



**ORDINARY MEETING OF THE
WATER RACE SUB-COMMITTEE
TO BE HELD IN THE
EXECUTIVE MEETING ROOM
ON MONDAY 11 DECEMBER 2017
COMMENCING AT 1.30PM**

If you are unable to attend the meeting please advise the Secretary
maree.pycroft@selwyn.govt.nz or phone (03) 347-2891

AGENDA
OF THE ORDINARY MEETING OF THE
WATER RACE SUB-COMMITTEE
EXECUTIVE MEETING ROOM
ON MONDAY 11 DECEMBER 2017 – 1.30pm

Committee Members in Attendance

1. Nigel Barnett (Chairman)
2. Cr Pat McEvedy
3. Cr Craig Watson (Selwyn Central)
4. Mike Chaffey (Ellesmere)
5. Harry Schat (Ellesmere)
6. John Clarkson (Malvern)
7. John Shanks (Paparua)
8. Martin Le Comte (Paparua Water Race Irrigation User Group)
9. Tim Morris (Paparua)
10. Clayton Fairbairn
11. Mike Mora (Christchurch City Council - representing Waimairi and Wigram Wards)
12. Kerry Pauling (Malvern Community Board representative)

In Attendance

13. Murray England, Strategic Manager Water Services
14. Daniel Meehan, Surface Water Operations Engineer
15. Maree Pycroft, Secretary
16. Creagh Robinson, Accountant

1. APOLOGIES

2. PUBLIC FORUM

3. CONFIRMATION OF MINUTES

4. CORRESPONDENCE

Letter from Riverbank Farming Ltd and Peter Abrahamson, Elmhurst Road re-directing of the water race.

5. MATTERS ARISING

5.1 Hawkins Water Race Closure

The Hawkins Water Race has been diverted around the boundary of the farm in such a way as to allow continued flow to downstream water race users. This allows the immediate use of new pivots. CPW are preparing a cost estimate to provide piped water to the downstream land owners, this will allow the Hawkins race to be potentially closed sometime in the future.

5.2 Synlait Tree Removal

(Daniel Meehan, Memo from Surface Water Operations Engineer)

5.3 Yaldhurst Village Development - Storm Water Discharge Sub Division – CCC

This matter is ongoing

5.4 Central Plains Water Direct Deed – Sheffield Water Co-operation Agreement

The direct deed will be presented to Council on the 13 December 2017 for approval.

6. FINANCIAL

6.1 Finance Report to 31 October 2017

6.2 Items of Unplanned Expenditure over \$5,000

(Daniel Meehan, Surface Water Operations Engineer)

7. WATER SERVICES REPORT

7.1 Proposed Water Race Closures to Proceed to Public Consultation

(Daniel Meehan, Report from Surface Water Operations Engineer)

7.2 Proposed Water Race Closures Approval – Post Public Consultation

(Daniel Meehan, Report from Surface Water Operations Engineer)

7.3 Fish Screen Project Update

(Daniel Meehan, Memo from Surface Water Operations Engineer)

7.4 2018-28 Long Term Plan

Committee members are encouraged to consider and discuss the key issues and opportunities which should be consulted on as part of the 2018-28 Long Term Plan. The Asset Manager Water Services will lead the committee through this discussion.

7.5 Workshop Outcomes

At the 30th October Workshop with the water race and rating committee, the committee agreed to recommend to Council to consult on a district rate for water races. The proposed new rating structure provides three standardised rating factors which replace the existing 10 rating factors currently used.

The new proposed structure is provided in the table below.

| Rate Applies | Rate Type (incl. GST) | Start Value | %Change |
|--------------|--------------------------|-------------|---------|
| User | Annual charge revenue | \$300 | 6.0% |
| User | Per Hectare revenue | \$17 | 6.0% |
| Public | Public good rate revenue | \$20 | 10.0% |

8. HEALTH & SAFETY REPORT

9. GENERAL BUSINESS

9.1 2018 Meeting Schedule

Meetings are proposed on the following dates in 2018:

12 February
14 May
13 August
12 November



MINUTES
OF THE ORDINARY MEETING OF THE
WATER RACE SUB-COMMITTEE
EXECUTIVE MEETING ROOM
ON MONDAY 9 OCTOBER 2017 – 1.30pm

Committee Members in Attendance

1. Nigel Barnett (Chairman)
2. Cr Pat McEvedy
3. Cr Craig Watson (Selwyn Central)
4. Mike Chaffey (Ellesmere)
5. Harry Schat (Ellesmere)
6. John Clarkson (Malvern)
7. John Shanks (Paparua)
8. Martin Le Comte (Paparua Water Race Irrigation User Group)
9. Tim Morris (Paparua)
10. Clayton Fairbairn
11. Mike Mora (Christchurch City Council - representing Waimairi and Wigram Wards)
12. Kerry Pauling (Malvern Community Board representative)

In attendance

13. Murray England, Strategic Manager Water Services
14. Daniel Meehan, Surface Water Operations Engineer
15. Maree Pycroft, Secretary
16. Mark Odlin (Buddle Findlay)
17. Rennae Hopkins (Buddle Findlay)

1. APOLOGIES

Craig Watson
Creagh Robinson, Accountant
Kerry Pauling

Moved – Pat McEvedy / Seconded – Mike Chaffey

“That the apologies be noted.”

CARRIED

2. PUBLIC FORUM

Mrs Sue Hawkins, on behalf of Thorndale Farm, Coxs Road, Springfield)

Key points:

- 191 ha
- Thorndale Farm is a member of Central Plains Water Scheme
- There is a Storage Pond on the corner of the farm

- There is a 20ha block with house, garden and yard who do not wish to close one paddock that is leased and they do not need the water.
- Water race would be fully fenced to reduce environment impact.
- Maintenance would be at owners cost but ask if Council would consider a rates rebate
- End of race would flow into/near the Hawkins River

Thorndale Farm wish to install centre pivots to irrigate and supply trough water. Three options have been outlined to the neighbours and Selwyn District Council.

1. An option is to close off the water race and for neighbours to join the CPW stock water scheme. CPW confirm it is possible with the most likely supply from an air valve being installed where the pipe crosses Fergusons Rd.
2. Extend the Councils rural water supply to the neighbours
3. The preferred option is to relocate the water races to run the irrigators and to realign the paddocks. This would involve putting the water race down the boundary to meet up with the existing race.

Time is of the essence for Thorndale Farm to use the contractors already working on the farm to install the pipes and be ready to irrigate when needed during the dry season.

Alan Cullen on behalf of Settlor of the Torlesse View Trust and Auditing Director of Field View Farms Ltd.

1. Torlesse View Trust does not own CPW shares and Field View Farms hold a small parcel of dry shares.
2. Malvern Hills stock water scheme – no previous involvement and it was confirmed there is no capacity for further supply
3. No issue with water race being moved within the Hawkins property boundary. Mr Cullen expressed they would have issues relocating on the south side of the tree planting on the Thorndale property running the full property length.

Peter Williams, owner of a 4ha block on the corner of Ferguson Rd can obtain water the CPW valve and it would be up to Council how it is funded. Mr Williams has flood concerns and advised channels come down Coxs Rd. The race would need to remain open to take flood water.

The Chairman expressed the Water Race Sub Committee is conscious of exploring all options thoroughly and would deliberate with the Committee at the end of the meeting.

3. CONFIRMATION OF MINUTES

Moved – Mike Mora / Seconded – Pat McEvedy

“That the Selwyn District Council Water Race Sub-Committee confirm the minutes of the Ordinary Meeting held on Monday, 14 August 2017 as a true and accurate record.”

CARRIED

4. CORRESPONDENCE

4.1 Letter from William Stuart Lemon, 2 High Street, Southbridge

Fish Salvage Requirements Water Race Closure Application Valuation No.2411016200

The Sub Committee discussed fish salvage issues for the Water Race closure application.

The length of closure is approx. 3 kms involving 2 farms.
Need to understand if it was an assessment from DOC.
Consider option of student involvement for research and training.

Moved Clayton Fairbairn / Seconded John Clarkson

“That Daniel Meehan, Surface Water Engineer discuss further with DOC to understand their requirements and respond to Mr Lemon advising the matter was discussed at this meeting and determined it was necessary to have ongoing discussions due to the importance and what is deemed as necessary.”

CARRIED

4.2 Letter from Stu Blakely, Kivers Road

Moved Mike Mora / Seconded Harry Schat

“That the matter be dealt with under Item 7.2 of the Agenda - Proposed Water Race Closures to Proceed to Public Consultation.”

CARRIED

5. MATTERS ARISING

5.1 Water Race Rating Structure Workshop

- The workshop debated a broader rating approach including a district public good / environmental rate.
- There was a discussion on the possibility of ECAN taking over this asset in the future. This is due to the purpose of the asset moving towards Environmental benefit
- Funding of around \$80k per year from CCC will need to increase. The same logic applied to SDC ratepayers in terms of public good needs to be applied to CCC properties within the Paparua water race area and on charged to CCC.
- It was agreed that the Water Race Sub Committee needs to agree the strategy before approaching CCC. Part of the Paparua Scheme is within the CCC boundary and it is important that Council consult with the CCC and property owners (where appropriate).

6. FINANCIAL

6.1 Finance Report to 31 August 2017

Future rating is the main focus. This is the focus of the next Water Race Workshop.

Moved – Pat McEvedy / Seconded – Mike Mora

“That the financial report to 31 August 2017 be received for information”

CARRIED

Pat McEvedy declared a Conflict of Interest.

Daniel Meehan to review with Gareth Morgan if the clearing of self-seeded willows should have been part of the cleaning contract lump sum.

6.2 Items of Unplanned Expenditure over \$5,000
(Daniel Meehan, Surface Water Operations Engineer)

Moved – Mike Mora / Seconded – Clayton Fairbairn

'That the Water Race Sub-Committee receives the Unplanned Expenditure Report'

CARRIED

7. WATER SERVICES REPORT

7.1 Stock Water Race Fish Screens Update

Project is progressing well at Skurrs Waimak site and Lower Rakaia Sites nearly complete with onsite work will be finished in next couple of weeks. Waimak site has had ecological assessment completed of the bypass channel as request by ECAN, staff are waiting for the final report.

Glentunnel Site was damaged during rain event, major damage to the river bank at intake this will be repaired with river rock and anchor tree protection when water levels recede. Have discussed proposed redesign with the golf course and included some of their concerns / requests in design. Waiting price from contractor before committing and proceeding.

7.2 Proposed Water Race Closures to Proceed to Public Consultation
(Daniel Meehan, Report from Surface Water Operations Engineer)

Moved Mike Mora / Seconded Harry Schat

That the Sub-Committee:

- a) Agree to proceed to public consultation for the proposed closure of 6 lengths of water race totalling approximately 10.9km in the Malvern water race scheme and 6.6km in the Ellesmere water race scheme.*
- b) Advise the Council that the proposed closures are considered to be of low significance not impacting the intended level of service provision for the water races.*
- c) Consider any submissions to the proposed closures raised during public consultation, and provide an opportunity to those persons wishing to be heard.*
- d) Recommend race closures to Council following the consultative process.*

Hamish Maginness – Heslerton / Tramway Road

These closures are not related to CPW. There has been a series of service requests in response to having no service. 100% supported from neighbouring properties.

Approved to proceed to consultation.

Tom Groundwater – Leeston Dunsandel Road

100% Support from properties, This race adjacent to race with high ecological values. Likely to have high values.

Approved to proceed to consultation

Peter Schnell, Horndon St, Darfield

100% Support from properties, Low ecological value.

Approved to proceed to consultation

Potential to close race further upstream

Closing at Bolton Rd intersection approved subject to receiving 100% agreement

Lindsay Hewitt, Pitts Road

100% Support Received

1 property affected

Race causes operator issues with flooding, closing will help operations with this.

Approved to proceed to consultation

Stuart Blakely, Kivers Rd

Mr Blakely's letter tabled under Item 4 – Correspondence refers.

The race regularly overflows and floods a section of his property

Land owner downstream is affected

Approved to proceed to consultation subject to receiving 100% agreement

Ian Syme, Boultons Road

100% Agreed for closure downstream of applicant

Approved to proceed to consultation

1 more signature required to close from Tramway Rd Off take

Approved to proceed to consultation subject to receiving 100% agreement

The cumulative impact of closures and reduction in rates was noted. It was also noted many of the closures have minimal impact on operational costs.

CARRIED

7.3 Proposed Water Race Closures Approval – Post Public Consultation

(Daniel Meehan, Report from Surface Water Operations Engineer)

Moved Pat McEvedy / Seconded Mike Mora

That the Sub Committee

Recommend to Council the closure of 5 lengths of water race totalling approximately 7.4km in the Malvern scheme.

CARRIED

7.4 Water Race Bylaw 2008 Review

(Murray England, Water Strategic Manager)

Sub Committee Members discussed the Water Race Bylaw noting:

- The Bylaw sets out the rules that apply to the water race network.
- Mark Odlin, Buddle Findlay provided the legal view.
- Consultation with Ngai Tahu is required prior to By Law going to Council.
- Council does not approve new connections to the water races for domestic use.
- Council is transitioning out of the position of the primary purpose of using the water for domestic use. The proposed bylaw balances Council's liability and people who use it.
- No obligation in bylaw to issue consent for domestic use - Council can impose a number of conditions and obligations to carry out all necessary treatment requirements etc.

The Water Race Sub Committee supported the Bylaw to go to Council

Moved Pat McEvedy / Seconded Harry Schat

“That the Bylaw is still the most appropriate way to deal with water races as per Section 155(1) of the LGA.

“That the Bylaw is still the most appropriate form to deal with water races as per Section 155(2)(a) of the LGA but requires review to ensure it is still current.”

CARRIED

7.5 2018-28 Long Term Plan

Committee members are encouraged to consider and discuss the key issues and opportunities which should be consulted on as part of the 2018-28 Long Term Plan.

7.6 Workshop

The Asset Manager Water Services proposed that a second workshop be run to further refine the proposal for a new Water Race rating structure. The 30th October 2017 is proposed. Notes from the last workshop along with an Agenda for the new workshop will be provided by 24th October.

Martin le Comte expressed his concern that the agenda for 30th is not as broad as he hoped in terms of ECAN and DOC involvement in the future.

The importance of resolving the Council rating structure first was agreed. This is the focus of the next meeting. The other matters will be progressed.

8. HEALTH & SAFETY REPORT

No Incidents to report.

Priority One site improvements progressing with most structures being manufactured, site works and footing is scheduled for October and November.

Safety Concerns raised for Kowai Air Shaft by Sicon – Waiting pricing and solution for repair.

9. GENERAL BUSINESS

9.1 Response to Public Forum

- Conditions in the Sheffield agreement require CPW to provide stock water where required to no-shareholders within the scheme boundary.
- The simplest short term solution would be for the Hawkins to divert the water race to allow the operation of the centre pivots while providing water to the downstream property owners.
- Council will discuss with CPW options to connect downstream properties to the CPW network while ensuring that costs are reasonable and affordable.
- Council will facilitate an outcome that is acceptable by all parties, this may be a staged approach.
- Daniel Meehan to communicate the course of action to all parties as quickly as possible.

9.2 Yaldhurst Road Sub Division - CCC

Mike Mora raised concerns about the stormwater discharge consent for this subdivision which overflows into the water race. Murray England to investigate further with Mike Mora and Jo Carlton.

10. PUBLIC EXCLUDED

Moved Cr Barnett / Seconded Cr McEvedy

“That the public be excluded from discussions under Section 48(1) of the Local Government Official Information and Meetings Act 1987 due to contractual sensitivity.”

CARRIED

Moved Pat McEvedy / Clayton Fairbairn

“That the meeting move back into public forum”

CARRIED

11. Central Plains Water Direct Deed – Sheffield Water Co-operation Agreement

Council signed an arrangement with CPW to integrate water abstracted from the Kowai River through the stock water race intake with CPW Sheffield irrigation scheme. CPW would use that water for shareholders and Council water race users (where required).

CPWL's lenders have requested that Council sign a direct deed in relation to the Sheffield Water Co-operation Agreement as part of the security arrangements that support CPWLs financing.

Buddle Findlay have negotiated the form of the deed with CPWL and its lenders and tabled the deed for approval to move to Council to sign.

Mark Odlin, Buddle Findlay outlined the key points of the Deed of Grant explaining the deed consents to CPWL granting security over all of CPWL's rights under the Agreement in favour of the Security Trustee.

Moved Mike Mora / Mike Chaffey

“That the Water Race Sub Committee approve that the Central Plains Water Project – Sheffield Direct Deed be tabled at a Council meeting with a summary from Buddle Findlay outlining the purpose of the deed and recommending Council accept the Deed.”

CARRIED

Next Meeting

The next Water Race Sub Committee meeting is on 11 December 2017 commencing 1.30pm.

The meeting closed at 4.05pm

Signed as a true and accurate record of the meeting.

Chairperson

Dated

The Selwyn Water Race Committee
Selwyn District Council

2nd Nov 2017

Dear Sirs,

With the advent of Central Plains Water Scheme, our farm and the neighbouring farm above us, belonging to Peter Abrahamson, no longer have use for the water races, as is the case for the majority of farmers. However with one neighbour – E Kars still wishing to receive race water, we are requesting to have the water race redirected.

One race currently dead ends in our property and it would be more efficient to combine the two races through our property and deliver them to a point on the Kars farm where he can redistribute the water to where he requires it. The water races cause us both much inconvenience due to several pivot irrigation crossings having to be formed but we are prepared to do this as a last resort should you deem them a necessity.

The race that dead ends (see attached map) at no point flows through Kars property- he has two small access points through our boundary fence.

We wish to present our case in a public forum.

Kind regards,



Gareth and Felicity Cox
Hamish and Janet Redfern
(Directors: Riverbank Farming Limited)



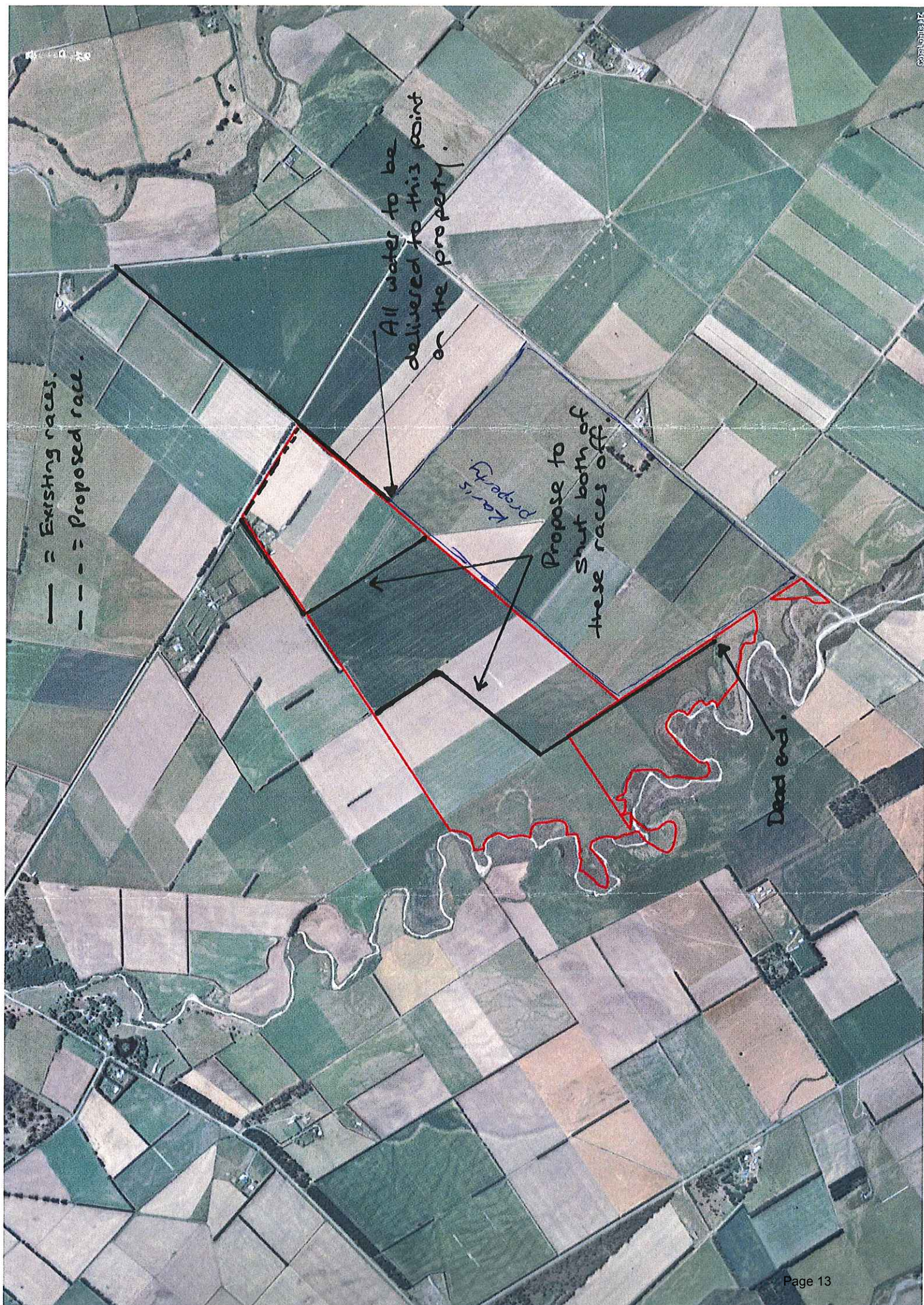
Peter Abrahamson
Elmhurst Road

Contact:

garethcox82@gmail.com or 0212509714



171108002



— = Existing races.
--- = Proposed race.

