



Notice is given of an Engineering and Services Committee Meeting to be held on:

Date: Tuesday, 20 April 2021

Time: Following the Commercial and Economic Development Committee

**Location: Council Chambers
Fairlie**

AGENDA

Engineering and Services Committee Meeting

20 April 2021

Note: This meeting may be digitally recorded by the minute-taker.

Engineering and Services Committee Membership:

Stuart Barwood (Chair)

Emily Bradbury

Murray Cox

James Leslie

Anne Munro

Matt Murphy

Graham Smith

The purpose of local government:

(1) The purpose of local government is—

- (a) to enable democratic local decision-making and action by, and on behalf of, communities; and
- (b) to meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses.

(2) In this Act, good-quality, in relation to local infrastructure, local public services, and performance of regulatory functions, means infrastructure, services, and performance that are—

- (a) efficient; and
- (b) effective; and
- (c) appropriate to present and anticipated future circumstances.

(Local Government Act 2002)

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- 1 OPENING**
- 2 APOLOGIES**
- 3 DECLARATIONS OF INTEREST**
- 4 VISITORS**

5 REPORTS

5.1 MINUTES OF ENGINEERING AND SERVICES COMMITTEE MEETING - 2 MARCH 2021

Author: **Arlene Goss, Governance Advisor**

Authoriser:

Attachments: **1. Minutes of Engineering and Services Committee 2 March 2021** [!\[\]\(c694a3ff3b077d76910920a6a1593ab4_img.jpg\)](#) 

RECOMMENDATION

That the Minutes of the Engineering and Services Committee Meeting held on Tuesday 2 March 2021 be received and confirmed as an accurate record of the meeting.



Unconfirmed MINUTES

Engineering and Services Committee Meeting

2 March 2021

**MINUTES OF MACKENZIE DISTRICT COUNCIL
ENGINEERING AND SERVICES COMMITTEE MEETING
HELD AT THE COUNCIL CHAMBERS, FAIRLIE
ON TUESDAY, 2 MARCH 2021 AT 9.30AM**

PRESENT: Cr Stuart Barwood (chairperson), Cr Emily Bradbury, Cr Murray Cox, Cr James Leslie, Cr Anne Munro, Cr Matt Murphy, Mayor Graham Smith

IN ATTENDANCE: Not noted

1 OPENING

The chairperson opened the meeting and welcomed everyone.

2 APOLOGIES

COMMITTEE RESOLUTION ENG/2021/4

Moved: Cr Anne Munro

Seconded: Cr Emily Bradbury

That the apology received from Governance Advisor Arlene Goss be received.

CARRIED

3 DECLARATIONS OF INTEREST

There were no declarations of interest.

4 VISITORS

There were no visitors.

5 REPORTS

5.1 MINUTES OF ENGINEERING AND SERVICES COMMITTEE MEETING - 15 DECEMBER 2020

The following change to the minutes of the last meeting was requested:

Under Item 5.6: Three Waters Reform Programme the words "regional council" to be replaced with "territorial authority".

Discussion took place on the water bore at Twizel airport. The Mayor moved that staff investigate the reactivation of the bore and this motion passed.

COMMITTEE RESOLUTION ENG/2021/5

Moved: Cr James Leslie

Seconded: Mayor Graham Smith

That the Minutes of the Engineering and Services Committee Meeting held on Tuesday 15 December 2020 be received and confirmed as an accurate record of the meeting with the change noted above.

CARRIED

COMMITTEE RESOLUTION ENG/2021/6

Moved: Mayor Graham Smith

Seconded: Cr James Leslie

That staff investigate the reactivation of the water bore at Twizel Airport.

CARRIED

5.2 ASSET MANAGER'S REPORT

This report was to update the Assets and Services Committee on progress on various projects and the normal operation of the department for the past month.

Discussion of the report included the following matters:

Pond De-sludging: With the desludging at Tekapo, have things returned to pre-covid or how long will it take for it to get back to where it was? It will last until whatever is decided is to be done with Tekapo. Will go out and get 3 prices to de-sludge, don't know what the market will throw at us yet. Last Friday scope was sent to consultants to price – then it will go to open tender. Idea is to reduce open sludge in primary ponds – 45% full of sludge.

While the consultants are in the district will they do Tekapo, Fairlie and Twizel? Yes, it's a single contract and all areas will be serviced.

Fairlie Skatepark: Any additional cost over runs? No cost over runs, only time.

Twizel upgrade office opening: were planning on doing an opening. Is this going to go forward? More so to do with timings from a Comms perspective and messages around buildings, such as inclusive of the additional costs to Fairlie Council building.

Report back on RFI: All with DIA and Wicks, the Scottish regulatory who were the overseeing auditors and whom is going through the data. Have a meeting with them on the 9th where we will know more and some questions they came back on. Mayoral forum RFI as well, ones more in depth in numbers and the other is fairly straight forward.

Mayor – concern at the mayoral forum and what will come as a result of this, and that Ngai Tahu has staked a claim to 50% ownership of the water and will likely run the south island.

Water: Are we managing water better or had a better season? Had a better season. Twizel should likely be on restrictions but given how late it is in the season not overly concerned. Tekapo is way up and Twizel is way up, we're over our summer time use by over a thousand cubic metres a day. It could be the sports ground, subdivisions but we are over average summer time average.

Clr Barwood – still well over the average per head usage nationally?

Geoff – Correct. Well over, one of the highest in the country.

Clr Cox. – What's the delay in water metres as we've discussed these for years?

Geoff – Cost and time.

Tranche 1 funding has got studies around understanding the metering and then putting into the LTP Tranche 2 where there's some roll out of the metering and notifying the community that it's coming.

There is significant funding in Tranche 1 to install meters, does this require a formal council motion? The fact it will be in the long term plan was sufficient.

The installation of water meters isn't the issue, it's the rating. It's the level at which we rate and the revenue to offset this. There are numerous issues that need to be troubleshoot, we are currently rolling out some metering in a testing capacity. There's a real balance in there and you can be stung either way.

The LTP will have the consultative projects such as these under "water".

Roading: Mayor – spend on roading hasn't met all the work done that we've needed too. Some of our funding from NZTA is being withheld due to the work not being completed as yet.

Some of this is around the gravel issue.

Temporary gravel access way on lakeside drive – will that stay until works finish?

Yes it is to enable large, heavy use vehicles to bring materials in without causing damage to the roads.

Tekapo school foot path / road widening - tied into the Twizel school and Tekapo pub carpark. Hoping to get this progressing the next week. Twizel long vehicle car park done at the same time.

Netcon street light replacement – Changing out 20 lights to date, to go and provision as many lights as they can. Some issues with resourcing but moving to full change out to get on top of issues.

5.3 COMMUNITY SERVICES AND WASTE

A transition process to the new Waste Minimisation and Management Contract is now underway. This includes the establishment of a governance group that includes Timaru, Waimate and Mackenzie District Councils, alongside the contractor, EnviroWaste. This group will continue the positive collaboration between the three councils formed over the tender period and is currently focusing on joint branding, messaging and truck livery.

This report was noted.

5.4 COMMUNITY FACILITIES REPORT

This report gives the committee an overview of activities within the Community Facilities area, with specific focus on township maintenance work. This report was written by Brian Milne, acting engineer, township contract.

Questions were asked about extending the pool opening season next year.

5.5 3W STIMULUS PROGRAMME - PROGRESS REPORT FEBRUARY 2021

In October 2020, a Funding Agreement was signed between the Department of Internal Affairs (DIA) and Mackenzie District Council (MDC) whereby the Crown agreed to 100% stimulus grant (\$5.111m) of Three Waters projects, as part of the Three Waters (3WSR) Services Reforms.

This report updated the committee on progress with this work.

DIA has accepted the first quarterly report. De-sludging consultant brief now been issued, first step of product now kicked off. Preliminary work on rough costs of future works, studies and design which will be considered. Need to work on communications, such as the discussion on water meters and water usage within the community.

5.6 THREE WATERS AND FOOTPATH PROJECT UPDATE

In August 2020 Council resolved to procure a project manager from Beca Limited (Beca) to support the delivery of the approximately \$10m Council funded Water and Footpath Projects (funded through the 2020/21 Annual Plan).

Part of this commission was the provision of monthly reports on project progress. Beca's Monthly Project Report is attached to the agenda and Mr Pete Dawson, the Project Manager, was at the meeting to answer questions.

Just need to keep solid momentum, continue reporting and continually make the approval processes as streamlined as possible so tender processes are as smooth as possible.

Fairlie Treatment Water Plant – wary we're going to get a consent design prior to discussion as to the plant design itself.

Beca proposal received to progress with the design, however need to raise at Council workshop this month as there's a lot of work and discussion that needs to be done.

The concept designs have been seen however there will be changes and flexibilities that can be made within these to complete the project, such as the number of reservoirs we install to complete the project.

6 PUBLIC EXCLUDED

RESOLUTION TO EXCLUDE THE PUBLIC

COMMITTEE RESOLUTION ENG/2021/7

Moved: Cr Stuart Barwood

Seconded: Mayor Graham Smith

That the public be excluded from the following parts of the proceedings of this meeting.

The general subject matter of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under

Engineering and Services Committee Meeting Minutes

2 March 2021

section 48 of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48 for the passing of this resolution
6.1 - Andrew Stream Bridge Replacement	<p>s7(2)(b)(ii) - the withholding of the information is necessary to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information</p> <p>s7(2)(i) - the withholding of the information is necessary to enable Council to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations)</p> <p>s7(2)(f)(i) - the withholding of the information is necessary to allow free and frank expression of opinions by or between or to members or officers or employees of any local authority</p>	s48(1)(a)(i) - the public conduct of the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under section 6 or section 7

CARRIED**COMMITTEE RESOLUTION ENG/2021/8**

Moved: Cr Stuart Barwood

Seconded: Mayor Graham Smith

That the Engineering and Services Committee moves out of closed meeting into open meeting.

CARRIED

The Meeting closed at .

The minutes of this meeting were confirmed at the Engineering and Services Committee Meeting held on .

Engineering and Services Committee Meeting Minutes

2 March 2021

.....

CHAIRPERSON

5.2 ASSET MANAGER'S REPORT

Author: Bernie Haar, Engineering Manager

Authoriser: Tim Harty, General Manager Operations

Attachments: Nil

PURPOSE OF REPORT

This report is to update the Assets and Services Committee on the progress of various projects and the normal operation of the department for the past month.

STAFF RECOMMENDATIONS

1. That the report be received.

GENERAL

Resource Consents

Resource consents continue to be lodged that require input from the engineering team prior to being granted. Another stage for Mackenzie Park in Twizel has been lodged and Stage 6 for Tussock Bend in Twizel is close to being lodged.

Fairlie Skate Park

The project management of the new Fairlie Skate Park has been managed by the Engineering Team.

The project was completed within budget and was officially opened on the 1st April 2021. The park has been very popular with the locals and we have also noticed the travelling public have been spending extra time in Fairlie whilst their young family members use the skate park.



Covid Recovery Packages

Staff continue to support the Project Manager for this project over the last month. The focus has been getting the contract in place for the start of stage 1 of the watermain replacements. Also there has been 4 separate contracts let for the shared use paths projects. Staff have been involved in evaluating contractors, letting the work to four different contractors, and then participating in pre contract start up meetings. Council staff in Twizel will be monitoring the contract performance of the various contracts.



Shared Use Path in Ohau Road, Twizel

Site Inspection Audits

Staff have increased the frequency of site auditing on Councils main maintenance contracts, with the recent results outlined below:

Roading	Location	Any issues	Corrective Action	Comments
Whitestone Contracting	Regent Street	N/A	N/A	Correct TTM as per TMP, Unmanned site at the time of inspection
Whitestone Contracting	School Road	N/A	N/A	No work being undertaken due to weather conditions but correct TTM
Whitestone Contracting	Talbot Road	N/A	N/A	Unmanned site, no work due to bad weather, Correct TTM in place
Whitestone Contracting	School Road	N/A	N/A	Unmanned site, concrete was setting, Correct TTM in place
Whitestone Contracting	Hamilton Street	N/A	N/A	Concrete was setting in boxing, correct TTM in place
Whitestone Contracting	Talbot Road	N/A	N/A	Site recently sealed, two cones in place to protect seal
Whitestone Contracting	Morris Road	N/A	N/A	Recently graded road, material also being laid in places, 30km speed signs in place, correct TTM

Community Facilities	Location	Any issues	Corrective Action	Comments
Whitestone Contracting	Village Green	N/A	N/A	Safe site, worker was doing a really good job tiding the path and surrounding area
Whitestone Contracting	Village Green	N/A	N/A	Mowing services being undertaken,
Whitestone Contracting	Nixons Road/SH8	N/A	N/A	Removal of tree damaged in the wind on weekend, safe site, correct procedures,
Whitestone Contracting	By Skate park/Village Green	N/A	N/A	Tiding mess from fallen tree, raking the ground etc

Other	Location	Any issues	Corrective Action	Comments
Civil Concrete Ltd	Fairlie Skate Park	N/A	N/A	Site Safe, Unmanned site, Whitestone have tidied the site up as it was very rough,
Whitestone Contracting	Clayton Road - Private works	N/A	N/A	Shoulder closed, vehicles off the road safely, Correct PPE worn
Geraldine Signs	Main Street	blocked footpath, forced pedestrians onto road	Spoke to young guy he then left	Spoke to the young guy installing the sign, he was leaving due to wrong sign but was advised how to set up site if he returned
Civil Concrete Ltd	Fairlie Skate Park	Concrete pump was blocking footpath,	advised the skate park staff not acceptable	Asked our contractors to drop some footpath closed signs off to remediate the situation,
Civil Concrete Ltd	Fairlie Skate Park	NA	NA	Prep for gardens taking place, work nearly complete
Civil Concrete Ltd	Fairlie Skate Park	NA	NA	Tiding the site for return to the Community, packing the fencing up, ground muddy due to rain and no grass

UTILITIES

On the Allandale scheme over the last month several leaks have been occurring, these are mostly due to butt welded joints prematurely failing from when the scheme was upgraded in 2006.

Preliminary compliance reports from ECAN are showing that the sewer ponds at Fairlie and Burkes Pass are compliant Twizel is non-compliant due to the event at New Years. The Pukaki look out sewer disposal system is also compliant.

Budget Breakdown**Water:**

Operation and maintenance expenditures as at the end of March 2021.

Electricity cost of \$56,523 is under budget by \$33,489.

Contractors cost of \$319,514 is over budget by \$49,478. Original budgets were based on rates under the previous contract. Staff are actively managing the contractors and work programmes to ensure only necessary works are carried and in the most efficient way to attempt to claw back the overspend.

The new contract has increased reporting requirements along with KPI targets.

Some of the extra ordinary issues that contributed to this cost were:

Twizel Treatment Plant Gantry Crane – Rust protection, paint, fit new pully and block for compliance certificate.

Pukaki Airport upgrade works in conjunction with Lakes Construction and new line and connection.

Leak detection Roto place and Aorangi Cres

Fairlie Chlorine analyser installation.

Siegerts Road install new water meter.

Xylem - Servicing Twizel WTP

Various water leaks

Water quality monitoring cost of \$41,527 is over budget by \$15,500. This is due to the increase monitoring that is now carried out.

Consent monitoring cost of \$417 is under budget by \$6,707.

Wastewater:

Operation and maintenance expenditures as at the end of March 2021.

Electricity cost of \$26,246 is over budget by \$2,478.

Contractors cost of \$169,543 is under budget by \$94,885.

Quality monitoring cost of \$12,585 is under budget by \$3,296.

Consent monitoring cost of \$3,235 is over budget by \$2,070. ECAN have been sending in more monitoring account than the last few years.

Landfill and bin hire cost of \$12,625 is over budget by \$2,625. This is for the hire of skip and disposal to landfill.

CCTV cost of \$0 under budget by \$34,448. There has been some CCTV work done but no accounts have been received for the work done.

Storm water:

Operation and maintenance expenditures as at the end of March 2021.

Contractors cost of \$10,428 is under budget by \$7,073.

Consent monitoring cost of \$6,028 is over budget by \$4,404.

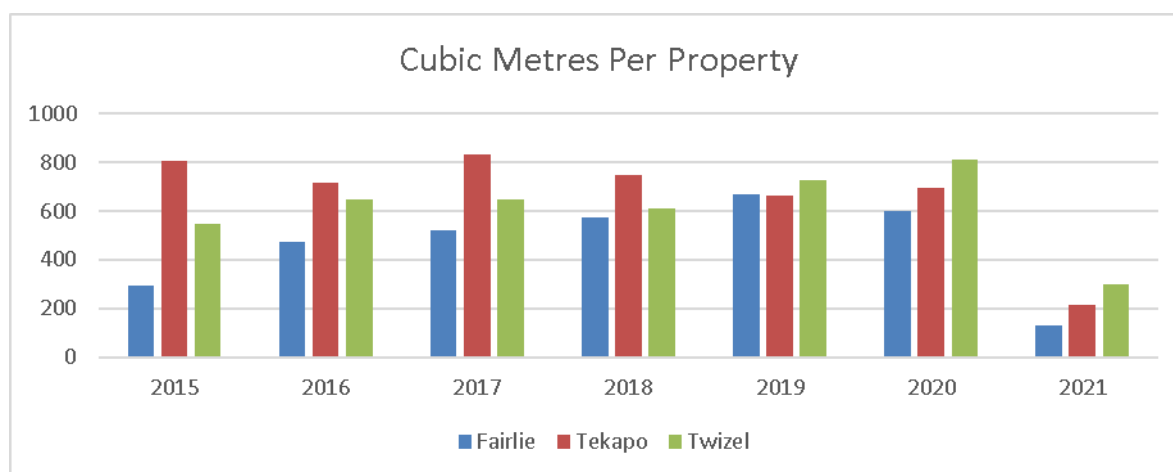
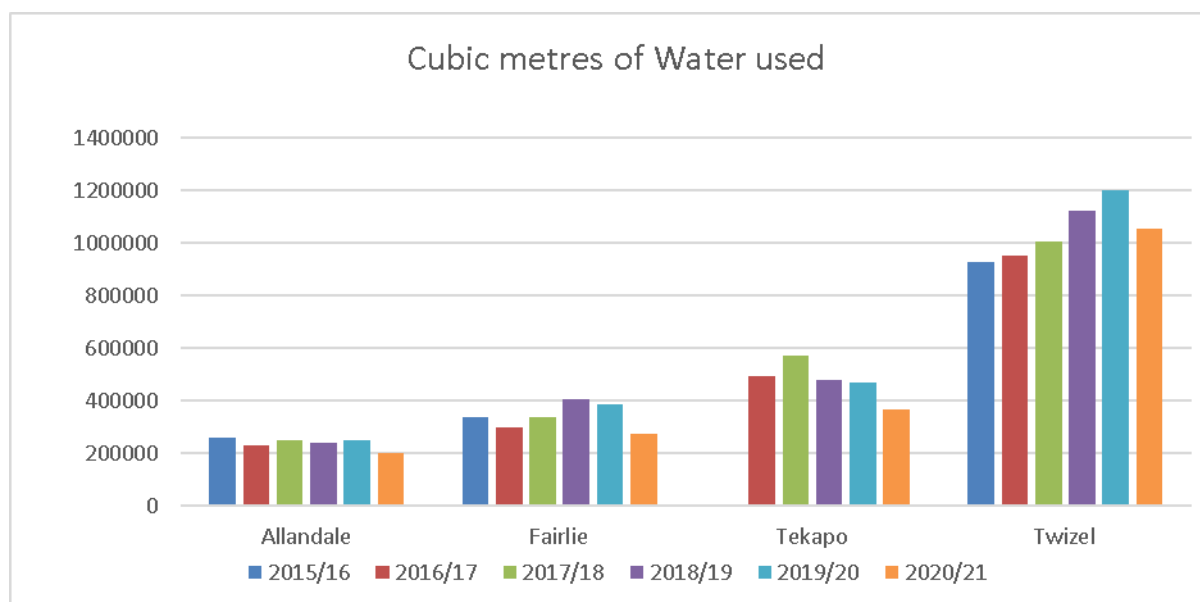
Allandale:

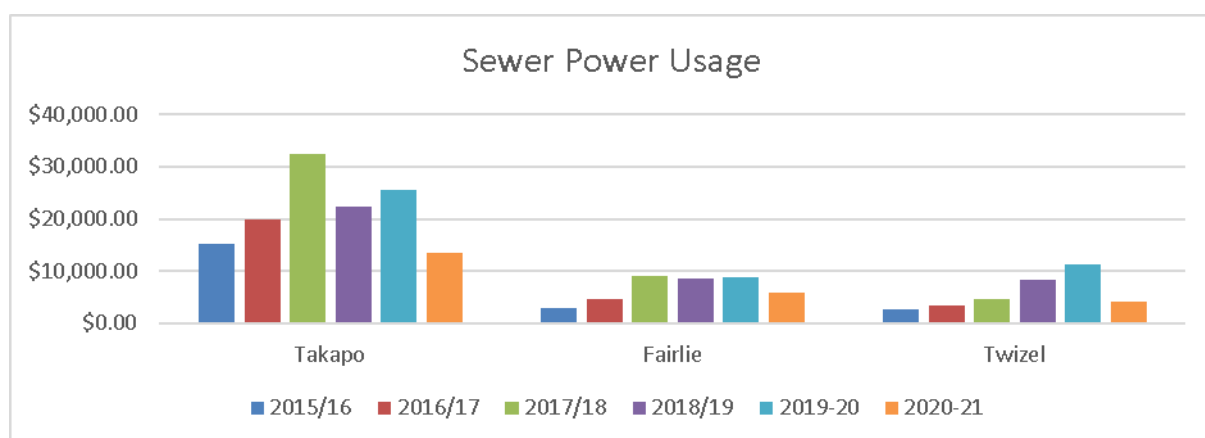
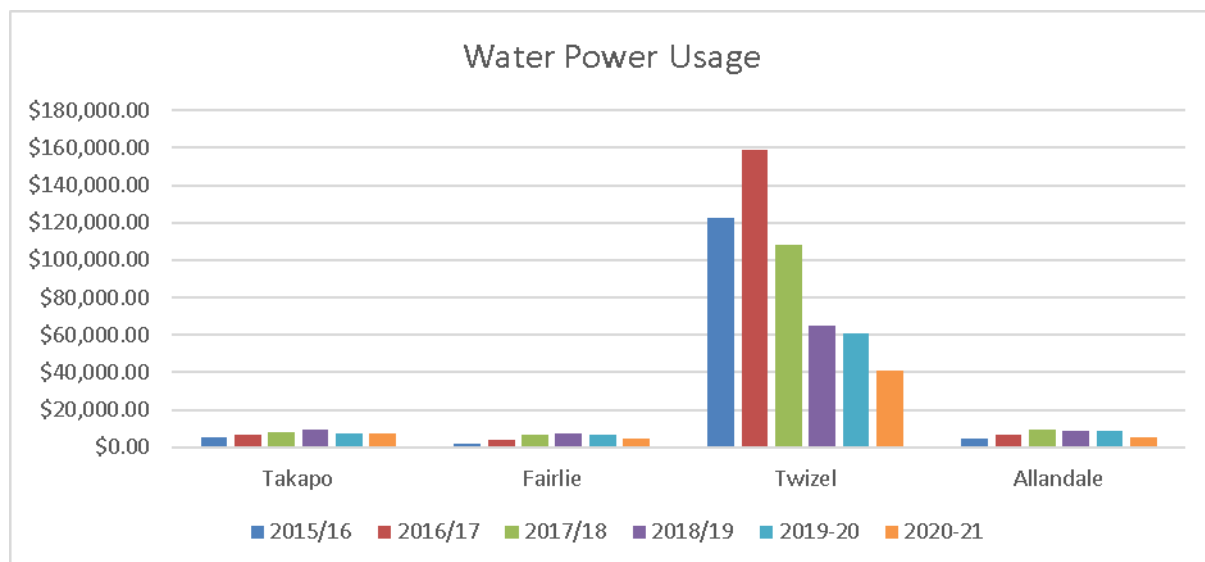
Operation and maintenance expenditures as at the end of March 2021.

Electricity cost of \$4,201 is under budget by \$825.

Contractors cost of \$49,526 is under budget by \$17,232.

Water quality monitoring cost of \$6,036 is over budget by \$979. This is due to carrying out an increased number of samples to ensure bacterial compliance.





