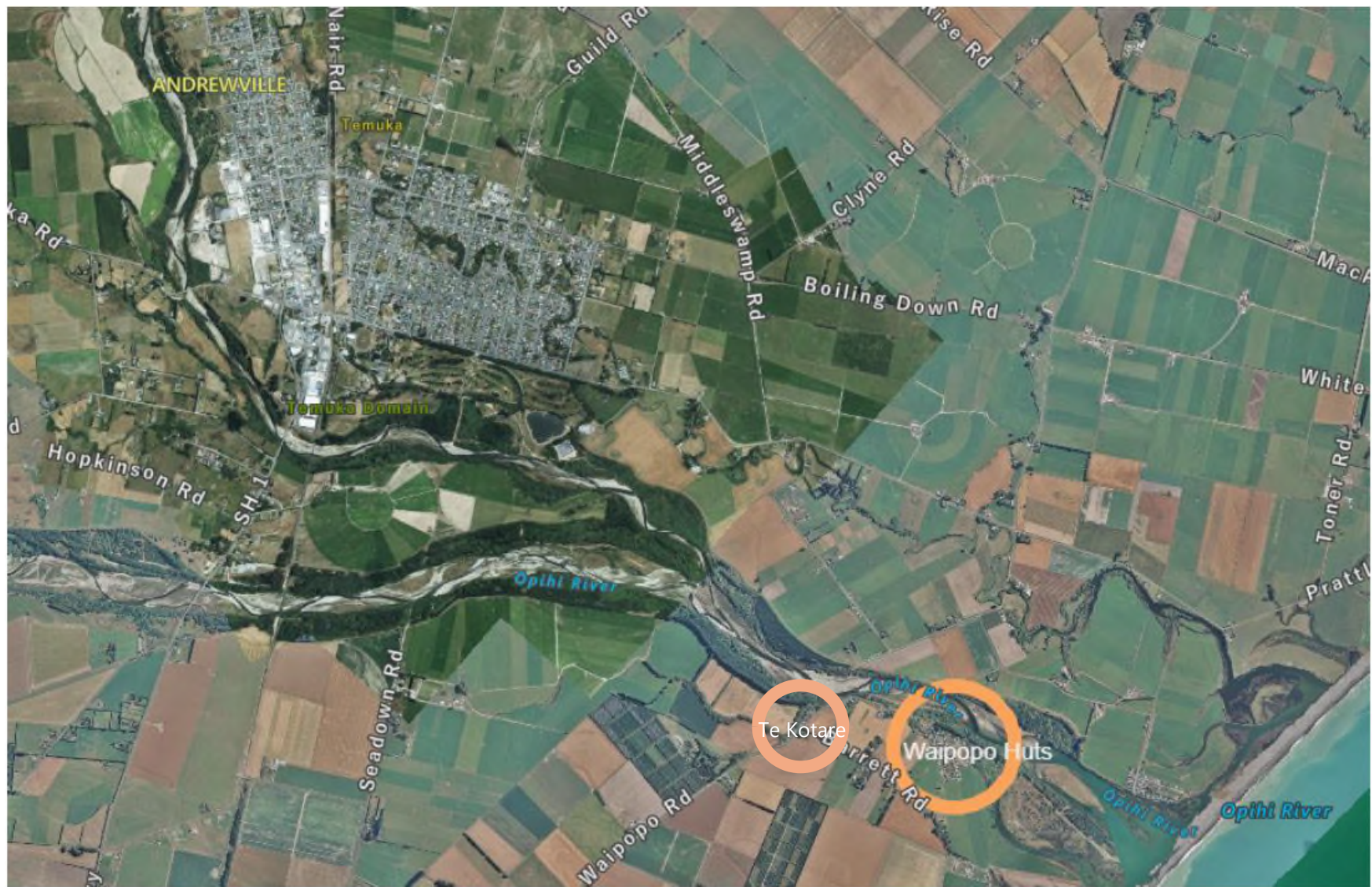


**APPENDICES OF ELIZABETH STEVENSON
ON BEHALF OF WAIPOPO HUTS TRUST AND TE KOTARE TRUST
REGARDING HEARING (E) CULTURAL VALUES**