All water to be delivered to this point on the property.

Propose to shut both of these races off.

Dead end.

Kear's property

MEMORANDUM

To: Water Race Sub-Committee
From: Daniel Meehan
Date: 27 November 2017
Subject: Synlait Tree Removal Report

The purpose of this Memo is to report on the removal work Council engaged Sicon to do. The work included clearing trees from the Main water race through Synlait Property in Ellesmere Stock Water Race Scheme.

Background

There is a section of Water race which runs through Synlait Farm near the Synlait factory. Willows Trees had grown in the race through this section and have now got to the point where they are constricting flow and causing supply issues to the races downstream. The willows are self-seeded and have grown over a number of years.

Synlait had applied for and been granted a consent to plant out and landscape sections of property including adjacent to this water race. Consent had been given for this planting by previous engineers, which includes new shelterbelt setback 2.5m from water race. This also included removing sections of Pine shelterbelt which was encroaching along race, some of this work had been done but did not include any willows.

It is noted that access now is tight along this section of race with new plantings and Sicon is to keep an eye on this section of race to ensure access is not lost and plants encroach more the agreed setback.

Responsibility

Sicon made council aware of issues keeping supply to downstream races due to constrictions through this section of race. The trees had grown to a size where the race could no longer be cleaned, also adding to the constrictions. Synlait were approached regarding the trees but it is not their responsibility as these are self-seeded and have grown in the race not their land. Sicon Limited have a maintenance contract with Council and have held previous contracts which cover cleaning the race and removing pest plants (including spraying small and emerging willows). It was though this contract the trees grew. These trees have grown beyond this size and hence this work would not be covered under the lump sum portion of the new contract C1241.

Mulching

Council had asked Sicon to price removing the trees along this section of race to remove restrictions. Mulching had come back as the cheapest method of removal and also eliminated any need to find area to create burnpiles etc. Methodology was for a mulching head on a hydraulic excavator to mulch trees, follow by a cleaning of race to remove floating debris left

behind. A debris fence was set up to prevent sticks etc floating downstream. The section of race was cleared for a price of \$12,000.00+Sicon Overheads, during October. Reports from Water Race operators now that job is complete and race opened up is that they have the ability to push more water down the race and improve supply downstream. Sicon will monitoring this race, and ongoing spraying will be required to spray new willows as they emerge.

Photos



(Photo 1 – Race before Clearing)



(Photo 2 – Race after Mulching and Cleaning)

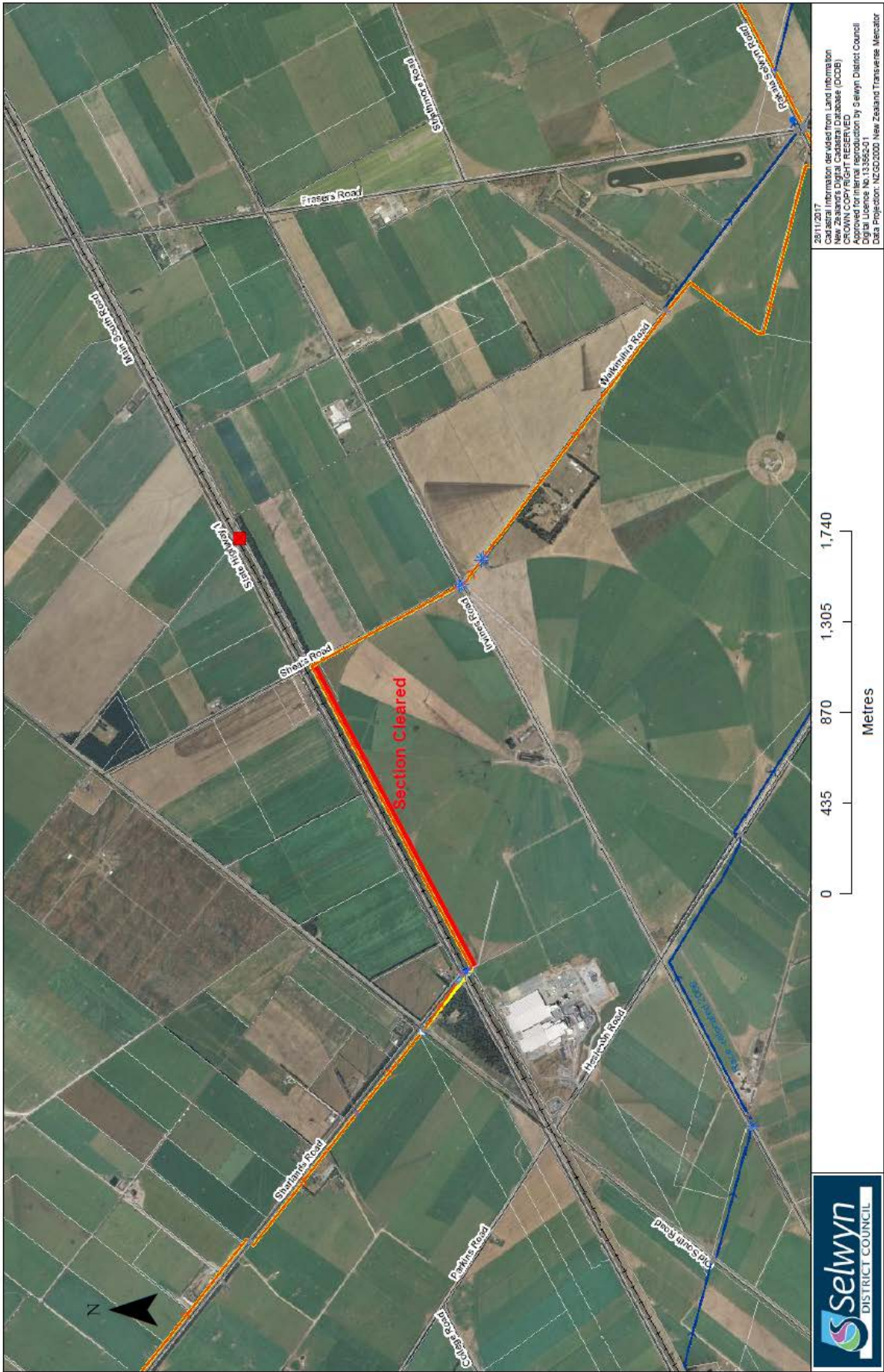
Photos



(Photo 3 – Mulching head on Digger – Note setback of planted trees)

Map of Race

Synlait Water Race



PUBLIC REPORT

TO: Chief Executive

FOR: Ellesmere, Malvern and Paparua water race scheme
Sub-Committee – 11 December 2017

FROM: Management Accountant

DATE: 23 November 2017

SUBJECT: **Financial Report to 31 October 2017**

1. RECOMMENDATION

That the financial report for Ellesmere, Malvern and Paparua water race scheme to 31 October 2017 be received for information.

2. PURPOSE

That the financial report to 31 October 2017 be received for information.

3. SIGNIFICANCE ASSESSMENT/COMPLIANCE STATEMENT

Not applicable.

4. HISTORY/BACKGROUND

Attached is the financial report for Ellesmere, Malvern and Paparua water race scheme to 31 October 2017

The accounts represent the financial operating position of the Ellesmere, Malvern and Paparua water race schemes for the period ended 31 October 2017.

COMMENTARY

A Summary of the accounts as at the 31 October 2017 follows.

Ellesmere Water Race

Operational Position Summary

| Revenue | YTD Actual \$ | YTD Budget \$ | Variance | 2016/2017 Actual |
|------------------------------------|---------------------|---------------------|----------------|---------------------|
| Targeted Rate | 147,121 | 149,992 | (2,871) | 391,420 |
| Ellesmere Unit charge | 4,118 | 4,120 | (2) | 11,236 |
| Irrigation Charges | 53,932 | 55,000 | (1,068) | 110,000 |
| Total Revenue | 205,171 | 209,112 | (3,941) | 512,656 |
| Expenditure | | | | |
| Total Operational Expenditure | 189,168 | 205,789 | 16,621 | 493,565 |
| Total Support | 32,600 | 32,600 | 0 | 92,236 |
| Total Operational Projects | 1,359 | 8,452 | 7,093 | 119 |
| Total Renewals | 3,738 | 0 | (3,738) | 0 |
| Total Expenditure | 226,865 | 246,841 | 19,976 | 585,920 |
| Operating Surplus/(Deficit) | (21,694) | (37,729) | 16,035 | (73,264) |

Operating Position Summary

| | YTD Actual \$ | YTD Budget \$ | Variance |
|---|---------------------|---------------------|-----------------|
| Opening Account Balance | 230,187 | 210,187 | 20,000 |
| Plus Operating Surplus/(Deficit) | (21,694) | (37,729) | 16,035 |
| Plus Prior year Projects Carried Forward | 0 | 20,000 | (20,000) |
| Less Capital Projects | (392,347) | (384,200) | (8,147) |
| Net Reserves Transfers | 3,738 | 0 | 3,738 |
| Closing Account Balance | (180,116) | (191,742) | 11,626 |

Special Funds Account - Renewals

| | YTD Actual \$ | YTD Budget \$ | Variance |
|---------------------------------|---------------------|---------------------|----------------|
| Opening Account Balance | 86,014 | 86,014 | 0 |
| Plus Transfers in | 0 | 0 | 0 |
| Plus Interest | 0 | 0 | 0 |
| Less Funding of Renewals | (3,738) | 0 | (3,738) |
| Closing Account Balance | 82,276 | 86,014 | (3,738) |

Year to Date Commentary

Operations to the 31 October 2017 resulted in a net operating deficit of (\$21,694) against a budgeted deficit for the same period of (\$37,729).

Revenue

Total revenue to the 31 October 2017 is marginally unfavourable to budget by (\$3,941).

Operational Expenditure

Operating expenditure to the 31 October 2017 is favourable to budget by \$16,621.

Maintenance, Infrastructure agreement and CPW Ltd transition costs are the main contributors to the favourable variance – total \$14,948.

Project expenditure to the 31 October 2017 totals \$1,359 against a budget of \$8,452. Expenditure to date has been on Upper Ellesmere water race closure.

Renewal expenditure is unfavourable to budget by (\$3,735). Renewals are funded from reserves at year end and do not have an impact on the operating result.

Capital Projects

Capital expenditure to the 31 October 2017 totals \$392,347 against a budget of \$384,200. The expenditure relates to the fish screens on the lower Kowhai and is unfavourable to budget by (\$18,147).

**Malvern Area Water Race
Operational Position
Summary**

| Revenue | 2017 / 2018 YTD Actual | 2017 / 2018 YTD Budget | Variance \$ | 2016/17 Actual |
|------------------------------------|---------------------------|------------------------------|-------------------|-------------------|
| Targeted Rate | 285,968 | 286,232 | (264) | 715,067 |
| Urban Public Good | 7,824 | 7,912 | (88) | 19,263 |
| General Receipts | 0 | 0 | 0 | 14,522 |
| Malvern irrigation | 0 | 43,000 | (43,000) | 43,399 |
| Total Revenue | 293,792 | 337,144 | (43,352) | 792,251 |
| Expenditure | | | | |
| Total Operational Expenditure | 268,662 | 281,373 | 12,711 | 720,227 |
| Total Support | 36,890 | 36,888 | (2) | 104,372 |
| Total Operational Projects | 1,307 | 10,120 | 8,813 | 51,492 |
| Total Renewals | 3,738 | 0 | (3,738) | 33,973 |
| Total Expenditure | 310,597 | 328,381 | 17,784 | 910,064 |
| Operating Surplus/(Deficit) | \$(16,805) | \$8,763 | \$(25,568) | (117,813) |

Operating Position Summary

| | 2017 / 2018 YTD Actual | 2017 / 2018 YTD Budget | Variance \$ |
|--|---------------------------|------------------------------|-----------------|
| Opening Account Balance | (1,070,286) | (1,889,794) | 819,508 |
| Plus Operating Surplus/(Deficit) | (16,805) | 8,763 | (25,568) |
| Plus Prior year Projects Carried Forward | 0 | 819,508 | (819,508) |
| Less Capital Projects | (514,778) | (436,983) | (77,795) |
| Net Reserves Transfers | 3,738 | 0 | 3,738 |
| Closing Account Balance | \$(1,598,131) | (\$1,498,506) | (99,625) |

Special Funds Account - Renewals

| | 2017 / 2018 YTD Actual | 2017 / 2018 YTD Budget | Variance \$ |
|---------------------------------|---------------------------|------------------------------|----------------|
| Opening Account Balance | 378,081 | 378,081 | 0 |
| Plus Transfers in | 0 | 0 | 0 |
| Plus Interest | | | 0 |
| Less Funding of Renewals | (3,738) | 0 | (3,738) |
| Closing Account Balance | \$374,343 | \$378,081 | (3,738) |

Year to Date Commentary

Operations to the 31 October 2017 have resulted in an operating deficit of (\$16,805) against a budgeted surplus of \$8,763.

Revenue

Total revenue to the 31 October 2017 is unfavourable to budget by (\$43,352). Income from irrigation charges to users of \$43,000 (based on history) had been budgeted for. This revenue has been replaced by revenue from CPW which will not commence until 2018/19.

Operational Expenditure

Operating expenditure to the 31 October 2017 is favourable to budget by \$12,711 due to Maintenance and enhancement costs being favourable to budget by a total of \$14,595. This has been partially offset by insurance costs being unfavourable to budget by (\$4,514).

Project expenditure to the 31 October 2017 totals \$1,307 against a budget of \$10,120. Health and Safety Improvements are favourable to budget by \$5,426 and CPW Transition costs are favourable to budget by \$1,603.

Renewal expenses are unfavourable to budget by (\$3,738). Renewal costs are funded from the renewal reserve at year end and do not have an impact on the operating result.

Capital Projects

Capital Projects expenditure to the 31 October 2017 is unfavourable to budget by (\$77,795). The replacement of fish screens at the Upper Kowai, and Waimakariri Intakes account for (\$147,486) of this amount. The full year budget for these projects is \$613,395 and is funded from rates. Capital projects not yet started are Glentunnel Intake Upgrade (full year budget \$186,113), SCADA Monitoring (full year budget \$40,000) and Health and Safety Upgrades (full year budget \$50,000)

**Paparua Water Race
Operational Position
Summary**

| Revenue | YTD Actual \$ | YTD Budget \$ | Variance \$ | 2016/2017 Actual |
|------------------------------------|------------------|------------------|------------------|---------------------|
| Targeted Rate | 165,747 | 170,732 | (4,985) | 414,530 |
| Public Good Rate | 19,720 | 19,692 | 28 | 48,985 |
| Urban Public Good | 47,193 | 46,952 | 241 | 109,871 |
| CCC Share-Public Good | 35,848 | 35,848 | 0 | 71,696 |
| Irrigation Right Application | 0 | 0 | 0 | 0 |
| General Receipts | 0 | 0 | 0 | 780 |
| Dawsons Rd Water Race Upgrade | 0 | 0 | 0 | 0 |
| Irrigation Charges | 0 | 170,000 | (170,000) | 167,107 |
| Irrigation Rebate | 0 | (30,000) | 30,000 | (48,961) |
| Total Revenue | 268,508 | 413,224 | (144,716) | 764,008 |
| Expenditure | | | | |
| Total Operational Expenditure | 263,452 | 279,453 | 16,001 | 823,112 |
| Total Support | 16,300 | 16,300 | 0 | 46,118 |
| Total Operational Projects | 0 | 8,052 | 8,052 | 2,998 |
| Total Renewal Expenditure | 0 | 0 | 0 | |
| Total Expenditure | 279,752 | 303,805 | 24,053 | 872,228 |
| Operating Surplus/(Deficit) | (11,244) | 109,419 | (120,663) | (108,220) |

Operating Position Summary

| | Actual \$ | YTD Budget \$ | Variance \$ |
|---|------------------|------------------|------------------|
| Opening Account Balance | (386,067) | (404,869) | 18,802 |
| Plus Operating Surplus/(Deficit) | (11,244) | 109,419 | (120,663) |
| Plus Prior year Projects Carried Forward | 0 | 18,800 | (18,800) |
| Less Capital Projects | 0 | (10,000) | 10,000 |
| Net Reserves Transfers | 0 | 0 | 0 |
| Closing Account Balance | (397,311) | (286,650) | (110,661) |

Special Funds Account - Renewals

| | YTD Actual \$ | YTD Budget \$ | Variance |
|---------------------------------|------------------|------------------|------------|
| Opening Account Balance | 302,402 | 302,402 | 0 |
| Plus Transfers in | | | 0 |
| Plus Interest | 0 | 0 | 0 |
| Less Funding of Renewals | 0 | 0 | 0 |
| Closing Account Balance | \$302,402 | \$302,402 | \$0 |

Year to Date Commentary

Operations to the 31 October 2017 resulted in an operating deficit of (\$11,244) against a budgeted surplus for the same period of \$109,419.

Revenue

Total revenue to the 31 October 2017 is unfavourable to budget by a total of (\$144,716). This variance is due to irrigation charges to users not being completed.

Operational Expenditure

Operating expenditure to the 31 October 2017 is favourable to budget by \$16,001. Maintenance and enhancement costs are favourable to budget by \$15,477 which has been partially offset by insurance costs being unfavourable to budget by (\$1,346)

Projects

There has been no project expenditure to date.

Renewals

There has been no renewal expenditure to date.

Capital Projects

There has been no capital project expenditure as at the 31 October 2017.

5. PROPOSAL

That the interim financial report to 31 October 2017 be received for information.

6. OPTIONS

Not applicable.

7. VIEWS OF THOSE AFFECTED/CONSULTATION

a) Views of those affected

Not applicable.

b) Consultation

Not applicable.

c) Maori implications

Not applicable.

8. RELEVANT POLICY/PLANS

Not applicable.

9. COMMUNITY OUTCOMES

Not applicable.

10. NEGATIVE IMPACTS

Not applicable.

11. LEGAL IMPLICATIONS

Not applicable.

12. FUNDING IMPLICATIONS

Not applicable.

13. HAS THE INPUT/IMPACT FROM/ON OTHER DEPARTMENTS BEEN CONSIDERED?

Assets Department has been consulted in preparation of this report.

Creagh Robinson
MANAGEMENT ACCOUNTANT

ENDORSED FOR AGENDA

Greg Bell
MANAGER CORPORATE SERVICES

Financial Month is set to 10/17 and Budget AB01 is in use.

ELLESMERE WATER RACE OPER.