Water Sample taken 2020/21

	Albury	Allandale	Burkes Pass	Fairlie	Kimbell	Tekapo	Twizel	Total
Plant	42	46	42	94	0	42	97	363
Retic	10	15	13	50	10	50	46	194
Fails	0	2	0	1	0	1	0	4
Grand Total								557

Number of service Request for Three Water from 1/8/2021 for the new maintenance contract

District	Total	Completed	In Time
Allandale	18	18	16
Ashwick	1	1	1
Burkes Pass	3	3	3
Fairlie	51	51	51
Kimbell	2	2	2
Lake Tekapo	23	23	23
Twizel	92	92	78
Other	3	3	3
Grand Total:	193	193	177

ROADING

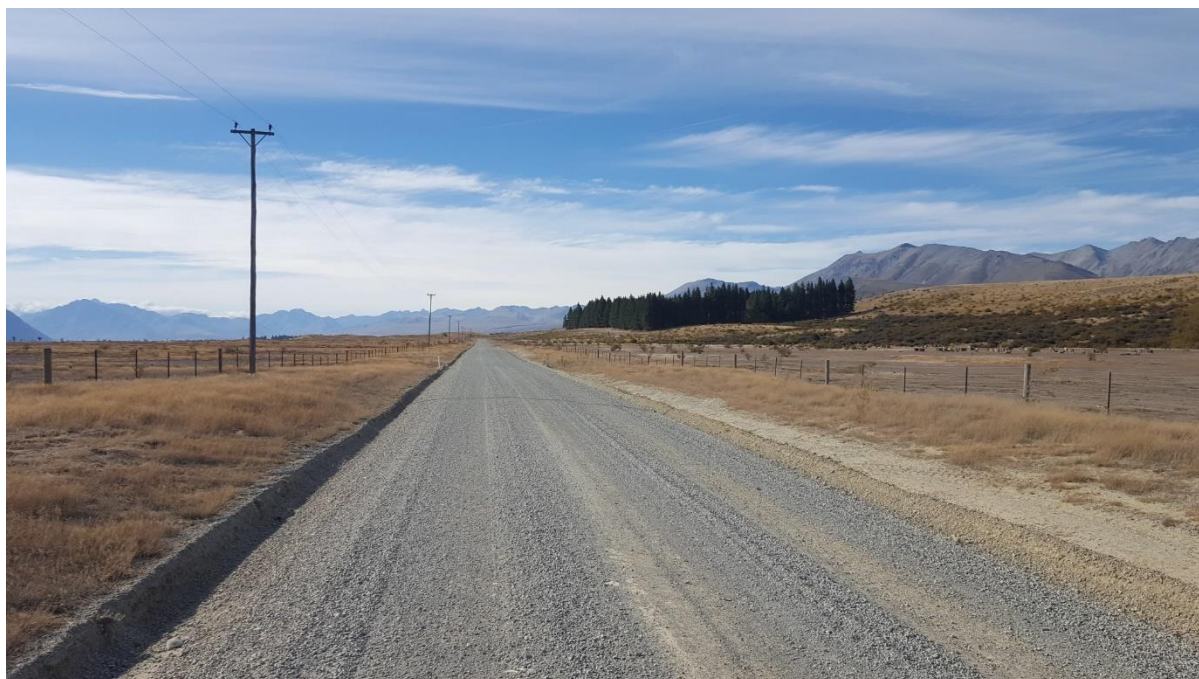
Opihi Street Seal Extension

The next section of seal extension is now complete on Opihi Street in the Eversley Reserve, Fairlie. This follows on from the previous section in North Street earlier in the year. This section was completed later to allow the water main to be renewed prior to the roading works being undertaken. These works complete this year's portion of the project. We are proposing to continue this program, and this will form part of the LTP. We then propose to move onto Kimbell and Lake Takapō (Tekapo) after the completion of the Eversley Reserve in Fairlie.



Lilybank Road Recycle treatment

We have undertaken a recycle treatment on the first section of Lilybank Road to rebind the material. Similar treatments have been undertaken in the past but given the use and speed travelled over this section the fines are lost to dust. The previous treatments have historically been of smaller scale. The alternative with this material is to pick it up and cart it away and replace in with newly manufactured material. Given the road was down to the base and we are on the approach to winter it is likely that this section wouldn't have lasted the winter season with the skifield traffic or it. If not treated now it is very difficult to spread material or treat this surface over the winter months given traffic volumes wet frozen conditions experienced. Instead with this treatment we have been able to rebind the majority of the material and get it back on the road as the most cost effective solution available to date. Given this is our highest volume road we have proposed to begin a rural seal extension programme as part of the long term plan for this road to reduce the consumption of gravel, wear and limit the maintenance required.



Fairlie & Lake Takapō (Tekapo) Ultra Fast Broadband

Ultra Fast Broadband (UFB) is programmed for rollout in Fairlie early May. Works are proposed to be undertaken by Visionstream which involves installing fibre optic cable. This will involve a number of disruptions around the town in relation to footpath and berms been excavated to install cables and associated works. Works are proposed to utilize trenchless technology providing ground conditions are suitable for the majority of the works. At this stage works are proposed within the Town boundary from SH79 (Allandale Road) south at this stage.

Lake Takapō (Tekapo) township is programmed for later in the year (around August). Works will be undertaken by Ventia (Broadspectrum) for this project. This will involve the same works as above. Works are proposed within the town boundary.

Shared Use Path Works

The primary package for the Shared Use Path has now been let. Downer where the successful contractor for these works. Other smaller packages of work are currently being undertaken by other local contractors. These works are primarily located in Twizel in the Ostler, Ohau Road, North West Arch area. Works will cause some inconvenience in accessing some properties during construction works. There will be disruption for pedestrians that would typically use this area for recreation. We ask that people avoid this area while the construction works are undertaken. Letter drops are being undertaken advising residents in affected areas. BECA Consultants have been aiding council in the delivery of this project.

Tekapo School Improvements, Twizel Long Vehicle & Tekapo Carpark Update

A contract is currently out to the market for Tender for these projects. The tender is advertised on the Local Government GETs platform. Tenders close for this work on the 21st April 2021 at which time tenders will be evaluated and awarded to the successful contractor under the lowest price conforming evaluation model.

Re graveling/ Maintenance of Unsealed Roads

We are now reaching the end of our re-gravelling program for the year. A few changes have been required due to some roads showing greater wear and damage than others from use over the year. We are trialing a few treatments on our roads to improve the maintenance and prevent

damage. There may be some interim changes in conditions over the next few months to what is typically expected. For example, as can be seen in the image below windrows of organic material left to breakdown between grading cycles which isn't visually appealing but this will return to its regular condition in the coming month



s.

There have also been a number of conditioning treatments on selected roads in the Opuha ward to remove ingrained faults. This is undertaken using a specialized tool on the graded blade. It is typically only used when there is moisture in/on the road surface to avoid losing fines or breaking up the surface. This will be used up country in the basin as conditions allow, given the absence of consistent moisture or rain and variance of seasons. We are constantly having to adapt maintenance routines, treatments and material properties with our contractor to combat climate change effects.

Footpath & Seal Repairs

Footpath and seal repairs are currently being undertaken in preparation for the onset of winter. The current works are currently will remediate outstanding faults in the surface to waterproof and treat

these prior to the onset of winter and meet councils seal cutoff date of the 15 May 2021 – 15 September 2021.

Clayton Road Seal Widening

Seal widening works have begun on Clayton Road to remove edge break and low shoulder faults that continue to occur on this route as a result of the agricultural traffic and heavy vehicles and given the narrowness of the sealed surface. This to future proof against ongoing maintenance. Works involve adding 600mm to each side of the road in-line with historic sections that have been completed further up the road. Works are being undertaken as part of the maintenance contract by Whitestone. Temporary traffic signals will be used while construction is undertaken as the current road with isn't of sufficient width to run two-way traffic while works are being carried out.

It is planned to join up to the previous section completed previously from about RP 3.5km (approximately). This should result in a consistent width from State Highway 79 (Allandale Road) to the South Opuha Bridge. Repairs will be undertaken above the South Opuha bridges in the interim, but it is likely that seal extension works we will need to be completed further up the road in future given its current classification as a secondary collector for the Clayton, Ashwick, Sherwood, Lochaber area.

Road Maintenance Contract Renewal

The Road Maintenance contract renewal is progressing. A draft procurement plan has been prepared and has been discussed and reviewed with Waka Kotahi (New Zealand Transport Agency) in line with conversations to date. A small number of changes were required but we are nearing a final procurement plan. There are some additional approvals required as part of the procurement method adopted with the agency as co-funding partners and the majority shareholders. The time frame for procurement is likely to be pushed out 2 – 3 months to allow a quality process to take place and from market sounding undertaken within the contracting community the timeframes were deemed too tight to achieve a quality process. Because of this a further contract extension to the existing contract is likely providing all parties are in agreeance. Staff have had initial discussions with Whitestone Contracting regarding this extension. This will allow the process for the procurement and tendering to take place appropriately and will ensure a quality procurement process to deliver the appropriate outcome for Council and our community being largest council contract for the next contract term.

Regional Investment Opportunity (RIO) Projects

Waka Kotahi (New Zealand Transport Agency) are undertaking a number of projects within the Mackenzie District along the State Highway Network to address known problem locations associated with tourism and growth along the corridor. Many of these works are currently under construction on the State Highway network with some still to begin. Works include right turn bay construction, slow vehicle bays, rest area improvements, address traffic related issue cause by tourist stopping/ gathering, etc.

Streetlighting Upgrade

The replacement streetlights should be with NETcon or arriving any day. Change out has begun in Twizel and addressing known outages in the district. Lights are 2200K fittings compliant with the International Dark Sky reserve requirements for the Gold status Aoraki Mackenzie dark sky reserve and will be rolled out district wide.

There are still only 30 new lights replaced as there have been significant shipping delays getting the LED gear trays into the country due to COVID. There is a shipment scheduled to arrive at the end of

April and NETcon have two crews ready to start installing the new lights as soon as they are available.

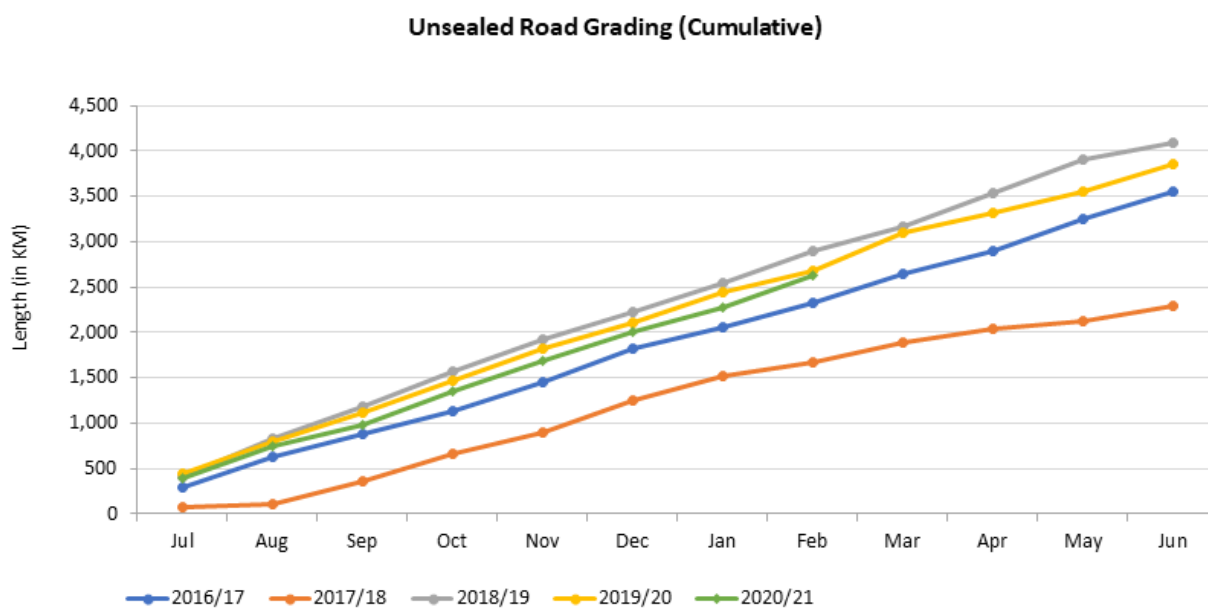
Vegetation Maintenance

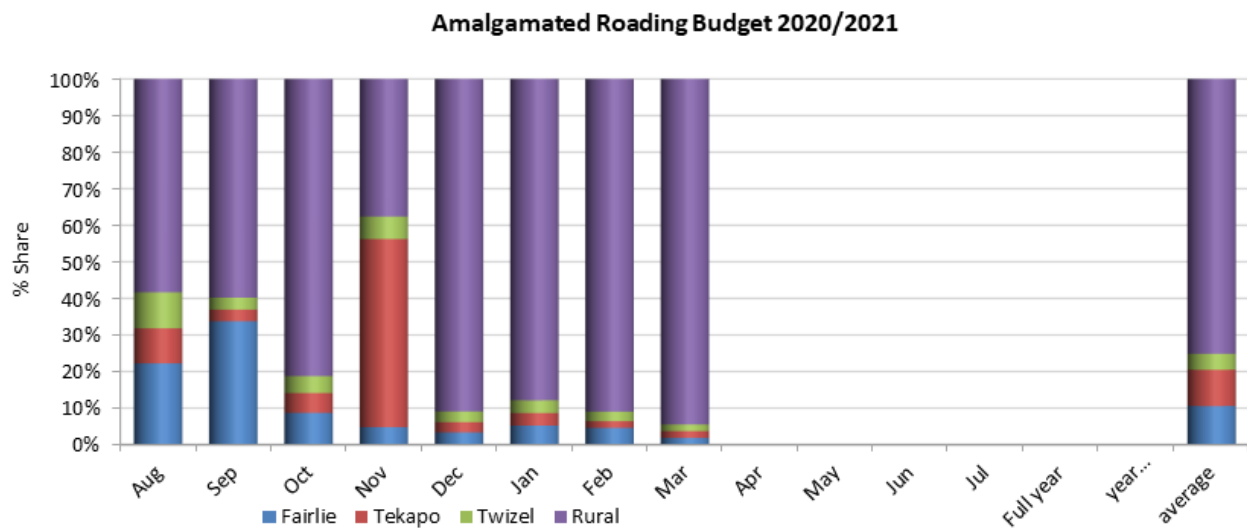
There has been a significant amount of vegetation requiring treatment around the district recently with the high growth seasons both this year and previous seasons. Treatment has included mechanical hedge trimming, hand cutting, mowing and spraying to address this growth. Majority of this is related to visibility and maintaining Council's road reserve.

We also had a tree within private property fall across Plantation Road unexpectedly. Staff have organised an arborist to inspect the surrounding trees and provide advice on next steps given the trees are on private land. With the amount of clearance and forestry occurring around the district trees are coming more of an issue in wind events. The climate change effects and strong out of context wind events also cause issues and clean up requirements.

Regent Street Seal Widening

Regent Street seal widening works are now complete which included both sides of the road from SH8 to Banks Street. Then from Banks Street to Martin Street on the true left-hand side of the road. Whitestone undertook this work as part of the road maintenance contract.





CONCLUSION




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.

5.3 COMMUNITY FACILITIES REPORT

Author: Brian Milne, Community Facilities and Services Officer - Contractor

Authoriser: Tim Harty, General Manager Operations

Attachments:

1. Monthly Pool Report [↓](#) 
2. CLM Pool Report [↓](#) 
3. Township Contract Auditing Results [↓](#) 
4. Peace Avenue Tree Report [↓](#) 

PURPOSE OF REPORT

The report gives Council an overview of activities within the Community Facilities area, with specific focus on Township Maintenance works.

STAFF RECOMMENDATIONS

1. That the report be received and information noted.

HEALTH AND SAFETY

Township Maintenance works are inherently high risk and involve work outside, with machinery and exposure to multiple hazards.

Staff continue to monitor H&S requirements as part of the monthly performance audits plus casual observation of staff and work practices at other times.

No issues with Health and Safety practices have been observed over the last 2 months.

TOWNSHIP MAINTENANCE CONTRACT

The township maintenance contract continues to progress well, with no major issues.

The performance audit system continues to be developed to ensure it accurately meets contract requirements as well as recording other issues. Staff are also planning to work with the contractor in the coming months to set them up to use the system to undertake audits themselves, in addition to Council audits. This intention is that they become somewhat more proactive in identifying items for improvement.

The summary of results to date is attached for information.

The Service Request system is being used to manage community requests, and all current requests have been responded to or are under action.

POOL MANAGEMENT

The pools have now closed for the season and staff will be undertaking a review of the contract/season performance along with development of long-term options for service delivery for Council to consider. This is likely to be in the form of a 17a Review and will recommend a way for managing the pools, long term. This process will be workshopped and reported to Council in the coming months to ensure we have adequate time to set up the operations for the 2021/22 season.

March CLM and survey reports are attached.

TREE MAINTENANCE

Staff have started work on the backlog of tree work, which is mainly involving the removal of unsuitable trees, particularly where impacting on residential properties, and any outstanding or current hazards. This work will continue in April and May and has an impact on available budgets.

The assessment of the Peace Trees has now been completed, and the final report is attached. This report will be worked through in detail with the Fairlie Community Board. Work is programmed to be undertaken in, or from 2021/22, subject to LTP process funding approval.

The major wind storm during Easter severely damaged four Peace Avenue Trees, where they lost significant limbs, and three of these trees have now been removed as the extent of the damage meant they were no longer safe (and their form is also severely impacted). The remaining tree will be further assessed, to determine if it can be saved. Several of branches fell onto the State Highway, but contractors cleared these quickly, so disruption to traffic was relatively minor. One of the branches fell onto a passing car, causing severe damage but fortunately no injury to the occupants. Other than some branch breakages in a few other trees, overall, the majority of the trees suffered surprisingly little damage, given the severity of the winds. All urgent repairs/hazards have now been dealt with and remaining minor damage can be left to be included with the programmed maintenance works.

ALPS 2 OCEAN (A2O)

Staff continue to work with the wider A2O team and provide support as and when required. Usage numbers continue to be high and satisfaction surveys very positive

Operationally the trail continues to be maintained by Recreation Construction contractors with regular (6 weekly) inspections and routine maintenance work as required. As the original contract has now expired, we are working on reviewing this contract and re-establishing over the next 2-3 months.

TIF Funding

A new round of TIF funding has been announced, with Mackenzie District included as one of the targeted areas. Staff will work on identifying a list of potential projects to apply for this funding and seek Council input and approval.

PROJECTS

A number of projects are also underway within the Open Spaces area. A brief update on some key projects is listed below:

1. Fairlie Skate Park

Works have now been completed and the ramp was opened for the Easter weekend where it was very popular. Grass seeding and landscaping around the perimeter is being undertaken in April, and this will need be staged to continue to allow access, so probably won't be fully established/complete until the spring.

2. Barbara Hay Reserve Tekapo

Initial works have been completed, with the path installation and landscaping being implemented over the next 2 months.

3. D'Archiac Reserve Tekapo

Final details on the planting selection are being worked on with the Community Board and implementation of the first stage earthworks is being progressed.

4. Lakeside Drive Tekapo

Work on the landscaping (planting) of the mound in front of the Church of the Good Shepard is being completed this month.

5. Man Made Hill Twizel

Work is underway investigating plans for the development (predominantly planting) of this site.

6. Market Place Twizel

Work is underway to finalise detailed construction plans for the modification of the ramp/steps in the vicinity of the Twizel Council office.

The four key strategic documents in the Parks and Open Spaces area, have now awarded to consultants following the tender process, and stakeholder engagement work is underway, as follows:

- Parks Strategy - Beca
- Trails Strategy – Beca
- Playground Strategy – Xyst
- Public Toilet Strategy – Xyst

BUDGET

At this stage of the year, the total overall District budget for operational matters is tracking on par with expectation (on a simple 1/12th tracking basis). There are some variances in individual township budgets, due to budgets not matching routine/contract costs. This will be rectified from the 2021/22 budget.

A number of minor township improvement projects are now being proceeded with, now that we have more confidence that these can be undertaken within overall budget limits.

Tracking of capital works is still in development and will be reported back to the committee when available.

CONCLUSION

There is significant activity occurring in the area of Open Spaces and Township Maintenance. The new Township Contract is now functioning smoothly, and staff are working on implementing various system enhancements, backlog maintenance work (trees and furniture mainly), together with various development and improvement projects.

Reports and information are included within this report and work will continue focusing on these matters.



Mackenzie District Swimming Pools MONTHLY REPORT

Report for: **Mackenzie District Council.**
Attention: Tim Hardy
Month: March 2021
Prepared by: **Vaughan Hope**

Summary

This report outlines the progress of the Mackenzie District Pools in Fairlie and Twizel over the month of March 2021.

Contents:

Patronage and Tracking	1.0
Marketing and Promotion	2.0
Pool Water Quality	3.0
Pool Closure Report	4.0
Plantroom Maintenance	5.0
Health and Safety	6.0
Survey Feedback	7.0



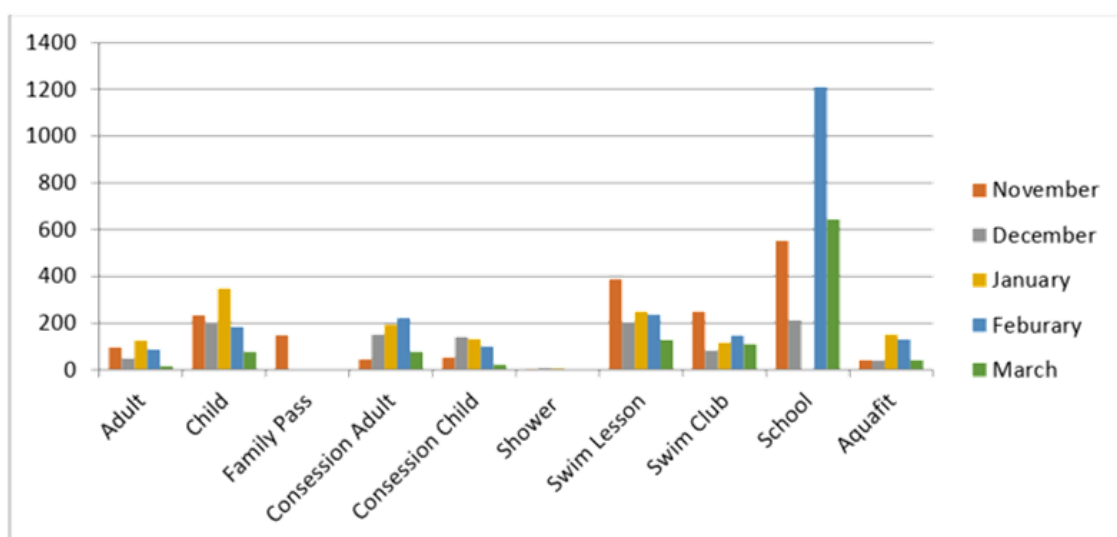
1.0 Patronage

Patronage Tracking

The following tables/graphs breaks down the patronage for the month of March to give an indication of a) facility usage and b) what this usage consisted of. As the season progresses the data will provide a good understanding of how utilised the pool are and also to identify any areas which have increased/decreased usage.

Fairlie

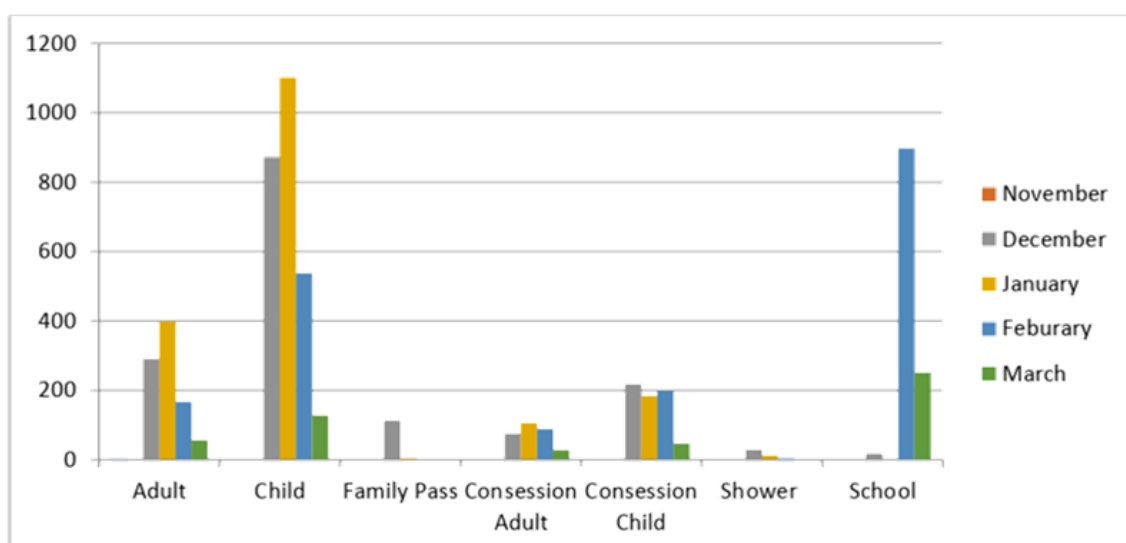
	March 2021
<i>Adult</i>	15
<i>Child</i>	77
<i>Family Pass</i>	0
<i>Consession Adult</i>	77
<i>Consession Child</i>	22
<i>Shower</i>	0
<i>Swim Lesson</i>	127
<i>Swim Club</i>	109
<i>School</i>	644
<i>AquaFit</i>	41
Total	1112



Note; the facility closed for the season on the 14th of March therefore operating half of the duration of other figures. A number of school bookings didn't arrive nearing the end of the season which also lowered expected numbers for the month. high attendance at the end of season pool party was great to see.

Twizel

	March 2021
<i>Adult</i>	55
<i>Child</i>	127
<i>Family Pass</i>	0
<i>Consession Adult</i>	27
<i>Consession Child</i>	46
<i>Shower</i>	0
<i>School</i>	250
Total	505



Note; the facility closed for the season on the 14th of March therefore operating half of the duration of other figures. Attendance at the end of season party was high and those partaking had a great day. Overall the numbers for the month were low as pool temperature was very low from the end of February and March.

Total patronage for season

Fairlie (Nov-March)	Twizel (Nov-March)
7625	5809



2.0 Marketing and Promotion

A number of marketing mediums were utilised across each facility during the month. These included but were not limited to Facebook promotions and getting out into the Community.

COVID-19 – Level 2

Both facilities operated under level 2 restrictions until the 7th of March when they returned to level 1. Post were made on social media with updates. The move back to level 1 saw the appropriate removal of signage, directional tape and restrictions on pool numbers.

Twizel Pool

Following COVID-19 updates the focus this month was put towards the end of season pool party on the 14th of March. The pool party featured a BBQ, games, aquarun challenges and prizes. Feedback from customers on the day was extremely positive from both parents and children.

Image - End of Season Pool Party



Fairlie Pool

Fairlie Pool continued with a strong social media presence both on the facility page and posts being shared on the Fairlie community page.

After the focus on COVID-19 the facility marketing shifted to promote the upcoming end of season pool party. As with Twizels party, we received outstanding feedback on the day. The event was well attended and the BBQ went down well with everyone.

Image – End of season pool party



Image – End of season pool party



Picture – Example of COVID-19 Social Media Update



MARKETING - Active and On-going:

Facebook and the website in conjunction with appearances in the community have been very positive. These means of marketing have been pin pointed as vital in moving the facility forward.