1. Appendix A - Opihi River Map
2. Appendix B - Trust Order and Legal Description
3. Appendix C – Figure 1 Waipopo Location Map including Figure 2 Waipopo Hut Dwellings and Figure 3 Waipopo Hut Settlement Map
4. Appendix D - Te Kotare Location Map
5. Appendix E - Map of ECan Stopbank in relation to Waipopo
6. Appendix F – Status of homes and lots on Waipopo Land
7. Appendix G – Photographs showing recent projects
8. Appendix H - Existing Use Certificate
9. Appendix I - Hui Minutes - 29 May 2021
10. Appendix J - Takata Whenua Steering Group Minutes (including rezoning map) – September 2021
11. Appendix K - Council Letter – 16 November 2022
12. Appendix L -Map in Timaru District Council’s Submission to rezone Waipopo Land
13. Appendix M - Davis Ogilvie Report – July 2022
14. Appendix N - Perspective Report – August 2022

Appendix A - Opihi River Map



Appendix B - Trust Order and Legal Description

75 SOUTH ISLAND MB 90-91

TRUST ORDER

The Maori Affairs Act 1953, Section 438(5)

In the Maori Land Court
of New Zealand
TE WAIPOUNAMU DISTRICT

IN THE MATTER of the Maori Freehold
Lands named in the schedule hereto

AT a sitting of the Court held at Christchurch on the 6th day of May 1992 before
Heta Kenneth Hingston, Esquire, Judge

WHEREAS the Court has this day vested the Maori Freehold Lands named in the
schedule hereto (hereinafter referred to as "the lands") in:-

1. Kelvin Mervyn Anglem
2. Freda Daphne Brown
3. Carlyle Walker
4. John Tupai Reihana
5. Rosina Hix
6. Wiremu Te Kati Taipana
7. Sissie Dodds

Waipopo Road, RD 3, TIMARU
P O Box 37, TEMUKA
Waipopo Road, RD 3, TIMARU
Huirapa Street, TEMUKA
Ackroyd Road, RD 25, TEMUKA
Waipopo Road, RD 3, TIMARU
76A Grey Road, TIMARU

(hereinafter referred to as "the Trustees") pursuant to provisions of subsection 2
Section 438 of the Maori Affairs Act 1953:

NOW THEREFORE pursuant to subsection 5 of the said Section, the Court DOTH
HEREBY ORDER AND DECLARE that the Trustees shall hold the said lands upon
and subject to the following trusts:-

1. The Trust shall be known as Waipopo Hutts Trust:

- 2 The Trustees shall have power to use, exploit and manage the land vested in the Trustees and to that end to do all or any of the things which they would be entitled to do if they were the beneficial owners of the land
PROVIDED HOWEVER

- (a) That the Trustees shall have no power to mortgage or sell the land or any part thereof.
 - (b) That the Trustees shall not lease the land or any part thereof other than in accordance with the provisions of subclauses (n) or (p) of Clause 3 hereof
 - (c) That forthwith upon the death or resignation of a Trustee the surviving Trustees shall apply to the Court for the appointment of another Trustee
- 3 The Trustees shall have such powers and authorities as are necessary for the effective performance of the trusts herein contained including power:-

- (a) To use, occupy and manage the land or any part thereof for agricultural pastoral forestry or horticultural purposes including the use of the land or any part thereof for the growing of permanent horticultural crops by the Trustees themselves or in conjunction with any other person or persons upon such terms for the growing utilisation or sale of the crop as the Trustees may consider appropriate.
- (b) To investigate whether the land could be more conveniently worked or or dealt with in conjunction with any other land in the vicinity and to make and prosecute such applications to this Court for Orders of Aggregation of Ownership or Amalgamation of Title or otherwise as may seem appropriate to the Trustees in order to enable such lands to be worked or dealt with together.
- (c) To grant or obtain easements, licences or profits of any kind whatsoever over out of or in favour of the land vested in the Trustees.
- (d) To enter into contracts or arrangements with the Crown or any local authority or any person, firm or corporation, including power from time to time to request the General Manager of the Iwi Transition Agency to declare by notice in the Gazette that the land or any part or parts thereof be made subject to the provisions of Part II of the Maori Affairs Restructuring Act 1989.
- (e) To employ and dismiss contractors, advisors servants agents and workmen
- (f) At the discretion of the Trustees to purchase all or some of the shares of any equitable owner wishing to sell the same to the intent that any shares so purchased will be held in trust for all the remaining equitable owners.