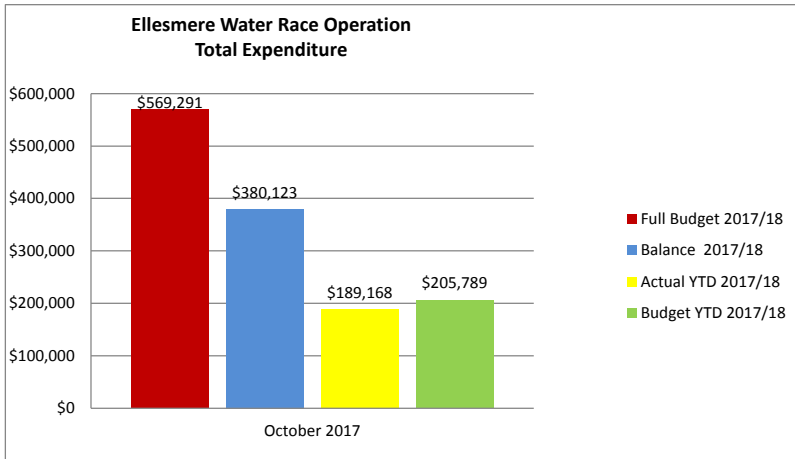
October 2017



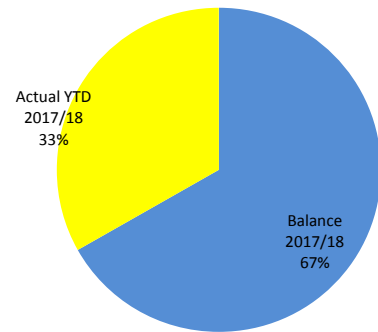
Statement of Operations

| Account | Detail | Month Actual | Month Budget | Month Variance | YTD Actual 2017/18 | Ytd Budget 2017/18 | Ytd Variance | Committed Expenditure | FYR Budget 2017/18 | Last Year 2016/17 |
|-------------------------------|-------------------------------------|--------------------|--------------------|-------------------|--------------------|--------------------|------------------|-----------------------|--------------------|-------------------|
| Opening Balance | | | | | | | | | | |
| 3921 980 01 | Ellesmere W/Rc Oper Open Blnce | - | - | - | \$230,187 | \$210,187 | \$20,000 | - | \$210,187 | \$442,379 |
| | Total Opening Balance | - | - | - | \$230,187 | \$210,187 | \$20,000 | - | \$210,187 | \$442,379 |
| Income | | | | | | | | | | |
| 3921 101 | Targeted Rate | \$36,985 | \$37,498 | (\$513) | \$147,121 | \$149,992 | (\$2,871) | - | \$449,980 | \$391,420 |
| 3921 101 01 | Ellesmere Unit charge | \$1,029 | \$1,030 | (\$1) | \$4,118 | \$4,120 | (\$2) | - | \$12,359 | \$11,236 |
| 3921 187 | Irrigation charges | \$53,932 | \$55,000 | (\$1,068) | \$53,932 | \$55,000 | (\$1,068) | - | \$110,000 | \$36,241 |
| | Total Income | \$91,946 | \$93,528 | (\$1,582) | \$205,171 | \$209,112 | (\$3,941) | - | \$572,339 | \$438,897 |
| Expenditure | | | | | | | | | | |
| 3921 410 01 | External Consultants Fee | - | \$223 | \$223 | - | \$892 | \$892 | - | \$2,673 | \$5,438 |
| 3921 541 | Insurance | - | - | - | \$8,997 | \$7,789 | (\$1,208) | - | \$7,789 | \$7,418 |
| 3921 583 101 | Maint - General S | \$30,053 | \$30,053 | - | \$120,214 | \$120,212 | (\$2) | - | \$360,641 | \$361,982 |
| 3921 583 102 | Maint - General R | \$18,286 | \$7,582 | (\$10,704) | \$29,445 | \$30,328 | \$883 | \$130 | \$90,988 | \$62,465 |
| 3921 583 282 | Maint - Removal R | - | \$1,667 | \$1,667 | - | \$6,668 | \$6,668 | - | \$20,000 | - |
| 3921 583 602 | Maint - Source/Well/Headwork R | - | - | - | - | - | - | - | - | \$138 |
| 3921 593 03 | Infrastructure Agreement Fee | \$11,392 | \$16,250 | \$4,858 | \$30,101 | \$32,500 | \$2,399 | - | \$65,000 | \$44,701 |
| 3921 598 02 | CPW transition | - | \$1,250 | \$1,250 | - | \$5,000 | \$5,000 | - | \$15,000 | \$8,024 |
| 3921 868 | ECan/Los Monitoring | - | \$500 | \$500 | \$248 | \$2,000 | \$1,752 | - | \$6,000 | \$2,518 |
| 3921 868 01 | SCADA Costs | \$11 | \$100 | \$89 | \$163 | \$400 | \$237 | - | \$1,200 | \$881 |
| | Total Expenditure | \$59,742 | \$57,625 | (\$2,117) | \$189,168 | \$205,789 | \$16,621 | \$130 | \$569,291 | \$493,565 |
| Support | | | | | | | | | | |
| 3921 890 3900 | Support Charges-WTR RACE | \$8,150 | \$8,150 | - | \$32,600 | \$32,600 | - | - | \$97,800 | \$92,236 |
| Projects | | | | | | | | | | |
| 3921 061 | Renewal of consents | - | \$446 | \$446 | - | \$1,784 | \$1,784 | - | \$5,346 | - |
| 3921 062 | Health and Safety improvements | - | \$1,667 | \$1,667 | - | \$6,668 | \$6,668 | - | \$20,000 | \$119 |
| 3921 063 | Upper Ellesmere Water Race Closure | - | - | - | \$1,359 | - | (\$1,359) | \$8,641 | - | - |
| | Total Projects | - | \$2,113 | \$2,113 | \$1,359 | \$8,452 | \$7,093 | \$8,641 | \$25,346 | \$119 |
| Transfers - Operations | | | | | | | | | | |
| 3921 970 01 | Transfer (to)/from Reserves | - | - | - | - | - | - | - | (\$23,170) | (\$53,948) |
| 3921 970 99 | Carry Forward Projects | - | - | - | - | \$20,000 | \$20,000 | - | \$20,000 | - |
| | Total Transfers - Operations | - | - | - | - | \$20,000 | \$20,000 | - | (\$3,170) | (\$53,948) |
| | Operating Surplus/(Deficit) | \$24,054 | \$25,640 | (\$1,586) | \$212,231 | \$192,458 | \$19,773 | (\$8,771) | \$86,919 | \$241,408 |
| Capital Projects | | | | | | | | | | |
| 3921 900 37 | Fish Screen - Lower Rakaia | \$296,198 | \$224,520 | (\$71,678) | \$392,347 | \$374,200 | (\$18,147) | \$24,476 | \$374,200 | \$11,222 |
| 3921 900 48 | Terricelee auto gate SCADA | - | - | - | - | - | - | - | \$75,000 | - |
| 3921 900 49 | SCADA steels RD | - | - | - | - | - | - | - | \$4,000 | - |
| 3921 900 50 | Emergency tipout for irrigators | - | - | - | - | - | - | - | \$35,000 | - |
| 3921 900 51 | Health and Safety improvements | - | \$10,000 | \$10,000 | - | \$10,000 | \$10,000 | - | \$50,000 | - |
| | Total Capital Projects | \$296,198 | \$234,520 | (\$61,678) | \$392,347 | \$384,200 | (\$8,147) | \$24,476 | \$538,200 | \$11,222 |
| Renewals | | | | | | | | | | |
| 3921 905 100 | Renewals - Linear (Pipe Valve) | - | - | - | \$3,738 | - | (\$3,738) | - | \$120,000 | - |
| 3921 905 110 | Renewals - P&E (PS TP Teley) | - | - | - | - | - | - | - | \$45,000 | - |
| | Total Renewals | - | - | - | \$3,738 | - | (\$3,738) | - | \$165,000 | - |
| | Closing balance | (\$272,144) | (\$208,880) | (\$63,264) | (\$183,854) | (\$191,742) | \$7,888 | (\$33,247) | (\$616,281) | \$230,186 |
| Special Funds | | | | | | | | | | |
| 3921 982 50 | Renewal Reserve | - | - | - | \$86,014 | \$86,014 | - | - | \$86,014 | \$86,014 |
| | Total Special Funds | - | - | - | \$86,014 | \$86,014 | - | - | \$86,014 | \$86,014 |

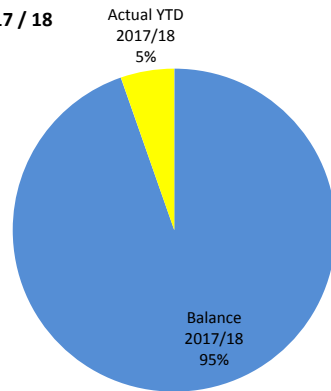
| | Full Budget 2017/18 | Balance 2017/18 | Actual YTD 2017/18 | Budget YTD 2017/18 | % spent |
|-------------------|------------------------|--------------------|-----------------------|-----------------------|---------|
| Total Expenditure | \$569,291 | \$380,123 | \$189,168 | \$205,789 | 33% |
| Total Projects | \$25,346 | \$23,987 | \$1,359 | \$8,452 | 5% |
| Capital Projects | \$538,200 | \$145,853 | \$392,347 | \$384,200 | 73% |



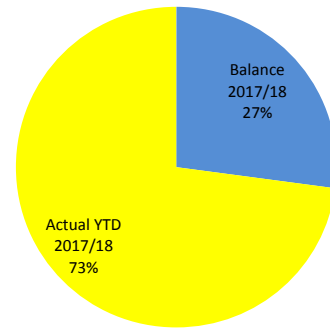
Total Expenditure Budget 2017 /18



Projects 2017 / 18



Capital Projects 2017 / 18



| ELLESMERE WATER RACE - FINANCIAL COMMENTARY FOR THE YEAR ENDED OCTOBER 2017 | | | | | |
|---|---------------------------------|------------------|------------------|------------------|--|
| Account | Expenditure | Actual | Budget | Variance | Details |
| 3921 410 01 | External Consultants Fee | \$0 | \$892 | \$892 | |
| 3921 541 | Insurance | \$8,997 | \$7,789 | (\$1,208) | Aug - Infrastructure premium |
| 3921 583 101 | Maint - General S | \$120,214 | \$120,212 | (\$2) | July - Sicon Ltd - C1241 Claim Water Service O&M |
| 3921 583 102 | Maint - General R | \$29,445 | \$30,328 | \$883 | July - Sicon Ltd - 3018.96, Aug - Sicon Ltd - 569.25, 2998.96, Sep - Sicon Ltd - 1464.87, 2998.96, Lincoln Digital - 108.33, Oct - Meridian - 200.42, Sicon Ltd - 18,085.37 |
| 3921 583 282 | Maint - Removal R | \$0 | \$6,668 | \$6,668 | |
| 3921 583 602 | Maint - Source/Well/Headwork R | \$0 | \$0 | \$0 | |
| 3921 593 03 | Infrastructure Agreement Fee | \$30,101 | \$32,500 | \$2,399 | July - Glenroy Agreement to 30 Sept - 11391.65, LRDG cost share - 7318.15, Oct - Glenroy Agreement to 31 Dec - 11391.65 |
| 3921 598 02 | CPW transition | \$0 | \$5,000 | \$5,000 | |
| 3921 868 | ECan/Los Monitoring | \$248 | \$2,000 | \$1,752 | Aug - Ecan consent monitoring |
| 3921 868 01 | SCADA Costs | \$163 | \$400 | \$237 | Jul - 2Way Airtime - 5.38, Aug - Qtech Data - 99.85, Sep - 2Way Airtime - 5.38, Qtech Data - 41.75, Oct - 2Way Airtime - 10.76 |
| | Total Expenditure | \$189,168 | \$205,789 | \$16,621 | |
| 3921 890 3900 | Support Charges-WTR RACE | \$32,600 | \$32,600 | \$0 | July - Selwyn District Council - Standard Charge |
| | Total Support | \$32,600 | \$32,600 | \$0 | |
| | Projects | | | | |
| 3921 061 | Renewal of consents | \$0 | \$1,784 | \$1,784 | |
| 3921 062 | Health and Safety improvements | \$0 | \$6,668 | \$6,668 | |
| 3921 063 | Health and Safety Improvements | \$1,359 | \$0 | (\$1,359) | Aug - Buddle Findlay - 1359.15 |
| | Total Projects | \$1,359 | \$8,452 | \$7,093 | |
| | Capital | | | | |
| 3921 900 37 | Fish Screen - Lower Rakaia | \$392,347 | \$374,200 | (\$18,147) | July - Mappazzo - 5209.00, Aug - Isacc construction - 59148.04, Orion - 3610.00, Isaacs - 11041.50, Sep - Mappazzo - 5880.00, Isacc construction - 11260.00, Oct - Mappazzo - 2640.00, James Bull - 240.00, Issaac construction - 293,318.28 |
| 3921 900 48 | Terricelee auto gate SCADA | \$0 | \$0 | \$0 | |
| 3921 900 49 | SCADA steels RD | \$0 | \$0 | \$0 | |
| 3921 900 50 | Emergency tipout for irrigators | \$0 | \$0 | \$0 | |
| 3921 900 51 | Health and Safety improvements | \$0 | \$10,000 | \$10,000 | |
| | Total Capital Projects | \$392,347 | \$384,200 | (\$8,147) | |
| | Renewals | | | | |
| 3921 905 100 | Renewals - Linear (Pipe Valve) | \$3,738 | \$0 | (\$3,738) | Aug - Sicon - 3737.50 |
| 3921 905 110 | Renewals - Linear (Pipe Valve) | \$0 | \$0 | \$0 | |
| | Total Renewals | \$3,738 | \$0 | (\$3,738) | |
| | Total of above | \$619,212 | \$631,041 | \$11,829 | |

**Ellesmere Water Race
Operational Position Summary**

| Revenue | YTD Actual \$ | YTD Budget \$ | Variance | 2016/2017 Actual |
|------------------------------------|---------------------|---------------------|----------------|---------------------|
| Targeted Rate | 147,121 | 149,992 | (2,871) | 391,420 |
| Ellesmere Unit charge | 4,118 | 4,120 | (2) | 11,236 |
| Irrigation Charges | 53,932 | 55,000 | (1,068) | 110,000 |
| Total Revenue | 205,171 | 209,112 | (3,941) | 512,656 |
| Expenditure | | | | |
| Total Operational Expenditure | 189,168 | 205,789 | 16,621 | 493,565 |
| Total Support | 32,600 | 32,600 | 0 | 92,236 |
| Total Operational Projects | 1,359 | 8,452 | 7,093 | 119 |
| Total Renewals | 3,738 | 0 | (3,738) | 0 |
| Total Expenditure | 226,865 | 246,841 | 19,976 | 585,920 |
| Operating Surplus/(Deficit) | (21,694) | (37,729) | 16,035 | (73,264) |

Operating Position Summary

| | YTD Actual \$ | YTD Budget \$ | Variance |
|---|---------------------|---------------------|-----------------|
| Opening Account Balance | 230,187 | 210,187 | 20,000 |
| Plus Operating Surplus/(Deficit) | (21,694) | (37,729) | 16,035 |
| Plus Prior year Projects Carried Forward | 0 | 20,000 | (20,000) |
| Less Capital Projects | (392,347) | (384,200) | (8,147) |
| Net Reserves Transfers | 3,738 | 0 | 3,738 |
| Closing Account Balance | (180,116) | (191,742) | 11,626 |

Special Funds Account - Renewals

| | YTD Actual \$ | YTD Budget \$ | Variance |
|---------------------------------|---------------------|---------------------|----------------|
| Opening Account Balance | 86,014 | 86,014 | 0 |
| Plus Transfers in | 0 | 0 | 0 |
| Plus Interest | 0 | 0 | 0 |
| Less Funding of Renewals | (3,738) | 0 | (3,738) |
| Closing Account Balance | 82,276 | 86,014 | (3,738) |

Financial Month is set to 10/17 and Budget AB01 is in use.

MALVERN AREA WATER RACE

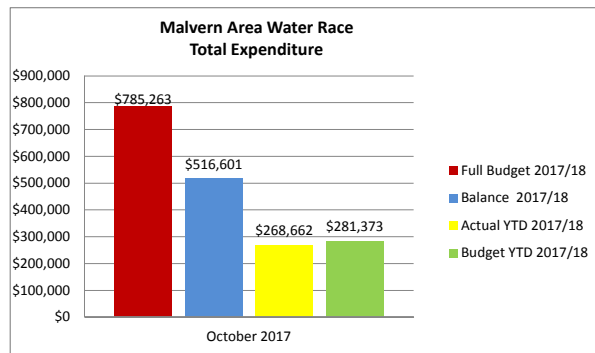
October 2017



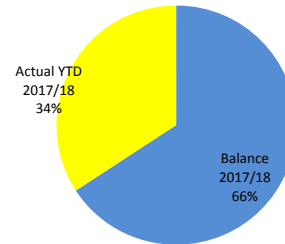
Statement of Operations

| Account | Detail | Month Actual | Month Budget | Month Variance | YTD Actual 2016/17 | Ytd Budget 2016/17 | Ytd Variance | Committed Expenditure | FYR Budget 2016/17 | Last Year 2015/16 |
|-------------------------------|-------------------------------------|--------------------|--------------------|-------------------|----------------------|----------------------|--------------------|-----------------------|----------------------|----------------------|
| Opening Balance | | | | | | | | | | |
| 3951 980 01 | Malvern W/Rc Oper Open Blnce. | - | - | - | (\$1,030,298) | (\$1,889,794) | \$859,496 | - | (\$1,889,794) | (\$182,417) |
| 3951 980 02 | Opening Balance | - | - | - | (\$5,000) | - | (\$5,000) | - | - | (\$2,500) |
| 3951 980 04 | Opening Balance | - | - | - | (\$5,000) | - | (\$5,000) | - | - | (\$2,500) |
| 3951 980 07 | Opening Balance | - | - | - | (\$3,332) | - | (\$3,332) | - | - | (\$1,666) |
| 3951 980 08 | Opening Balance | - | - | - | (\$2,000) | - | (\$2,000) | - | - | (\$1,000) |
| 3951 980 09 | APPROPRIATION ACCOUNT | - | - | - | (\$24,656) | - | (\$24,656) | - | - | (\$12,328) |
| | Total Opening Balance | - | - | - | (\$1,070,286) | (\$1,889,794) | \$819,508 | - | (\$1,889,794) | (\$202,411) |
| Income | | | | | | | | | | |
| 3951 101 | Targeted Rate | \$71,494 | \$71,558 | (\$64) | \$285,968 | \$286,232 | (\$264) | - | \$858,700 | \$715,067 |
| 3951 101 01 | Urban Public Good | \$1,955 | \$1,978 | (\$23) | \$7,824 | \$7,912 | (\$88) | - | \$23,740 | \$19,263 |
| 3951 162 | General Receipts | - | - | - | - | - | - | - | - | \$14,522 |
| 3951 162 02 | Malvern irrigation | - | - | - | - | \$43,000 | (\$43,000) | - | \$43,000 | \$43,399 |
| | Total Income | \$73,449 | \$73,536 | (\$87) | \$293,792 | \$337,144 | (\$43,352) | - | \$925,440 | \$792,251 |
| Expenditure | | | | | | | | | | |
| 3951 410 01 | External Consultants Fee | - | \$312 | \$312 | - | \$1,248 | \$1,248 | - | \$3,742 | \$2,223 |
| 3951 450 | Electricity | \$235 | - | (\$235) | \$577 | - | (\$577) | - | - | \$770 |
| 3951 540 | Rates | \$710 | \$700 | (\$10) | \$710 | \$700 | (\$10) | - | \$700 | \$675 |
| 3951 541 | Insurance | - | - | - | \$33,235 | \$28,721 | (\$4,514) | - | \$28,721 | \$27,281 |
| 3951 583 101 | Maint - General S | \$47,302 | \$47,302 | - | \$189,206 | \$189,208 | \$2 | - | \$567,619 | \$567,619 |
| 3951 583 102 | Maint - General R | \$14,236 | \$9,915 | (\$4,321) | \$43,735 | \$39,660 | (\$4,075) | \$130 | \$118,981 | \$116,130 |
| 3951 583 602 | Maint - Source/Well/Headwork R | - | - | - | - | - | - | - | - | \$30 |
| 3951 593 282 | Maint - Bank Removal R | - | \$4,167 | \$4,167 | - | \$16,668 | \$16,668 | - | \$50,000 | - |
| 3951 868 | ECan/LoS Monitoring | - | \$667 | \$667 | \$669 | \$2,668 | \$1,999 | \$450 | \$8,000 | \$3,949 |
| 3951 868 01 | Scada Costs | - | \$125 | \$125 | \$530 | \$500 | (\$30) | - | \$1,500 | \$1,550 |
| 3951 871 | Urban Enhancement | - | \$500 | \$500 | - | \$2,000 | \$2,000 | - | \$6,000 | - |
| | Total Expenditure | \$62,483 | \$63,688 | \$1,205 | \$268,662 | \$281,373 | \$12,711 | \$580 | \$785,263 | \$720,227 |
| Support | | | | | | | | | | |
| 3951 890 3900 | Support Charges-WTR RACE | \$9,222 | \$9,222 | - | \$36,890 | \$36,888 | (\$2) | - | \$110,669 | \$104,372 |
| | Total Support | \$9,222 | \$9,222 | - | \$36,890 | \$36,888 | (\$2) | - | \$110,669 | \$104,372 |
| Projects | | | | | | | | | | |
| 3951 073 | Condition inspection of water race | - | - | - | - | - | - | - | - | \$5,000 |
| 3951 074 | Health and Safety improvements | - | \$1,667 | \$1,667 | \$1,242 | \$6,668 | \$5,426 | - | \$20,000 | \$1,369 |
| 3951 077 | Renewal of consents | - | \$446 | \$446 | - | \$1,784 | \$1,784 | - | \$5,346 | - |
| 3951 096 | CPW Transition | - | \$417 | \$417 | \$65 | \$1,668 | \$1,603 | - | \$5,000 | \$45,123 |
| | Total Projects | - | \$2,530 | \$2,530 | \$1,307 | \$10,120 | \$8,813 | - | \$30,346 | \$51,492 |
| Transfers - Operations | | | | | | | | | | |
| 3951 970 01 | Transfer (to)/from Reserves | - | - | - | - | - | - | - | (\$28,140) | (\$178,767) |
| 3951 970 99 | Carry Forward Projects | - | - | - | - | \$819,508 | \$819,508 | - | \$819,508 | - |
| | Total Transfers - Operations | - | - | - | - | \$819,508 | \$819,508 | - | \$791,368 | (\$178,767) |
| | Operating Surplus/(Deficit) | \$1,744 | (\$1,904) | \$3,648 | (\$1,083,353) | (\$1,061,523) | (\$21,830) | (\$580) | (\$1,099,264) | (\$465,018) |
| Capital Projects | | | | | | | | | | |
| 3951 900 17 | Fix leakage morrisons main race | - | - | - | - | - | - | - | - | \$4,140 |
| 3951 900 66 | Fish Screen-Waimak Intake | \$234,680 | \$121,134 | (\$113,546) | \$474,215 | \$302,835 | (\$171,380) | - | \$302,835 | \$66,293 |
| 3951 900 67 | Fish Screen-Upper Kowai Intake | \$2,783 | \$62,112 | \$59,329 | \$38,218 | \$62,112 | \$23,894 | \$19,512 | \$310,560 | \$466,596 |
| 3951 900 72 | Glentunnel Intake Upgrade | - | \$15,509 | \$15,509 | - | \$62,036 | \$62,036 | \$17,739 | \$186,108 | \$34,266 |
| 3951 900 77 | SCADA monitoring Sites | \$2,345 | - | (\$2,345) | \$2,345 | - | (\$2,345) | - | \$40,000 | - |
| 3951 900 78 | H&S Upgrades | - | \$10,000 | \$10,000 | - | \$10,000 | \$10,000 | - | \$50,000 | - |
| 3951 900 79 | Flow Gauge | - | - | - | - | - | - | - | \$4,000 | - |
| | Total Capital Projects | \$239,808 | \$208,755 | (\$31,053) | \$514,778 | \$436,983 | (\$77,795) | \$37,251 | \$893,503 | \$571,295 |
| Renewals | | | | | | | | | | |
| 3951 905 08 | Waimak Ladder Upgrade | - | - | - | - | - | - | - | - | \$4,850 |
| 3951 905 100 | Renewals - Linear (Pipe Valve) | - | - | - | \$3,738 | - | (\$3,738) | - | \$120,000 | \$29,123 |
| 3951 905 110 | Renewals - P&E (PS TP Teley) | - | - | - | - | - | - | - | \$135,000 | - |
| | | - | - | - | \$3,738 | - | (\$3,738) | - | \$255,000 | \$33,973 |
| | Closing balance | (\$238,064) | (\$210,659) | (\$27,405) | (\$1,601,869) | (\$1,498,506) | (\$103,363) | (\$37,831) | (\$2,247,767) | (\$1,070,286) |
| Special Funds | | | | | | | | | | |
| 3951 982 50 | Renewal Reserve | - | - | - | \$378,081 | \$378,081 | - | - | \$378,081 | \$378,081 |
| | Total Special Funds | - | - | - | \$378,081 | \$378,081 | - | - | \$378,081 | \$378,081 |

