Surplus (deficit) of operating funding (A-B)	262	226	234	234	236	237	246	246	284	287	284
SOURCES OF CAPITAL FUNDING											
Subsidies and grants for capital expenditure	-	-	-	-	-	-	-	-	-	-	-
Development and financial contributions	-	-	-	57	-	-	417	-	-	-	-
Increase (decrease) in debt	-	-	-	-	-	-	-	-	-	-	-
Gross proceeds from sale of assets	-	-	-	-	-	-	-	-	-	-	-
Lump sum contributions	-	-	-	-	-	-	-	-	-	-	-
Total sources of capital funding (C)	-	-	-	57	-	-	417	-	-	-	-
APPLICATIONS OF CAPITAL FUNDING											
Capital expenditure											
To meet additional demand	-	-	-	-	-	-	-	-	-	-	-
To improve the level of service	-	-	-	-	-	-	-	-	-	-	-
To replace existing assets	-	51	-	124	-	729	606	495	95	-	-
Increase (decrease) in reserves	262	175	234	167	236	(492)	57	(249)	189	287	284
Increase (decrease) of investments	-	-	-	-	-	-	-	-	-	-	-
Total applications of capital funding (D)	262	226	234	291	236	237	663	246	284	287	284
Surplus (deficit) of capital funding (C-D)	(262)	(226)	(234)	(234)	(236)	(237)	(246)	(246)	(284)	(287)	(284)
Funding balance ((A-B) + (C-D))	-	-	-	-	-	-	-	-	-	-	-

Requirement for Work		Budget 2012/13 $0	Forecast 2013/14 $0	Forecast 2014/15 $0	Forecast 2015/16 $0	Forecast 2016/17 $0	Forecast 2017/18 $0	Forecast 2018/19 $0	Forecast 2019/20 $0	Forecast 2020/21 $0	Forecast 2021/22 $0
	Fairlie										
G	Vested Assets	-		62			10				
R	Sewer line replacement	2	-	-	-	23	-	-	-	-	-
		2	**0**	**62**	**0**	**23**	**10**	**0**	**0**	**0**	**0**
	Tekapo										
G	Vested Assets	-		62			298				
R&G	Upgrade Campground Pump Station, aerators, alarms	-				127			58		
		-	-	-	-	-	-	-			
		2	**0**	**62**	**0**	**127**	**298**	**0**	**58**	**0**	**0**
	Twizel										
G	Vested Assets						298				
R	Design and pond construction – new disposal area	50	-	-	-	579	-	-	-	-	-
G	Sewer reticulation – rising main to treatment plant	-	-	-	-	-		446			
R	Resource Consent	-	-	-	-	-	-	50	-	-	-
		50	**0**	**0**	**0**	**579**	**298**	**496**	**0**	**0**	**0**
	TOTAL	**52**	**0**	**62**	**0**	**706**	**596**	**496**	**58**	**0**	**0**

The forecast total Mackenzie District and Community Board expenditure Foul Sewer for 2011/12 for operations, maintenance renewals and development totals $498,000 (inclusive of all administration costs and professional service fees). 37% ($186,000) of budgeted expenditure is to be spent on maintenance and operation with 0% to be spent on renewals. The remaining 63% is used to fund depreciation and administration costs. The full budget and forecast are shown in Appendix III.

A check of the annual renewal expenditure against the Annual Depreciation (AD) for each asset component gives an indication whether the renewal expenditure is appropriate for the age and condition of the network. For asset components nearing the end of their expected lives a figure greater than the depreciated costs would be expected to be spent. For situations where the asset component is new or only partially through the expected life the budgeted expenditure would be expected to be less than the AD with the balance banked so as funding will be available when required. Table 1.3 shows the 2011/12 forecast renewal expenditure compared to the AD.

Table 1.3 – Comparison between Forecast Expenditure and Annual Depreciation

Asset Type	2012/13 Renewals Forecast	Annual Depreciation Cost
New Treatment	$56,000	$220,000

1.13 ASSET MANAGEMENT PRACTICES

MDC employ an Asset Manager, a Utilities Engineer and an Engineering Technician who are responsible for the management of the Foul Sewer asset.

Management planning is actioned in-house generally based on the knowledge of the Asset Manager/Utilities Engineer assisted the council's contractors and by such planning tools as the ArcGIS Asset Register software and excel spreadsheets.

Occasionally elements of the management of the network may be competitively tendered to consultancy services.

Physical works are managed in accordance with the procedures documented in the flowcharts shown in appendix I. Routine maintenance is undertaken through a competitively tendered contract of normally 3 to 5 year duration.

MDC accounts for revenue and expenditure on an accrual basis. All works are identified through a job cost ledger with appropriate breakdown level to be able to monitor and report on revenues and expenditure. All external reports are prepared in compliance with Generally Accepted Accounting Principles.