Overall the marketing for the month kept a strong facility presence in the community. This was shown across all mediums utilised, with the majority of the messages having a full facility approach.



3.0 Pool Water Quality

Fairlie

Pool Water Quality

Main Pool

Number of FAC Tests	Ranges	Number of pH Tests	Ranges	Number of Alkalinity Tests	Ranges	Number of Hardness Tests	Ranges
69	1.4-4.4	68	7.52-7.96	0	-	0	-

Small Pool

Number of FAC Tests	Ranges	Number of pH Tests	Ranges				
68	1.4-3.2	68	7.48-7.92				

FAC – (NZS5826:2010 = 1.5 – 7.0mg/L)

Any tests found outside the NZS5826:2010 were immediately actioned by staff. Small pool tested low after periods of high use, manual dosing increased the level once pool not in use.

Main pool tested slightly low due to alarm fault on controller. On removing error pool came back into range.

pH – (NZS5826:2010 = 7.2 – 8.0)

Any tests found outside the NZS5826:2010 were immediately actioned by staff. Both pools remained in range this month.

Alkalinity – (NZS5826:2010 = 50 – 200)

Any tests found outside the NZS5826:2010 were immediately actioned by staff. All tests remained within range this month.

Hardness – (NZS5826:2010 = 40 – 300)

Any tests found outside the NZS5826:2010 were immediately actioned by staff. All tests remained within range this month.

Twizel

Main Pool

Number of FAC Tests	Ranges	Number of pH Tests	Ranges	Number of Alkalinity Tests	Ranges	Number of Hardness Tests	Ranges
59	1.8-4.2	59	7.3-7.7	0	-	0	-

Small Pool

Number of FAC Tests	Ranges	Number of pH Tests	Ranges	Number of Alkalinity Tests	Ranges	Number of Hardness Tests	Ranges
61	0.2-4.5	61	7.3-7.7	0	-	0	-

FAC – (NZS5826:2010 = 1.5 – 7.0mg/L)

Any tests found outside the NZS5826:2010 were immediately actioned by staff.
Due to manual dosing the small pool, tests prior to opening were slightly low. Pool was dosed before opening to public.

pH – (NZS5826:2010 = 7.2 – 8.0)

Any tests found outside the NZS5826:2010 were immediately actioned by staff.
All tests within range this month.

Alkalinity – (NZS5826:2010 = 50 – 200)

Any tests found outside the NZS5826:2010 were immediately actioned by staff.
No test recorded.

Hardness – (NZS5826:2010 = 40 – 300)

Any tests found outside the NZS5826:2010 were immediately actioned by staff.
No test recorded.

.



4.0 Pool Closures

Fairlie

No pool closures occurred this month.

Twizel

No pool closures occurred this month.

Micro Biology Tests

Fairlie

	Results: Feb	March
- All tests were below the required standards		
Faecal Coliforms : <1/100ml	< 1	< 1
Pseudomonas aeruginosa: <10/100ml	< 1	< 1
Aerobic Plate count: <200ml	< 1	< 1
Staphylococcus aureus: <100/100ml	< 1	< 1

Twizel

- All tests were below the required standards	Results: Feb	March
Faecal Coliforms : <1/100ml	< 1	< 1
Pseudomonas aeruginosa: <10/100ml	< 1	< 1
Aerobic Plate count: <200ml	< 1 & 18 (smpool)	< 1 & 5 (smpool)
Staphylococcus aureus: <100/100ml	< 1	< 1

**5.0 Plant Maintenance****Fairlie**

- Filters backwashed: 2nd & 14th

Twizel

- Filters backwashed: Main Pool – F2: 12th F1: 13th
Small Pool – 14th
- In-line filters and lint baskets cleaned weekly for both pools

6.0 Health & Safety Reporting

Please see attached report attached

7.0 Survey Feedback

Survey summary for March attached





Facilities User Surveys

FOR RECREATION, LEISURE AND AQUATIC
CENTRES AND FACILITIES

Mackenzie District Council
Facilities User Survey Report 2020

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Introduction

Yardstick is a suite of benchmarking tools that delivers “need to know” information for parks and recreation agencies to inform their decision-making and improve service delivery.

Innovation and better management of your pools and recreation facilities is achieved through the sharing of knowledge and information. Park and facility managers developed Yardstick for the industry as a benchmarking tool to collect, share and compare vital information to measure current performance and drive future improvements.

Yardstick Facility User Survey is a survey of pool and recreation facility visitors that is carried out annually or as required to meet specific demands for user consultation. The survey is designed to collect a range of information relating to services and facilities provided and user satisfaction with those services and facilities.

This report contains the results from all participating organisations in the Facility User Survey project in the current year that have been selected in peer group filters.

Methodology

The core questions were developed with industry input to ensure relevance and to meet current parks management needs. They are designed to collect information about the typical core pool and recreation centre facilities and services. The number of questions is designed so that the survey can be completed in a typical timeframe of 5 to 8 minutes. Individual organisations may also include additional questions to meet their specific needs.

Visitor expectations of levels of service are measured by asking them to rate the importance of various features and services. These results are compared with visitor satisfaction for the same features and services. Measuring satisfaction gives an indication of performance as measured against expectations. The difference, or gap between importance and satisfaction gives a measure of under or over performance in delivering the expected level of service.

Visitors are also asked about their activities while visiting the recreation centre, and demographic data.

Industry Partnerships

Yardstick is operated and supported by a collaborative partnership of industry organisations including the New Zealand Recreation Association (NZRA), World Urban Parks (WUP), Institute of Public Works Engineering Australasia (IPWEA), Alberta Parks and Recreation Association (ARPA), Ontario Parks Association (OPA), Parks and Recreation Ontario (PRO) and British Columbia Recreation and Parks Association (BCRPA).

The Yardstick project manager, Xyst Ltd., is responsible for the management of the Yardstick website and support of member organisations.



Survey options

There is the option of completing surveys as either an on-site intercept survey of facility users, or via an online self-completion survey. Both options use the same questions and the results are combined for reporting.

Interpretation of charts and tables

This report is designed to provide a printed version of the online results for the past year's survey activity. The report gives results per facility for each organisation and facility selected in peer filters.

The full results of the survey are available to members online at www.yardstickglobal.org

Survey responses are scored using the following scoring system:

Importance scale	totally unimportant	unimportant	neither important nor unimportant	important	very important
	1	2	3	4	5
Satisfaction scale	very dissatisfied	dissatisfied	neither satisfied nor dissatisfied	satisfied	very satisfied
	1	2	3	4	5

"Don't know" or blank responses are given a score of 3 for importance (neutral) and are not included when calculating satisfaction. This ensures that "don't know" responses don't affect final results.

The overall satisfaction of respondents was measured by asking them to rate their overall satisfaction with the park on a scale of totally dissatisfied to very satisfied. From these scores two measures are calculated, mean satisfaction (average) and overall satisfaction. The overall satisfaction percentage is calculated from the total numbers of respondents that gave a "very satisfied" (5) and "satisfied" (4) response to the specific question on overall satisfaction with the park in which the survey was conducted. Overall satisfaction is therefore a count (converted to a percentage) of satisfied respondents vs dissatisfied or neither satisfied nor dissatisfied respondents.

The average (mean) satisfaction is calculated by summing the overall satisfaction scores from all respondents (including those that were not satisfied) and dividing by the number of responses to give a score between 1 and 5. This score is converted to a percentage. Average satisfaction is therefore a rating (converted to a percentage) calculated from the scores attributed to each response on the satisfaction scale.

A series of questions are designed to identify the importance of specific services and features, and also measure the degree of satisfaction respondents had with these services and features for the subject facility. The importance and satisfaction questions are asked for the following services and features:

1. Adequate car parking
2. Programmes
3. Security - personal safety
4. Provision of refreshments
5. Pool safety – lifeguard presence
6. Pool water temperature
7. Pool water quality
8. Adequacy of outdoor shade
9. Indoor air quality and temperature

10. Age and quality of equipment
11. Staff supervision and competence

Importance and satisfaction for individual features is calculated from the survey questions for those features and uses the mean score i.e. the sum of the values divided by the number of respondents. The gap between importance and satisfaction is an indication of under or over performance. Anything less than a full one point +/- result in any chart should be read as a relatively minor indication of a level of service that is too great or too poor.

Survey confidence and reliability

The intention of the project is to provide a level of confidence of 95% for the entire group findings as a representation of the leisure centres that were surveyed. A sample size of 400 is generally considered to be the minimum required to be representative of the general population (5% margin of error at 95% confidence level). As users of leisure facilities are not always representative of the wider population, a smaller sample is considered sufficient to represent users. For the purpose of this survey, a sample size of around 100 surveys per facility is recommended.

Online reports providing all individual organisation results are available to all Yardstick members from the webpage www.yardstickglobal.org

Historical reports are available on request.

Disclaimer

The information presented in Yardstick has been sourced from members of the public and is intended for use by member organisations only. The results are intended to provide indicators only and should not be regarded as absolute. Users of the results presented within this report should exercise caution with the use of the data and seek their own verification of the data supplied and interpretation thereof. Xyst and Yardstick partner organisations make every effort to ensure the accuracy of the information published, but cannot be held responsible for any consequences arising from errors or omissions.



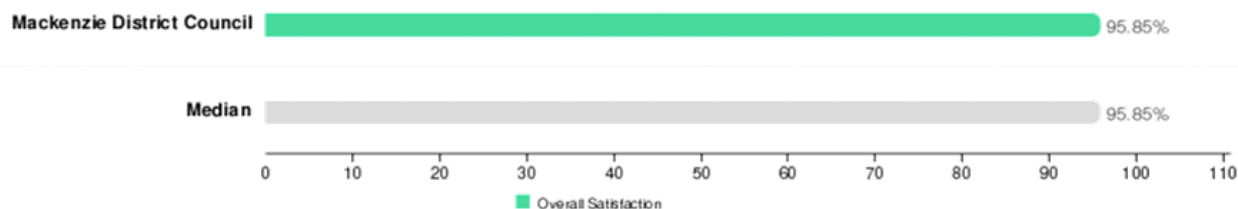
Facilities User Survey 2020

A 1.01

The overall satisfaction reports the percentage of respondents who gave either very satisfied (5) or satisfied (4) responses to the question about how satisfied they were overall with the facility.

A. Overall Satisfaction: Organisation

Overall Satisfaction



Organisation	Overall satisfaction score	Overall satisfaction as a percentage
Mackenzie District Council	4.8	95.8 %
Median	4.8	95.8 %



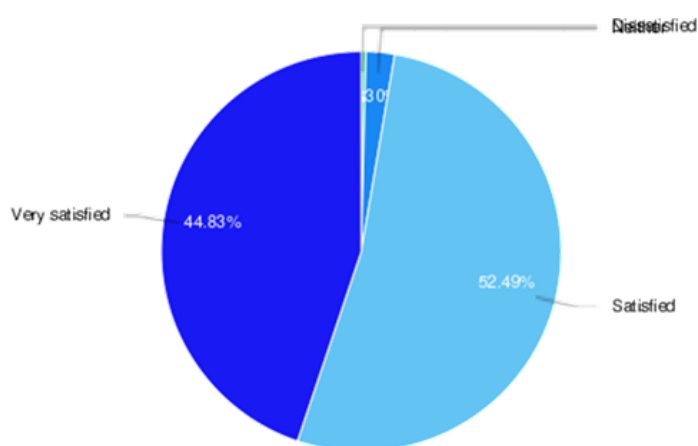
Facilities User Survey 2020

A 1.02

Overall satisfaction for each organisation is broken down in B1.01 to show the responses from very dissatisfied to very satisfied. The chart shows the mean result for all of the organisations selected in peer filters. Results for each organisation are reported in the table.

A. Overall Satisfaction: Organisation

Distribution of overall satisfaction responses



Organisation	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
Mackenzie District Council	0%	0%	2%	52%	44%
Mean	0%	0%	2%	52%	44%



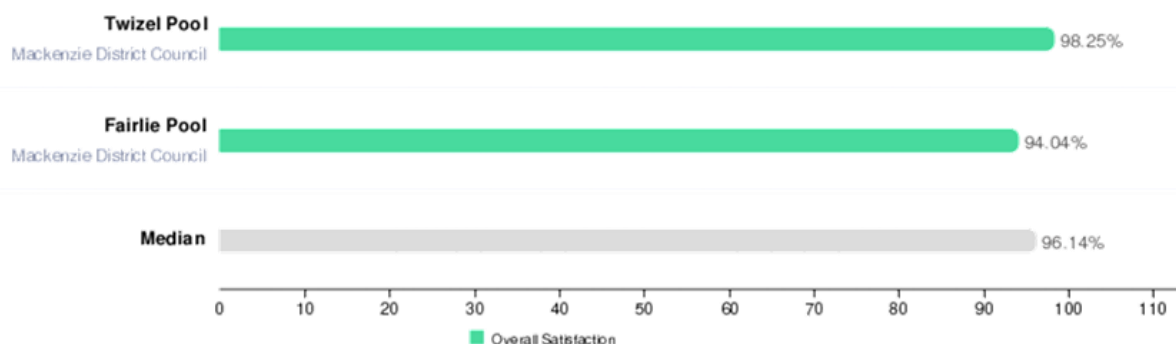
Facilities User Survey 2020

A 2.01

The overall satisfaction reports the percentage of respondents who gave either very satisfied (5) or satisfied (4) responses to the question about how satisfied they were overall with the facility.

A. Overall Satisfaction: Facility

Overall Satisfaction



Facility	Overall satisfaction score	Overall satisfaction as a percentage
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	4.9	98.2 %
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	4.7	94.0 %
Median	4.8	96.1 %

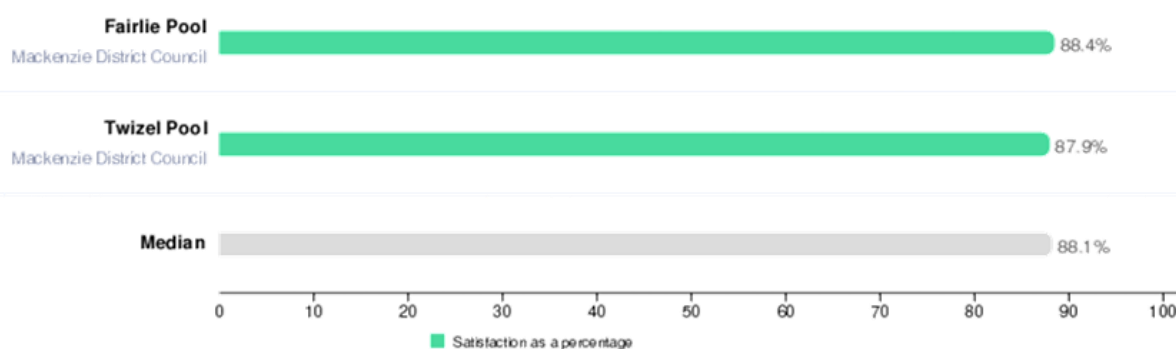


Facilities User Survey 2020

A 2.02

Respondents were asked how satisfied they were with the customer service of staff at the facility (whole facility).

A. Overall Satisfaction: Facility Customer Service



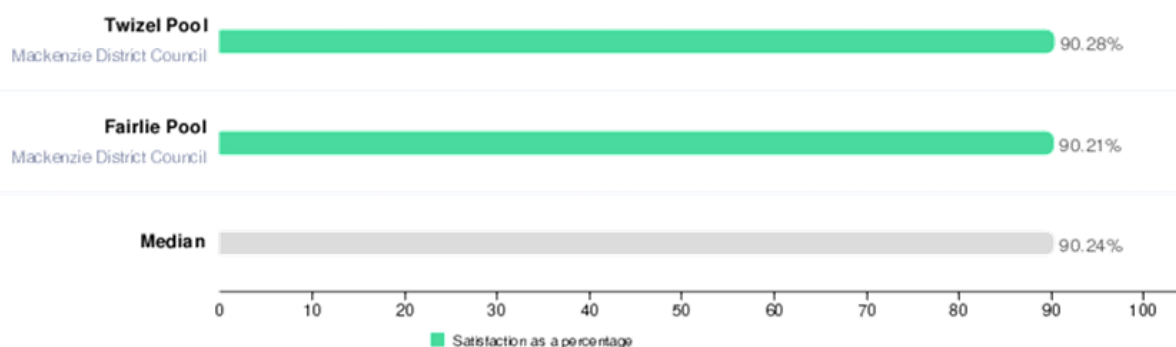
Facility	Satisfaction	Satisfaction as a percentage
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	4.4	88.4 %
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	4.4	87.9 %
Mean	4.4	88.1 %



Facilities User Survey 2020

A 2.03

A. Overall Satisfaction: Facility Cleanliness



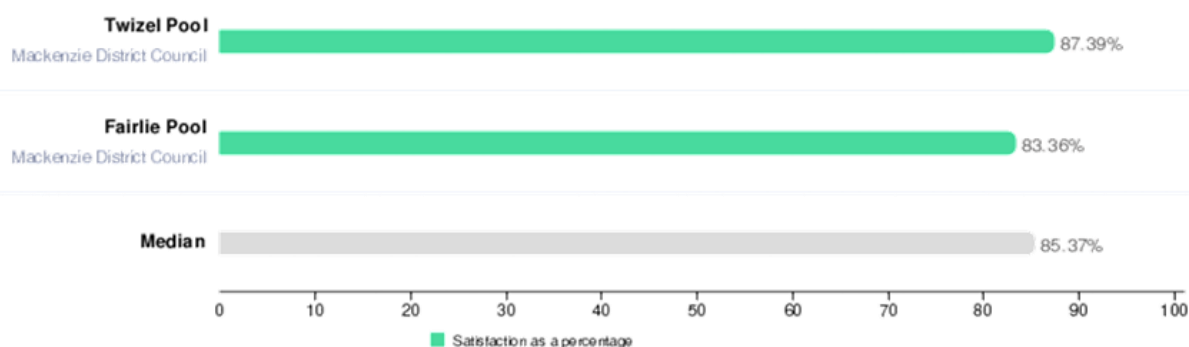
Facility	Satisfaction	Satisfaction as a percentage
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	4.5	90.2%
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	4.5	90.3%
Mean	4.5	90.2%



Facilities User Survey 2020

A 2.04

A. Overall Satisfaction: Facility Provision of Toilets and Showers



Facility	Satisfaction	Satisfaction as a percentage
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	4.4	87.4 %
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	4.2	83.4 %
Mean	4.3	85.4 %



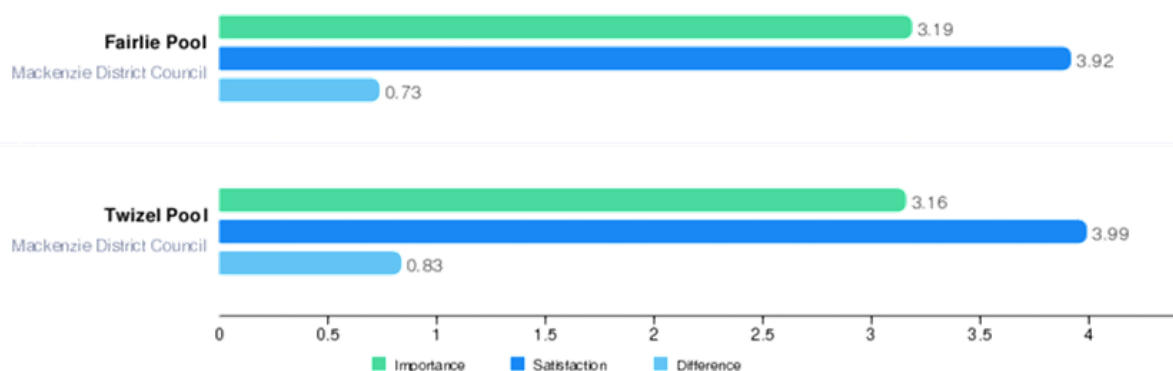
Facilities User Survey 2020

B 1.01

The importance/satisfaction reporting point for adequate car parking compares mean satisfaction with mean importance at each facility, and identifies the difference. A negative result indicates a gap in performance for that feature. A positive result indicates that satisfaction is greater than expectations for that feature in that locations, and that no improvements are required. Gaps of between -1.0 and 1.0 should be considered minor.

B. Importance/Satisfaction: Whole Facility

Adequate Car Parking



Facility	Importance	Satisfaction	Difference
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	3.19	3.92	0.73
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	3.16	3.99	0.83
Mean	3.17	3.95	0.78



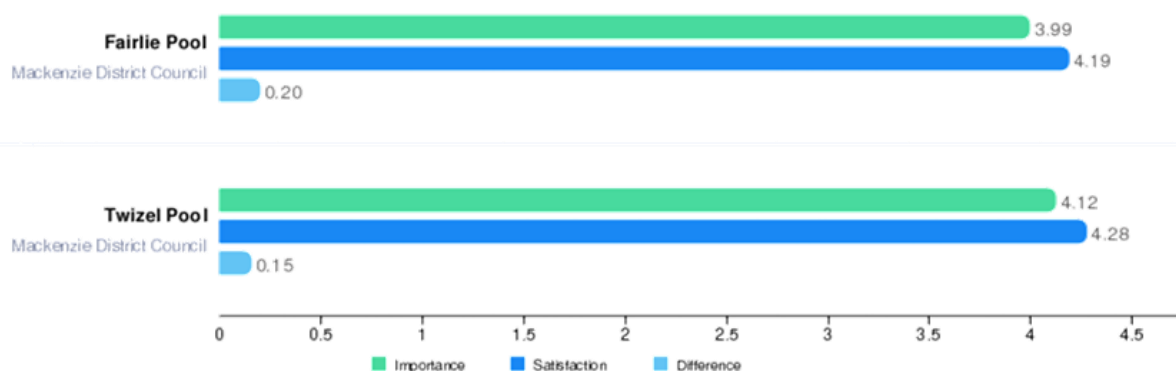
Facilities User Survey 2020

B 1.02

The importance/satisfaction reporting point for the provision of programmes that meet respondents needs compares mean satisfaction with mean importance at each facility, and identifies the difference. A negative result indicates a gap in performance for that feature. A positive result indicates that satisfaction is greater than expectations for that feature in that locations, and that no improvements are required. Gaps of between -1.0 and 1.0 should be considered minor.

B. Importance/Satisfaction: Whole Facility

Programmes (to meet your needs)



Facility	Importance	Satisfaction	Difference
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	4.12	4.28	0.15
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	3.99	4.19	0.20
Mean	4.06	4.23	0.17

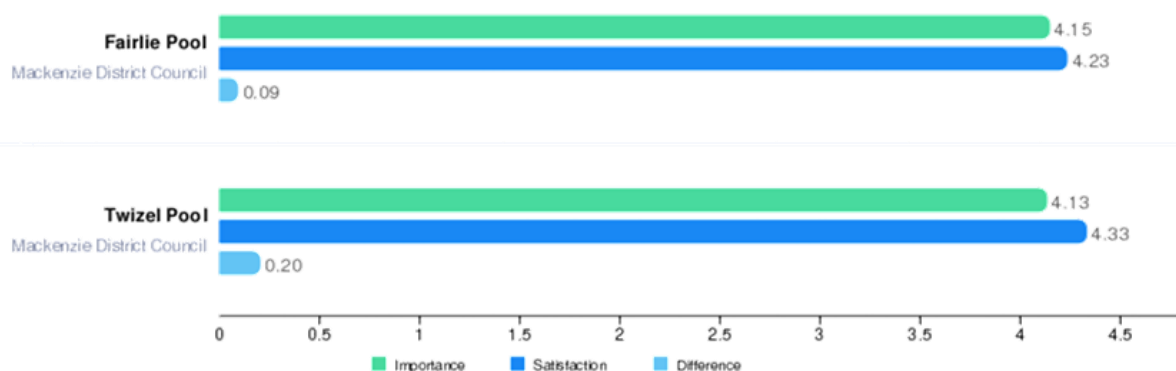


Facilities User Survey 2020

B 1.03

The importance/satisfaction reporting point for security - personal safety in the facility and car park - compares mean satisfaction with mean importance at each facility, and identifies the difference. A negative result indicates a gap in performance for that feature. A positive result indicates that satisfaction is greater than expectations for that feature in that locations, and that no improvements are required. Gaps of between -1.0 and 1.0 should be considered minor.