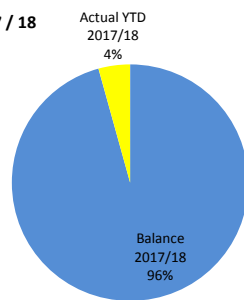
| | Full Budget 2017/18 | Balance 2017/18 | Actual YTD 2017/18 | Budget YTD 2017/18 | % spent |
|-------------------|------------------------|--------------------|-----------------------|-----------------------|---------|
| Total Expenditure | \$785,263 | \$516,601 | \$268,662 | \$281,373 | 34% |
| Total Projects | \$30,346 | \$29,039 | \$1,307 | \$10,120 | 4% |
| Capital Projects | \$893,503 | \$378,725 | \$514,778 | \$436,983 | 58% |



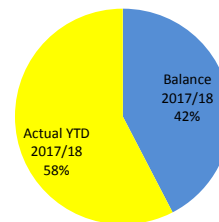
Total Expenditure 2017 / 18



Projects 2017 / 18



Capital Projects 2017 / 18



| MALVERN AREA WATER RACE - FINANCIAL COMMENTARY FOR THE YEAR ENDED OCTOBER 2017 | | | | | |
|--|------------------------------------|------------------|------------------|-------------------|---|
| Account | Expenditure | Actual | Budget | Variance | Details |
| 3951 410 01 | External Consultants Fee | \$0 | \$1,248 | \$1,248 | |
| 3951 450 | Electricity | \$577 | \$0 | (\$577) | July - Meridian - 66.40, Aug - 73.95, Sep - Meridian - 202.57, Oct - 234.51 |
| 3951 540 | Rates | \$710 | \$700 | (\$10) | Oct - Rates 710.48 |
| 3951 541 | Insurance | \$33,235 | \$28,721 | (\$4,514) | Aug - Premium 2017-18 |
| 3951 583 101 | Maint - General S | \$189,206 | \$189,208 | \$2 | July- Sicon Ltd - C1241 Claim Water Service O&M |
| 3951 583 102 | Maint - General R | \$43,735 | \$39,660 | (\$4,075) | July - Sicon Ltd - 4081.77, Aug - Sicon Ltd - 7807.77, Sep - Sicon Ltd - 17501.22, Lincoln Digital - 108.33, Oct - Sicon Ltd - 14236.17 |
| 3951 583 602 | Maint - Source/Well/Headwork R | \$0 | \$0 | \$0 | |
| 3951 593 282 | Maint - Bank Removal R | \$0 | \$16,668 | \$16,668 | |
| 3951 868 | ECan/LoS Monitoring | \$669 | \$2,668 | \$1,999 | Aug - Ecan consent monitoring - 450.00, Sep - Hydrological Links - 173.70, Ecan consent monitoring - 45.00 |
| 3951 868 01 | Scada Costs | \$530 | \$500 | (\$30) | Aug - Spark - 30.00, Qtech - 133.12, Boraman - 311.04, Sep - Qtech - 55.67 |
| 3951 871 | Urban Enhancement | \$0 | \$2,000 | \$2,000 | |
| | Total Expenditure | \$268,662 | \$281,373 | \$12,711 | |
| 3951 890 3900 | Support Charges-WTR RACE | \$36,890 | \$36,888 | (\$2) | July - Selwyn District Council - Standard Charge |
| | Total Support Charges | \$36,890 | \$36,888 | (\$2) | |
| 3951 073 | Condition inspection of water race | \$0 | \$0 | \$0 | |
| 3951 074 | Health and Safety improvements | \$1,242 | \$6,668 | \$5,426 | Sep - Sicon Ltd - 1242.00 |
| 3951 077 | Renewal of consents | \$0 | \$1,784 | \$1,784 | |
| 3951 096 | CPW Transition | \$65 | \$1,668 | \$1,603 | July - Buddle Findlay - 64.66 |
| | Total Projects | \$1,307 | \$10,120 | \$8,813 | |
| 3951 900 17 | Fix leakage morrison's main race | \$0 | \$0 | \$0 | |
| 3951 900 66 | Fish Screen-Waimak Intake | \$474,215 | \$302,835 | (\$171,380) | Aug - Isaacs - 236949.29, Orion - 2585.00, Oct - Isaacs - 234680.26 |
| 3951 900 67 | Fish Screen-Upper Kowai Intake | \$38,218 | \$62,112 | \$23,894 | Aug - Redpaths - 84.44, Isaacs - 35350.78, Oct - Nairns - 716.56, Isaacs - 2066.68 |
| 3951 900 72 | Glentunnel Intake Upgrade | \$0 | \$62,036 | \$62,036 | |
| 3951 900 77 | SCADA monitoring Sites | \$2,345 | \$0 | (\$2,345) | Oct - Nairns - 2344.78 |
| 3951 900 78 | H&S Upgrades | \$0 | \$10,000 | \$10,000 | |
| 3951 900 79 | Flow Gauge | \$0 | \$0 | \$0 | |
| | Total Capital Projects | \$514,778 | \$436,983 | (\$77,795) | |
| 3951 905 08 | Waimak Ladder Upgrade | \$0 | \$0 | \$0 | |
| 3951 905 100 | Renewals - Linear (Pipe Valve) | \$3,738 | \$0 | (\$3,738) | Aug - Sicon - 3737.50 |
| 3951 905 110 | Renewals - P&E (PS TP Teley) | \$0 | \$0 | \$0 | |
| | Total Renewals | \$3,738 | \$0 | (\$3,738) | |

**Malvern Area Water Race
Operational Position Summary**

| Revenue | 2017 / 2018 YTD Actual | 2017 / 2018 YTD Budget | Variance \$ | 2016/17 Actual |
|------------------------------------|---------------------------|---------------------------|-------------------|-------------------|
| Targeted Rate | 285,968 | 286,232 | (264) | 715,067 |
| Urban Public Good | 7,824 | 7,912 | (88) | 19,263 |
| General Receipts | 0 | 0 | 0 | 14,522 |
| Malvern irrigation | 0 | 43,000 | (43,000) | 43,399 |
| Total Revenue | 293,792 | 337,144 | (43,352) | 792,251 |
| Expenditure | | | | |
| Total Operational Expenditure | 268,662 | 281,373 | 12,711 | 720,227 |
| Total Support | 36,890 | 36,888 | (2) | 104,372 |
| Total Operational Projects | 1,307 | 10,120 | 8,813 | 51,492 |
| Total Renewals | 3,738 | 0 | (3,738) | 33,973 |
| Total Expenditure | 310,597 | 328,381 | 17,784 | 910,064 |
| Operating Surplus/(Deficit) | \$(16,805) | \$8,763 | \$(25,568) | (117,813) |

Operating Position Summary

| | 2017 / 2018 YTD Actual | 2017 / 2018 YTD Budget | Variance \$ |
|---|---------------------------|---------------------------|-----------------|
| Opening Account Balance | (1,070,286) | (1,889,794) | 819,508 |
| Plus Operating Surplus/(Deficit) | (16,805) | 8,763 | (25,568) |
| Plus Prior year Projects Carried Forward | 0 | 819,508 | (819,508) |
| Less Capital Projects | (514,778) | (436,983) | (77,795) |
| Net Reserves Transfers | 3,738 | 0 | 3,738 |
| Closing Account Balance | (\$1,598,131) | (\$1,498,506) | (99,625) |

Special Funds Account - Renewals

| | 2017 / 2018 YTD Actual | 2017 / 2018 YTD Budget | Variance \$ |
|---------------------------------|---------------------------|---------------------------|----------------|
| Opening Account Balance | 378,081 | 378,081 | 0 |
| Plus Transfers in | 0 | 0 | 0 |
| Plus Interest | | | 0 |
| Less Funding of Renewals | (3,738) | 0 | (3,738) |
| Closing Account Balance | \$374,343 | \$378,081 | (3,738) |

Financial Month is set to 10/17 and Budget AB01 is in use.

PAPARUA WATER RACE

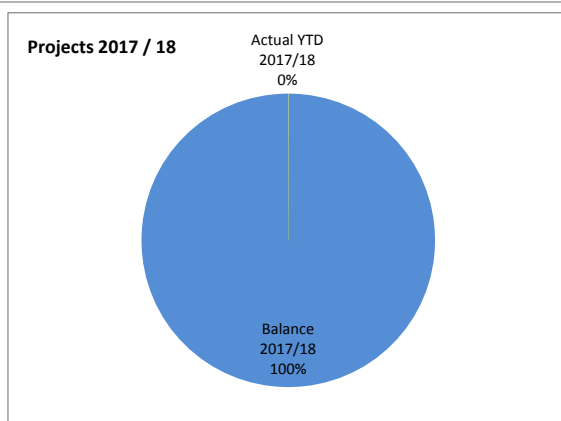
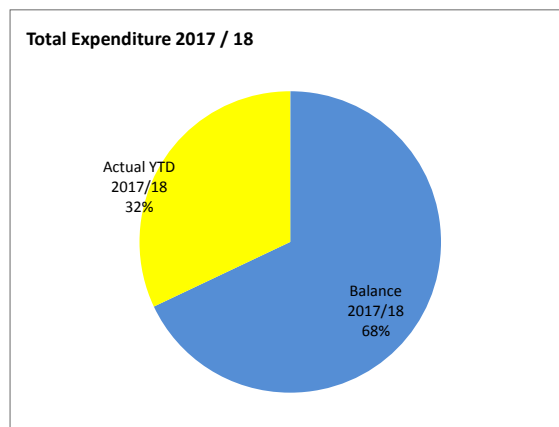
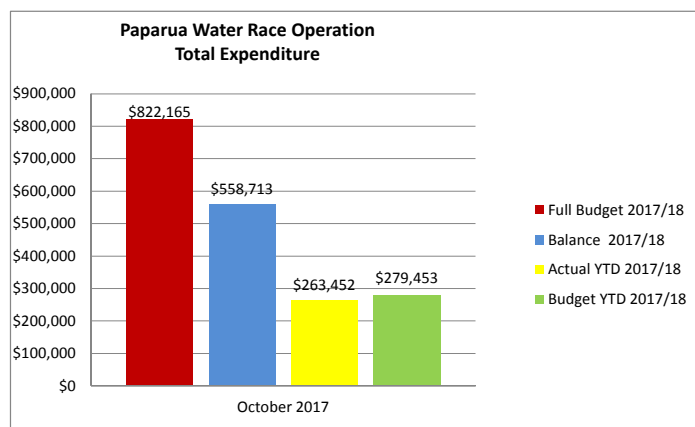
October 2017



Statement of Operations

| Account | Detail | Month Actual | Month Budget | Month Variance | YTD Actual 2016/17 | Ytd Budget 2016/17 | Ytd Variance | Committed Expenditure | FYR Budget 2016/17 | Last Year 2015/16 |
|-------------------------------|-------------------------------------|--------------|--------------|----------------|--------------------|--------------------|--------------|-----------------------|--------------------|-------------------|
| Opening Balance | | | | | | | | | | |
| 3954 980 01 | Paparua W/Rc Oper Open Blnce. | - | - | - | (\$386,067) | (\$404,869) | \$18,802 | - | (\$404,869) | (\$109,979) |
| | Total Opening Balance | - | - | - | (\$386,067) | (\$404,869) | \$18,802 | - | (\$404,869) | (\$109,979) |
| Income | | | | | | | | | | |
| 3954 101 | Targeted Rate | \$41,712 | \$42,683 | (\$971) | \$165,747 | \$170,732 | (\$4,985) | - | \$512,190 | \$414,530 |
| 3954 101 01 | Public Good Rate | \$4,929 | \$4,923 | \$6 | \$19,720 | \$19,692 | \$28 | - | \$59,071 | \$48,985 |
| 3954 101 02 | Urban Public Good | \$11,794 | \$11,738 | \$56 | \$47,193 | \$46,952 | \$241 | - | \$140,861 | \$109,871 |
| 3954 135 | CCC Share-Public Good | - | - | - | \$35,848 | \$35,848 | - | - | \$71,696 | \$71,696 |
| 3954 162 | General Receipts | - | - | - | - | - | - | - | - | \$780 |
| 3954 187 | Irrigation Charges | - | \$170,000 | (\$170,000) | - | \$170,000 | (\$170,000) | - | \$170,000 | \$167,107 |
| 3954 187 02 | Irrigation Rebate | - | (\$30,000) | \$30,000 | - | (\$30,000) | \$30,000 | - | (\$30,000) | (\$48,961) |
| | Total Income | \$58,435 | \$199,344 | (\$140,909) | \$268,508 | \$413,224 | (\$144,716) | - | \$923,818 | \$764,008 |
| Expenditure | | | | | | | | | | |
| 3954 410 011 | External Consultants Fee | - | \$312 | \$312 | - | \$1,248 | \$1,248 | - | \$3,742 | - |
| 3954 450 | Electricity | \$29 | \$50 | \$21 | \$109 | \$200 | \$91 | - | \$600 | \$291 |
| 3954 541 | Insurance | - | - | - | \$9,439 | \$8,093 | (\$1,346) | - | \$8,093 | \$7,706 |
| 3954 583 101 | Maint - General S | \$55,579 | \$55,579 | - | \$222,317 | \$222,316 | (\$1) | \$2,000 | \$666,950 | \$666,950 |
| 3954 583 102 | Maint - General R | \$4,182 | \$8,665 | \$4,483 | \$24,832 | \$34,660 | \$9,828 | \$4,534 | \$103,981 | \$121,082 |
| 3954 583 272 | Maint - Cleaning R | \$77 | - | (\$77) | \$473 | - | (\$473) | - | - | \$2,000 |
| 3954 583 602 | Maint - Source/Well/Headwork R | \$4,574 | - | (\$4,574) | \$6,213 | - | (\$6,213) | - | - | \$7,463 |
| 3954 593 282 | Maint - Bank Removal R | - | \$1,667 | \$1,667 | - | \$6,668 | \$6,668 | - | \$20,000 | - |
| 3954 868 | ECan/LoS Monitoring | - | \$125 | \$125 | - | \$500 | \$500 | - | \$1,500 | \$750 |
| 3954 868 01 | Scada Costs | \$11 | \$25 | \$14 | \$69 | \$100 | \$31 | - | \$299 | \$271 |
| 3954 871 | Urban Enhancement | - | \$1,417 | \$1,417 | - | \$5,668 | \$5,668 | - | \$17,000 | \$16,599 |
| | Total Expenditure | \$64,452 | \$67,840 | \$3,388 | \$263,452 | \$279,453 | \$16,001 | \$6,534 | \$822,165 | \$823,112 |
| Support | | | | | | | | | | |
| 3954 890 3900 | Support Charges-WTR RACE | \$4,075 | \$4,075 | - | \$16,300 | \$16,300 | - | - | \$48,900 | \$46,118 |
| | Total Support | \$4,075 | \$4,075 | - | \$16,300 | \$16,300 | - | - | \$48,900 | \$46,118 |
| Projects | | | | | | | | | | |
| 3954 082 | Health and Safety improvements | - | \$1,567 | \$1,567 | - | \$6,268 | \$6,268 | - | \$18,800 | \$2,998 |
| 3954 084 | Renewal of consents | - | \$446 | \$446 | - | \$1,784 | \$1,784 | - | \$5,346 | - |
| | Total Projects | - | \$2,013 | \$2,013 | - | \$8,052 | \$8,052 | - | \$24,146 | \$2,998 |
| Transfers - Operations | | | | | | | | | | |
| 3954 970 01 | Transfer (to)/from Reserves | - | - | - | - | - | - | - | (\$32,639) | (\$65,170) |
| 3954 970 99 | Carry Forward Projects | - | - | - | - | \$18,800 | \$18,800 | - | \$18,800 | - |
| | Total Transfers - Operations | - | - | - | - | \$18,800 | \$18,800 | - | (\$13,839) | (\$65,170) |
| | Operating Surplus/(Deficit) | (\$10,092) | \$125,416 | (\$135,508) | (\$397,311) | (\$276,650) | (\$120,661) | (\$6,534) | (\$390,101) | (\$283,369) |
| Capital Projects | | | | | | | | | | |
| 3954 900 07 | Railway Road - tipout point | - | - | - | - | - | - | - | \$15,000 | - |
| 3954 900 09 | H&S Upgrades | - | \$10,000 | \$10,000 | - | \$10,000 | \$10,000 | - | \$50,000 | - |
| | Total Capital Projects | - | \$10,000 | \$10,000 | - | \$10,000 | \$10,000 | - | \$65,000 | - |
| Renewals | | | | | | | | | | |
| 3954 905 100 | Renewals - Linear (Pipe Valve) | - | - | - | - | - | - | - | \$120,000 | \$102,700 |
| | Total Renewals | - | - | - | - | - | - | - | \$120,000 | \$102,700 |
| | Closing balance | (\$10,092) | \$115,416 | (\$125,508) | (\$397,311) | (\$286,650) | (\$110,661) | (\$6,534) | (\$575,101) | (\$386,069) |
| Special Funds | | | | | | | | | | |
| 3954 982 50 | Renewal Reserve | - | - | - | \$302,402 | \$302,402 | - | - | \$302,402 | \$302,402 |
| | Total Special Funds | - | - | - | \$302,402 | \$302,402 | - | - | \$302,402 | \$302,402 |
| | | - | - | - | - | - | - | - | - | - |

| | Full Budget 2017/18 | Balance 2017/18 | Actual YTD 2017/18 | Budget YTD 2017/18 | % spent |
|-------------------|------------------------|--------------------|-----------------------|-----------------------|---------|
| Total Expenditure | \$822,165 | \$558,713 | \$263,452 | \$279,453 | 32% |
| Projects | \$24,146 | \$24,146 | \$0 | \$8,052 | 0% |
| Capital Projects | \$65,000 | \$65,000 | \$0 | \$10,000 | |