1.13.1 ASSET MANAGEMENT PROCESSES

Council uses the LTP process to identify community concerns and issues which are incorporated into levels of service that are expressed by performance measures written into the professional services and physical works contracts. The satisfactory execution of these performance measures result in levels of service compliance that ensures the MDC's outcomes are achieved and the community vision of a district they wish to live in is accomplished.

Well documented standards and processes exist for an on-going inspection programme.

Maintenance and renewal costs are recorded in the general ledger.

There is no formal risk management process.

1.13.2 ASSET MANAGEMENT SYSTEMS

The MapInfo Geographic Information System database is used as the inventory management system and should be the depository for all the available asset data.

Other systems operated by the Council are:

- MapInfo Geographic Information System
- NCS Corporate financial management system
- NCS electronic plan record system
- Hardcopy plan filing systems

The Council is moving its GIS platform from Mapinfo to ArcGis from 24th October 2011. This is essentially the same type of system as Mapinfo and when staff are fully trained, will continue to provide a good Asset Register and have the ability to further enhance that.

1.14 PLAN IMPROVEMENT AND MONITORING

This AMP has previously been reviewed and updates incorporated including improvements to move towards "Core" level Asset Management. Council is committed to a continual improvement as outlined in Section 10. A key objective is to dovetail the asset management planning process with the other key planning processes particularly the Community Plan (LTP).

1.15 KEY ASSUMPTIONS AND CONFIDENCE LEVEL

There are a number of significant assumptions that have been made in the development of this AMP as outlined below.

1.15.1 ASSET DATA

In preparing the plan, data in the MAPINFO database as at November 2012 has been taken as the verified network asset. As a result of the recent revaluation and the move to ArcGis significant validation checks were carried out on the data.

Table 9.1 gives the assessed data confidence quality of the MDC Asset Register data tables as described in the 2010 Foul Sewer Asset "Mackenzie District Infrastructure Revaluation" report.

1.15.2 LEVELS OF SERVICE

These have been based on Levels of Service (LOS) outlined in the 2009-2019 LTCCP and updated in the 2011/12 Annual Plan. It is assumed that customer consultation completed as part of the LTP process has been taken into account in the development of these LOS.

Changes in government requirements in future may affect future LOS.

1.15.3 DEMAND

Although the population remains static within the district, other demand factors are based on limited information. No specific consultation or research has been completed to determine future demand on the network. There is a moderate level of confidence in future demand based on limited input information.

1.15.4 LIFE CYCLE MANAGEMENT

The knowledge of the practitioners directly providing this activity, both on a day-to-day basis and historically, has been relied upon. These practitioners include Council's engineering staff, Council's consultants and staff of the various physical works contractors.

1.15.5 FINANCIAL FORECASTS

Key assumptions made in the financial forecasts are as follows:

(Inflation figures have been provided by Business and Economic Research Limited.)

	30-Jun-12	30-Jun-13	30-Jun-14	30-Jun-15	30-Jun-16	30-Jun-17	30-Jun-18	30-Jun-19	30-Jun-20	30-Jun-21	30-Jun-22
Road	0.043	0.038	0.031	0.035	0.031	0.03	0.032	0.035	0.037	0.034	0.035
Property	0.039	0.03	0.029	0.029	0.03	0.031	0.028	0.028	0.03	0.033	0.033
Water	0.045	0.042	0.039	0.035	0.037	0.038	0.035	0.035	0.038	0.041	0.041
Energy	0.055	0.048	0.047	0.047	0.05	0.051	0.046	0.045	0.05	0.054	0.054
Staff	0.026	0.025	0.024	0.024	0.026	0.026	0.024	0.023	0.026	0.027	0.027
Other	0.036	0.024	0.032	0.032	0.034	0.035	0.034	0.033	0.033	0.036	0.035
Earthmoving	0.055	0.041	0.034	0.029	0.03	0.033	0.035	0.038	0.041	0.043	0.044
Pipelines	0.057	0.052	0.044	0.037	0.038	0.042	0.045	0.048	0.052	0.055	0.057

Table 3 Adjustors: % per annum change

- Council will continue to fund the level of service currently set out in this AMP
- The dollar values shown in this Plan are November 2012 dollars adjusted for inflation applicable to this Activity.
- Some renewal costs are rough order of cost estimates that will need to be further researched and refined
- No account has been taken of the impacts related to the development, acceptance and implementation of the Risk Management Plan
- Assumptions made on Total Useful Life and Residual Useful Lives of the assets in relation to the asset valuation.
- The asset data is considered to be reliable and fit for the purpose for developing the long term financial forecasts.
- Any other specific assumptions