B. Importance/Satisfaction: Whole Facility Security – Personal Safety



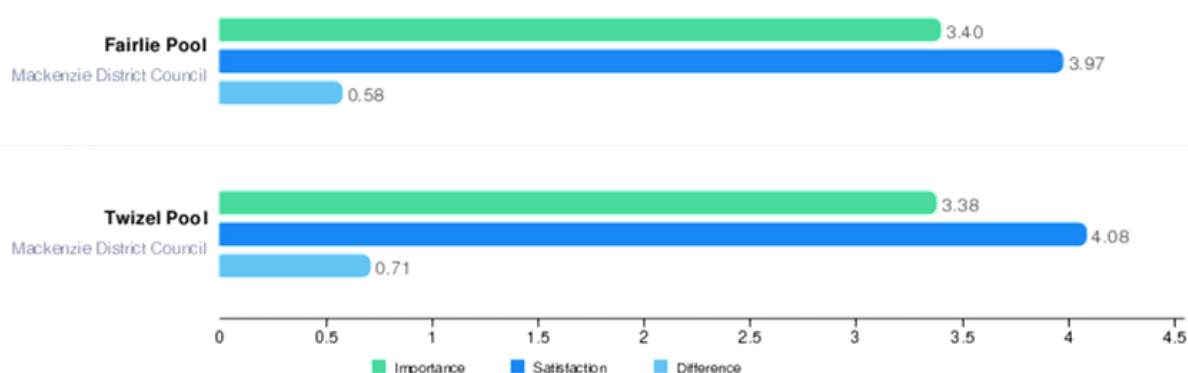
Facility	Importance	Satisfaction	Difference
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	4.15	4.23	0.09
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	4.13	4.33	0.20
Mean	4.14	4.28	0.14



Facilities User Survey 2020

B 1.04

B. Importance/Satisfaction: Whole Facility Provision of Refreshments



Facility	Importance	Satisfaction	Difference
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	3.40	3.97	0.58
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	3.38	4.08	0.71
Median	3.39	4.03	0.64



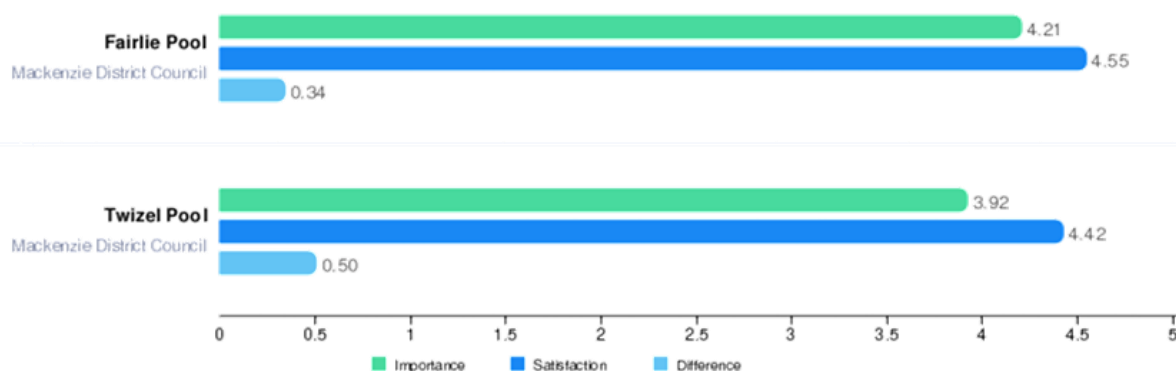
Facilities User Survey 2020

B 2.01

The importance/satisfaction reporting point for pool safety - numbers and visibility of lifeguards - compares mean satisfaction with mean importance at each facility, and identifies the difference. A negative result indicates a gap in performance for that feature. A positive result indicates that satisfaction is greater than expectations for that feature in that locations, and that no improvements are required. Gaps of between -1.0 and 1.0 should be considered minor.

B. Importance/Satisfaction: Aquatic Facility

Pool safety



Facility	Importance	Satisfaction	Difference
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	4.21	4.55	0.34
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	3.92	4.42	0.50
Mean	4.06	4.49	0.42



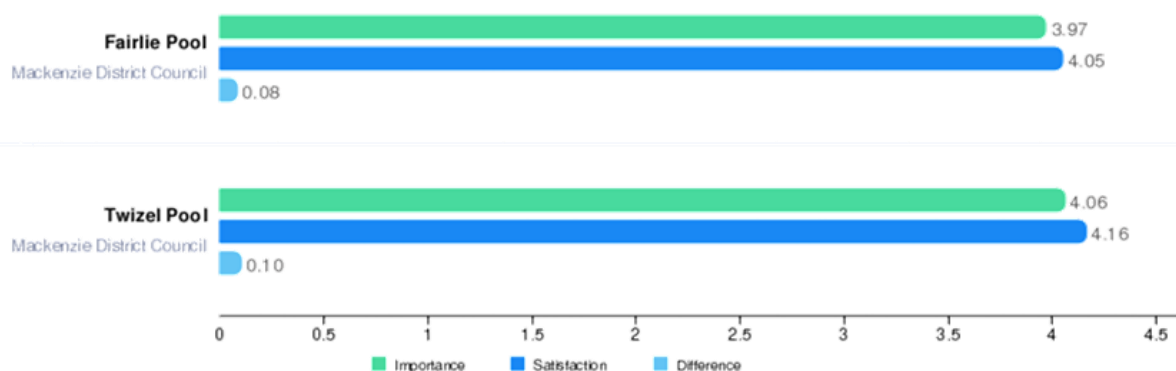
Facilities User Survey 2020

B 2.02

The importance/satisfaction reporting point for the water temperature of the swimming pool compares mean satisfaction with mean importance at each facility, and identifies the difference. A negative result indicates a gap in performance for that feature. A positive result indicates that satisfaction is greater than expectations for that feature in that locations, and that no improvements are required. Gaps of between -1.0 and 1.0 should be considered minor.

B. Importance/Satisfaction: Aquatic Facility

Pool water temperature



Facility	Importance	Satisfaction	Difference
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	4.06	4.16	0.10
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	3.97	4.05	0.08
Mean	4.01	4.11	0.09



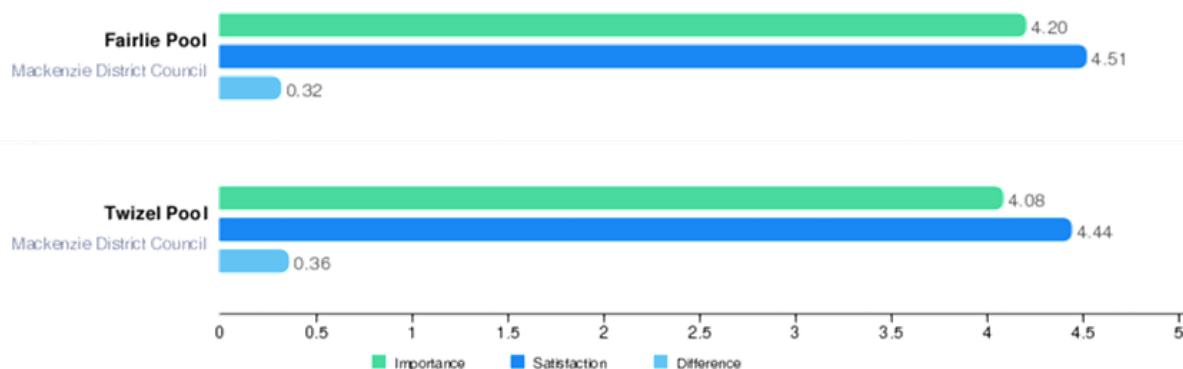
Facilities User Survey 2020

B 2.03

The importance/satisfaction reporting point for pool water quality - whether it looks clean and clear, and doesn't smell - compares mean satisfaction with mean importance at each facility, and identifies the difference. A negative result indicates a gap in performance for that feature. A positive result indicates that satisfaction is greater than expectations for that feature in that locations, and that no improvements are required. Gaps of between -1.0 and 1.0 should be considered minor.

B. Importance/Satisfaction: Aquatic Facility

Pool water quality



Facility	Importance	Satisfaction	Difference
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	4.20	4.51	0.32
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	4.08	4.44	0.36
Mean	4.14	4.47	0.34



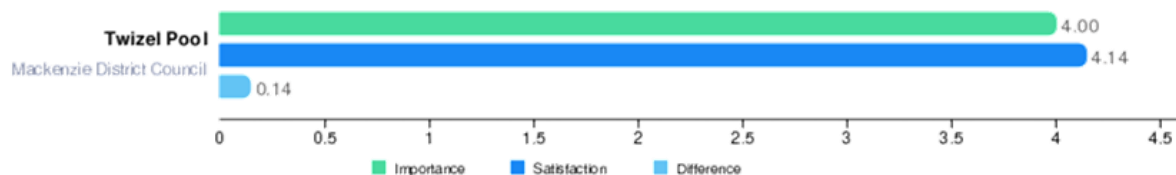
Facilities User Survey 2020

B 2.04

The importance/satisfaction reporting point for the adequacy of shade - outdoor pools only - compares mean satisfaction with mean importance at each facility, and identifies the difference. A negative result indicates a gap in performance for that feature. A positive result indicates that satisfaction is greater than expectations for that feature in that locations, and that no improvements are required. Gaps of between -1.0 and 1.0 should be considered minor.

B. Importance/Satisfaction: Aquatic Facility

Shade adequacy



Facility	Importance	Satisfaction	Difference
Twizel Pool			
Mackenzie District Council – 94 intercept, 20 online surveys	4.0	4.1	0.1
Mean	4.0	4.1	0.1



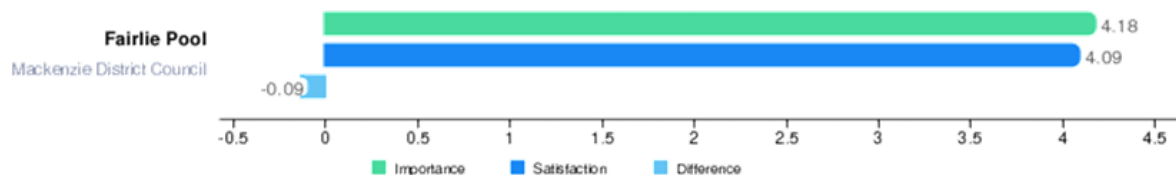
Facilities User Survey 2020

B 2.05

The importance/satisfaction reporting point for indoor pool air quality and temperature compares mean satisfaction with mean importance at each facility, and identifies the difference. A negative result indicates a gap in performance for that feature. A positive result indicates that satisfaction is greater than expectations for that feature in that locations, and that no improvements are required. Gaps of between -1.0 and 1.0 should be considered minor.

B. Importance/Satisfaction: Aquatic Facility

Air quality and temperature



Facility	Importance	Satisfaction	Difference
Fairlie Pool			
Mackenzie District Council – 106 intercept, 45 online surveys	4.18	4.09	-0.09
Mean	4.18	4.09	-0.09



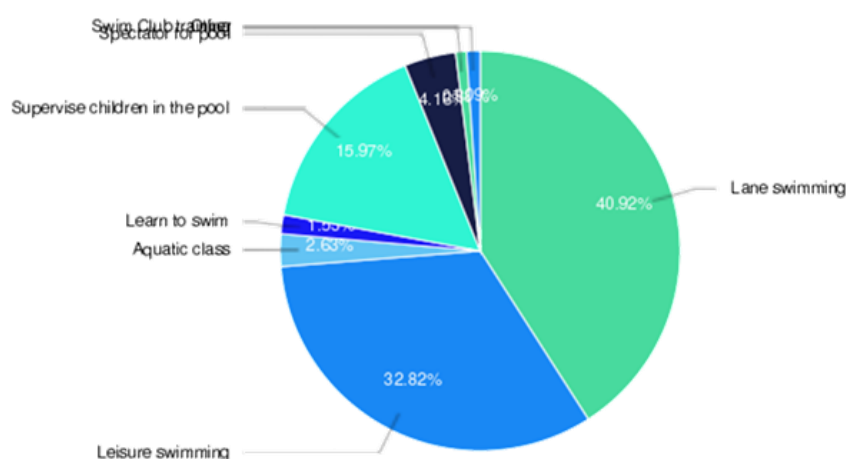
Facilities User Survey 2020

D 1.02

Respondents were asked to identify what activities they had done in the pools. They were permitted to give more than one response. The chart shows the mean response as a percentage of the total response, giving a measure of the popularity of activities for each facility selected in peer filters.

D. Activities: Visitors

Pools activity



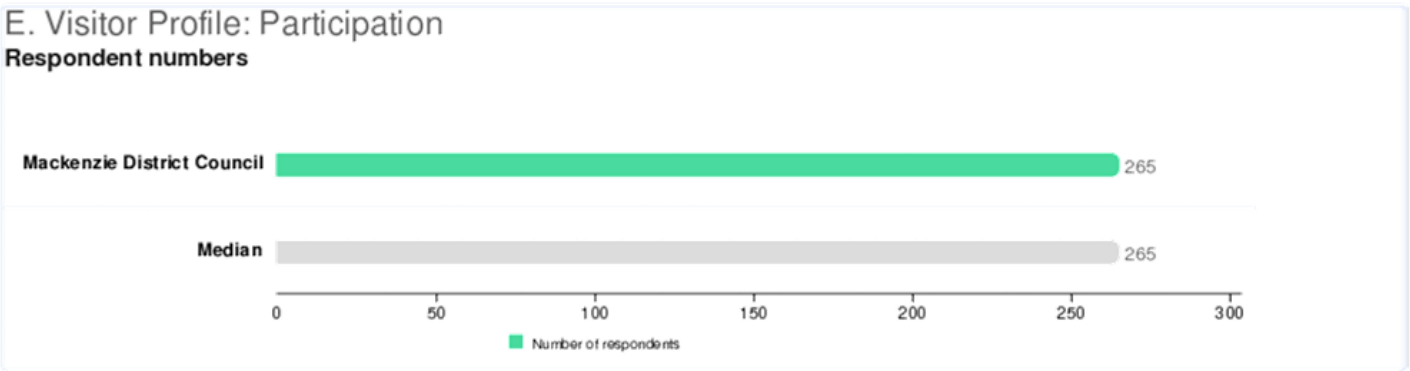
Facility	Lane Swimming	Leisure swimming	Aquatic Class	Learn to Swim	Supervise children in the pool	Spectator for pool	Swim club training	Other	Not applicable
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	102	83	12	7	39	12	4	1	-
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	85	67	-	-	34	7	-	4	1
Median	93.5	75	12	7	36.5	9.5	4	2.5	1



Facilities User Survey 2020

E 1.01

Report point E1.01 gives the total number of surveys (sample size) completed by each participating organisation selected in peer filters.



Organisation	Number of respondents
Mackenzie District Council	265
	Mean 265



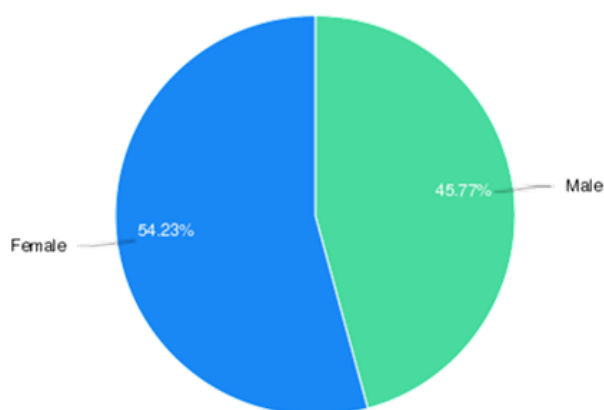
Facilities User Survey 2020

E 2.01

Report point E2.01 shows the gender (male or female) of respondents at each facility. The percentage charted is the mean for all facilities selected in peer filters.

E. Visitor Profile: Demographic

Gender



Facility	Male	Female
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	64	87
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	55	54
Mean ▼	59.5	70.5



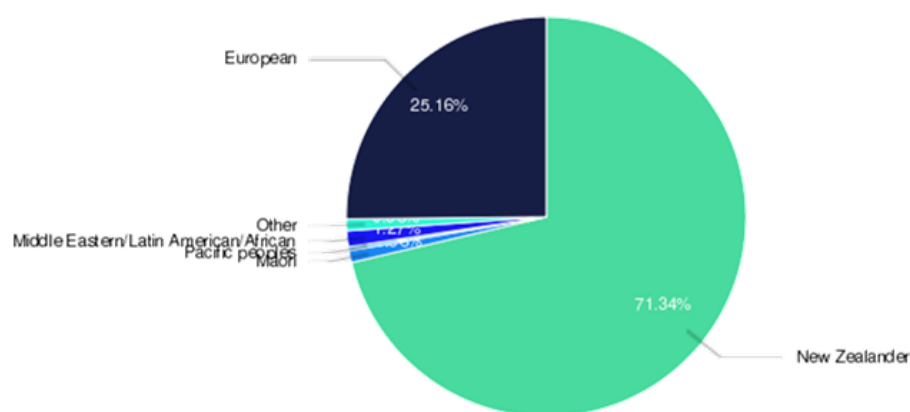
Facilities User Survey 2020

E 2.02

Report point E2.02 shows the ethnicity of respondents for the facilities selected in peer filters. The results are aggregated for each organisation i.e. not broken down per facility. The percentage charted is the mean for all organisations and facilities selected in peer filters. Results will vary with the organisations and facilities selected in peer filters.

E. Visitor Profile: Demographic

Ethnicity



Organisation	New Zealander	Maori	Pacific Peoples	Asian	Middle Eastern/Latin American/African	European	Other
Mackenzie District Council	224	3	1	-	4	79	3
Mean	224	3	1	-	4	79	3



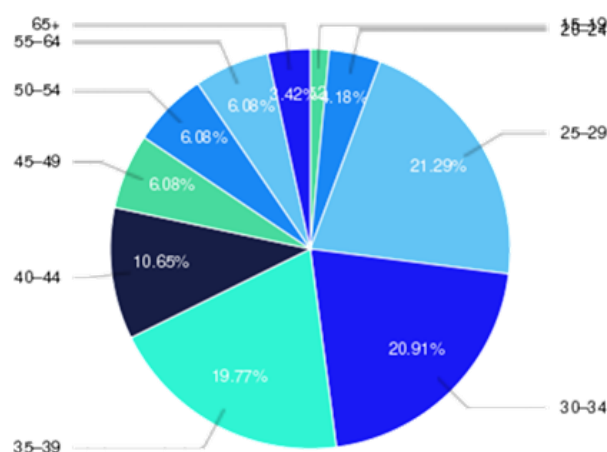
Facilities User Survey 2020

E 2.03

Report point E2.03 shows the age group of respondents for the facilities selected in peer filters. The results are aggregated for each organisation i.e. not broken down per facility. The percentage charted is the mean for all facilities selected in peer filters. Results will vary with the organisations and facilities selected in peer filters.

E. Visitor Profile: Demographic

Age group



Organisation	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-64	65+
Mackenzie District Council	4	11	56	55	52	28	16	16	16	9
Median	4	11	56	55	52	28	16	16	16	9



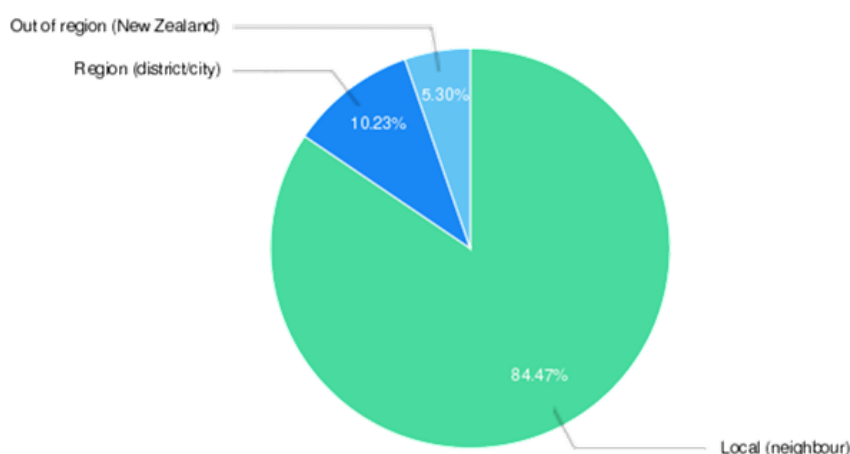
Facilities User Survey 2020

E 3.01

Report point E3.01 shows the home location (local, within the region, or out of the region) of respondents for the facilities selected in peer filters. Local means within the boundaries of the surveying city or district. The results are aggregated for each organisation i.e. not broken down per facility. The percentage charted is the mean for all organisations and facilities selected in peer filters. Results will vary with the organisations and facilities selected in peer filters.

E. Visitor Profile: Location/Transport

Location



Organisation	Local (neighbour)	Region (district/city)	Out of region (New Zealand)	Out of region (International)
Mackenzie District Council	223	27	14	0
Median	223	27	14	0



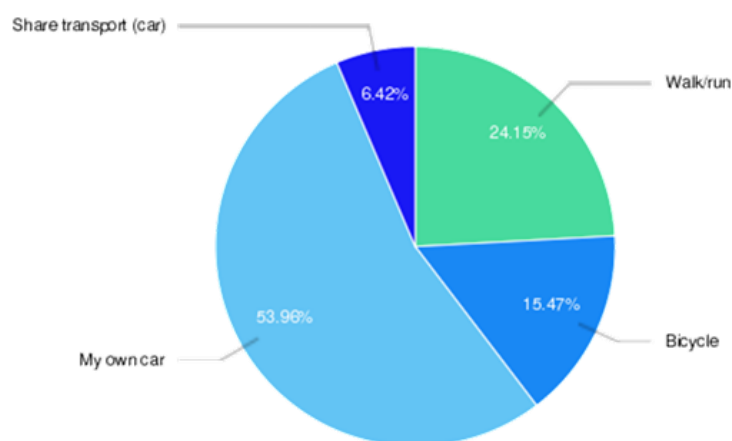
Facilities User Survey 2020

E 3.02

Respondents were asked how they travelled to the facility where they were surveyed. The results are shown in report point E3.02 for each organisation and facility selected in peer filters. Results are aggregated for each organisation, and the mean result is charted.

E. Visitor Profile: Location/Transport

Modes of transport



Organisation	Walk/run	Bicycle	My own car	Share transport (car)	By bus	Motor bike	Other
Mackenzie District Council	64	41	143	17	-	-	-
Median	64	41	143	17	-	-	-



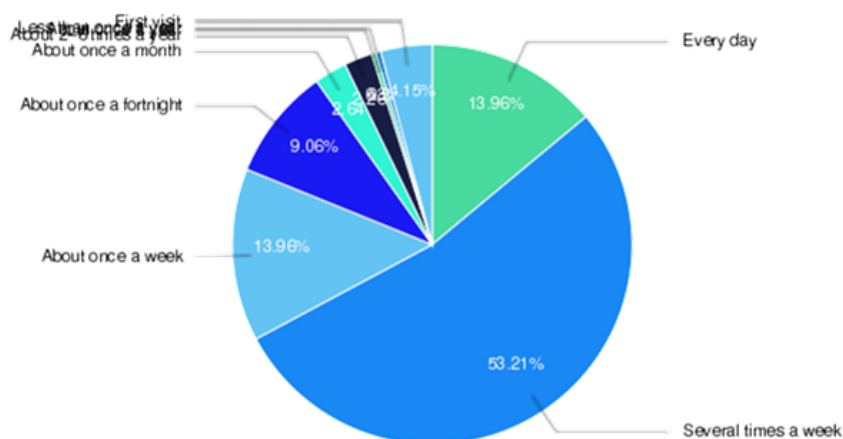
Facilities User Survey 2020

F 1.01

Respondents were asked how often they visit the facility where they were surveyed. Results are shown in report point F1.01 for each organisation and facility selected in peer filters. Results are aggregated for each organisation. The mean result is charted.

F. Behaviour: Visits

Frequency



Organisation	Every day	Several times a week	About once a week	About once a fortnight	About once a month	About 2-6 times a year	About once a year	Less than once a year	First visit	Not sure/don't know/irregular
Mackenzie District Council	37	141	37	24	7	6	1	1	11	-
Median	37	141	37	24	7	6	1	1	11	-



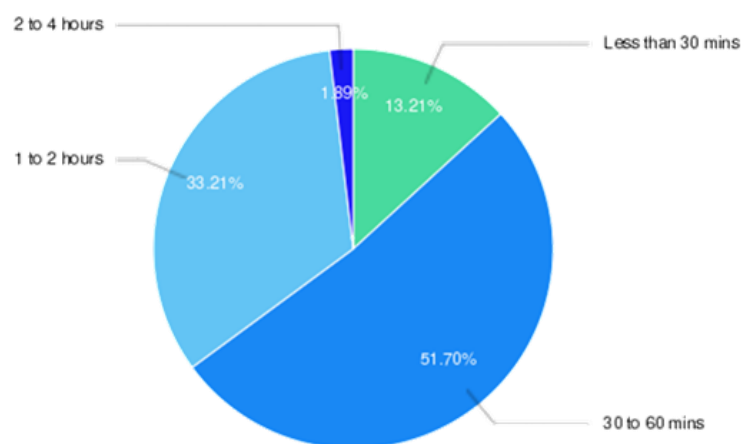
Facilities User Survey 2020

F 1.02

Respondents were asked how long they were spending at the facility where they were surveyed. Results are shown in report point F1.02 for each organisation and facility selected in peer filters. Results are aggregated for each organisation. The mean result is charted.

F. Behaviour: Visits

Duration



Organisation	Less than 30 mins	30 to 60 mins	1 to 2 hours	2 to 4 hours	Over 4 hours
Mackenzie District Council	35	137	88	5	-
Median	35	137	88	5	-



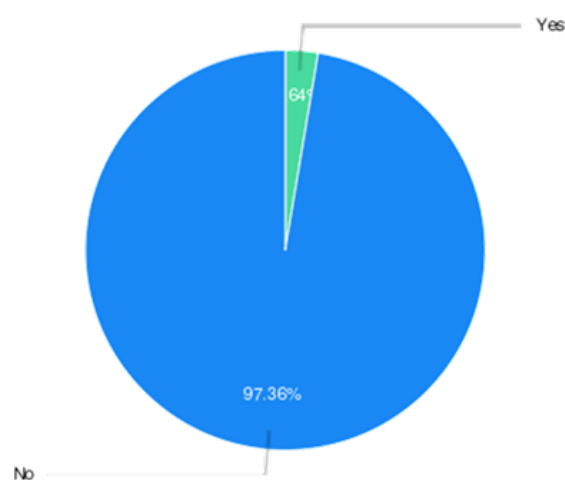
Facilities User Survey 2020

F 2.01

Respondents were asked if they had ever reported a problem to staff at this facility.

F. Behaviour: Reported Issues

Reported problems



Facility	Yes	No
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	7	144
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	-	114
Median	7	129



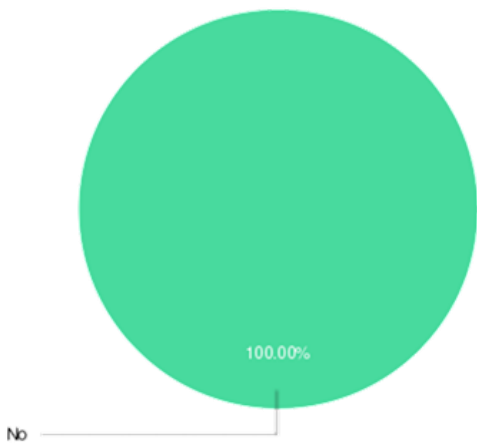
Facilities User Survey 2020

F 2.02

Respondents that had answered 'yes' to ever reporting a problem, were asked if it had been resolved to their satisfaction.