| PAPARUA WATER RACE - FINANCIAL COMMENTARY FOR THE YEAR ENDED - OCTOBER 2017 | | | | | |
|---|--------------------------------|------------------|------------------|-----------------|---|
| Account | Expenditure | Actual | Budget | Variance | Description |
| 3954 410 011 | External Consultants Fee | \$0 | \$1,248 | \$1,248 | |
| 3954 450 | Electricity | \$109 | \$200 | \$91 | Meridian - July - 25.64, Aug - 26.37, Sep - 27.17, Oct - 29.37 |
| 3954 541 | Insurance | \$9,439 | \$8,093 | (\$1,346) | Aug - Premium 2017/18 - 9438.71 |
| 3954 583 101 | Maint - General S | \$222,317 | \$222,316 | (\$1) | July, Aug, Sep, Oct - Sicon Ltd - C1241 Claim Water Service O&M |
| 3954 583 102 | Maint - General R | \$24,832 | \$34,660 | \$9,828 | July - HCB Technologies - 674.31, Sicon Ltd - 4265.77, Aug - Sicon - 4455.52, Sep - HCB Technologies - 682.31, Sicon Ltd - 10464.05, Lincoln Digital - 108.33, Oct - James Bull - 100.00, Sicon - 4081.77 |
| 3954 583 272 | Maint - Cleaning R | \$473 | \$0 | (\$473) | Aug - Refuse Disposal - 186.99, Sep - Refuse Disposal - 208.50, Oct - 77.39 |
| 3954 583 602 | Maint - Source/Well/Headwork R | \$6,213 | \$0 | (\$6,213) | Aug - Sicon - 1638.75, Oct - 4574.17 |
| 3954 593 282 | Maint - Bank Removal R | \$0 | \$6,668 | \$6,668 | |
| 3954 868 | ECan/LoS Monitoring | \$0 | \$500 | \$500 | |
| 3954 868 01 | Scada Costs | \$69 | \$100 | \$31 | July - 2way Airtime - 5.28, Aug - Qtech Data - 33.28, Sep - 2way Airtime - 5.38, Qtech Data - 13.92, Oct - 2way Airtime - 10.76 |
| 3954 871 | Urban Enhancement | \$0 | \$5,668 | \$5,668 | |
| | Total Expenditure | \$263,452 | \$279,453 | \$16,001 | |
| 3954 890 3900 | Support Charges-WTR RACE | \$16,300 | \$16,300 | \$0 | July, Aug, Sep, Oct - Selwyn District Council - Standard Charge |
| | Total Support | \$16,300 | \$16,300 | \$0 | |
| Projects | | | | | |
| 3954 082 | Health and Safety improvements | \$0 | \$6,268 | \$6,268 | |
| 3954 084 | Renewal of consents | \$0 | \$1,784 | \$1,784 | |
| | Total Projects | \$0 | \$8,052 | \$8,052 | |
| Capital Projects | | | | | |
| 3954 900 07 | Railway Road - tipout point | \$0 | \$0 | \$0 | |
| 3954 900 07 | H&S Upgrades | \$0 | \$10,000 | \$10,000 | |
| | Total Capital Projects | \$0 | \$10,000 | \$10,000 | |
| Renewals | | | | | |
| 3954 905 100 | Renewals - Linear (Pipe Valve) | \$0 | \$0 | \$0 | |
| | Total Renewals | \$0 | \$0 | \$0 | |

Paparua Water Race
Operational Position Summary

| Revenue | YTD Actual \$ | YTD Budget \$ | Variance \$ | 2016/2017 Actual |
|------------------------------------|------------------|------------------|------------------|---------------------|
| Targeted Rate | 165,747 | 170,732 | (4,985) | 414,530 |
| Public Good Rate | 19,720 | 19,692 | 28 | 48,985 |
| Urban Public Good | 47,193 | 46,952 | 241 | 109,871 |
| CCC Share-Public Good | 35,848 | 35,848 | 0 | 71,696 |
| Irrigation Right Application | 0 | 0 | 0 | 0 |
| General Receipts | 0 | 0 | 0 | 780 |
| Dawsons Rd Water Race Upgrade | 0 | 0 | 0 | 0 |
| Irrigation Charges | 0 | 170,000 | (170,000) | 167,107 |
| Irrigation Rebate | 0 | (30,000) | 30,000 | (48,961) |
| Total Revenue | 268,508 | 413,224 | (144,716) | 764,008 |
| Expenditure | | | | |
| Total Operational Expenditure | 263,452 | 279,453 | 16,001 | 823,112 |
| Total Support | 16,300 | 16,300 | 0 | 46,118 |
| Total Operational Projects | 0 | 8,052 | 8,052 | 2,998 |
| Total Renewal Expenditure | 0 | 0 | 0 | |
| Total Expenditure | 279,752 | 303,805 | 24,053 | 872,228 |
| Operating Surplus/(Deficit) | (11,244) | 109,419 | (120,663) | (108,220) |

Operating Position Summary

| | Actual \$ | YTD Budget \$ | Variance \$ |
|---|------------------|------------------|------------------|
| Opening Account Balance | (386,067) | (404,869) | 18,802 |
| Plus Operating Surplus/(Deficit) | (11,244) | 109,419 | (120,663) |
| Plus Prior year Projects Carried Forward | 0 | 18,800 | (18,800) |
| Less Capital Projects | 0 | (10,000) | 10,000 |
| Net Reserves Transfers | 0 | 0 | 0 |
| Closing Account Balance | (397,311) | (286,650) | (110,661) |

Special Funds Account - Renewals

| | YTD Actual \$ | YTD Budget \$ | Variance |
|---------------------------------|------------------|------------------|------------|
| Opening Account Balance | 302,402 | 302,402 | 0 |
| Plus Transfers in | | | 0 |
| Plus Interest | 0 | 0 | 0 |
| Less Funding of Renewals | 0 | 0 | 0 |
| Closing Account Balance | \$302,402 | \$302,402 | \$0 |

TO: Asset Manager, Water Services

FOR: Water Race Sub Committee Meeting – 11 December 2017.

FROM: Daniel Meehan – Surface Water Operations Engineer

DATE: 27 November 2017

SUBJECT: Items Of Unplanned Expenditure Over \$5,000

1. RECOMMENDATION

- 1.1 That the Water Race Subcommittee receives this report. “Items Of Unplanned Expenditure Over \$5,000” for information**

2. PURPOSE

- 2.1 Provide the Water Race Subcommittee with information detailing the water race schemes and individual unplanned expenditure items over \$5,000 in October and November 2017.**

3. SIGNIFICANCE ASSESSMENT/COMPLIANCE STATEMENT

- 3.1 This report covers the period October and November 2017.**

| Activity occurring over \$5000 | | |
|--------------------------------|--------|----------|
| Scheme | Amount | Activity |
| | | |
| | | |
| | | |

- 3.2 Items of expenditure over \$5,000 committed in the next period. December 2017 and January 2018.**

| Activity planned over \$5000 | | |
|------------------------------|-------------|---|
| Scheme | Amount | Activity |
| Paparua | \$20,000.00 | (Approx. Cost) Fish Screen Bearing replacement and Gearbox refurbishment incl hiab, on and offsite transport costs. Paparua Intake. |
| Malvern | \$86,842 | Priority 1 Safety Improvements (10 locations approved) (\$70,000 Budget for this FY) |

-

ENDORSED FOR AGENDA

Daniel Meehan
Surface Water Operations Engineer

M F Washington
Asset Manager

REPORT

TO: Chief Executive

FOR: Water Race Sub Committee Meeting – 11 December 2017

FROM: Surface Waters Operations Engineer

DATE: 1 December 2017

SUBJECT: **Proposed Water Race Closures To Proceed to Public Consultation**

1. RECOMMENDATION

That the Sub-Committee:

- a) Agree to proceed to public consultation for the proposed closure of 1 length of water race totalling approximately 2.9km in the Ellesmere water race scheme.*
- b) Advise the Council that the proposed closures are considered to be of low significance not impacting the intended level of service provision for the water races.*
- c) Consider any submissions to the proposed closures raised during public consultation, and provide an opportunity to those persons wishing to be heard.*
- d) Recommend race closures to Council following the consultative process.*

2. PURPOSE

Staff seek approval from the Sub-Committee to proceed to public consultation for the following proposed closures:

Ellesmere

- 1. Closure of 2.9km of race through 2 property/owners on Feredays / Main Rakaia Road – This Closure is immediately upstream of previously approved Lill Closure, Approved in November 2016. This closure is yet to proceed as it is awaiting a fish salvage.

3. SIGNIFICANCE ASSESSMENT/COMPLIANCE STATEMENT

Explicit provision has been made in the 2015/25 LTP for water race closures¹ initiated by rate payers. The LTP has identified the following as major projects:

- Proactively progress the closure of the Haldon water race intake (within the Ellesmere Water Race Scheme) including the down gradient race network which is supplied by this intake. Targeted Stream Augmentation will possibly be taken into account with some lengths of races remaining open to convey this flow.
- Progress ratepayer initiated water race closures once approved by the Water Race Committee for closure.
- Work with Central Plains Water to develop a concept for converting the Kowai River sourced water race network (part of the Malvern Water Race Scheme) into a combined water race and irrigation network. This concept will then be used for further consultation with the community.
- Work with Environment Canterbury and key stakeholders to realise opportunities to use consented stock water for environmental enhancement including targeted stream augmentation.
- To investigate options for integration of the stock water races with Central Plains Water.

Council's Significance and Engagement Policy, reflecting section 5 of the Local Government Act, states that;

Significance should be assessed in terms of consequences for:

- The district or region
- Any persons who are likely to be particularly affected by or interested in the proposal, decision or matter
- The capacity of the local authority to perform its role, and the financial and other costs of doing so.

The Significance and Engagement Policy also sets out criteria for assessing significance which are applied in section 3.1 below.

The 2015/25 LTP identifies Water Races as a strategic asset. Strategic assets are assets or groups of assets that the local authority needs to retain to maintain its capacity to achieve or promote any outcome that is important to the current or future well being of the community.

The LTP states that the level of significance of a decision will determine the process used by the decision maker considering Council's commitment to constructive community engagement. An assessment of significance has been included below for the Committee's discussion and recommendation.

¹ LGA S 97 (2) a

3.1 Decision Making Considerations

The proposed water race closures included in this report in table 4.1 have been considered against the criteria for assessing significance from the Significance and Engagement Policy contained in the LTP 2015/25 (see page 213-214 of the LTP):

Policy and Outcomes

- The following community outcomes are considered relevant to proposed water race closures:

Table 3.1 – Community Outcomes

| Community Outcome | Level of Support |
|---|--|
| A living environment where the rural theme of Selwyn is maintained | Rural land use is changing. The proposed water race closures are being driven by the Community in line with their changing needs, therefore water race closures support this community outcome. |
| Selwyn has a strong economy which fits within and complements the environmental, social and cultural environment of the District. | Council seeks to support existing agriculture and other land based sectors. Ceasing to operate inefficient and ineffective assets that are no longer required by the Community supports the local economy. |

- Closing water races that are no longer required by the community, provides benefit to the rural communities of the District and reflects the changing needs of these communities.
- There are no known impacts on Council's capacity to undertake its statutory responsibilities.
- There are no known inconsistencies with any existing policy, plan or legislation.

Communities

- Water race closures are generally driven by the Community.
- The number of property owners affected by each closure is detailed in table 4.1. Consultation to the wider community will occur along with notification of key stakeholders include Department of Conservation, Fish and Game, Environment Canterbury, Historic Places Trust and Ngāi Tahu as required
- Affected persons are directly consulted on all water race closures. These include rated and non-rated properties that have a water race on or adjacent to their property. Where a closure has attracted 100% support from directly affected property owner, the closure is considered to be of low significance.
- Following approval by the Water Race Sub Committee, public advertisement of the proposed closures will occur.
- Council are considering the ecological impact of race closures by facilitating salvage of aquatic life where appropriate.
- It is not expected that proposed water race closures will generate wider national or international interest.

Ngāi Tahu

- The impacts on water race closures have been assessed against the Iwi Management Plan and Te Runanga O Ngāi Tahu's Freshwater Policy. These assessments are included in section 7.3 of this report.

Context and Implications

- An assessment of the options considered as alternatives to water race closure is included in section 6 of this report.
- The proposed water race closures are not expected to have any unintended consequences for community interests. The environmental, social and cultural impacts of the closures have been considered as outlined below:
 1. Cultural interests – the race closures proposed are not considered to impact the character of the District they are often on private land and exist extensively in other parts of the District.
 2. Social interests – water races on private property are not considered to provide amenity value to the wider community and their closure is therefore not considered significant. Race closures on the roadside may have some visual impact in areas with high amenity. Under Council's process, for a rate payer initiated race closure to proceed, all affected property owners (those with a race on or adjacent to their property regardless of whether they are rated for stockwater) are consulted and approval is required for closure to be progressed. Further public submissions are invited from the wider community.
 3. Economic interests – the proposed race closures will have no identifiable economic impact on the wider Selwyn District. Council will monitor the cumulative impact on rate revenue reduction. Rate reduction is discussed further in section 12.
 4. Quality of the Environment – opportunities for salvage of aquatic life will be provided in consultation with the Department of Conservation prior to any race closure. Closing ineffective and inefficient races provides environmental benefit as discussed further in section 7.
- The proposed water race closures are not considered to impact a scarce resource. The provision of water for stock can generally be provided from alternative sources.
- The proposed water race closures are considered as irreversible where they cross private property. Council do not hold easements for most water races and are unlikely to have the power to enforce reinstatement of water race channels on private property. However, stock water supply can generally be provided from other sources.
- By undertaking public consultation on the proposed water race closures, Council will establish whether the proposed closures are considered controversial.
- All water race closures will be progressed following appropriate consultation in a timely manner
- Closures that have attracted 100% support do not present uncertainty or lack of clarity for Council. Council initiated closures being progressed to

consultation with 70% support or greater attract some degree of uncertainty. Greater certainty will be obtained during the consultation period.

The proposed water race closures represent the following loss to each of the schemes:

Ellesemere

- Reduction in length of water races 0.001%
- Loss of targeted rates income 0.24%

Based on the above assessment, staff recommend that the proposed closures are considered of **low significance**. The level of significance impacts the degree of consultation undertaken on the engagement spectrum. Council takes a conservative approach to consultation.

4. HISTORY/BACKGROUND

4.1 Proposed Closures Recommended for Progression

Council has received requests for closure of the following races.

Table 4.1 – Proposed Water Race Closures Recommended for Approval to Progress to Public Consultation

| Map Ref | Scheme | Received from | Road Name | Number of affected Props/owners | Approx KM Race | Progress |
|---------|-----------|---------------|-----------------------------|---------------------------------|----------------|------------------------------|
| 1 | Ellesmere | Ian Lowery | Feredays / Main Rakaia Road | 2 | 2.9km | 100% support from properties |
| | | | TOTAL | 2 | 2.9km | |

Appended to this report are maps showing the location of the above sections of race proposed for closure.

5. PROPOSAL

Staff seek approval to proceed to public consultation for the following proposed closures once all signed agreement forms have been received:

Ellesmere

1. Closure of 2.9km of race through 2 property/owners on Feredays / Main Rakaia Road

6. OPTIONS

Where a request for water race closure is received, there are a number of potential options available to Council.

Table 6.0 – Alternative Options Considered

| Option | Details | Advantage | Disadvantage |
|--------------------------------|--|---|---|
| 1. Water race closure | Race closure with the agreement of all affected land owners (rate payers on the race or directly adjacent to the race), subject to public consultation and reasoned consideration and response to issues raised during consultation. | Objective is achieved and wishes of rate payers considered. | Loss of rating income. Ecological values of races not maintained. |
| 2. Piping of water race | Piping can be considered if downstream property owners wish to maintain supply. Piping to be funded by each landowner. Piping a water race will not maintain the ecological value of an open water race channel. | Supply to downstream property owners maintained. | Landowners responsible for maintenance of pipes with potential upstream impacts if not maintained. Higher cost to land owners. Ecological values of races not maintained. |
| 3. Race relocation | Relocation could be considered if downstream property owners wish to maintain supply for stockwater purposes. | Rating income retained. | Unlikely to achieve benefits of race closure required by land owners. Potential impacts on adjacent land owners. |

| Option | Details | Advantage | Disadvantage |
|-------------------------------|---|-----------------------------|--|
| | Costs to be met by landowners. | | Cost to land owners. |
| 4. Race retained | Do nothing races retained. | Rating income retained. | Needs of rate payers requesting closure not met. |
| 5. Onsite alternatives | On site alternatives e.g. a well, could be considered if land owners wish to retain a stockwater service. | Stockwater supply retained. | High cost to property owners for installation and on going maintenance. Ecological and other race values not retained. |

These options are alternatives to closure of an open race if a downstream landowner requires a stockwater supply to continue. Water race closures will only occur for short lengths of race (excluding whole or major part of scheme closures) if 100% support from affected land owners is obtained.

7. VIEWS OF THOSE AFFECTED/CONSULTATION

7.1 Views of those affected

The Local Government Act section 82 requires consultation with persons affected by or have an interest in a decision. They must also be provided with a reasonable opportunity to present their views to the Local Authority.

The level of significance of a proposed water race closure will inform the level of consultation undertaken. The LTP outlines an engagement spectrum which ranges from informing the community to empowering the community.

Significant closures are required to be provided for the LTP. Rate payer initiated closures have been provided for the 2015/25 LTP.

For an individual race closure to be progressed, the Council's water race closure process requires that the initiator of the water race closure obtain agreement from all affected property owners and provide Council with a 'Agreement to Close Water Race' form signed by all affected property owners.

Where a proposed closure has 100% support from affected land owners, the closure is generally considered to be of low significance therefore the inform/consult end of the engagement spectrum is considered appropriate. An affected property owner has been deemed to be those with a race on or adjacent to the property, regardless of whether the property is rated.

Once unanimous support is obtained from land owners, the closure request can proceed to public notification and the water closure request is publicly notified. If interested parties wish to present their views there will be an opportunity at the Water Race Committee meeting every quarter. Should submissions to an advertised closure be received, the hearing panel will consider the objection and its relevance to stockwater supply and pass recommendation to the Water Race Sub-Committee to consider as part of their decision making.

Where a proposed water race closure has attracted 100% support and no submissions are received, the Sub-Committee will progress the closure once approved by Council. For Council initiated closures or strategic closures, Council's process requires 70% support to be gained for proposed closures to progress to public consultation.

7.2 Interested Parties Consultation

To allow any parties with an interest in water race closures to input into the process as required by S 82 (1 (a)) of the LGA, all race closures will be publically advertised for a minimum of 2 weeks in Council Call and on the Council website. Maps of proposed water race closures will be available to view at Council or on the website. A summary of the proposed water race closures is made available on the Council website.

A letter will be sent to all directly affected property owners to notify them that the proposed closure has been approved to progress to public consultation.

Specific stakeholders identified as Department of Conservation, Fish and Game, NZFS, Historic Places Trust (specifically where structures e.g. headworks are involved) and Te Taumutu Rūnanga will be directly provided with a copy of the above advertisement.

Should any parties wish to present their views on the advertised closures, an opportunity will be provided at the Water Race Sub Committee meeting prior to approval being considered by the Committee.

Council has delegated powers to hear submissions to the Water Race Sub Committee and make recommendation on the significance of water race closures and agree closures not deemed significant.

Minutes from the Water Race Subcommittee meetings are available for public viewing on Council's website.

A public hearing will only occur if persons wish to be heard. Any objections to race closures on grounds other than stockwater supply will be considered during public hearing (if applicable) and the hearing decision confirmed by the Water Race subcommittee. Consideration will need to be given to whether objectors are stockwater rate payers and directly or indirectly affected. Should a race be retained for reasons other than stockwater supply a different rating mechanism may be required.

Once approved by the sub committee a public advert for the above listed closures will be placed.

Letters will also be sent to the following key stakeholders informing them of the proposed closures and providing a copy of the above advert.

- MKT & Te Taumutu Rūnanga
- Department of Conservation
- Fish and Game
- NZ Fire Service

7.3 Māori implications

Te Runanga O Ngāi Tahu's Freshwater Policy recognises the importance of providing a stockwater supply to communities. This principal is considered alongside a number of others which seek to protect the environment and its inhabitants. By proposing the closure of ineffective, inefficient and no longer required water race assets, Council is proposing to better balance the needs of rate payers, Iwi and the environment.

Mahaanui, The Iwi Management Plan (IMP) 2013, recognises the importance of the water race network and states that they should be managed as waterways. In support of these principals Council require that heavy stock (deer and cattle) is fenced from entering the water races and provides advice to landowners on how to provide stock access to drink without entering the channel.