F. Behaviour: Reported Issues

Resolution to satisfaction



Facility	Yes	No
Fairlie Pool	-	7
Mackenzie District Council – 106 intercept, 45 online surveys		
	Median	7



Facilities User Survey 2020

G 1.01

Respondents were asked what they most enjoyed about the facility. Results are reported verbatim.

G. Feedback: Services/Facilities

Overall facility enjoyment

Facility	Overall, what do you enjoy most about this facility

Facility	Overall, what do you enjoy most about this facility
	<ol style="list-style-type: none"> 1. How beautiful it is over summer, real asset to the community 2. The pool water quality - temperature. The friendly staff as it was our first visit. 3. Now that it is open again 4. The outdoor environment. 5. The outdoor environment. 6. The kids love the aquarun, so are always super excited when it is up. 7. The Friendly staff. 8. New hours are great 9. Having the aquarun this year is great 10. How the staff are able to interact with the children and other customers. Shows they really enjoy and care about the community. 11. Was great to come on holiday from Lido and see another CLM run facility with high standards just like Lido has. 12. The staff and the ability to engage in a fun, friendly way towards the customers while still doing their jobs. 13. The supervision of the lifeguards this year is 100% better then last year. Last year i wouldn't think of leaving my kids at the facility without me being in the complex as well, this year i am happy for them to come down swimming before me so they can play with their friends. I trust the lifeguards this year. 14. The friendly staff and also knowing exact times the pool will be open. Last year was a little hit and miss with the pool opening and closing times.
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	<ol style="list-style-type: none"> 15. Fantastic staff, Kids had a great time, we will be back next year for sure. 16. The staff are more proactive this season, they are more aware what is happening around them. Feels safer. 17. The quality of the water is amazing. We only come back here for a week each year but the water this time is much better then previous years. Lane for lane swimmers available the whole open time is also a big positive. 18. The water conditions, it is super clear, no strong smell of chlorine like they have the last few seasons. I can go for a swim, and not leave smelling of strong chlorine. 19. It was so good to see the lifeguard watching the swimming sports. Makes me feel safer for the grandkids seeing lifeguards poolside. 20. We loved splash time, will come back next week. The kids loved the toys to play with. 21. How clear and refreshing the water is. Every time I come its always looking great. 22. How great the facility has been all season. Best season in many many years. Extremely consistent with the quality of the water, customer service and friendly staff. 23. Great choice by the council to outsource the running of the facility. 24. The showers and Friendly staff 25. Water looks so much better this year, the whole facility is much better this year. Also its so good to have lifeguards here when we are with the kids as well. 26. Standards - this year the standard of the pool has been much higher. Pool quality, cleanliness, customer service, pool knowledge has had a massive step up. Best season in a very long time.

Facility	Overall, what do you enjoy most about this facility
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	1. Friendly staff
	2. Customer Service, engaged staff
	3. The new opening hours
	4. That it is close to home
	5. Customer Service
	6. The Aquafit class
	7. The staff to customer interaction
	8. Good staff, clean and accessible
	9. Being able to use a pool down the road from home
	10. The staff are great
	11. It's great to have a community pool
	12. That we have a pool to use - year round would be great!
	13. Swimming
	14. The aqua-fit classes with Erin
	15. That i can swim lane more that i could last season
	16. Swimming locally
	17. Swimming
	18. That our school can come here. So much better now this is lifeguarded
	19. That we can teach the kids water safety
	20. Aqua fitness classes are great
	21. Friendliness of the place
	22. Swimming
	23. Lessons are great
	24. It's great we have a community pool and it's being run so well now
	25. Clean and tidy - staff do a great job
	26. Having a local pool - swim lessons are great also
	27. Local
	28. It's a pool locally
	29. It's covered
	30. Lane swimming
	31. Staff
	32. We love to swim there, temp just needs to be consistent
	33. Local pool great staff this year
	34. Stopped in for a swim
	35. Its too expensive for the age of the pool
	36. Great to have a pool but it needs a lot of work to make it better
	37. Was refreshing to have a swim on our journey
	38. It would be great to add something more for the kids to do also - maybe a slide?
	39. Nice to have lifeguards on more often now
	40. Swimming
	41. That the water is great so far this season

Facility	42. The water quality is much better Overall, what do you enjoy most about this facility
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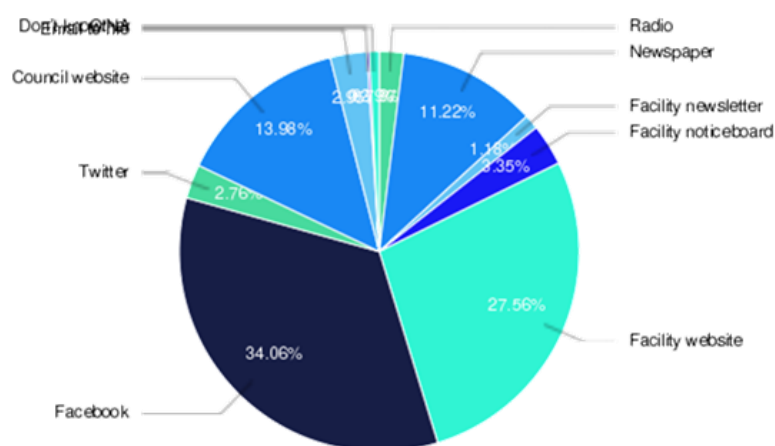
Facilities User Survey 2020

G 2.01

Respondents were asked what would be their preferred method of communication to inform them of events and activities at this facility?

G. Feedback: Preference

Media information contact method



Facility	Radio	Newspaper	Facility newsletter	Facility noticeboard	Facility website	Facebook	Twitter	Council website	Email to me	Other
Fairlie Pool Mackenzie District Council – 106 intercept, 45 online surveys	7	40	1	7	74	87	10	38	11	1
Twizel Pool Mackenzie District Council – 94 intercept, 20 online surveys	3	17	5	10	66	86	4	33	4	-
Median	5	28.5	3	8.5	70	86.5	7	35.5	7.5	1



Facilities User Survey 2020

G 3.01

Respondents were asked "If there was one change you could make to this facility what would it be?". Results were reported verbatim, and presented alongside the overall satisfaction score for each respondent.

G. Feedback: Visitor Comments

Recommended Improvements

Overall Satisfaction	Overall Satisfaction Score	If there was one change you could make to this facility what would it be?
FAIRLIE POOL MACKENZIE DISTRICT COUNCIL		
Satisfied	4	Improve car parking and changing rooms. The pool is very old but greatfull that we have it
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	Changing rooms and around the pools needs an upgrade
Very satisfied	5	-
Satisfied	4	an extra shower in the female changing room
Satisfied	4	-
Satisfied	4	-
Satisfied	4	Keep the new opening hours - its great to have the pool open more. Also the pool temp being solar is too inconsistent
Very satisfied	5	-
Very satisfied	5	more equipment to play with
Satisfied	4	-

Overall Satisfaction	Overall Satisfaction Score	if there was one change you could make to this facility what would it be?
Satisfied	4	Water temp, price for pre-school,
Satisfied	4	-
Satisfied	4	I wouldn't change a thing, it is great to see the new company running the pool as I have seen a massive improvement
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	Keep the lifeguards on for school visits. I am so happy that this is happening now, i was so stressed bringing the classes here last year
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	Consistent water temp that is warmer
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	-
Neither satisfied nor dissatisfied	3	Better heating system and airflow
Very satisfied	5	-
Satisfied	4	Improve the surface around the pools, i see it getting cleaned but it is old
Satisfied	4	-
Satisfied	4	-
Dissatisfied	2	needs better changing rooms and consistent temp - water is a lot better this year
Satisfied	4	-
Satisfied	4	It would be great to have improved changing facilities

Overall Satisfaction	Overall Satisfaction Score	if there was one change you could make to this facility what would it be?
Satisfied	4	-
Satisfied	4	Upgrade water systems, improved airflow on hot days, new play area for kids but not like what Twizel's one - more like Tekapo, a deeper pool, upgrade the upside area
Very satisfied	5	-
Neither satisfied nor dissatisfied	3	Temp of water too inconsistent, air temp is either too cold or too hot, staff are great this year, great to have it run properly
Very satisfied	5	-
Very satisfied	5	-
Very satisfied	5	-
Very satisfied	5	Inflatable in the pool more would be great for the kids
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	Heating in changing rooms
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	The staff do a great job with what they have to manage, pool needs serious upgrades
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	It's a very old pool, surface around it needs replacing
Very satisfied	5	-
Very satisfied	5	Nothing - the lifeguards seem more aware of their customers this year then last year.

Overall Satisfaction	Overall Satisfaction Score	if there was one change you could make to this facility what would it be?
Satisfied	4	-
Satisfied	4	have consultant temp in pool
Very satisfied	5	-
Very satisfied	5	Open all year round with better heating
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	Better learn to swim pool, with constant temp
Satisfied	4	-
Satisfied	4	upgrade changing rooms, pool temp needs to be more consistent - great staff this year , can see a massive improvement in water and staffing
Satisfied	4	-
Satisfied	4	-
Satisfied	4	-
Satisfied	4	-
Satisfied	4	Pool temp being higher all the time
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	Improve water temp
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Neither satisfied nor dissatisfied	3	New toilets, more fun things for kids to do, needs a paint, make it cheaper
Very satisfied	5	-
Satisfied	4	Changing rooms in need of an update really but functional and acceptable for my use
Satisfied	4	-

Overall Satisfaction	Overall Satisfaction Score	if there was one change you could make to this facility what would it be?
Satisfied	4	-
Neither satisfied nor dissatisfied	3	The building needs an upgrade for the price of the swim, staff were great and water was also. No air circulation??
Satisfied	4	-
Very satisfied	5	Open in winter
Satisfied	4	-
Satisfied	4	Upgrade the changing rooms and pool temp
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	Car parking needs to change due to the angle of the parks - unsafe to drive out of. Can be too hot poolside in summer, Be great if it was open all year long with more classes at night
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	Increase opening hours to later on the weekends
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	Pool needs an overhaul
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	Rebuild the complex
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	Lane ropes in all day for all lanes
Very satisfied	5	-

Overall Satisfaction	Overall Satisfaction Score	if there was one change you could make to this facility what would it be?
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	Better pool temperate, some days it hot others cold
Very satisfied	5	-
Very satisfied	5	Baby change tables
Satisfied	4	-
Very satisfied	5	Non slip flooring, insulated
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	Improve the heating
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	Painting the walls would make it look more refreshed
Very satisfied	5	-
Satisfied	4	Easier steps for the older customers to get into the pool easier
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	Making building warmer and fix roof
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
TWIZEL POOL MACKENZIE DISTRICT COUNCIL		
Very satisfied	5	More parking space would be ideal, but that is only on busy days that its an issue.
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	-

Overall Satisfaction	Overall Satisfaction Score	if there was one change you could make to this facility what would it be?
Very satisfied	5	-
Satisfied	4	Picnic tables on both sides of the pool with umbrellas
Very satisfied	5	Little bit more shade by the deep end lane pool, picnic tables on both sides of lane pool.
Very satisfied	5	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	Baby change table in the changing room would be great
Satisfied	4	-
Satisfied	4	-
Satisfied	4	Getting the lane pool warmer earlier in the season, so can come swimming sooner after opening day.
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	prepacked sandwiches would be nice option
Very satisfied	5	Would be nice to have a few extra degrees in the lane pool. just to get it closer to the 27 - 28 mark.
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Neither satisfied nor dissatisfied	3	Pool temp is too cold, can see improvement in water quality this year also
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-

Overall Satisfaction	Overall Satisfaction Score	if there was one change you could make to this facility what would it be?
Satisfied	4	More shade sail - by deep end lane pool
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	Baby change table in the changing room would make getting my child changed much easier.
Satisfied	4	-
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	-
Satisfied	4	Healthy snack options
Very satisfied	5	For the Lane pool to have some heating , just to keep it up around or above the 25 degree mark all of summer.
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	Change rooms need upgrade so does pool temp in main pool
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	-
Satisfied	4	-

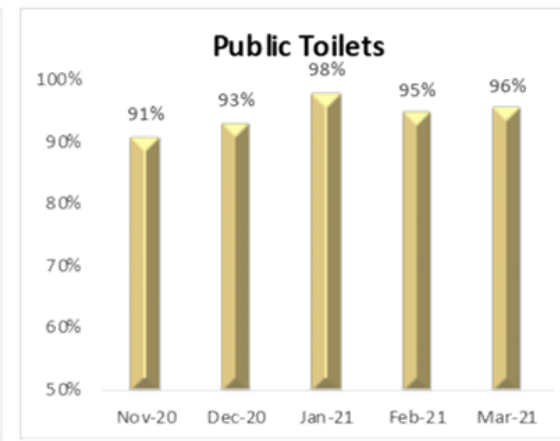
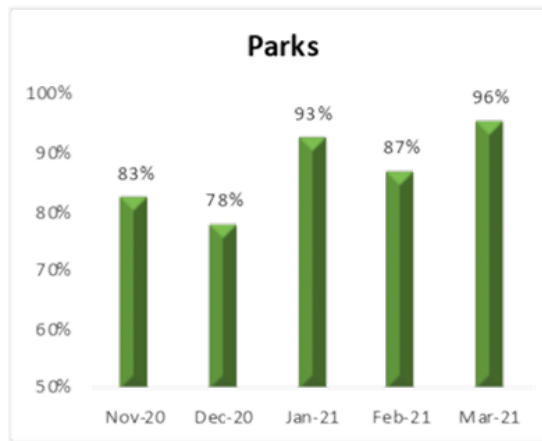
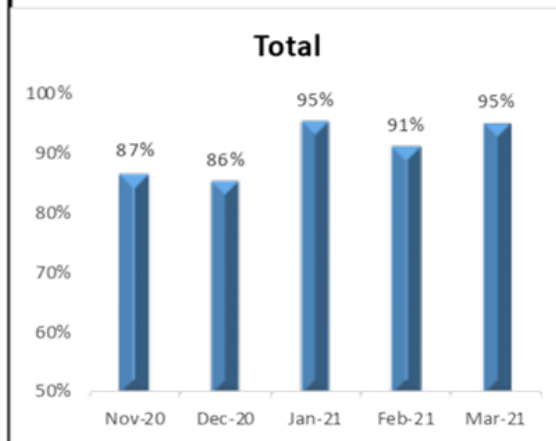
Overall Satisfaction	Overall Satisfaction Score	if there was one change you could make to this facility what would it be?
Very satisfied	5	Lane pool slightly warmer - maybe 28 would be good.
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	Swim Lessons
Very satisfied	5	-
Very satisfied	5	-
Very satisfied	5	-
Very satisfied	5	-
Very satisfied	5	-
Very satisfied	5	Open longer. eg start of October to end of March.
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	Maybe a shade sail by lane pool deep end
Very satisfied	5	-
Satisfied	4	-

Overall Satisfaction	Overall Satisfaction Score	if there was one change you could make to this facility what would it be?
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	-
Satisfied	4	-
Satisfied	4	-
Satisfied	4	-
Satisfied	4	-
Neither satisfied nor dissatisfied	3	Water is too cold , changing rooms need upgrading
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	Some heating in main pool. March is a bit cold this year.
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	-
Satisfied	4	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Very satisfied	5	-
Satisfied	4	-
Very satisfied	5	-
Satisfied	4	-

WCL Township Contract Quality Performance Audit Results

MONTHLY SCORE

Month	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21
Total	87%	86%	95%	91%	95%					
Parks	83%	78%	93%	87%	96%					
Public Toilets	91%	93%	98%	95%	96%					



Mackenzie District Peace Avenue Tree Report



Prepared by Xyst Limited for:
Mackenzie District Council and New Zealand Transport Authority

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The report has been prepared on the basis of information available at the time of writing. While all possible care has been taken by the authors in preparing the report, no responsibility can be undertaken for errors or inaccuracies that may be in the data used.

1 Introduction

On 13 December 1918 the Mackenzie District Council resolved to commemorate peace from the Great War and plant an avenue of deciduous trees each side of the road between Silverstream and Cricklewood.

The avenue of trees is now known as the 'Peace Avenue' and is a unique and iconic feature of Fairlie Township and the Mackenzie District. Until now a comprehensive record of the trees that make up the Peace Avenue has not been developed or maintained. Little has been known about their collective health and condition or the health and condition of individual trees.

Although a maintenance agreement exists between Waka Kotahi New Zealand Transport Authority (Waka Kotahi NZTA) and Mackenzie District Council, this largely focuses on reactive maintenance based on visible damage or defects such as removal of wind damaged limbs, suckers and epicormic growth or foliage encroachment onto the road carriageway or powerline interference.

In 2020 Mackenzie District Council engaged Xyst Limited to identify, map, condition assess and develop a maintenance and renewal plan for these trees.

This report is based on a comprehensive assessment of each tree in the Peace Avenue undertaken between November 2020 and February 2021. Accompanying this report is a comprehensive record and assessment of the trees recorded in a format that can be imported into the Council's ArcGIS system.

The report also includes recommendations, a maintenance plan and a renewal plan that identifies priorities, staging and potential costs to assist Council and Waka Kotahi NZTA with future budgeting and funding requests.

2 Peace Avenue Tree Network

Overview



Extent of Peace Avenue

The Peace Avenue extends from Opihi River Bridge to the west of Fairlie to Cricklewood Bridge to the East of Fairlie and consists of 487 trees, of which 309 are identified as likely being from the original planting some 100 years ago.

Trees planted as part of the original Peace Avenue planting 100 years ago still exist, along with trees that have either been planted as replacements as trees have died or planted as additions to the avenue.

Tree species, size, age class and planting location were the primary identifiers that helped determine whether a tree was likely to have been part of the original avenue planting or a replacement or addition. This is not an exact science, however, so there may be a few trees which arguably, while being counted as part of the 309 remaining original trees, in fact may be later plantings.



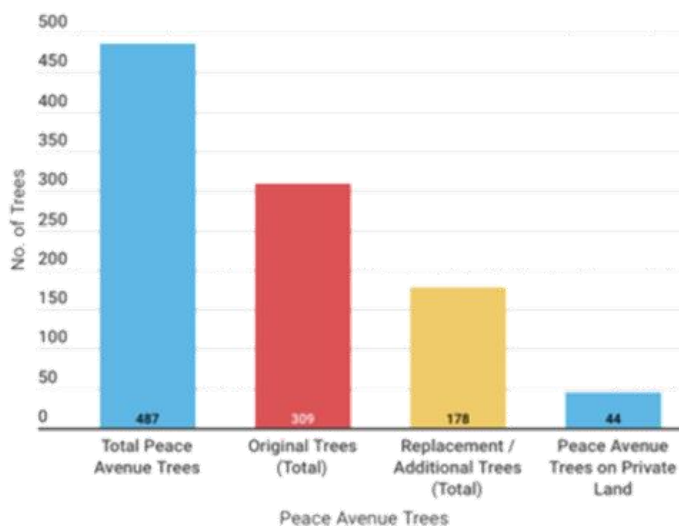
*Original Peace Avenue tree -
Ulmus procera (English Elm)*

Some Peace Avenue trees are now located on private land (refer below). Therefore, for the survey, trees that make up the Peace Avenue have been categorised into the following groups:

- Original Peace Avenue Planting
- Original Peace Avenue Planting (on private land)
- Replacement/additional Peace Avenue Planting
- Replacement/additional Peace Avenue Planting (on private land)



*Replacement/additional Peace
Avenue tree - Quercus robur
(Common Oak)*



Peace trees on private land

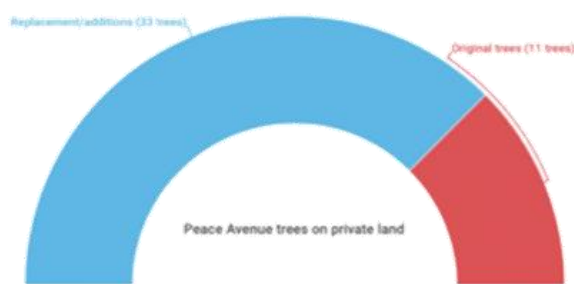
Originally, trees planted as part of the Peace Avenue were all planted within the road and/or rail corridor. However, 44 trees are now located on private land after adjacent landowners at 11 and 145 State Highway 8 Fairlie and at 9 and 102 Opihi Gorge Road formally acquired the disused rail corridor along State Highway 8, extending from the eastern end of Fairlie township to just past Opihi Gorge Road, in the early to mid 1990s (refer to section 3.2 below).

The majority (75%) of Peace Avenue trees located on private land are replacement/additions with only 11 being original trees.

Council needs to decide if it intends to offer to cover the cost of maintenance of these trees on private land as part of the wider Peace Avenue maintenance programme or if responsibility for maintenance will sit with the landowners.



Replacement/additional Peace Avenue tree located on former rail corridor now privately owned



A further 18 trees adjacent to 236 and 264 Fairlie-Tekapo Road, between Fairlie and Kimbell, are located on what appears to be Road Reserve that has been fenced off and occupied by adjacent landowners. Only two of these trees (both adjacent to 236 Fairlie-Tekapo Road) appear to be original Peace Avenue plantings.



Original Peace Avenue Planting on Road Reserve fenced and maintained by adjacent private landowners

Species

The Peace Avenue currently consists of 19 different tree species.

Quercus robur (Common Oak) and *Ulmus procera* (English Elm) are the most common and, combined, they make up (75%) of all original Peace Avenue trees.

The table below identifies all Peace Avenue species and the total numbers of each.



Species	Total
Ulmus procera (English Elm)	248
Quercus robur (Common Oak)	116
Fraxinus excelsior (Common Ash)	28
Quercus cœrris (Turkey Oak)	16
Populus Alba (Silver Poplar)	13
Tilia sp. (Linden or Lime)	11
Carpinus (Hornbeam)	8
Juglans regia (English Walnut)	8
Acer pseudoplatanus (Norway Maple)	7
Platanus X acerifolia (London Plane)	7
Castanea sativa (Sweet Chestnut)	7
Quercus palustris (Pin Oak)	4
Alnus sp. (Alder)	4
Aesculus hippocastanum (Horse chestnut)	3
Betula pendula (Silver Birch)	3
Acer sp. (Maple)	1
Quercus robur Fastigiata	1
Fraxinus ornus (Manna Ash)	1
Fraxinus sp. (Ash)	1
Total	487

Original Peace Avenue species

The 1918 Mackenzie County Council resolution states the Peace Avenue planting was intended to be an avenue of deciduous trees.

The survey has identified 11 different deciduous species likely remaining from the original planting. The most common (71%) being *Ulmus procera* (English Elm) with *Quercus robur* (Common Oak) the next most common only making up 13% of the original trees.

The table below identifies original Peace Avenue species and the number remaining:

Original Peace Avenue species	No.
Ulmus procera (English Elm)	220
Quercus robur (Common Oak)	40
Populus Alba (Silver Poplar)	12
Fraxinus excelsior (Common Ash)	10
Tilia sp. (Linden or Lime)	9
Juglans regia (English Walnut)	8
Platanus X acerifolia (London Plane)	4
Aesculus hippocastanum (Horse chestnut)	2
Carpinus (Hornbeam)	2
Castanea sativa (Sweet Chestnut)	1
Quercus palustris (Pin Oak)	1
Total	309

Replacement/additional species

It is evident over the years that there have been trees replaced or added to the Peace Avenue; 178 replacements/additions to the avenue have been identified, consisting of 18 species. This includes eight additional species from the original Peace Avenue trees.



Although eight additional species have been planted as replacement or additions to the avenue, over time when replacing or adding trees there has been a strong theme of planting the same or similar species to the original species planted (e.g. Oaks and Elms).

Quercus robur (Common Oak) and *Ulmus procera* (English Elm) are the most common replacement or additional species planted, making up 58% of all replacements/additions.

However, unlike the original Peace Avenue trees, *Quercus robur* (Common Oak) is the most common species (43%) with *Ulmus procera* (English Elm) the next most common only making up 16% of replacement or additional trees.

Quercus cerris (Turkey Oak) and *Quercus palustris* (Pin Oak) make up an additional 11%, making *Quercus* sp. (Oak) varieties nearly half of all replacement or additional planting.

There were 16 *Quercus cerris* (Turkey Oak) identified as replacement or additional plantings; 11 of these were located between Fairlie and Kimble. It is possible that these trees were planted in remembrance of the conflict at Gallipoli. Although there is no evidence to confirm this, it may be a concept worth considering for succession or renewal planting.

The table below identifies species planted as replacement or additions to the Peace Avenue:

Replacement/Additional Species	Replacement/Addition
<i>Quercus robur</i> (Common Oak)	76
<i>Ulmus procera</i> (English Elm)	28
<i>Fraxinus excelsior</i> (Common Ash)	18
<i>Quercus cerris</i> (Turkey Oak)	16
<i>Acer pseudoplatanus</i> (Norway Maple)	7
<i>Carpinus</i> (Hornbeam)	6
<i>Castanea sativa</i> (Sweet Chestnut)	6
<i>Alnus</i> sp. (Alder)	4
<i>Betula pendula</i> (Silver Birch)	3
<i>Platanus X acerifolia</i> (London Plane)	3
<i>Quercus palustris</i> (Pin Oak)	3
<i>Tilia</i> sp. (Linden or Lime)	2
<i>Acer</i> sp. (Maple)	1
<i>Aesculus hippocastanum</i> (Horse chestnut)	1
<i>Fraxinus ornus</i> (Manna Ash)	1
<i>Fraxinus</i> sp. (Ash)	1
<i>Quercus robur</i> Fastigiata	1
<i>Populus Alba</i> (Silver Poplar)	1
Total	178

Age Class

For the purpose of the survey trees were assessed and categorised into the following age classes:

- **Juvenile** - recently planted trees, sensitive to climatic conditions and requiring regular maintenance including staking, watering and mulching.