In support of the principles outlined in the (IMP) Council are currently running a trial for installation of a fish screen at the Upper Kowai intake. Following successful completion of the trial, fish screens will be installed at all active intakes.

At the time of advertising closures, details of the proposed closure will be provided to Ngāi Tahu via MKT. It should be noted that in general water races requested for closure are often tail end races (lateral races) where excess water is disposed of to ground. Where a water race feeds another water course further consideration will be given to impacts on that waterway.

7.4 Ecological Considerations

The Canterbury Water, Selwyn Wahiora Zone Implementation Programme acknowledges that Council are reviewing the operation of the stockwater race network and seeking opportunities for rationalisation while managing some races for biodiversity and community values.

The Implementation Plan supports race rationalisation and recognises the importance of reliable stockwater supplies while identifying opportunities for supporting an aquatic corridor from mountains to sea via water races and creating wetlands at discharge to ground locations.

Mahaanui, the Iwi Management Plan 2013 recognises the importance of the water race network for biodiversity and habitat for native freshwater fish. Where appropriate opportunities for salvage of aquatic life and relocation will be provided to DoC and Fish and Game prior to a water race closure.

EOS Ecology undertook an assessment of sites of high ecological value within the Ellesmere and Malvern Water Race schemes in 2011. A copy of the findings of the assessment is included in Appendix B.

In a memo to Council dated 6 July 15, DoC have indicated that the level of input from DoC may need to be prioritised based on predicted distribution of threatened species and external contractors may need to be used if DoC staff cannot assist. DoC may however provide guidance to Council and Contractors on the process the suitable sites for relocation.

Where DoC staff are not available to undertake salvage of aquatic life and it is deemed necessary, consulting companies exist that are equipped to undertake electrofishing, however this may attract significant cost. The Agreement to Close Water Race form states that the benefiting property owners are liable for their share of the costs associated with the closure. To date this has been the cost of installing a soakhole at approximately \$3,000.

8. RELEVANT POLICY/PLANS

The closures included in this report are consistent with Council Policy W107 Closure of Water Races.

As stated in section 3 Water Race Closures are being done in line with Council's Significance Policy.

9. COMMUNITY OUTCOMES

The role of water races in maintaining a living environment where the rural theme of the District is maintained, has been recognised in the LTP. Providing an effective water race service and delivering levels of service is a key part of delivering community outcomes. Where a race cannot be supplied due to consent limits at the intakes or operational issues and leakage, maintaining channels that are not used or that have intermittent flow is counter to achieving this objective.

10. NEGATIVE IMPACTS

Negative impacts or effects will be considered as part of the race closure approvals process and closures will only proceed if negative effects are mitigated or minimised and affected land owners agree.

11. LEGAL IMPLICATIONS

None.

12. FUNDING IMPLICATIONS

12.1 Rating Impact

The proposed race closures detailed in this report are expected to have the following impact on rating income:

Table 12.1 – Funding Implications of Proposed Race Closures

| Ref | Scheme | Received from | Road Name | Loss of Targeted Rating Income | Percentage of Total Rating Income |
|-----|-----------|---------------|-----------------------------|--------------------------------|-----------------------------------|
| 1 | Ellesmere | Ian Lowery | Feredays / Main Rakaia Road | \$1,283.85 | |
| | | | TOTAL | \$1,283.85 | 0.24% |

The cumulative impact of closures will continue to be considered as more closure requests are received. Rates are reviewed and adjusted at each annual plan and long term plan rating review.

Cost Savings

Many of the closures to date have been short lengths of lateral water race that are maintained by the property owners. Closure of these races have minimal impact on operational costs.

12.2 Closure Costs

The cost of any rate payer requested closures will be met by the benefiting property owners.

13. HAS THE INPUT/IMPACT FROM/ON OTHER DEPARTMENTS BEEN CONSIDERED?

A copy of this report has been provided to the Corporate Services Manager as income accounts will be affected.

DANIEL MEEHAN
SURFACE WATERS OPERATIONS ENGINEER

MURRAY ENGLAND
ASSET MANAGER, WATER SERVICES

ENDORSED FOR AGENDA

MURRAY WASHINGTON, ASSET MANAGER

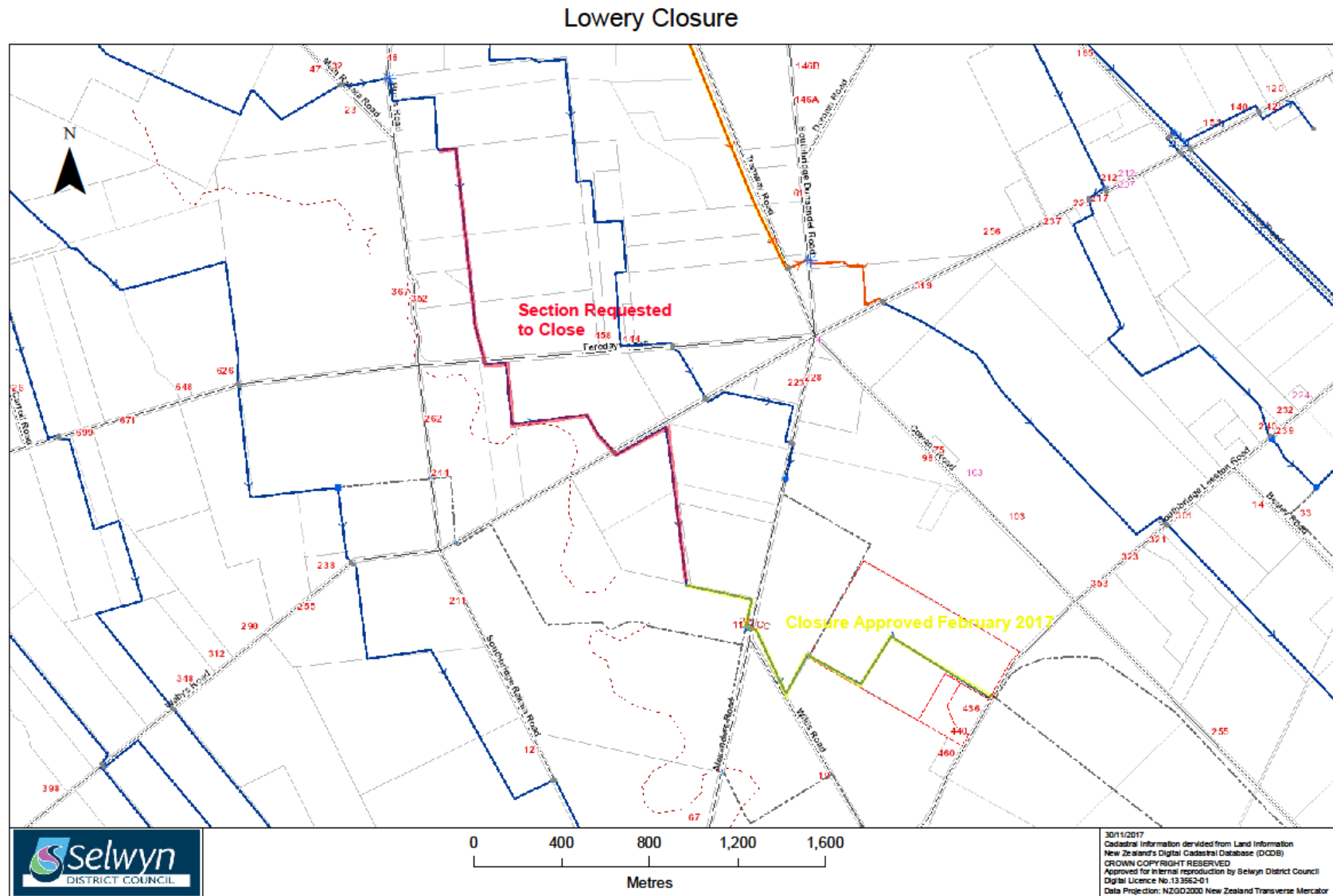
APENDECIES

APPENDIX A – PROPOSE WATER RACE CLOSURE MAPS

APPENDIX B – EOS ECOLOGY, SITES OF HIGH ECOLOGICAL VALUE – 2011.

APPENDIX A – PROPOSED WATER RACE CLOSURE MAPS

PROPOSED CLOSURE 1 – TRAMWAY RD



APPENDIX B – EOS ECOLOGY, SITES OF HIGH ECOLOGICAL VALUE – 2011.



REPORT

TO: Chief Executive

FOR: Water Race Sub Committee Meeting – 11 December 2017

FROM: Surface Water Operations Engineer

CC: Corporate Services Manager

DATE: 4 December 2017

SUBJECT: **Proposed Water Race Closures Approval – Post Public Consultation**

1. RECOMMENDATION

That the Sub-Committee:

- a) Consider any submissions received regarding the proposed closures.*
- b) Provide recommendations to Council on the closure of 6 lengths of water race totalling approximately 10.9km in the Malvern water race scheme and 6.6km in the Ellesmere water race scheme.*

2. PURPOSE

Staff seek a recommendation from the Committee for the following proposed closures that were approved for public consultation at the sub-committee meeting in June 2017:

Ellesmere

- 1. Closure of 3.6km of race through 3 property/owners on Tramway Road
- 2. Closure of 3km of race through 2 property/owners on Leeston Dunsandal Road

Malvern

- 1. Closure of 4.8km of race through 6 property/owners on Horndon Street / Creyke Road
- 2. Closure of 0.3km of race through 1 property/owners on Pitts Rd
- 3. Closure of 3.7km of race through 7 property/owners on Bluff Rd
- 4. Closure of 2.1km of Race through 4 property/owners on Boultons Rd

3. SIGNIFICANCE ASSESSMENT/COMPLIANCE STATEMENT

Explicit provision has been made in the 2015/25 LTP for water race closures¹ initiated by rate payers. The LTP has identified the following as major projects:

- Proactively progress the closure of the Haldon water race intake (within the Ellesmere Water Race Scheme) including the down gradient race network which is supplied by this intake. Targeted Stream Augmentation will possibly be taken into account with some lengths of races remaining open to convey this flow.
- Progress ratepayer initiated water race closures once approved by the Water Race Committee for closure.
- Work with Central Plains Water to develop a concept for converting the Kowai River sourced water race network (part of the Malvern Water Race Scheme) into a combined water race and irrigation network. This concept will then be used for further consultation with the community.
- Work with Environment Canterbury and key stakeholders to realise opportunities to use consented stock water for environmental enhancement including targeted stream augmentation.
- To investigate options for integration of the stock water races with Central Plains Water.

Council's Significance and Engagement Policy, reflecting section 5 of the Local Government Act, states that;

significance should be assessed in terms of consequences for:

- The district or region
- Any persons who are likely to be particularly affected by or interested in the proposal, decision or matter
- The capacity of the local authority to perform its role, and the financial and other costs of doing so.

The Significance and Engagement Policy also sets out criteria for assessing significance which are applied in section 3.1 below.

The 2015/25 LTP identifies Water Races as a strategic asset. Strategic assets are assets or groups of assets that the local authority needs to retain to maintain its capacity to achieve or promote any outcome that is important to the current or future well being of the community.

The LTP states that the level of significance of a decision will determine the process used by the decision maker considering Council's commitment to constructive community engagement. An assessment of significance has been included below for the Committee's discussion and recommendation.

¹ LGA S 97 (2) a

3.1 Decision Making Considerations

The proposed water race closures included in this report in table 4.1 have been considered against the criteria for assessing significance from the Significance and Engagement Policy contained in the LTP 2015/25 (see page 213-214 of the LTP):

Policy and Outcomes

- The following community outcomes are considered relevant to proposed water race closures:

Table 3.1 – Community Outcomes

| Community Outcome | Level of Support |
|---|--|
| A living environment where the rural theme of Selwyn is maintained | Rural land use is changing. The proposed water race closures are being driven by the Community in line with their changing needs, therefore water race closures support this community outcome. |
| Selwyn has a strong economy which fits within and complements the environmental, social and cultural environment of the District. | Council seeks to support existing agriculture and other land based sectors. Ceasing to operate inefficient and ineffective assets that are no longer required by the Community supports the local economy. |

- Closing water races that are no longer required by the community, provides benefit to the rural communities of the District and reflects the changing needs of these communities.
- There are no known impacts on Council's capacity to undertake its statutory responsibilities.
- There are no known inconsistencies with any existing policy, plan or legislation.

Communities

- Water race closures are generally driven by the Community.
- The number of property owners affected by each closure is detailed in table 4.1. Consultation to the wider community will occur along with notification of key stakeholders include Department of Conservation, Fish and Game, Environment Canterbury, Historic Places Trust and Ngāi Tahu.
- Affected persons are directly consulted on all water race closures. These include rated and non-rated properties that have a water race on or adjacent to their property. Where a closure has attracted 100% support from directly affected property owner, the closure is considered to be of low significance.
- Following approval by the Water Race Sub Committee, public advertisement of the proposed closures occurred.
- Council are considering the ecological impact of race closures by facilitating salvage of aquatic life where appropriate.
- It is not expected that proposed water race closures will generate wider national or international interest.

Ngāi Tahu

- The impacts on water race closures have been assessed against the Iwi Management Plan and Te Runanga O Ngāi Tahu's Freshwater Policy. These assessments are included in section 7.3 of this report.

Context and Implications

- An assessment of the options considered as alternatives to water race closure is included in section 6 of this report.
- The proposed water race closures are not expected to have any unintended consequences for community interests. The environmental, social and cultural impacts of the closures have been considered as outlined below:

1. Cultural interests – the race closures proposed are not considered to impact the character of the District they are often on private land and exist extensively in other parts of the District.
2. Social interests – water races on private property are not considered to provide amenity value to the wider community and their closure is therefore not considered significant. Race closures on the roadside may have some visual impact in areas with high amenity. Under Council's process, for a rate payer initiated race closure to proceed, all affected property owners (those with a race on or adjacent to their property regardless of whether they are rated for stockwater) are consulted and approval is required for closure to be progressed. Further public submissions are invited from the wider community.
3. Economic interests – the proposed race closures will have no identifiable economic impact on the wider Selwyn District. Council will monitor the cumulative impact on rate revenue reduction. Rate reduction is discussed further in section 12.
4. Quality of the Environment – opportunities for salvage of aquatic life will be provided in consultation with the Department of Conservation prior to any race closure. Closing ineffective and inefficient races provides environmental benefit as discussed further in section 7.

- The proposed water race closures are not considered to impact a scarce resource. The provision of water for stock can generally be provided from alternative sources.
- The proposed water race closures are considered as irreversible where they cross private property. Council do not hold easements for most water races and are unlikely to have the power to enforce reinstatement of water race channels on private property. However, stock water supply can generally be provided from other sources.
- By undertaking public consultation on the proposed water race closures, Council will establish whether the proposed closures are considered controversial.
- All water race closures will be progressed following appropriate consultation in a timely manner

- Closures that have attracted 100% support do not present uncertainty or lack of clarity for Council. Council initiated closures being progressed to consultation with 70% support or greater attract some degree of uncertainty. Greater certainty will be obtained during the consultation period.

The proposed water race closures represent the following loss to each of the schemes:

Malvern

- Reduction in length of water races 0.001%
- Loss of targeted rates income 0.85%

Ellesemere

- Reduction in length of water races 0.001%
- Loss of targeted rates income 0.03%

Based on the above assessment, staff recommend that the proposed closures are considered of **low significance**. The level of significance impacts the degree of consultation undertaken on the engagement spectrum. Council takes a conservative approach to consultation.

4. HISTORY/BACKGROUND

4.1 Proposed Closures Recommended for Progression

Council has received requests for closure of the following races.

Table 4.1 – Proposed Water Race Closures

| Map Ref | Scheme | Received from | Road Name | Number of affected Props/owners | Approx KM Race | Progress |
|---------|-----------|------------------|-------------------------------|---------------------------------|----------------|--|
| 1 | Ellesmere | Hamish Maginness | Heslerton Road / Tramway Road | 3 | 3.6km | 100% support from properties |
| 2 | Ellesmere | Tom Groundwater | Leeston Dunsandal Road | 2 | 3km | 100% Support from properties, This race adjacent to race with high ecological values. Likely to have high values. |
| 3 | Malvern | Peter Schnell | Horndon St Darfield | 6 | 4.8km | 100% Support from properties |
| 4 | Malvern | Lindsay Hewitt | Pitts Road | 1 | 0.3km | 100% Support Received, 1 property affected, Race causes operators issues with flooding, closing will help operations with this |
| 5 | Malvern | Stuart Blakely | Kivers Rd | 7 | 3.7km | 100% support |
| 6 | Malvern | Ian Syme | Boultons Rd | 4 | 2.1km | 100% Agreed for closure downstream of applicant, 1 more signature required to close from Tramway Rd Off take |
| | | | | | | |
| | | | TOTAL | 23 | 17.5km | |

Appended to this report are maps showing the location of the above sections of race proposed for closure.

5. PROPOSAL

Staff seek approval to close the following sections of water race:

Ellesmere

1. Closure of 3.6km of race through 3 property/owners on Tramway Road
2. Closure of 3km of race through 2 property/owners on Leeston Dunsandal Road

Malvern

3. Closure of 4.8km of race through 6 property/owners on Horndon Street / Creyke Road
4. Closure of 0.3km of race through 1 property/owners on Pitts Rd
5. Closure of 3.7km of race through 7 property/owners on Bluff Rd
6. Closure of 2.1km of Race through 4 property/owners on Boultons Rd

6. OPTIONS

Where a request for water race closure is received, there are a number of potential options available to Council.

Table 6.0 – Alternative Options Considered

| Option | Details | Advantage | Disadvantage |
|--------------------------------|--|---|---|
| 1. Water race closure | Race closure with the agreement of all affected land owners (rate payers on the race or directly adjacent to the race), subject to public consultation and reasoned consideration and response to issues raised during consultation. | Objective is achieved and wishes of rate payers considered. | Loss of rating income. Ecological values of races not maintained. |
| 2. Piping of water race | Piping can be considered if downstream property owners wish to maintain supply. Piping to be funded by each landowner. Piping a water race will not maintain the ecological value of an open water race channel. | Supply to downstream property owners maintained. | Landowners responsible for maintenance of pipes with potential upstream impacts if not maintained. Higher cost to land owners. Ecological values of races not maintained. |
| 3. Race relocation | Relocation could be considered if downstream property | Rating income retained. | Unlikely to achieve benefits of race closure |

| Option | Details | Advantage | Disadvantage |
|-------------------------------|---|-----------------------------|---|
| | owners wish to maintain supply for stockwater purposes. Costs to be met by landowners. | | required by land owners. Potential impacts on adjacent land owners. Cost to land owners. |
| 4. Race retained | Do nothing races retained. | Rating income retained. | Needs of rate payers requesting closure not met. |
| 5. Onsite alternatives | On site alternatives e.g. a well, could be considered if land owners wish to retain a stockwater service. | Stockwater supply retained. | High cost to property owners for installation and ongoing maintenance. Ecological and other race values not retained. |

These options are alternatives to closure of an open race if a downstream landowner requires a stockwater supply to continue. Water race closures will only occur for short lengths of race (excluding whole or major part of scheme closures) if 100% support from affected land owners is obtained.

7. VIEWS OF THOSE AFFECTED/CONSULTATION

7.1 Views of those affected

The Local Government Act section 82 requires consultation with persons affected by or have an interest in a decision. They must also be provided with a reasonable opportunity to present their views to the Local Authority.

Rate payer initiated closure have been provided for in the 2015/25 LTP.

As required under Council's water race closure process agreement to close water race forms have been received from all affected properties. An affected property owner has been deemed to be those with a race on or adjacent to the property, regardless of whether the property is rated. A letter was sent to all directly affected property owners to notify them that the proposed closure has been approved to progress to public consultation.

The proposed closures have been publically advertised in the following ways:

- News paper advert
- Letter to MKT & Te Taumutu Rūnanga, Department of Conservation, Fish and Game
- A summary of proposal, maps and copy of the public advert detailing the proposed race closures was posted on Council's website

The deadline for response and submission on these closures is the 8th December 2017, this date has not passed at the time of writing this report. If any submissions are received between the time of this report and the deadline these will be presented at the Water Race sub-committee meeting on 11th December.

Discontinuance of a stockwater race

The Selwyn District Council, in accordance with the special consultative procedure as outlined in the Local Government Act 2002 advises their intention to discontinue the following stock water races

Ellesmere Scheme

1. Closure of 3.6km of race through three property/owners on Tramway Road
2. Closure of 3km of race through two property/owners on Leeston Dunsandel Road

Malvern Scheme

1. Closure of 4.8km of race through six property/owners on Horndon Street/ Creyke Road
2. Closure of 0.3km of race through one property/owners on Pitts Rd
3. Closure of 3.7km of race through seven property/owners on Bluff Rd
4. Closure of 2.1km of Race through four property/owners on Boultons Rd

These closures are considered to be of low significance and do not alter the intended level of service of the overall water race schemes. Directly affected ratepayers have agreed to close these water races.

Detailed information including location maps can be found on the Selwyn District Council website www.selwyn.govt.nz/wrclosure or can be viewed at Council offices in Rolleston.

For more information or to make a submission, please contact Daniel Meehan, Surface Water Operations Engineer on 347 2800 or email waterraces@selwyn.govt.nz by 8 December 2017.

www.selwyn.govt.nz



A letter of acknowledgement was received from Fish and Game on 27 November 2017, Copy of email on appendix D

“Our only concern would be that since these are permanent closures that a fish salvage would take place. Doe the SDC usually salvage races that are closing?”

Where a proposed water race closure has attracted 100% support and no submissions are received, the Sub-Committee will progress the closure once approved by Council.

7.2 Interested Parties Consultation

To allow any parties with an interest in water race closures to input into the process as required by S 82 (1 (a)) of the LGA, the closures were publically advertised for a minimum of 2 weeks in Selwyn Times and on the Council website. Maps of proposed water race closures will be available to view at Council or on the website. A summary of the proposed water race closures is made available on the Council website.

Specific stakeholders identified as Department of Conservation, Fish and Game, and Te Taumutu Rūnanga were directly provided with a copy of the above advertisement.

Council has delegated powers to hear submissions to the Water Race Sub Committee and make recommendation on the significance of water race closures and agree closures not deemed significant.

Minutes from the Water Race Subcommittee meetings are available for public viewing on Council's website.

7.3 Māori implications

Te Runanga O Ngāi Tahu's Freshwater Policy recognises the importance of providing a stockwater supply to communities. This principal is considered alongside a number of others which seek to protect the environment and its inhabitants. By proposing the closure of ineffective, inefficient and no longer required water race assets, Council is proposing to better balance the needs of rate payers, Iwi and the environment.

Mahaanui, The Iwi Management Plan (IMP) 2013, recognises the importance of the water race network and states that they should be managed as waterways. In support of these principals Council require that heavy stock (deer and cattle) is fenced from entering the water races and provides advice to landowners on how to provide stock access to drink without entering the channel.

At the time of advertising closures, details of the proposed closure will be provided to Ngāi Tahu via MKT. It should be noted that in general water races requested for closure are often tail end races (lateral races) where excess water is disposed of to ground. Where a water race feeds another water course further consideration will be given to impacts on that waterway.

7.4 Ecological Considerations

The Canterbury Water, Selwyn Wahiora Zone Implementation Programme acknowledges that Council are reviewing the operation of the stockwater race network and seeking opportunities for rationalisation while managing some races for biodiversity and community values.

The Implementation Plan supports race rationalisation and recognises the importance of reliable stockwater supplies while identifying opportunities for supporting an aquatic corridor from mountains to sea via water races and creating wetlands at discharge to ground locations.

Mahaanui, the Iwi Management Plan 2013 recognises the importance of the water race network for biodiversity and habitat for native freshwater fish. Where appropriate opportunities for salvage of aquatic life and relocation will be provided to DoC and Fish and Game prior to a water race closure occurring.

EOS Ecology undertook an assessment of sites of high ecological value within the Ellesmere and Malvern Water Race schemes in 2011. A copy of the findings of the assessment is included in Appendix B.

In a memo to Council dated 6 July 15, DoC have indicated that the level of input from DoC may need to be prioritised based on predicted distribution of threatened species and external contractors may need to be used if DoC staff cannot assist. DoC may however provide guidance to Council and Contractors on the process the suitable sites for relocation.

Where DoC staff are not available to undertake salvage of aquatic life and it is deemed necessary, consulting companies exist that are equipped to undertake

electrofishing, however this may attract significant cost. The Agreement to Close Water Race form states that the benefiting property owners are liable for their share of the costs associated with the closure.

8. RELEVANT POLICY/PLANS

The closures included in this report are consistent with Council Policy W107 Closure of Water Races.

As stated in section 3 Water Race Closures are being done in line with Council's Significance Policy.

9. COMMUNITY OUTCOMES

The role of water races in maintaining a living environment where the rural theme of the District is maintained, has been recognised in the LTP. Providing an effective water race service and delivering levels of service is a key part of delivering community outcomes. Where a race cannot be supplied due to consent limits at the intakes or operational issues and leakage, maintaining channels that are not used or that have intermittent flow is counter to achieving this objective.

10. NEGATIVE IMPACTS

Negative impacts or effects will be considered as part of the race closure approvals process and closures will only proceed if negative effects are mitigated or minimised and affected land owners agree.

11. LEGAL IMPLICATIONS

None.

12. FUNDING IMPLICATIONS

12.1 Rating Impact

The proposed race closures detailed in this report are expected to have the following impact on rating income:

Table 12.1 – Funding Implications of Proposed Race Closures

| Ref | Scheme | Received from | Road Name | Loss of Targeted Rating Income | Percentage of Total Rating Income |
|--------------|-----------|------------------|-------------------------------|--|-----------------------------------|
| 1 | Ellesmere | Hamish Maginness | Heslerton Road / Tramway Road | \$0.00 (All properties still fed by another race) | 0.00% |
| 2 | Ellesmere | Tom Groundwater | Leeston Dunsandal Road | \$125.75 (1 Property still has another race) | 0.03% |
| 3 | Malvern | Peter Schnell | Horndon St Darfield | \$5250.85 | 0.61% |
| 4 | Malvern | Lindsay Hewitt | Pitts Road | \$0.00 (Property still has race access) | 0.00% |
| 5 | Malvern | Stuart Blakely | Kivers Rd | \$2025.50 | 0.24% |
| 6 | Malvern | Ian Syme | Boultons Rd | \$0.00 (All properties still have other race supplies) | 0.00% |
| TOTAL | | | | \$7402.10 | 0.88% |

The cumulative impact of closures will continue to be considered as more closure requests are received. Rates are reviewed and adjusted at each annual plan and long term plan rating review.

12.2 Cost Savings

Many of the closures to date have been short lengths of lateral water race that are maintained by the property owners. Closure of these races have minimal impact on operational costs.

12.3 Closure Costs

The cost of any rate payer requested closures will be met by the benefiting property owners.

13. HAS THE INPUT/IMPACT FROM/ON OTHER DEPARTMENTS BEEN CONSIDERED?

A copy of this report has been provided to the Corporate Services Manager as income accounts will be affected.

DANIEL MEEHAN
SURFACE WATER OPERATIONS ENGINEER

MURRAY ENGLAND
ASSET MANAGER, WATER SERVICES

ENDORSED FOR AGENDA

MURRAY WASHINGTON, ASSET MANAGER

APPENDECIES

APPENDIX A – WATER RACE MAPS

APPENDIX B – EOS ECOLOGY, SITES OF HIGH ECOLOGICAL VALUE – 2011.

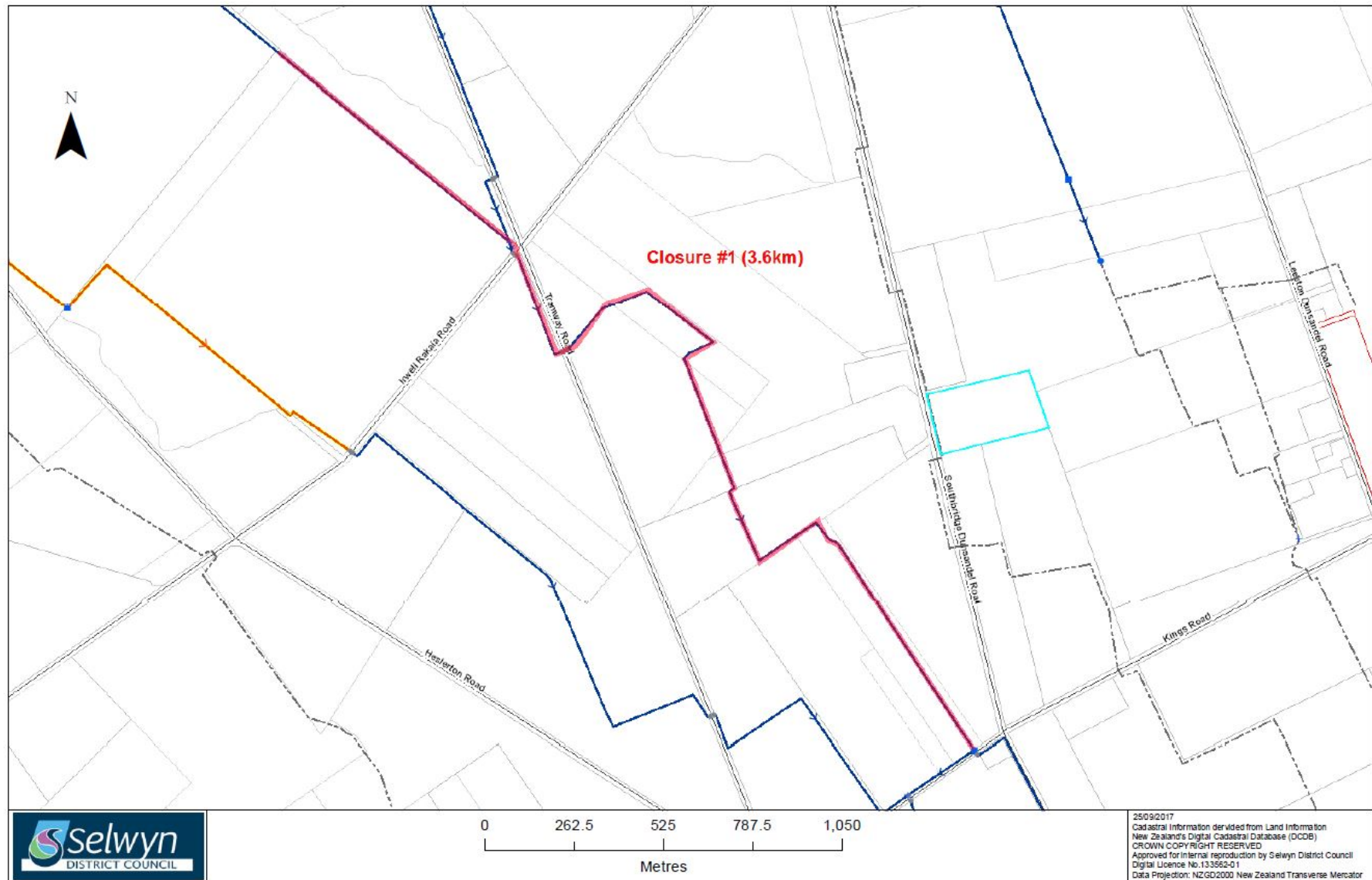
APPENDIX C –IWI MANAGEMENT PLAN

APPENDIX D – CORRESPONDANCE FROM FISH AND GAME COUNCIL RE; OCTOBER CLOSURES

APPENDIX A – PROPOSED WATER RACE CLOSURE MAPS

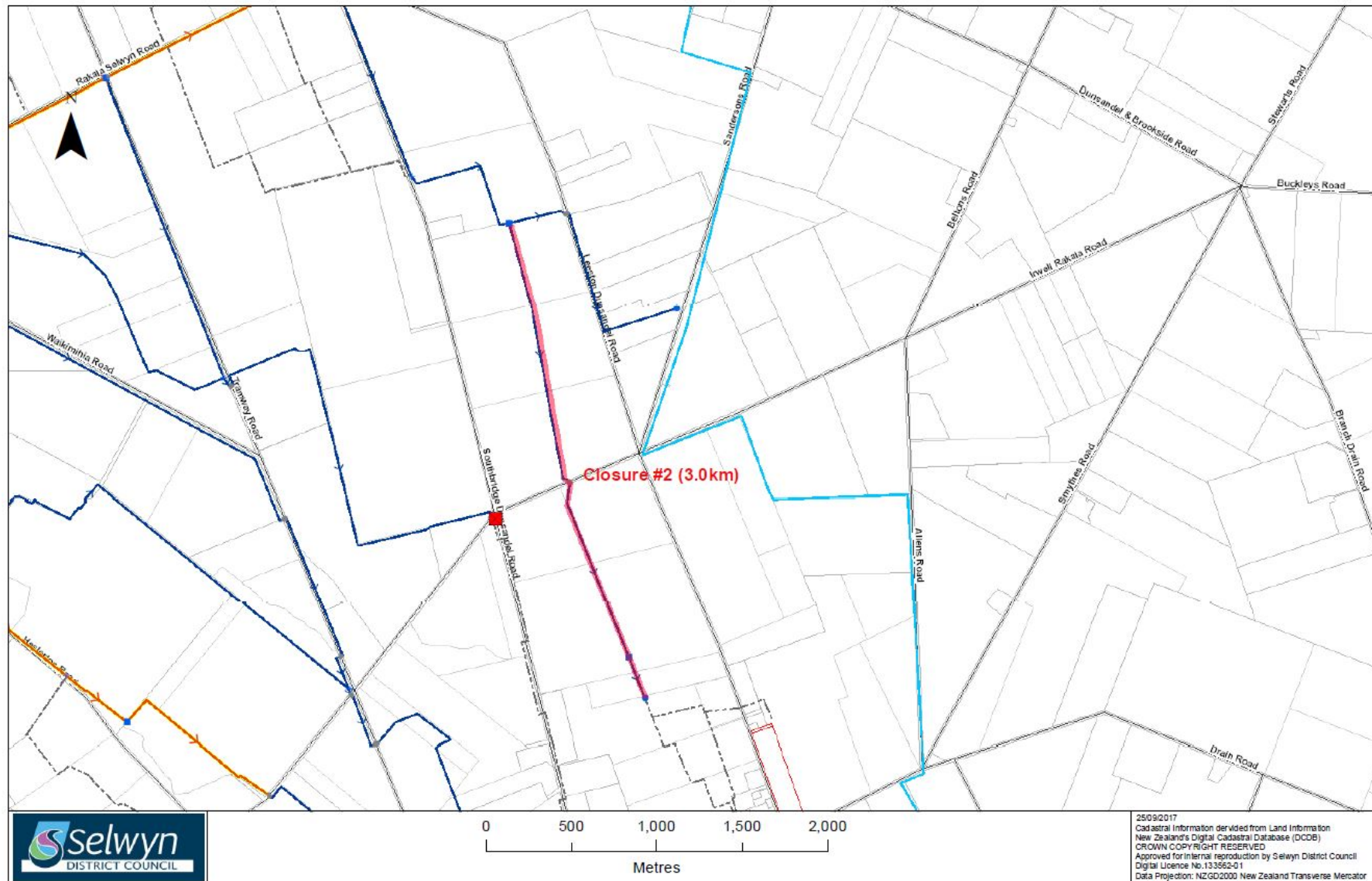
PROPOSED CLOSURE 1 – TRAMWAY RD

Closure #1



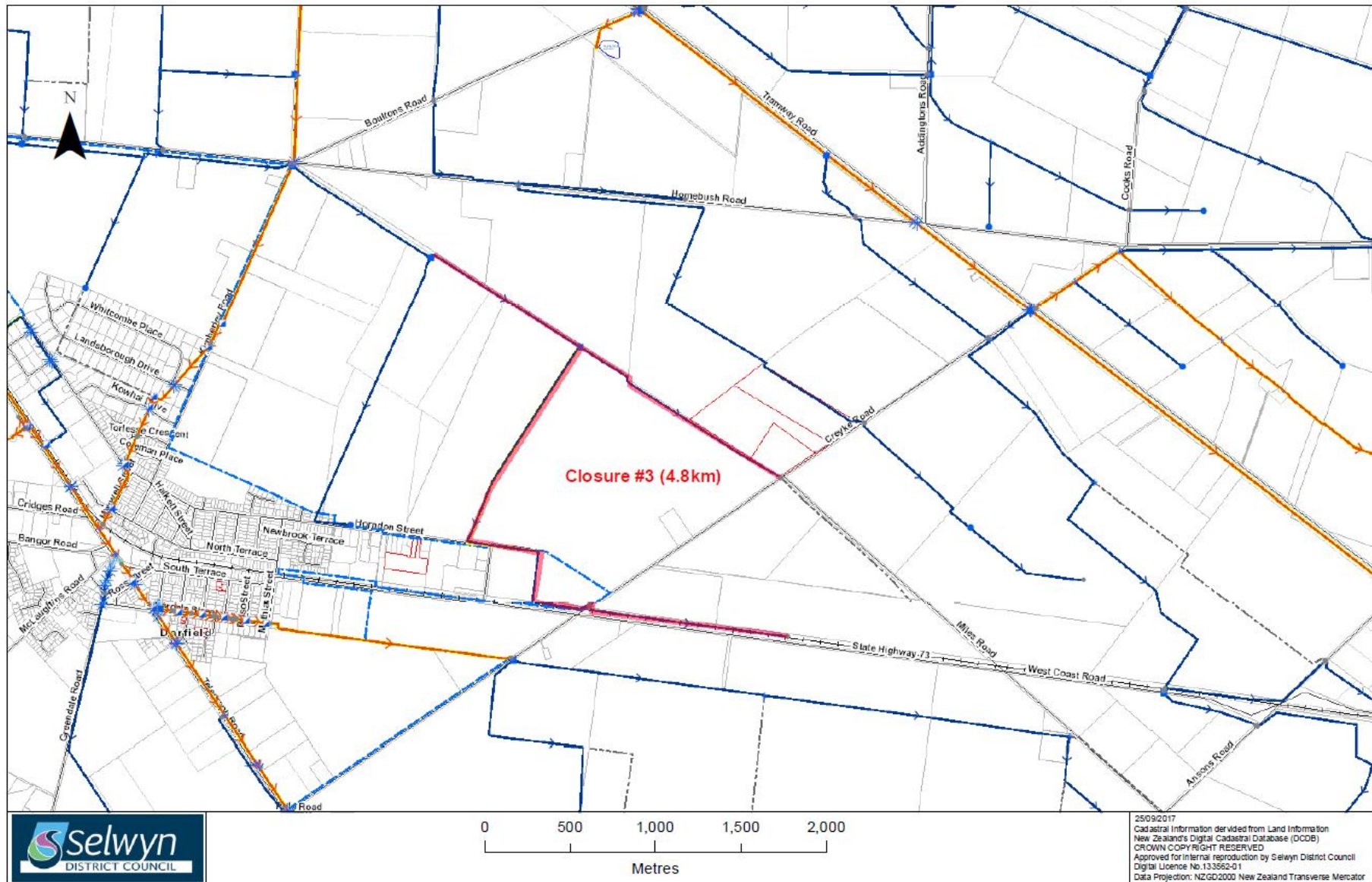
PROPOSED CLOSURE 2 – LEESTON DUNSANDAL ROAD