- **Semi-mature** – Smaller/younger trees that no longer require regular establishment assistance, such as watering or staking, but may still be vulnerable in some climatic conditions, such as strong winds or long dry periods. These trees typically require minor corrective pruning as they establish.
- **Mature** – Established trees that no longer require establishment assistance, such as staking. Less affected by severe climatic conditions. Maintenance is focused on tree health and form.
- **Over-mature** – Tree has started to show signs of deterioration and decline due to age rather than disease/decay, such as thinning/reduction in crown and dead or dying larger limbs.



Semi-mature Ulmus procera
(English Elm)

Of Peace Avenue trees surveyed, 97% are considered in the mature age class. No juvenile trees and very few semi-mature trees were identified.

The table below identifies how many trees are in each age class, including how many are likely original plantings or replacement/additions.

Age class	Original trees	Replacements/additions	Total no. of trees
Juvenile	0	0	0
Semi-mature	1	13	14
Mature	306	165	471
Over-mature	2	0	2

It should be noted that a relatively young tree, for example an Oak tree of 15 + years, may well be classified as a mature tree because it no longer requires establishment assistance as described above.

Tree Health

A key component of the Peace Avenue tree survey was to assess the health of every tree in the avenue.

For the purposes of the survey, tree health was assessed and graded on the following six point scale:

- Excellent
- Good
- Average
- Poor
- Very Poor
- Dead

Overall most (76%) of the Peace Trees in the avenue were in excellent health with another 19% in good health. Only five trees were in poor health and three were dead (two of which have already been removed with only stumps remaining).



Tree Health	No. of trees
Excellent	365
Good	98
Average	16
Poor	5
Dead	3

Trees in Average Health

Trees assessed as being in average health often had thinning crowns, limbs showing signs of significant damage or decay along with large amounts of dead wood.

Of the 16 trees in average health, seven were original Peace Avenue trees and nine were replacement or additional plantings.

The table below identifies trees in average health.

Species	No.	Status
<i>Ulmus procera</i> (English Elm)	4	Original planting
<i>Ulmus procera</i> (English Elm)	1	Replacement/addition
<i>Fraxinus excelsior</i> (Common Ash)	3	Replacement/addition
<i>Fraxinus</i> sp. (Ash)	1	Replacement/addition
<i>Castanea sativa</i> (Sweet Chestnut)	2	Replacement/addition
<i>Quercus robur</i> (Common Oak)	1	Replacement/addition
<i>Populus alba</i> (Silver Poplar)	1	Original planting
<i>Platanus X acerifolia</i> (London Plane)	1	Original planting
<i>Carpinus</i> (Hornbeam)	1	Replacement/addition
<i>Alnus</i> sp. (Alder)	1	Replacement/addition
Total	16	



Ulmus procera (English Elm) in Average Health



Silver Poplar in poor health

Trees in Poor Health

Five trees were identified as being in poor health. These are all original Peace Avenue trees: two *Quercus robur* (Common Oak), two *Ulmus procera* (English Elm) and one *Fraxinus excelsior* (Common Ash).

Both Elms have visible cracking or splitting of the trunk or main limbs and one of the Oaks has a split in the main leader, with the two other Oaks in poor health showing various signs of decline.

The table below identifies trees in poor health, briefly describes their main defects and provides recommended actions.



Species	No.	Status	Health defect	Recommendation
Ulmus procera (English Elm)	2	Original planting	Split in main trunk/limb	Remove
Fraxinus excelsior (Common Ash)	1	Replacement/addition	Tree appears stable but clear signs of decline	Remove
Quercus robur (Common Oak)	2	1 x Original planting	Showing clear signs of decline	Consider removal
		1 x Replacement/addition (Private Land)	Significant split where crown forms which will result in tree crown collapse	Remove
Total	5			

Dead Trees

One *Ulmus procera* (English Elm) is dead, but is still standing, and requires removal. This tree has been dead for some time. Given its location and relatively small size it is unlikely to cause any road corridor or public health and safety issue if it collapses.

Stumps of one *Quercus robur* (Common Oak) and one *Ulmus procera* (English Elm) previously removed require stump grinding and berm restoration; neither of these stumps present immediate health and safety or road corridor issues.



Dead Ulmus procera (English Elm) requiring removal



Previously removed Peace Avenue planting requiring stump grinding



Tree Form

Tree form is used to describe the physical shape of trees. Tree form was assessed on a 6-point scale from Excellent to Very Poor with Stump being the 6th descriptor.

Tree form	No. of trees
Excellent	297
Good	125
Average	54
Poor	7
Very Poor	2
Stump	2

Trees with Good or Excellent form

Trees with good or excellent form represent 87% of all Peace Avenue trees. In our view, many of the trees assessed as having good form could improve to excellent form with one-off corrective maintenance such as crown balancing and dead wood removal.

Trees with Average form or worse

We identified 54 trees (11%) as having average form and less than 2% of trees had poor or very poor form.

The only tree with very poor form was an *Ulmus procera* (English Elm) that had been significantly reduced with major limbs removed in the past and is one of the few trees recommend for removal.

Common factors that contributed to trees that received an average or worse rating for form include:

- Deteriorating tree health
- Unbalanced crown due to previous pruning to avoid powerlines or road corridor encroachment
- Broken/wind damaged limbs
- Large/old epicormic growth
- Leaning trunk or main leader

For trees with average form or worse, there does not appear to be a correlation between tree health and form. Only 11 of the 54 trees with average form (and one with very poor form) were in average or worse health.

Summarily, there was no correlation between tree species and form either, with all the most common tree species in the avenue represented by trees with average form or worse.



Ulmus procera (English Elm) with excellent form



Ulmus procera (English Elm) with 'Average' form



Fraxinus excelsior (Common Ash) with 'Very Poor' form



Issues, faults, urgent works and monitoring

Faults/defects were identified in 98% of all Peace Avenue trees. The majority of these faults are a result of lack of previous maintenance and could be largely addressed with one-off corrective maintenance followed by scheduled monitoring and maintenance.

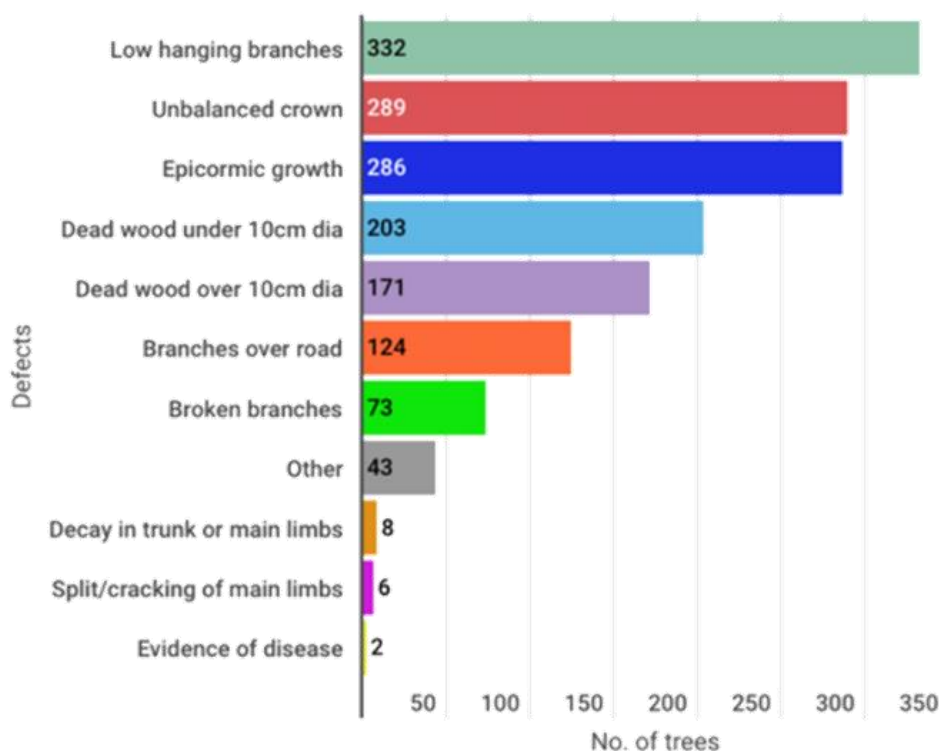
Only 19 trees were identified as having significant faults such as decay in the trunk or main limbs, significant bark inclusions and other evidence of disease.

The five most common defects observed in Peace Avenue trees were:

1. Low hanging branches
2. Unbalanced crown
3. Epicormic growth
4. Dead wood
5. Branches encroaching on the sealed road corridor

Broken branches were identified in 73 trees, however, generally they were not significantly impacting on tree health or form.

Many broken branches are still hung up within the tree and require removal to reduce the likelihood of damage to other limbs, the main leader or impacting on the road/road reserve below the crown.



Other defects and faults

Other defects and faults observed include:

- Limbs in close proximity to power lines
- Protective wire/drum/cages, steel stakes/waratahs still present around the base of mature trees
- Weak forks/unions at tree base or where crown breaks
- Suckers that had been sprayed which could impact on tree health in the long term
- Significant historical wounds at base of tree that require ongoing monitoring
- Poor pruning in the past
- Crown thinning
- Large mature trees with a lean from base towards road
- Trees with multi leaders that require reducing
- Tree health requiring monitoring
- Damage to trunk caused by stock
- Significant weeds/suckers and epicormic growth engulfing base of tree



Branches starting to encroach onto road



Broken main limb



Epicormic growth near road carriageway

Risk assessment

Although the overall health and form of the Peace Avenue tree network is considered good, there are a number of risks associated with some trees. These risks are mostly due to the age, size, and lack of maintenance, combined with the proximity of trees to the sealed road carriageway, well used public places and adjacent private property .

The potential risk of failure/collapse has been assessed and each tree assigned a risk rating of Low, Moderate or High.

The potential risk rating is based on a combination of the likelihood of tree failure/collapse (either full or partial) and the potential consequence to people, property and infrastructure in the event of full or partial tree collapse or failure of the main limbs.



This risk assessment was a visual assessment undertaken from the base of the tree and predominantly considered obvious, visual defects and faults such as cracks or splits in main leaders or limbs, broken branches, general tree health, form and angle of main leader growth and the proximity to people, property, infrastructure or the sealed road carriageway.

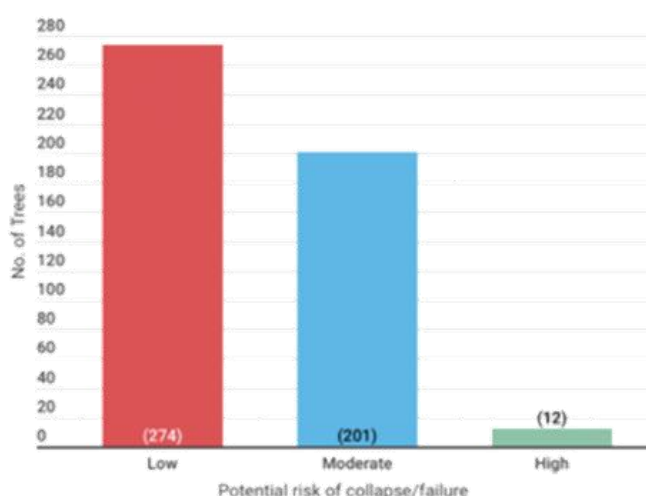
Only 12 trees (2.5%) were identified as having a high risk/consequence of failure/collapse. Only two of these trees were in poor health with the remaining 10 trees in good or excellent health.

Of the 12 high risk trees, 11 are original Peace Avenue plantings and all are large mature *Ulmus procera* (English Elm) or *Quercus robur* (Common Oak). Two of these trees had significant splits and are recommended for removal. It is recommended that the other high risk trees are monitored closely on a regular basis and removed if deterioration continues.

In total, 201 trees have been assessed as a moderate risk. The majority (89%) of these trees are original Peace Avenue plantings and (65%) are *Ulmus procera* (English Elm). Monitoring of these trees as part of a wider maintenance and monitoring plan is recommended.

Common issues for trees with moderate or high risk assessment ratings include:

- Significant wounds where branches have been lost
- Decay in main trunk or limbs
- Splitting or cracking of main trunk or limbs
- Unbalanced crown
- Large dead wood
- Significant defects combined with the tree's proximity to infrastructure such as road/corridor/ powerlines/park infrastructure, e.g. playgrounds



Cracking in main trunk



3 Recommendations

Recommendation 1 – Tree Removal

Seven peace trees have been identified for removal. Two of these trees are identified as high risk, four are in poor health and one is already dead. We also recommend removal of one other *Quercus robur* (Common Oak), that is showing clear signs of decline.

One of the four trees in poor health recommended for removal above, a *Quercus robur* (Common Oak) is located on the former rail corridor, now in private ownership. If Council decides not to fund maintenance/removal of Peace Avenue trees now located on private land we recommend the health assessment and defects associated with this tree are communicated to the landowner.

We have also identified and recommend removal of a further nine trees unlikely to be original or replacement Peace Avenue trees. Generally these trees are inappropriate species which in time will create an issue in the current location they are growing, which in our opinion require removal as a matter of priority.

Recommendation 2 - Corrective Maintenance

Of the Peace Avenue trees, 98% have some defects requiring corrective maintenance. In our view, the current Waka Kotahi NZTA and Mackenzie District Council shared maintenance agreement for Peace Avenue trees located in the road corridor is insufficient to effectively address:

- Current public health and safety issues
- Maintain Waka Kotahi NZTA required road corridor requirements
- Support tree health and longevity
- Reduce risk of damage to private property or public infrastructure
- Improve amenity

Given the potential cost associated with a large-scale corrective maintenance operation to initially address these issues, we recommend maintenance is prioritised as follows:

1. High risk trees
2. Trees in close proximity to sealed carriageway
3. General corrective and general amenity maintenance

We also recommend general corrective maintenance is undertaken in the following order to ensure amenity is improved in a logical order:

- a. Fairlie and Kimble townships
- b. Fairlie to Opihi River Bridge
- c. Fairlie Cemetery to Cricklewood

In our view, consideration should be given to the proposed maintenance plan and maintenance schedule in Appendix 1.



Recommendation 3 - Ongoing monitoring and maintenance

Once the initial programme of corrective maintenance has been completed, we recommend implementation of a programme of ongoing monitoring and maintenance for Peace Avenue trees.

Regular monitoring and maintenance is likely to reduce maintenance costs over the long term. It will also help ensure road corridor and infrastructure issues caused by Peace Avenue trees are minimised and future maintenance can focus on tree health, form and amenity.

The current agreement between Waka Kotahi NZTA and Mackenzie District Council for maintenance and management of Peace Avenue trees includes reactive maintenance for:

- Removal of suckers out to fence line (between private land and road reserve)
- Trimming or removal of trees (with regard to interference with power wires)
- Controlling epicormic growth
- Maintenance of inventory information (including GPS positioning) of all Peace Avenue trees

We recommend replacing reactive tree maintenance with contracting a specialist arboricultural contractor to undertake ongoing monitoring and maintenance of Peace Avenue trees. This contract ideally would include the key maintenance responsibilities outlined in the Waka Kotahi NZTA/Mackenzie District Council maintenance agreement above, as well as regular general monitoring for health/defects/ damage as well as regular general corrective maintenance.

Recommendation 4 – Peace tree renewal/succession planting

To ensure the Peace Avenue remains an iconic feature of Fairlie and the wider Mackenzie District, we recommend a tree renewal programme is funded and implemented over the next 10-15 years.

Taking into consideration the age, health and location of existing trees, space/gaps between trees and the opportunity to set trees back from the sealed road corridor to comply with Waka Kotahi NZTA requirement, we have identified the opportunity to plant an estimated 300 trees in various locations along the Peace Avenue.

In our view, priority areas for renewal planting should focus initially on infill planting to replace previously lost trees and succession planting in Fairlie township, followed by succession planting between Fairlie and the Opihi River Bridge. These sections of the Peace Avenue have a large number of old trees and gaps, and sufficient space between existing trees to accommodate succession planting.

The renewal plan in Attachment 2 provides more detail on renewal/succession planting including priority areas, tree numbers, proposed spacing and setback estimated costs and proposed programme of works.

Recommendation 5 – Funding and costs

Funding for tree removal and general corrective maintenance

In our view the recommended tree removal and initial three year programme of corrective maintenance should be funded separately from ongoing monitoring and maintenance.

Cost estimates are provided in the proposed maintenance plan and maintenance schedule in Appendix 1.



Ongoing Maintenance

Under the maintenance agreement between Waka Kotahi NZTA and Mackenzie District Council for Peace Avenue tree maintenance, costs for physical works are shared but limited to \$8,000 per year unless otherwise agreed.

In our view, to proactively maintain the 487 peace trees, the limit on costs for physical works needs to be increased significantly.

Based on discussions with current street tree contractors, once all trees have received an initial round of corrective maintenance we recommend maintenance costs for mature trees should be based on either 1-hour's maintenance per tree/per year or \$150 per tree per year.

In our view a tree maintenance contract is likely to provide better value for money than the current reactive maintenance agreement between Waka Kotahi NZTA and Mackenzie District Council in the long term. Regular maintenance will also benefit the tree health and amenity outcomes, and assist Waka Kotahi NZTA maintaining a vegetation free zone envelope (refer Appendix 5), keep road signs clear of vegetation and minimise other tree related issues for highway management.

Funding maintenance of Peace Trees on private land

The 44 trees located on the former rail corridor make up an important part of the Peace Avenue and eastern entrance to Fairlie township. Council needs to decide if it intends to offer to cover the cost of this work as part of the wider Peace Avenue maintenance programme or if responsibility for maintenance will sit with the landowners.

We understand some trees in this section of the avenue are recognised under the District Plan, which provides some level of protection against unauthorised maintenance or removal. However, the plan doesn't appear to cover all trees in this section of the avenue.

If Council decides to fund maintenance of the Peace Avenue trees, we recommend this decision is supported by formal agreements between Council and private landowners that establish maintenance and management responsibility, access for inspection and maintenance, and ultimately protects the trees in perpetuity. Agreements could be registered on the land title or on the private properties LIM. Trees could also be added to the District Plan as trees of significance.



4 Appendices

Appendix 1 Maintenance Plan

Appendix 2 Renewal/Succession Plan

Appendix 3 Trees recommended for removal

Appendix 4 High risk trees

Appendix 5 Waka Kotahi Vegetation free zone diagram



Peace Avenue Tree Report 1 April 2021 – Mackenzie District Council

Appendix 1 Maintenance Plan

Introduction

The Peace Avenue tree survey 2020/21 identified that almost all (97%) Peace Avenue trees have defects requiring corrective maintenance actions.

Waka Kotahi NZTA and Mackenzie District Council (MDC) currently have a shared maintenance agreement for Peace Avenue trees located in the road corridor.

As at March 2021 the basis of this agreement is:

- Waka Kotahi NZTA will pay Professional Services fees to oversee management of Peace Avenue trees
- Waka Kotahi NZTA will be responsible for the removal of suckers out to fence line
- MDC will pay for the trimming or removal of trees (in regard to interference with power wires)
- MDC is responsible for controlling epicormic growth
- The cost of physical works will be limited to \$8,000 per year unless otherwise agreed. Costs shall being shared equally between MDC and Waka Kotahi NZTA
- MDC is to maintain inventory information (including GPS positioning) of all Peace Avenue trees

The current Waka Kotahi NZTA/MDC maintenance agreement and associated funding is insufficient to address the large number of defects and deferred maintenance identified in the survey. In our view these defects are best addressed as part of a one-off round of corrective maintenance followed by an ongoing monitoring and maintenance programme.

This plan outlines a staged maintenance approach including priorities, proposed maintenance programme and schedule, estimated costs and ongoing monitoring and maintenance recommendations.

Maintenance priorities

Maintenance actions have been prioritised based on the need to address high risk trees, tree health and road corridor issues in the first instance, followed by improving amenity in high profile areas.

The following table provides an overview of key priorities and maintenance actions for the Peace Avenue tree network.



Maintenance Priorities (in order)	Key maintenance actions
Tree removal	Removal of dead or dying trees or trees with significant damage where recovery of tree health/form and amenity is unlikely
Corrective maintenance – high risk trees	Corrective maintenance to address major structural faults or tree health and form issues, such as splitting/cracking of main leader, evidence of significant disease or decay in main limbs to reduce the risk of tree collapse or main limb or leader failure that may be a risk to people, property, infrastructure or road users
Corrective maintenance - trees in close proximity to sealed carriageway	<ul style="list-style-type: none"> Remove large dead wood and main limbs showing signs of decay Remove 'hung' broken branches Crown balancing Removal of limbs/branches currently encroaching or likely to encroach (in next 5 years) on the 10m by 6m over dimension envelope where possible. Removal of large epicormic growth and suckers
Corrective and general amenity maintenance	<ul style="list-style-type: none"> Removal of epicormic growth Removal of low hanging branches Crown balancing Removal of dead wood and minor decaying limbs Clear around base of tree, chipping/mulch pruned material and create mulch ring around tree

Maintenance delivery options

In our view urgent work such as tree removal and corrective maintenance for high risk trees needs to be completed as soon as possible.

Due to the large-scale maintenance operation potential cost to complete non-urgent corrective maintenance we propose the following two delivery options for consideration:

Option 1: Complete remaining non urgent maintenance in a single all-inclusive end-to-end operation based on priorities outlined above.

Option 2: Complete urgent maintenance works as soon as possible and stage delivery of non-urgent maintenance over the next 2-3 years based on the priorities outlined above.

We also recommend specialist arboricultural contractors be invited to participate in a formal tender process to deliver non-urgent maintenance work.

The tables below provide rough order of cost estimates for the prioritised maintenance work identified above. Estimates are based on the number of trees and the different maintenance actions required to bring them up to a standard where they can be maintained efficiently and cost effectively on an ongoing basis as part of a formal maintenance programme.



Urgent maintenance

Maintenance Action	Est. Cost
Tree removal	Total est. \$10,000 – \$12,000
Corrective maintenance for high-risk trees	\$800-\$1,200 per tree Total est. \$8,000-\$10,000
Sub-total	Est. \$18,000 -\$20,000



Remaining corrective maintenance

Maintenance Action	Est. Cost
Corrective a maintenance - trees in close proximity to sealed carriageway	\$500-\$700 per tree Total est. \$30,000-\$40,000
Corrective and general amenity maintenance - Fairlie township trees	\$500-\$700 per tree Total est. \$7,500 – \$15,000
Corrective and general amenity maintenance - Remaining Peace Avenue trees	\$300-\$500 per tree Total est. \$100,000 -\$175,000
Peace Avenue trees on former rail corridor private land	\$250-\$500 per tree Total est. \$10,000 - \$20,000
Subtotal	\$150,000 – 200,000
Estimated Total Cost	\$200,000 - \$220,000

Ongoing monitoring and maintenance

Once the initial programme of corrective maintenance has been completed, a programme of ongoing monitoring and maintenance is recommended. Regular monitoring and maintenance is likely to reduce maintenance costs over the long term. It will also ensure road corridor and infrastructure issues caused by Peace Avenue trees is minimised and future maintenance can focus on tree health and amenity.

We recommend as a minimum the following items form the basis of a future monitoring and maintenance programme:

- Regular monitoring (major defects, broken limbs, tree health)
- Scheduled corrective maintenance – dead wood/wind damage, etc
- Controlling epicormic growth
- Removal of suckers out to fence line
- Trimming or removal of trees in close proximity to power wires.
- Maintenance of inventory information (including GPS positioning) of all Peace Avenue trees
- Monitoring trees with known health/structural issues



Appendix 2 Renewal/Succession Plan

Succession planting overview

To ensure the Peace Avenue remains an iconic feature of Fairlie and the wider Mackenzie District, a programme of renewal or succession planting is important. Although, overall, Peace Avenue trees are in good condition, over time they will eventually decline and require removal.

The generous width of the road corridor, gaps/space between existing trees along with evidence of species that have established well along the avenue, all contribute to the potential for a successful renewal planting programme.

Recommended Species

The original intention of the Peace Avenue was to establish an avenue of deciduous trees. It is clear from the survey that some species have clearly established and survived well in the local climate and soil conditions, such as *Ulmus procera* (English Elm) and *Quercus robur* (Common Oak), ahead of others, such as *Fraxinus excelsior* (Common Ash), which generally has not established as well.

With this knowledge, it would make sense that these species form the basis of future succession planting. However, while it is important that succession planting is consistent with the existing Peace Avenue network in terms of tree size, scale, form and amenity, planting a variety of species has a number of benefits including reducing the risk/impact of pathogen incursion such as Dutch Elm disease as well as amenity considerations such as variation of autumn colour. Deciduous trees are also preferred from a road safety perspective as shading of the seals road surface can cause ice issues during winter.

Factors to consider when choosing species for Peace Avenue succession planting:

- Mature size, scale and form
- Autumn colour
- Consistency with other species
- Growth rate
- Level of ongoing maintenance required
- General amenity value
- Susceptibility to disease/pathogen incursion
- Juvenile establishment requirements, e.g. water requirements, susceptibility to wind/frost/dry soil conditions

Ulmus procera (English Elm) and *Quercus robur* (Common Oak) are the two most common species remaining from the original Peace Avenue planting. Other species from the original planting that have established and survived well include:

- *Aesculus hippocastanum* (Horse chestnut)
- *Castanea sativa* (Sweet Chestnut)
- *Tilia* sp. (Linden or Lime)
- *Juglans regia* (English Walnut)
- *Platanus X acerifolia* (London Plane)
- *Populus Alba* (Silver Poplar)



As mentioned in the Asset report, a number of Turkey Oaks located between Fairlie and Kimble were identified. It is possible that these trees were planted in remembrance of the conflict at Gallipoli, Although no evidence to confirm this has been found it may be a concept to consider for future planting.

Dutch Elm disease

Dutch Elm disease exists in New Zealand and is worth considering when planning renewal/succession planting. While the disease was first reported in New Zealand in 1989 and is currently thought to be limited to the Auckland region. Elm trees make up a large number of existing trees in the Peace Avenue and an outbreak would be potentially devastating for the Avenue.

Although an outbreak in Peace Avenue trees is unlikely, we have considered the potential impact of an outbreak and proposed a variety of species to help future futureproof the Peace Avenue if the disease was to arrive in the Mackenzie District.