Closure #2



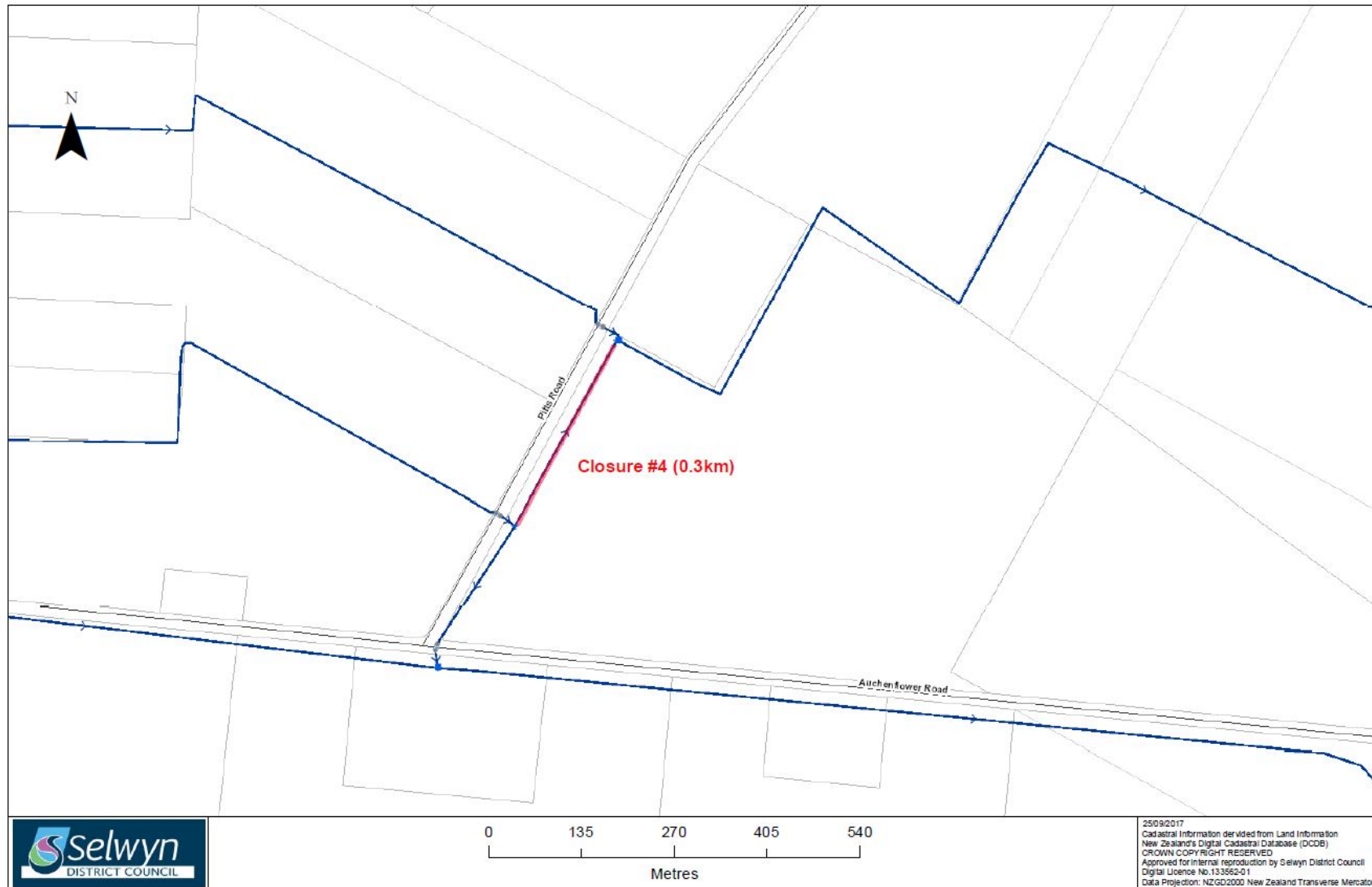
PROPOSED CLOSURE 3 – HORNDON STREET

Closure #3



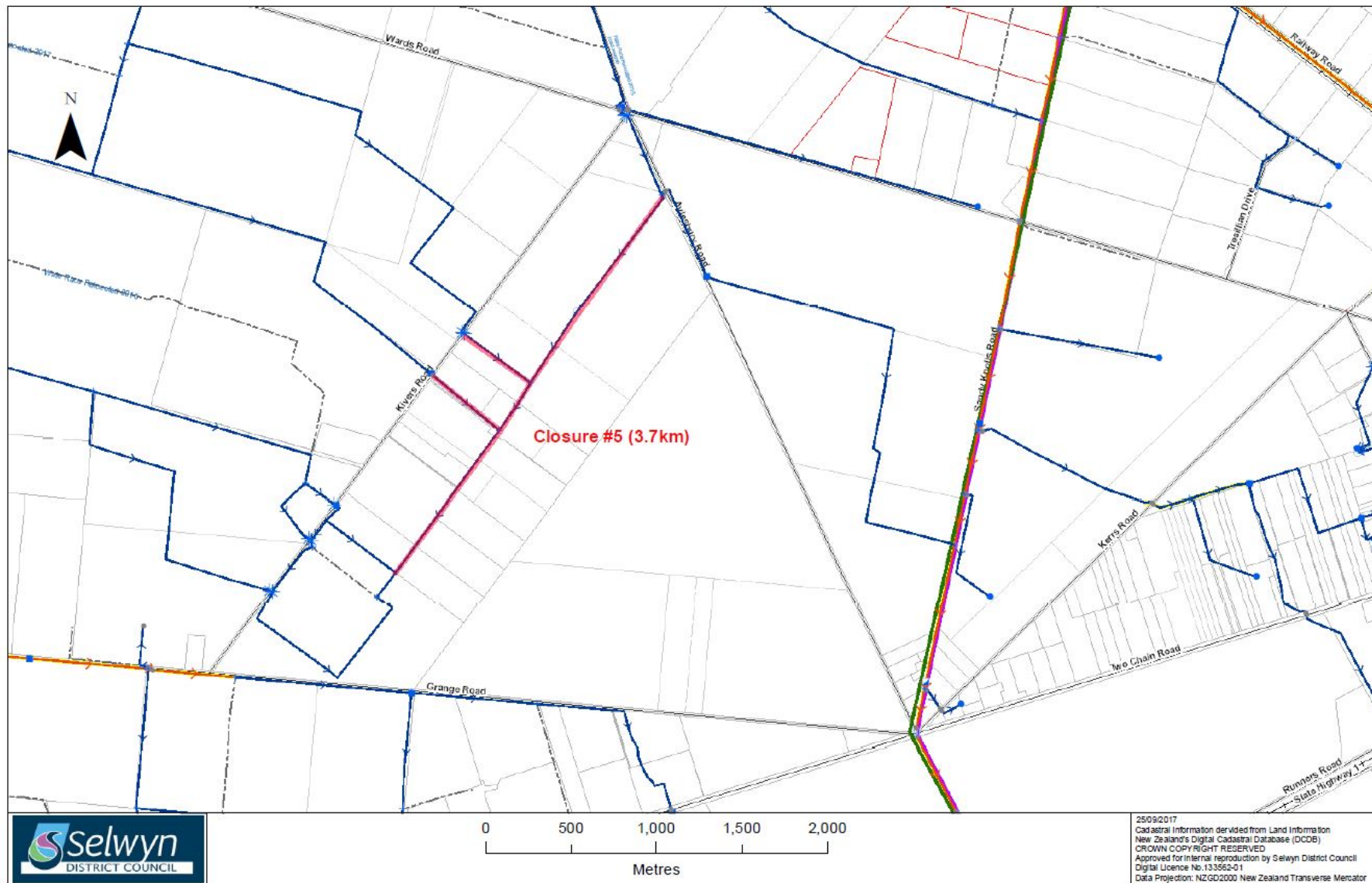
PROPOSED CLOSURE 4 – PITTS ROAD

Closure #4



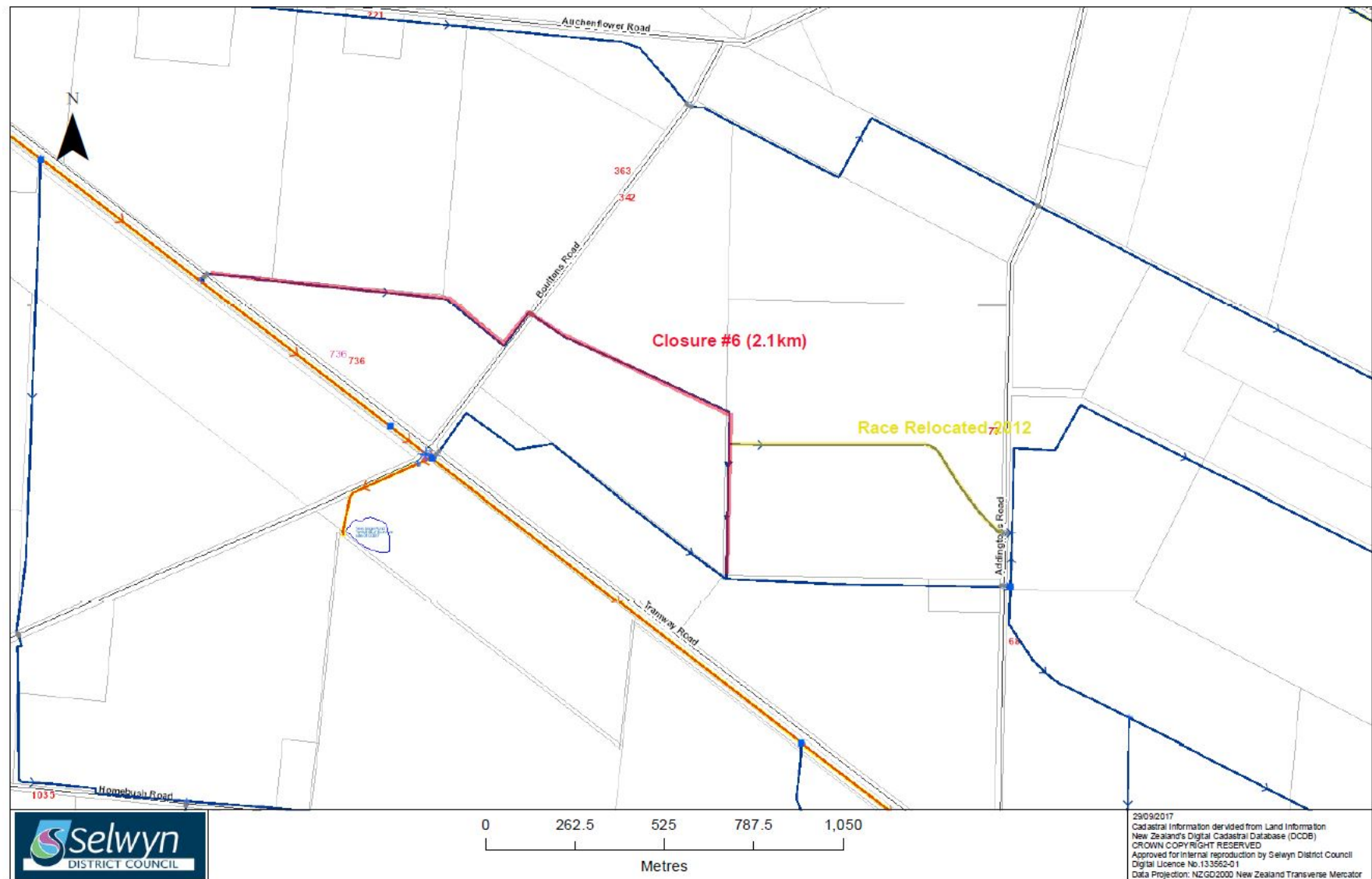
PROPOSED CLOSURE 5 – KIVERS ROAD

Closure #5



PROPOSED CLOSURE 6 – BOULTONS ROAD

Closure 6



APPENDIX B – EOS ECOLOGY, SITES OF HIGH ECOLOGICAL VALUE – 2011.



APPENDIX B – EOS ECOLOGY, SITES OF HIGH ECOLOGICAL VALUE – 2011.



APPENDIX C –IWI MANAGEMENT PLAN

DRAIN MANAGEMENT PAGE 97

**ISSUE WM14: DRAIN MANAGEMENT CAN HAVE EFFECTS ON
NGĀI TAHU VALUES, PARTICULARLY MAHINGA KAI.
NGĀ KAUPAPA / POLICY**

WM14.1 TO REQUIRE THAT DRAINS ARE MANAGED AS NATURAL WATERWAYS AND ARE SUBJECT TO THE SAME POLICIES, OBJECTIVES, RULES AND METHODS THAT PROTECT NGĀI TAHU VALUES ASSOCIATED WITH FRESHWATER, INCLUDING:

- (A) INCLUSION OF DRAINS WITHIN CATCHMENT MANAGEMENT PLANS AND FARM MANAGEMENT PLANS;**
- (B) RIPARIAN MARGINS ARE PROTECTED AND PLANTED;**
- (C) STOCK ACCESS IS PROHIBITED;**
- (D) MAINTENANCE METHODS ARE APPROPRIATE TO MAINTAINING RIPARIAN EDGES AND FISH PASSAGE;**
- AND**
- (E) DRAIN CLEANING REQUIRES A RESOURCE CONSENT.**

WM14.2 TO REQUIRE AND UPHOLD AGREEMENTS WITH LOCAL AUTHORITIES TO ENSURE THAT THE TIMING AND TECHNIQUES OF DRAIN MANAGEMENT ARE DESIGNED TO AVOID ADVERSE EFFECTS ON MAHINGA KAI AND WATER QUALITY, INCLUDING:

- (A) IDENTIFYING DRAINS THAT ARE OR CAN BE USED FOR MAHINGA KAI;**
- (B) RETURNING ANY FISH THAT ARE REMOVED FROM DRAINS DURING THE CLEANING PROCESS TO THE WATERWAY;**
- (C) RIPARIAN PLANTING ALONG DRAINS TO PROVIDE HABITAT AND SHADE FOR MAHINGA KAI AND BANK STABILITY WHILE REDUCING THE FREQUENCY AND COSTS OF MAINTENANCE BY REDUCING AQUATIC PLANT GROWTH;**
- (D) ENSURING DRAIN MANAGEMENT/CLEANING DOES NOT BREACH THE CONFINING LAYERS;**
- (E) USE OF LOW IMPACT CLEANING METHODS SUCH AS MECHANICAL ‘FINGER BUCKETS’, AS OPPOSED TO CHEMICAL METHODS SUCH AS SPRAYING, TO MINIMISE EFFECTS ON AQUATIC LIFE;**
- (F) NOTIFICATION TO TĀNGATA WHENUA OF ANY CHEMICAL SPRAYING OF DRAINS USED FOR MAHINGA KAI OR CONNECTED TO WATERWAYS USED AS MAHINGA KAI; AND**
- (G) INVOLVEMENT OF TĀNGATA WHENUA IN DRAIN MAINTENANCE ACTIVITIES WHERE THERE IS A NEED TO RETURN NATIVE FISH BACK TO THE DRAIN (E.G. TUNA, KEKEWAI AND KANAKANA).**

HE KUPU WHAKAMĀHUKIHUKI / EXPLANATION

DRAINS ARE A COMMON FEATURE ACROSS NGĀ PĀKIHI WHAKATEKATEKA O WAITAHA, GIVEN THAT MUCH OF THE LAND IN LOWER CATCHMENT AREAS WAS ORIGINALLY SWAMP. AN EXTENSIVE NETWORK OF DRAINS PROVIDES FLOOD PROTECTION FOR SETTLEMENT AND LAND USE. SOME OF THESE DRAINS ARE MODIFIED NATURAL WATERWAYS, AND MANY CONNECT OR EMPTY INTO EXISTING WATERWAYS AND WATERBODIES. FOR THIS REASON DRAIN MANAGEMENT IS AN IMPORTANT KAUPAPA FOR TĀNGATA WHENUA. WHILE DRAINS MAY NOT BE HIGHLY VALUED IN THE WIDER COMMUNITY, DRAINS THAT FUNCTION AS MAHINGA KAI HABITAT AND WHERE MAHINGA KAI RESOURCES ARE GATHERED MAY BE IDENTIFIED AS WĀHI TAONGA BY NGĀI TAHU.

**“YOU CAN’T TELL A FISH WHAT THE DIFFERENCE IS BETWEEN A DRAIN, RIVER, STREAM OR SPRING.” DAVID PERENARA
O’CONNELL, TE TAUMUTU RŪNANGA NATURAL RESOURCE
MANAGEMENT PLAN 2002.**

**“SPRAYING IS A QUICK FIX TECHNIQUE, WITH A VERY LONG
RECOVERY TIME.” UNCLE WAITAI TIKAO, ŌNUKU RŪNANGA.**

APPENDIX D – CORRESPONDANCE FROM FISH AND GAME COUNCIL RE; OCTOBER CLOSURES

WaterRaces

From: Tony Hawker <thawker@fishandgame.org.nz>
Sent: Monday, 27 November 2017 11:03 a.m.
To: WaterRaces
Subject: RE: Water Race Closures - October 2017

Hi Daniel

Our only concern would be that since these are permanent closures that a fish salvage would take place. Does the SDC usually salvage races that are closing?

Regards
Tony

From: WaterRaces [mailto:WaterRaces@selwyn.govt.nz]
Sent: Wednesday, 15 November 2017 2:28 PM
To: Tony Hawker <thawker@fishandgame.org.nz>
Subject: Water Race Closures - October 2017

Hi Tony,

During the water race sub-committee meeting on October 9 2017, The committee agreed to proceed to public notification for four race closures in the Malvern stock water race scheme, and two closures on the Ellesmere Scheme.

Please see attached a letter to you as a stake holder advising of this outcome, and offering the chance to make a submission if there are any concerns regarding this decision.

Also attached is a copy of the public notification, and a map showing extent of closures.

You can find more information on the water race page of the Selwyn District council Website.

<http://www.selwyn.govt.nz/my-property/5waters-services/water-races/water-race-closure-requests/summary-of-proposal-water-race-closures>

Feel free to contact me if you have any further questions.

Regards,
Daniel,

Daniel Meehan | Surface Waters Operations Engineer | Selwyn District Council
DDI: 03 347 2945 |

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www.selwyn.govt.nz | m.selwyn@govt.nz | www.selwynlibraries.co.nz | www.selwyn.getsready.net

MEMORANDUM

To: Water Race Sub Committee
From: Daniel Meehan
Date: 23 November 2017
Subject: Fish Screen Project Update

This Memo is to update Water Race Sub Committee of progress with the Fish Screen Project.

Background

ECAN consents to take water for Selwyn District Council stock water race network have conditions that require fish screens be installed at each of our intakes. Paparua Intake already has a screen installed, and Upper Kowai intake was installed and commissioned December 2016. Tender was awarded to Isaac's construction for the remaining 3 sites (Waimak, Glentunnel and Lower Rakaia) 12 May 2017 for contract price of \$1,174,537.60

Waimakariri Intake Screen Update (Skurrs)

Screens are installed at site and commissioned with 90% of work complete. Only remaining work is the fish bypass to the spring.

High water table caused by July and August flood events had flooded out bottom area of work site and made it impossible to complete the fish return. Work placed on hold until site dries out. (Site still flooded as of early November).

Extra work was also required onsite due to groundwater coming from springs due to high water table levels. Because contractors have had to demobilise site, there is likely to be additional remobilisation costs before work begins again for the bypass works that ECAN has required.

The access track required significant improvements to bring it up to standards and accessible for construction period.

Spring Channel Suitability – Site inspection by Fish and Game, and Ecan officers during construction had raised concerns that the Skurrs spring channel may not be suitable as a return to river for fish due to constraints and vegetation in the stream.

As a result, Council was required to engage a consultant to do an ecological report of the Skurrs spring channel to determine suitability as a fish return, ecological values and improvements that may need to be made to comply as fish screen. Recommendations suggest some channel work is required to the spring channel, this is yet to be scoped and costed and ECAN have indicated that a resource consent may be required depending on how much work is involved. A copy of the recommendations from this report is below.

5.0 RECOMMENDATIONS

In most respects, the fish screen on the Waimakariri stockwater race will meet the criteria outlined in the 2007 Fish Screen Guidelines (Jamieson et al. 2007); it will provide suitable water velocities, utilise mesh of appropriate size, and provide a fish bypass adjacent to the screen. Its location some distance downstream of the intake is not ideal, however, it has been generally agreed by stakeholders that positioning the screen closer to the intake was impractical. The only unsatisfied criterion is that of bypass connectivity – the bypass needs to be connected to the source channel for fish to return safely.

It is recommended that:

- 1) To function as an effective bypass channel and provide connectivity, channelisation of the watercourse downstream from the screen is required. A channel should be created and maintained along the length of the watercourse between the bypass and the watercourse's connection to the Waimakariri River. A narrow incised channel will probably perform best, as it will concentrate the flow, prevent sedimentation and promote rapid fish passage downstream with the limited amount of water available.
- 2) The culvert pipe located in the watercourse c. 500m downstream of the fish screen should be removed, or modified to an "open topped" culvert. In its current form it is likely to inhibit the downstream movement of juvenile salmon and trout.
- 3) A culvert pipe or weir placed in the watercourse just upstream of the bypass would inhibit any upstream spread of juvenile salmon and trout, and help "direct" these fish downstream. At the same time, a culvert pipe would not inhibit the upstream passage of eels or most other native fish.
- 4) While it is understood that water availability may be limited some of the time, the greater the volume of water released through the screen bypass and into the watercourse, the better for fish passage back to the Waimakariri River. For juvenile salmon and trout, spring and early summer (September through to November inclusive) are probably the most critical times, as most of the downstream passage of newly hatched fish occur in this period.

Glentunnel Site Update

Installations at Glentunnel site had only just begun when works were interrupted by July and August Flood events. This caused damage to existing intake and work already completed. A stop work notice was placed on site to assess and evaluate damage made to site. The flood event pointed out to the fact that the location of the control shed was in a vulnerable position. So the site had to be redesigned for the shed to go into a better and safer location. The Golf club has been made aware of the changes and they conveyed acceptance of the proposal. Other extra work includes hardstand area, replacing bulk-fill which was washed away, and extra pumping capacity due to works occurring now in summer rather than winter. Work expect to restart early December so that the site is finished before 1st February extension deadline;

Lower Rakaia Site Update

Work on Lower Rakaia site is now complete and practical completion has been awarded for this site. Work mostly went well on this site apart from the first bypass channel failing and having to go for a piped option to keep stockwater supply for downstream properties. Gabian basket was also required at intake as some exposed bank was washed out when flows increased in the channel. Reports are that banks have now stabilised.

Variations to Date

As a result, a number of variations had to be approved to proceed with the works. These are unavoidable and had to be undertaken. As it stands the current variation is at ~11% of the contract value.

Photo of completed Rakaia Fish Screen