The table below recommends a range of preferred species for succession planting and a proposed ratio to balance continuity and variation:

Proposed species	Percentage of proposed succession plantings
Ulmus procera (English Elm)	25%
Quercus robur (Common Oak)	25%
Other Oak Species (Turkey Oak, Pin Oak)	10%
Tilia sp. (Linden or Lime)	10%
Other:	30%
<ul style="list-style-type: none"> Juglans regia (English Walnut) Castanea sativa (Sweet Chestnut) Carpinus (Hornbeam) 	

Planting setbacks and spacing

Tree spacing

As part of the original Mackenzie County Council resolution regarding establishment of the Peace Avenue, tree spacing was to be 10 chains (approximately 200m) or closer. It appears for most of the original plantings that the spacings were between 40m and 85m, however, these distances do vary in different areas of the Peace Avenue.

For example, trees located between Fairlie Cemetery and Fairlie town centre are planted at approximately 25m apart, original Peace Avenue trees planted between SH8 and Denmark Street are mostly planted between 30m and 45m apart, and trees planted in the 100 kph speed zone between Fairlie and Ophi River Bridge are generally planted between 50m and 85m apart.

A lack of uniform spacing across the Peace Avenue means prescribing set spacing for succession planting is not practical. However, generally there is adequate space for planting to occur between existing trees across the entire avenue.

Rather than prescribe a set distance for tree spacing, as a guide planting one tree between two existing trees is recommended and, where there are large gaps between trees, spacing should be consistent with tree spacings either side of the nearest existing trees.



Planting setbacks

Waka Kotahi NZTA requirements - To comply with Waka Kotahi NZTA clear zone requirements for SH8, new planting must be set back 9m from the edge line on straights and greater than 9m on curves. Setting planting back will also reduce future maintenance issues such as removing branches/foliage encroaching over the sealed carriageway, obscuring road signs and maintenance work that triggers comprehensive traffic management on SH8.

For the majority of the Peace Avenue the grass verge in the road corridor is over 10m wide and up to 20m wide in some places. This provides ample room for new plantings to be set back sufficiently to meet Waka Kotahi NZTA requirements.

Town water supply - The town water supply pipeline which runs for approximately 10km north of Fairlie township along the south western side of SH8 on the also needs to be considered when planting new trees. A desktop assessment shows this pipe is located mostly between 2-3m into the road reserve from the private property boundary.

As a guide, where possible, new plantings should be located 5m from the private property boundary along rural sections of the Peace Avenue. In most areas this will allow for Waka Kotahi NZTA requirements to be met and a minimum 2m+ clearance from the town water main.

Waka Kotahi NZTA and Council's water services team should be consulted prior to planting to ensure these setbacks are acceptable.

Planting priority areas

Significant amount of replacement/succession planting has previously occurred in various parts of the Peace Avenue. This is particularly the case on the former rail corridor east of Fairlie township and between SH8 and Denmark Street within Fairlie township. Infill planting to replace previously lost trees is the focus of planting in these areas.

Fairlie Township - Mount Cook Road and Main Street

Peace Avenue trees are a feature of both entrances to the town as well as the grass open space area between SH8/Mount Cook Road and Denmark Street. However, there are some gaps along the south-western side of the road through Fairlie in need of infill, to maintain avenue feel and general amenity. There are also some species such as Malus (Apple) that could be considered for replacement. These may have been planted by the adjacent landowners so consultation prior to removal and replacement is advised.

Fairlie Cemetery to Grey Street

There are approximately 40 mature trees that line the eastern entrance to Fairlie township, between the cemetery and Grey Street, that are located within 2-3m from the edge of the sealed carriage way. Succession planting set back from the road carriageway through this section is recommended to futureproof this iconic entry to Fairlie.

Fairlie and Opihi River Bridge

The western extent of the Peace Avenue between Fairlie and Opihi River Bridge is where the majority of benefit will be gained from succession planting over the next 10-15 years. This area has a large number of original trees and also has a number of gaps and sufficient space between existing trees to accommodate succession planting. Breaking this large area into multiple sections and establishing new planting in sections extending from Fairlie west towards Kimble and Opihi River Bridge will be



more cost effective and provide greater amenity than prioritising infill planting across the entire avenue area.

Fairlie Cemetery to Opihi Gorge Road

Significant amount of replacement/succession planting has previously occurred along this section of the avenue; minor infill planting to replace previously lost trees is all that is required.

The following table outlines a suggested order of priority areas for succession planting.

Priority year	Location	Type	Side of Road	Estimated no. trees required
Year 1	Fairlie Township	Replacement/infill	South-western side	12
Year 1	Fairlie Cemetery to Grey Street	Succession planting	Both	40 trees
Year 2-4	Railway Street to Kimble	Infill/succession planting	Both	150
Year 5/6	Kimble to Opihi River Bridge	Infill/succession planting	Both	80
Year 7/8	Fairlie Cemetery to Opihi Road	Succession planting	South-western side	40

Costs

The establishment period for new trees is approximately 2-3 years. The first 12-24 months is the critical period for survival and subsequently most costly. If trees are established well, planted in the correct location and monitored regularly, ongoing maintenance costs can be reduced considerably.

The table below outlines the establishment requirements and estimated costs for establishing juvenile trees.

Item	Quantity	Frequency	Estimated Cost
Trees (45 litre)	Per tree	One-off	\$110
Planting (including fertiliser, soil, mulch, stakes/ ties, traffic management, cable location)	Per tree	One-off	\$150
Mulch top up	4 per tree	Three monthly for first 12 months	\$10 per tree per top-up (\$40 per tree per year)
Watering	20 per tree	Spring - 1x every 2-3 weeks Summer - 1x weekly	\$5-10 per tree per watering (\$150-\$200 per tree per year)
General maintenance/ re-staking, etc	4	Annually as required	\$5 per tree per year (\$20 per tree per year)
Stake and tie removal	Per tree	One-off (remove after 12 months)	\$5 per tree



Based on the table above the estimated costs for establishing each juvenile tree for the first three years (to the point to where it is self-supporting and only requires routine monitoring and maintenance) is approximately \$475-\$525 per tree. This figure may vary depending on weather conditions in the first 12 months after planting, plant prices, traffic management requirements and other variables.

Initial establishment costs may seem high on a per tree basis. However, trees are one of the only public assets that appreciate in value and, when costs are looked at in the context of their potential 100+ year lifespan, the costs are minimal.

Funding opportunities

Given the iconic nature of the Peace Avenue, various funding opportunities may be available to deliver succession/renewal planting.

Xyst is aware that Waka Kotahi NZTA has the ability to fund/contribute to environmental renewals in the road corridor and this has been initially discussed with them ahead of a formal application.

Community funding initiatives such as donations, sponsorship or enabling the purchase of memorial plaques may also be sources of funding, or to consider to assist with renewal/succession planting.

Community Engagement

There is scope for the community/schools to perhaps be involved in collecting acorns from existing trees in the Fairlie Village Green and growing these into future replacement trees for the Peace Avenue; this could be explored further.



Appendix 3 Trees recommended for removal

Asset ID: 590

Species: *Ulmus procera* (English Elm)

Rational: Dead

Risk: Low



Asset ID: 102

Species: *Fraxinus excelsior* (Common Ash)

Rational: Tree in poor health and has poor form. Appears stable at present but in decline.

Risk: Moderate

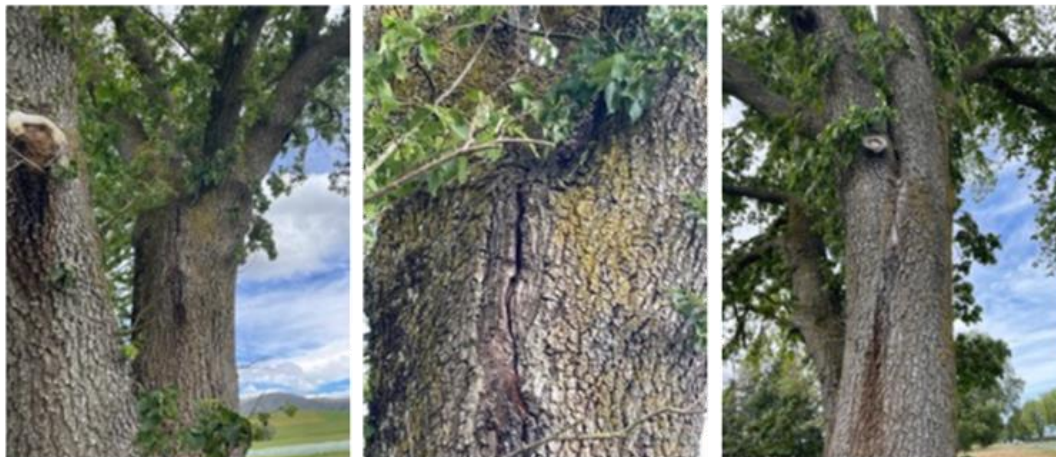


Asset ID: 470

Species: Ulmus procera (English Elm)

Reason for removal: Tree in poor health has a clear split in large main limb

Risk: High



Asset ID: 503

Species: Ulmus procera (English Elm)

Reason for removal: Tree is in poor health and has a significant split where the crown forms which will result in tree crown collapse

Risk: High



Asset ID: 602

Species: Ulmus procera (English Elm)

Reason for removal: Tree is in average health and has been significantly reduced in the past resulting in very poor form and now has little amenity value.

Risk: low



Asset ID: 665

Species: Populus Alba (Silver Poplar)

Reason for removal: Tree is dying.

Risk: Moderate



Asset ID: 741

Species: *Quercus robur* (Common Oak)

Reason for removal: Tree is in poor health and has poor form. Has clear split in the main leader.

Risk: Moderate



Asset ID: 312

Species: *Fraxinus* sp.

Reason for removal: Tree is dying

Risk: Moderate



Asset ID: 382

Species: Malus (Apple Tree)

Reason for removal: Self-sown probably from thrown apple core. Don't want people stopping here to collect apples so best to remove while undertaking other work

Risk: Low



Asset ID: 510

Species: Salix (Willow)

Reason for removal: Multi-stem willow likely to breakup, best to remove (not part of Peace Avenue planting)

Risk: Low



Asset ID: 542

Species: Salix (Willow)

Reason for removal: Dead (not part of Peace Avenue planting)

Risk: Low



Asset ID: 611

Species: Larix (Larch Tree)

Reason for removal: Remove tree not an ideal tree to have in close proximity to SH8 (not part of Peace Avenue planting)

Risk: Low



Asset ID: 612

Species: *Betula pendula* (Silver Birch)

Reason for removal: Requires removal to enable nearby Oak to thrive (not part of Peace Avenue planting).

Risk: Low



Asset ID: 614

Species: *Pseudotsuga menziesii* (Douglas Fir)

Reason for removal: Likely to cause future issues given close proximity to SH8 (not part of Peace Avenue planting)

Risk: Low

Note: *Pseudotsuga menziesii* (Douglas Fir) located behind *Betula pendula* (Silver Birch) in photo below.



Asset ID: 615

Species: *Pseudotsuga menziesii* (Douglas Fir)

Reason for removal: Potential cause of future issues for highway given close proximity road.

Risk: Low



Asset ID: 684

Species: *Pinus sp.* (Pine)

Reason for removal: Not a desirable tree in this location long term (technically located on private land, however appears as road reserve)

Risk: Low



Appendix 4 High risk trees – Requiring corrective pruning or removal

Asset ID: 1

Species: Quercus robur (Common Oak)

Issue(s): Given proximity to playground faults such as broken branches and failure of large limbs could result in failure that could cause significant damage or harm (pruning recommended)

**Asset ID: 2**

Species: Quercus robur (Common Oak)

Issue(s): Given proximity to playground, faults such as deadwood and low hanging branches and general lack of maintenance could result in failure that could cause significant damage or harm (pruning recommended)



Asset ID: 3

Species: Quercus robur (Common Oak)

Issue(s): Appears to have much thinner crown than trees either side of similar age. Given its location in a high profile area failure could cause significant damage (pruning recommended)

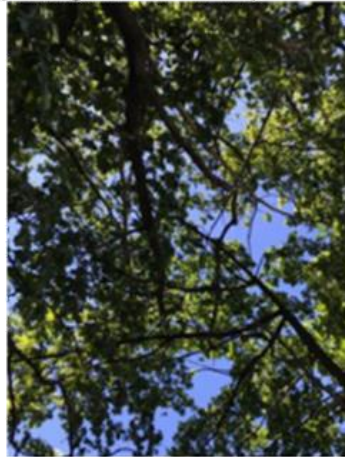
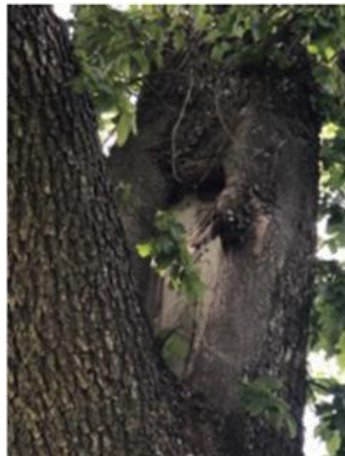


Asset ID: 4

Species: Quercus robur (Common Oak)

Issue(s): Has decay in main trunk given its location next to the rail truck failure could cause significant damage (pruning recommended)



Asset ID: 5**Species:** Quercus robur (Common Oak)**Issue(s):** large deadwood and low hanging branches. Given its location in a high profile area failure could cause significant damage (pruning recommended)**Asset ID: 70****Species:** Ulmus procera (English Elm)**Issue(s):** Has decay and a significant wound in main trunk a where branch was lost (pruning recommended)

Asset ID: 72

Species: Ulmus procera (English Elm)

Issue(s): Has lost a large limb which has resulted in damage to trunk tree (pruning recommended)



Asset ID: 73

Species: Ulmus procera (English Elm)

Issue(s): Has split in fork of main branch, (pruning/weight reduction recommended)



Asset ID: 470

Species: Ulmus procera (English Elm)

Issue(s): Split in main trunk causing weakness don't believe weight reduction will address issue.
(removal recommended)



Asset ID: 503

Species: Ulmus procera (English Elm)

Issue(s): Tree has a significant split where crown forms which will result in tree crown collapse
(removal recommended)



Asset ID: 554

Species: Ulmus procera (English Elm)

Issue(s) Large deadwood and broken branches

Photo(s)

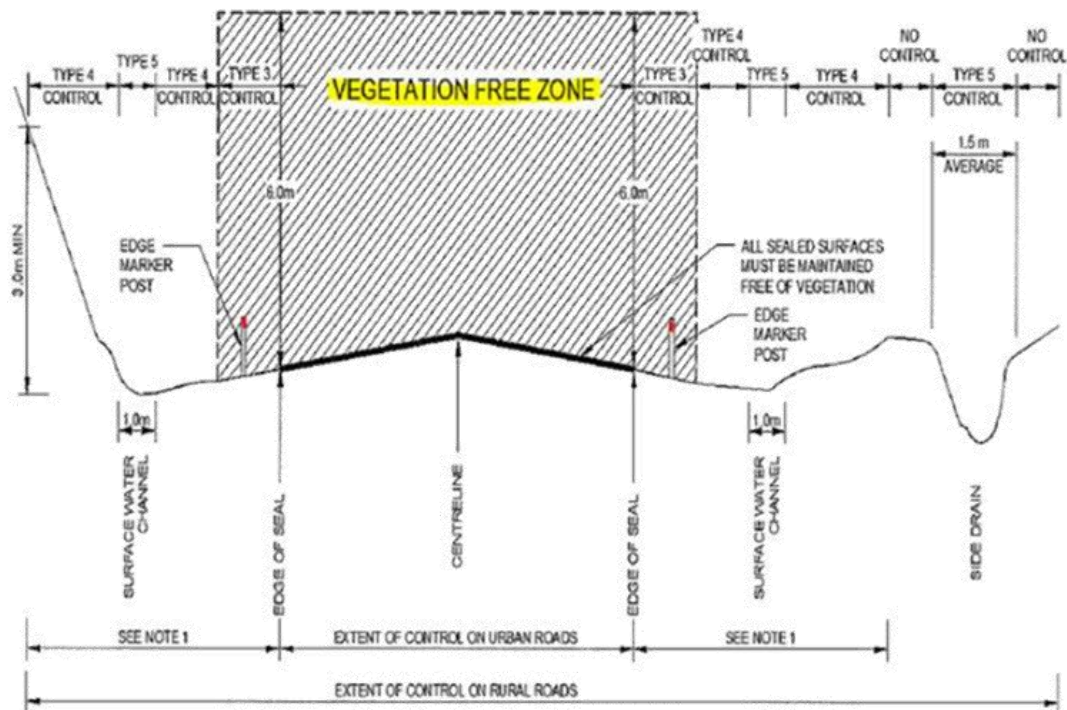
Note: Clear photo of deadwood and broken branches not possible from ground level (pruning recommended)



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Appendix 5 Waka Kotahi vegetation free zone



NOTE 1: THIS DISTANCE MUST BE A MINIMUM OF 3.0m ON STRAIGHTS AND ON THE OUTSIDE OF CURVES, AND A MINIMUM OF 5.0m ON THE INSIDE OF CURVES EXCEPT WHERE SPECIFIED IN THE VEGETATION CONTROL SCHEDULE

NOTE 2: VEGETATION FREE ZONE MUST BE MAINTAINED FREE OF ALL VEGETATION EXCEPT WHERE SPECIFIED IN THE VEGETATION CONTROL SCHEDULE

EXTENT AND TYPE OF VEGETATION CONTROL FOR
ROADS WITHOUT KERB AND CHANNEL



5.4 COMMUNITY SERVICES AND WASTE**N/A****Author:** Angie Taylor, Community Services and Solid Waste Officer**Authoriser:** Tim Harty, General Manager Operations**Attachments:** Nil**STAFF RECOMMENDATIONS**

That the information be noted.

Waste Minimisation and Management Contract – transition process

The transition process leading into the new Waste Minimisation and Management Contract is progressing well, with ongoing collaboration within the Governance Group involving the three Councils from the joint procurement process. The current focus for Mackenzie is collating the information and data required to establish new systems, such as the Fleetmind system that will allow real time tracking of collection trucks and monitoring bin collections and missed bins.

Waste levy changes

In early March, the Government confirmed timing of changes to the waste levy and the additional classes of landfills the levy will be applied to, these are shown in Table 1.

Of relevance to the Mackenzie is the progressive increase to the levy on municipal class 1 landfills. This is the levy that is applied to all residual waste from the Mackenzie that is currently sent out of the district to landfill. The levy is currently \$10 per tonne, with the first increase to \$20 per tonne effective from 1 July. New Zealand current has one of the lowest landfill levies in the world and these increases will bring the country more into line with international practices. These changes have been factored in to the 10 year budgets for solid waste.

Currently, half of the waste levy revenue is distributed to territorial authorities (TA's) to spend on waste minimisation work. As part of the levy review, the Government has confirmed this will continue. The remaining levy revenue will be invested into a variety of waste minimisation projects and initiatives to continue the direction towards a circular economy.

It is expected that there will be changes to the reporting requirements from TA's to the Ministry of the Environment. While final details of the additional reporting required are yet to be received, this will require additional staff time to meet an increase to reporting.

Table 1: Levy rates for phased implementation (per tonne of waste)

Landfill class	Waste types	1 July 2021	1 July 2022	1 July 2023	1 July 2024
Municipal landfill (class 1)	Mixed municipal wastes from residential, commercial and industrial sources	\$20	\$30	\$50	\$60
Construction and demolition fill (class 2)	Range of wastes from construction and demolition activities, including rubble, plasterboard, timber, and other materials	-	\$20	\$20	\$30
Managed fill (class 3)	Contaminated but non-hazardous soils and other inert materials (eg, rubble)	-	-	\$10	\$10
Controlled fill (class 4)	Soils and other inert materials (eg, rubble)	-	-	\$10	\$10

Waste composition audit

The Mackenzie Waste Management and Minimisation Plan was adopted in 2018 and will be reviewed every six years to assess current challenges and issues and ensure the direction of waste management and minimisation remains relevant. The WMMP includes a number of goals and targets, measuring of these targets is addressed through waste audits undertaken approximately every three years, being as part of the waste assessment to develop the WMMP and then halfway through the life of the plan. A waste audit was carried out in 2016 leading up to the development of the WMMP, with a second audit being completed near the end of 2020.

The waste composition audit is undertaken in accordance with the Solid Waste Analysis Protocol (SWAP) and was undertaken by Waste Not Consulting, who specialise in waste audits throughout New Zealand. Using the SWAP approach retains consistency between audits and allows comparison with other areas.

The audit provides a range of valuable information that can be used to inform decisions on waste management in the district. In particular, the audit shows the diversion potential of kerbside waste that is sent to landfill, such as items that can be recycled and organic waste that could be processed into compost.

There is a small amount of recyclable materials that are sent to landfill via the red kerbside bin, however of more significance is the amount of organic material including food and garden waste, that makes up 55.3% of kerbside residual waste. It is recognised that not all organic waste is readily compostable and the report identifies that the amount of divertible organic waste that is able to be composted is 52.9% or 6.23kg per red bin. This consists of 24.1% kitchen/food waste at 2.83kg and 28.8% green/garden waste at 3.39kg.

The amount of organic material contained in kerbside waste varied between the three main towns, being highest in Fairlie with 58.9% and lowest in Tekapo at 46%, with Twizel in the middle at 56.3%.

The report also provides an estimate of the per capita disposal rate of kerbside residual waste, the 2016 audit showed this to be 157kg/capita/annum and this has reduced to 138kg/capita/annum in the 2020 audit. This reduction is positive and a comparison with other districts shows that the per

capita for the Mackenzie is relatively low in relation to other districts. A table showing a range of districts is below.

Table 2 - Comparison of per capita disposal of kerbside rubbish

Kerbside rubbish - Annual per capita disposal rate compared to other areas	Kg per capita per annum	Kerbside rubbish collection services
Christchurch City 2011	110	Rates-funded fortnightly 140-litre MGBs (with weekly organic collection)
Gisborne District 2017	122	Rates-funded rubbish bag stickers
Mackenzie District 2020	138	Rates-funded fortnightly 140-litre MGBs
Whangarei District 2017	153	User-pays rubbish bags + private MGBs
Auckland Council 2016	156	User-pays rubbish bags + rates-funded MGBs + private MGBs
Mackenzie District 2016	157	Rates-funded fortnightly 140-litre MGBs
Matamata-Piako District 2020	183	User-pays rubbish bags + private MGBs s
Dunedin City 2018	187	User-pays rubbish bags + private MGBs
Tauranga and WBOP District 2019	192	User-pays rubbish bags + private MGBs
Hamilton City 2017	197	Rates-funded bags (2 per h/h max)
Palmerston North 2017	201	User-pays rubbish bags + private MGBs
Hastings District/Napier City 2019	221	Rates-funded bags (2 bags h/h max) + User-pays rubbish bags + private MGBs

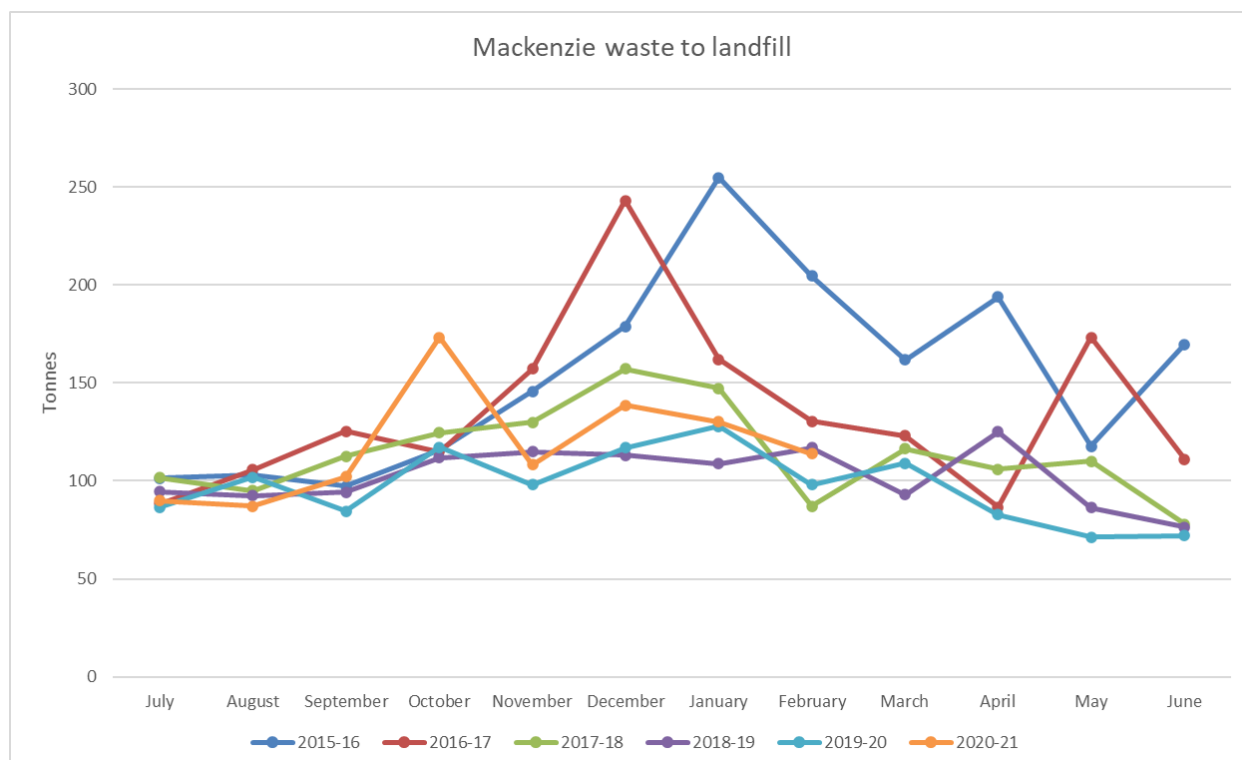
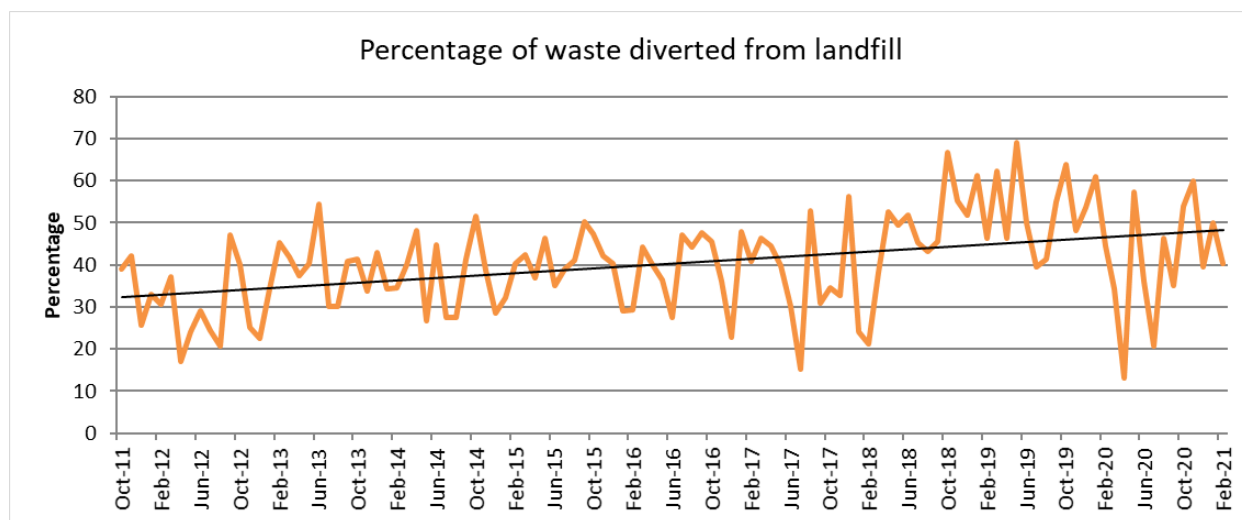
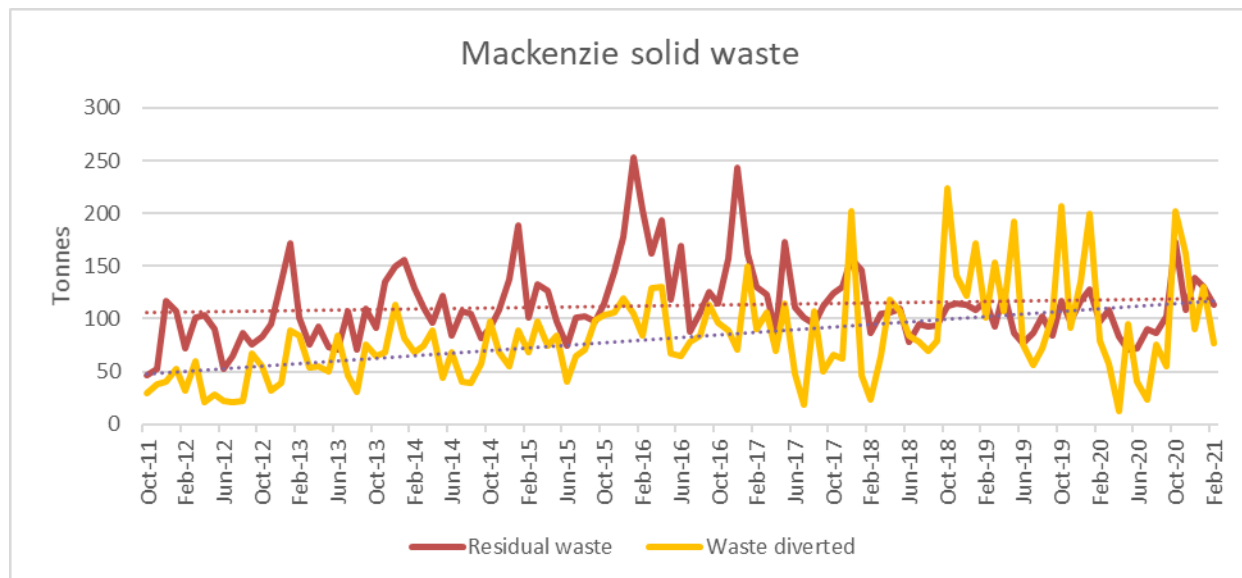
Climate Change Commission - draft advice for waste

The Climate Change Commission has recently made a number of draft recommendations to allow the Government to progress towards emission reduction targets.

In the waste area, the Commission supports the shift towards a circular economy and recommends a reduction in waste emissions through landfill management techniques, reducing the amount of waste generated and a focus on reducing the amount of organic waste sent to landfills to decrease by at least 23% from 2018 to 2030. While these are recommendations, the waste audit results showing the amount of food and garden material within our kerbside waste highlights that an introduction of a kerbside green bin has the potential to take significant steps in line with the recommendation to reduce organic waste to landfill.

Waste Data and Trends

The graphs below present waste data for the district since 2011.



5.5 3 WATER STIMULUS PROGRAMME PROGRESS REPORT**Author:** Mike Davies, Program Manager - 3 Waters**Authoriser:** Tim Harty, General Manager Operations**Attachments:** Nil**STAFF RECOMMENDATIONS**

That the information be noted.

BACKGROUND

The Funding Agreement signed In October 2020 between the Department of Internal Affairs (DIA) and Mackenzie District Council (MDC) provided a 100% stimulus grant (\$5.111m) for Three Waters projects, as part of the Three Waters Services Reforms.

Approximately \$2.5m (50%) of funding has already been delivered to MDC, which is to enable these projects to be commenced. A Delivery Plan has been submitted to DIA, with the 32 separate projects. Provision of a dedicated Program Manager resource is the 33 project and a requirement of the funding being released.

DIA require quarterly reporting (the next is due to be submitted 16 April) and programme completion by 31 March 2022.

OVERVIEW OF THE 3W REFORM PROGRAMME (33 Projects)

Category	Capex Projects	Opex Projects	Category Value	Study or Design	Constn	In Progress
Accelerated Renewals/Capital	13		\$2.221m	9	4	4
Asset Condition Assessment	2	1	\$0.450m	2	1	
Deferred Maintenance	3	2	\$1.140m	3	2	1
Asset Management Systems	1		\$0.290m	1	0	
Water Leakage/Management	3		\$0.420m	2	1	
Water Safety Priorities	6		\$0.340m	5	1	1
Preparation for 3W Reform	1		\$0.050m	1	0	
Programme Delivery	1		\$0.200m	1	0	1
Totals	30	3	\$5.111m	24	9	7

There are 3 Operational Projects covering CCTV Condition Assessment, Desludging Design, and Desludging Works that total \$1.080m. The balance of the works (which are mostly studies/designs) are Capital Works as they will result in the delivery of infrastructure immediately, or over time through the Long Term Plan process.

PROGRAMME PROGRESS

- DIA accepted first quarterly report (to end December 2020) unchanged.
- Next DIA report drafted, with some amendments to timelines and cashflow. Due 16 April. DIA are keen to see expenditure starting to ramp up.
- Expenditure to date is about \$100k, with 12 months of the program to go. Expenditure is DIA's main concern, and they have informally asked MDC to expedite procurement to fulfill the stimulus requirement.
- Scopes for all 33 projects are being reviewed and refined as more information is collected.
- 7 projects are now in progress involving external resources. Project #1 (Water Supply Pipe Renewals) will be addressed by extending the design/construct scope of the package already contracted – this will avoid duplication of effort, and the potential for scope conflict.
- A single Request for Expressions of Interest (REOI) covering all the remaining projects is to be put on Government Electronic Tendering Service (GETS) to determine the level of interest in each. This will cover both Consultants and Contractors services. From the responses, lists of tender invitees will be drawn up, with a target of 3 invited tenderers per package. This to minimise bid effort/costs across multiple projects and to expedite the procurement process.
- ECAN have accepted MDC assertion that desludging works can occur without further discharge consents being required. MDC will still require land-use consents for earthworks.
- Contact has been made with Iwi to collaborate in the programme and determine their key priorities. Project Briefs are being copied to AEC as they are completed for review.

PLANNED PROGRAMME OVER NEXT PERIOD

- Progress new easements for Twizel rising main (new alignment).
- Issue multi-project ROI and compile tender shortlists to expedite procurement.
- Progress specific briefs for each project for tender.
- Have 50% of remaining projects let by end June 2021 (some projects, especially construction, are dependent on other works completing first).

COSTS, SCOPE, RESOURCES, PROGRAMME

- Scope and detail are not sufficiently defined to flag any cost issues at present, so budgets have not been changed yet (this will be likely). Some projects (especially Wastewater CCTV and Water Meter Installs) can be varied to cope with budget adjustments in other projects.
- Scopes require further refinement (briefs prepared) before going out to market.
- Resourcing may be an issue due to competition from other districts. Some bundling of projects and latitude with timelines will be necessary to increase attractiveness.
- The programme duration is appropriate for individual projects; however, some projects are consecutive (not concurrent) and the quantum (and external resourcing) may be an issue.

RISKS & ISSUES

- Timeline (completion by March 2022) - 9 projects involve physical works (3 of which can be variable) which require tender packages to precede them.

- Cost Variance is a risk, particularly construction related, so scopes need to be refined to meet budgets.
- Resourcing may be an issue as noted above.
- Material Supply may be an issue as the global supply chain is being stressed. This could affect delivery of PE/uPVC pipes, PE liners, polymer, geotextiles etc.
- RMA and Consenting remains a potential risk, as are discussions with landowners where required for easements. Recent discussions with ECAN may have reduced some of that risk.

STAKEHOLDERS & ENGAGEMENT/COMMUNICATIONS

- Iwi partners are already part of the collaboration process and members of the proposed Steering Committee.
- ECAN are involved re consenting issues and will be kept in the loop with respect to non-compliance being addressed.
- Waka Kotahi collaboration will be required for at least one project, with a projected pipeline crossing.
- Landowners will need to accept easements for some proposed works. This may now be limited to just one or two projects.
- A Comms plan will be required, and some individual projects will also require Comms plans. Some projects will almost certainly require ratepayer surveys to obtain data and this will require careful messaging to both obtain the information and to provide educational material to improve drinking water safety.

ACTIONS/DECISIONS

- There are currently no Decisions to be made. There are 4 projects that have estimates of \$350k or above (WS Pipe Renewals, Twizel WW Rising Main, WWTP Desludging and Twizel Water Meter Installs) that it is intended to let on the basis of a 3W Reform Project panel rather than taking to Engineering Committee and the CEO for approval. This will expedite these projects.
- There are a further 6 projects that have estimates in excess of \$100k that will require an Evaluation Team prior to approval by the GM.

CONCLUSION

The Programme remains in the start-up phase, with one year to run. Information gathering for scoping and briefing purposes is now progressing well, and appropriate project bundling is well advanced. Expediting the ROI and resultant procurement of Consultants and Contractors remains the key challenge.

5.6 ADOPTION OF STREET NAMES FOR STATION BAY DEVELOPMENT, TEKAPO

Author: Bernie Haar, Engineering Manager

Authoriser: Tim Harty, General Manager Operations

Attachments: 1. Station Bay - Road Name Approval Application [↓](#) 

PURPOSE OF REPORT

For the Assets and Services Committee to consider the proposed street names for the Station Bay Development in Tekapo.

STAFF RECOMMENDATIONS

1. That the report be received.
2. That the street names Station Bay Rise and Pete's Place, as proposed by the developers for the Station Bay Subdivision, be approved.

BACKGROUND

As part of the Subdivision Consent process developers are given the opportunity to recommend street names for the streets within subdivisions, the naming convention should fit within Council's expectations and the requirements of NZS 4819:2011 Rural and Urban Addressing.

Currently there is only one subdivision reaching completion and the developers have put forward street names for approval.

That subdivision is: Station Bay Development – Lake Tekapo.

Located on Lake Side Drive.

Station Bay Developments supplied only two names with supporting rational as to why they desire to have these names approved. Council normally requires a selection of road names for consideration however the developer declined to provide any other options.

The proposed Street names for Station Bay are:

Road A : Station Bay Rise

The developer believes the proposed name works well as it incorporates the development name along with the fact the main road which service's the development rises away from Lakeside Drive.

Road B: Pete's Place

The developer has chosen this name in memory of the late Pete Speedy who managed the Lake Tekapo Holiday Park for many years.

POLICY STATUS

The council does not have a formal policy on naming roads; however, Council has generally only approved the names of landscape features and well-known local people. (Staff are preparing a policy for consideration).

SIGNIFICANCE OF DECISION

This decision is of low significance.

Te Rūnanga o Arowhenua have been consulted and to date the Council has had no response.

OPTIONS

Council can decide if they are comfortable with the two names supplied for the streets within the subdivision.

Council therefore has two options available.

Option 1: Accept one or both of the proposed street names.

Option 2: Decline one or both of the proposed street names.

CONSIDERATIONS**Legal**

The process for naming and/or renaming roads is included in the Local Government Act 1974.

Section 319 General Powers of Council in respect to roads

Section 1 (j) to name and to alter the name of any road and to place on any building or erection on or abutting on any road a plate bearing the name of the road:

Section 319A Naming of Roads

If the council names any road for the first time, or alters the name of a road, the council must as soon as practicable send a copy of the relevant resolution to the Registrar-General of Land and the Surveyor-General.

Financial

Not applicable

CONCLUSION

The road names generally comply with the informal naming convention. They also comply with the requirements of the New Zealand Standard as well.

STATION BAY

LAKE TEKAPU

10th February 2021

Mackenzie District Council
P O Box 52,
Main Street
Fairlie 7949

Attention: **Engineering Manager - Bernie Haar**
By email: bernie.haar@amckenzie.govt.nz

Dear Bernie,

Re: Request for road name approval – Station Bay Development

Tekapo Landco Limited (Station Bay Development) hereby request approval of our proposed Road / Street names within our Development.

We propose to name:

"Road A" **Station Bay Rise**
We believe the proposed name works well, as it incorporates the development name along with the fact the main road which service's the development rises away from Lakeside Drive.

"Road B" **Pete's Place**
We have chosen this name in memory of the Late Pete Speedy who managed the Lake Tekapo Holiday Park for many years.

When considering our proposed road names, we researched existing Road & Street Names around Lake Tekapo Village, and believe we are following with the theme(s) already established.

We highlight Lochinver Avenue / Cairns Avenue, with these being main access roads to some of the more recent development's.

We then tried to follow the theme of the street names in the more established part of town, like Scott Street, Allan Street, Murray Place, Bill Apes Lane, to name a few, and have identified this theme has been continued into the recent developments, with the likes of Andrew Don Drive, Edwards Lane, Jimmys Lane, Sams Place.

We look forward to your consideration & response in due course.

We would however welcome a quick response if at all possible (This may enable us to use the actual road / street names in our advertising if approved).

Should you have any queries or require any further information please do not hesitate to contact me.

We thank you for your time, and await your reply.

Yours faithfully
Tekapo Landco Limited




Campbell Wheeler
Development & Construction Manager

Copies to: **Tim Harty – General Manager Operations (MDC)**
 Tony Hodges – Consents Engineer (MDC)

2 Lakeside Dr, Lake Tekapo 7999
+64 27 594 3375
www.stationbay.co.nz

5.7 THREE WATERS AND FOOTPATH PROJECT UPDATE

Author: Tim Harty, General Manager Operations
Authoriser: Suzette van Aswegen, Chief Executive Officer
Attachments: 1. Project Report [↓](#) 

STAFF RECOMMENDATIONS

That the information be noted.

BACKGROUND

In August 2020 Council resolved to procure a project manager from Beca Limited (Beca) to support the delivery of the approximately \$10m Council funded Water and Footpath Projects (funded through the 2020/21 Annual Plan).

Part of this commission was the provision of monthly reports on project progress. Beca's Monthly Project Report is attached.

Progress of the works are in line with the attached reports.

CONCLUSION

Mackenzie District Council Capital Works Programme 2020 – 2021

Report prepared by: Pete Dawson

7

Number of live projects

\$14M

Total capex projected

\$14M

Total capex approved

Completed

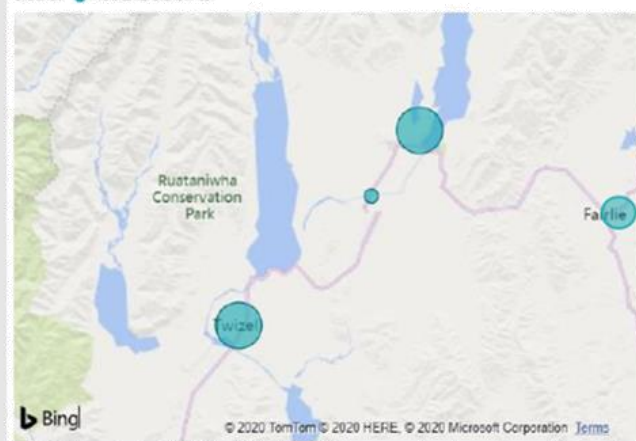
In Progress

Not Started

Not Applicable

Project Count by Country

District ● Mackenzie District



URL	Project Title	Capital Plan Submission	Project Initiation	Concept Design	Detailed Design	Tender	Construction + Handover
Water Main Renewals - Twizel Package 1 (sub mains)							
Fairlie Water Treatment Plant and Reservoirs							
Water Main Renewals - Twizel Package 2 (more complex mains)							
Water Main Renewals - Twizel Package 3 (Ring mains)							
Water Main Renewals - Fairlie							
Water Main Renewals - Tekapo							
Shared Use Path							

URL	Project Title	Cost	Issues	Resources	Risk and Issues	Schedule	Scope	Stakeholder and Communications
Water Main Renewals - Twizel Package 1 (sub mains)								
Fairlie Water Treatment Plant and Reservoirs								
Water Main Renewals - Twizel Package 2 (more complex mains)								
Water Main Renewals - Twizel Package 3 (Ring mains)								
Water Main Renewals - Fairlie								
Water Main Renewals - Tekapo								
Shared Use Path								

Project Summary

Month shown: April 2021

Current Project

Fairlie Water Treatment Plant and
Reservoirs

Current Phase

Preliminary
Design

Project URL

Expected Capital Cost

\$6,000,000

Project Status

Progress in the last month

Preliminary design started
Kick off meeting held with the Council engineering team and designers
Initial site layout
Topographical Survey
Site visit with the designers

Planned progress

Preliminary design workshops planned for next month
Procurement plan to be completed

Actions and decisions

N/A

Stakeholder relationships

Property Consultant has engaged with the property owner to explain the process of the Council procuring the land for the WTP
Neighboring property owner consulted on the proposed land, the WTP and the change in designation
Consultation with Iwi planned for next month
Alpine Energy have power poles and a power cable that runs through the site that poses a safety in design risk. A meeting is planned to discuss undergrounding the cables with Alpine Energy.

Programme Commentary

On track

Project Conditions

Risk and Issues

Low

Moderate

High

Long lead time for procurement of membranes
Designation and consenting could cause delays
Land procurement

Scope

No Scope Change

10% Deviation

More than 10% Deviation

No scope change in preliminary design

Schedule

On Track

10% Deviation

More than 10% Deviation

On schedule

Cost

On Budget

10% Deviation

More than 10%

On budget

Resources

Fully resourced

Partially resourced

Significantly under resourced

Stakeholder and Communications

On track

Partially on track

Off track

Project be discussed with iwi this month

Project Summary

Month shown: April 2021

Current Project

Water Main Renewals - Twizel
Package 1 (sub mains)

Current Phase

Construction

Project URL

Expected Capital
Cost

\$2,500,000

Project Status

Progress in the last month

Contract awarded to Rooney Earthmoving Ltd
Contract award meeting held and initial construction documents (TMP, EMP etc.) provided by the contractor

Planned progress

Physical construction to start this month

Actions and decisions

N/A

Stakeholder relationships

Communication put out in the local paper in March giving an update on this project
Letter drop planned to effected residents

Programme Commentary

There is a 1 month delay in the construction programme due to contractors resource availability.

Project Conditions

Risk and Issues

Low

Moderate

High

Typical construction risks as per the risk register in the contract

Scope

No Scope Change

10% Deviation

More than 10% Deviation

Schedule

On Track

10% Deviation

More than 10% Deviation

1 month delay in the construction programme due to contractors resource availability.

Cost

On Budget

10% Deviation

More than 10%

Resources

Fully resourced

Partially resourced

Significantly under resourced

Stakeholder and Communications

On track

Partially on track

Off track

Contractor to put out a letter drop in April to affected residents

Project Summary

Month shown: April 2021

Current Project

Water Main Renewals - Twizel
Package 2 (more complex mains)

Current Phase

Tender

Project URL

Expected Capital
Cost

\$2,000,000

Project Status

Progress in the last month ⓘ

Detailed design completed, reviewed by the MDC engineering team and updated based on review comments
Draft tender documents prepared

Planned progress ⓘ

Complete tender documents and put out to tender to the 6 pre qualified contractors

Actions and decisions ⓘ

Request for tender and tender documents reviewed and accepted to go out to tender

Stakeholder relationships ⓘ

Communication put out in the local paper in March giving an update on this project

Programme Commentary ⓘ

Slight delays in finalizing the design and tender documents

Project Conditions

Risk and Issues ⓘ

● Low

● Moderate

● High

Scope ⓘ

● No Scope Change

● 10% Deviation

● More than 10% Deviation

Schedule ⓘ

● On Track

● 10% Deviation

● More than 10% Deviation

Slight delays in finalizing the design and tender documents

Cost ⓘ

● On Budget

● 10% Deviation

● More than 10%

Cost estimate to be completed in April before being tendered

Resources ⓘ

● Fully resourced

● Partially resourced

● Significantly under resourced

Stakeholder and Communications ⓘ

● On track

● Partially on track

● Off track

Project Summary

Month shown: April 2021

Current Project

Water Main Renewals - Twizel
Package 3 (Ring mains)

Current Phase

Detailed Design

Project URL

Expected Capital
Cost

\$2,000,000

Project Status

Progress in the last month

No progress as this is the last priority project and is unlikely to be within the budget to complete

Planned progress

Actions and decisions

Stakeholder relationships

Programme Commentary

Project Conditions

Risk and Issues

Low

Moderate

High

Scope

No Scope Change

10% Deviation

More than 10% Deviation

Schedule

On Track

10% Deviation

More than 10% Deviation

Cost

On Budget

10% Deviation

More than 10%

Resources

Fully resourced

Partially resourced

Significantly under resourced

Stakeholder and Communications

On track

Partially on track

Off track

Project Summary

Month shown: April 2021

Current Project

Water Main Renewals - Fairlie

Current Phase

Detailed Design

Expected Capital
Cost

\$1,000,000

Project URL

Project Status

Progress in the last month

Draft detailed design documents completed and with the MDC engineering team for review

Planned progress

Updated detailed design based on review comments and prepare tender documents
Complete request for tender and prepare to put out to tender to the six pre qualified contractors

Actions and decisions

MDC to complete review of the detailed design

Stakeholder relationships

Programme Commentary

Project Conditions

Risk and Issues

Low

Moderate

High

Scope

No Scope Change

10% Deviation

More than 10% Deviation

Schedule

On Track

10% Deviation

More than 10% Deviation

Some minor delays in design

Cost

On Budget

10% Deviation

More than 10%

Detailed design cost estimate to be completed in April however it is expected that the current budget is insufficient due to the requirements in working within the NZTA corridor and re direction of the mains to reduce clashes with the protected peace avenue trees.

Resources

Fully resourced

Partially resourced

Significantly under resourced

Stakeholder and Communications

On track

Partially on track

Off track

Project Summary

Month shown: April 2021

Current Project

Water Main Renewals - Tekapo

Current Phase

Detailed Design

Project URL

Expected Capital
Cost

\$300,000

Project Status

Progress in the last month

Draft detailed design documents completed and with the MDC engineering team for review

Planned progress

Updated detailed design based on review comments and prepare tender documents

Complete request for tender and prepare to put out to tender to the six pre qualified contractors

Actions and decisions

MDC to complete review of the detailed design

Stakeholder relationships

Programme Commentary

Project Conditions

Risk and Issues

Low

Moderate

High

Tekapo roading works in the same location as the water main renewal

Scope

No Scope Change

10% Deviation

More than 10% Deviation

Schedule

On Track

10% Deviation

More than 10% Deviation

Some minor delays in completing detailed design

Cost

On Budget

10% Deviation

More than 10%

Resources

Fully resourced

Partially resourced

Significantly under resourced

Stakeholder and Communications

On track

Partially on track

Off track

Project Summary

Month shown: April 2021

Current Project

Shared Use Path

Current Phase

Construction

Expected Capital
Cost

\$1,000,000

Project URL

Project Status

Progress in the last month ⁱ

Four direct appoint contracts (\$100k each) to local contractors awarded and construction underway
Main contract tendered and awarded to Downer NZ Ltd. Contract award meeting completed.

Planned progress ⁱ

Construction of the shared use paths

Actions and decisions ⁱStakeholder relationships ⁱ

Direct appointing local contractors meeting the requirements of providing benefit to the local community
Communication put out in the local paper in March giving an update on this project

Programme Commentary ⁱ

On track to be completed by June 30th

Project Conditions

Risk and Issues ⁱ

● Low

● Moderate

● High

Typical construction risks as per the risk register in the contracts

Scope ⁱ

● No Scope Change

● 10% Deviation

● More than 10% Deviation

Schedule ⁱ

● On Track

● 10% Deviation

● More than 10% Deviation

Cost ⁱ

● On Budget

● 10% Deviation

● More than 10%

Resources ⁱ

● Fully resourced

● Partially resourced

● Significantly under resourced

Stakeholder and Communications ⁱ

● On track

● Partially on track

● Off track

Contractors preparing letter drops to affected residents for each contract