- (g) To safeguard to the best of their ability any graves of Maori People or other places on the land of special significance to Maori people.
- (h) To protest, appeal or make representations in relation to any entry or proposed entry on the land or the actual proposed carrying out of any works on the land, or any proposed acquisition of the land of any part thereof by the Crown or a local authority or any other person or body for any purpose whatsoever.
- (i) To negotiate with the Crown or a local authority the terms of entry upon the land, or of the carrying out of works on the land or the proposed acquisition of the land or any part thereof for a "public work" within the meaning of those words as defined in Section 2 of the Public Works Act 1981.
- (j) To negotiate for the settlement of compensation for land taken by the Crown or a local authority for a public work and to enter into any agreement thereon.
- (k) To commence proceedings for the determination of compensation for land taken for a public work or to commence proceedings for the recovery of money for any matter in relation to the land.
- (l) To defend or resist or take part in proceedings of any other nature relating to the land
- (m) To institute or take part in such proceedings under the Town and Country Planning legislation in respect of the land or any other land in the vicinity as the Trustees may consider necessary or desirable in the interests of the equitable owners of the land vested in the Trustees.
- (n) To grant licences to occupy to such individual equitable owners who wish to build dwellings on the land of such part or parts of the land for such purpose at such rent and subject to such covenants and conditions as the Trustees may determine.
- (o) To consent to the erection of dwellings on the land by those individual equitable owners who have been granted a licence to occupy without partition of his, her or their interest and if any such equitable owners shall apply to the Iwi Transition Agency or the Housing Corporation of New Zealand or other State Lending Institution (hereinafter referred to as "the lender") for a loan to build on the land, the Trustees shall have power to enter into and execute such deed or deeds other than mortgages as may be required by the Lender for the repayment of loans granted by the lender to any one or more of the equitable owners for the erection of dwellings on the land.

- 4 -
- (p) To lease the land for successive terms each not exceeding 10 years inclusive of any right of renewal by such means and to such person as the Trustees shall determine and on the expiry or sooner determination of any such lease and as often as the same may occur the Trustees may again lease the land in such manner.

4 The Trustees shall apply the revenues arising from the operations of the trust in paying the costs of administration of the affairs of the trust and in furtherance of the objects of the trust including:

- (a) Payment of the costs and disbursements of and incidental to the making and prosecuting of the application to this Court for this order or in making a refund to any person who may have paid the same.
- (b) Payment of title charges, if any.
- (c) Setting aside reserves for contingencies or capital expenditure or for retaining in an accumulated profit account any portion of such money which the Trustees shall think it prudent not to pay under the next succeeding subclause.
- (d) Payment of so much of the residue from time to time as the Trustees may in their absolute discretion determine to the equitable owners in accordance with their several shares PROVIDED HOWEVER:-
 - (i) That the Trustees shall be at liberty to pay such money to the Maori Trustee for distribution to the equitable owners if the Maori Trustee is willing so to do, and
 - (ii) If the Trustees shall make any such distribution then the Trustees shall not make payment to any equitable owner whose share will be less than \$5.00 but shall accumulate the amounts payable to that equitable owner until the amount so accumulated exceeds \$5.00 and then pay the same to that equitable owner.

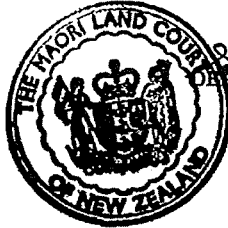
5 If the income of the Trust in any one year exceeds \$10,000 the Trustees shall:-

- (a) Cause to be kept proper books of account in which shall be kept full true and complete accounts of the affairs and transactions of the trust.
- (b) At a date not later than the 30th day of November of such year file in the Court a Profit and Loss Account made up to a date not earlier than the date of filing by more than 6 months together with a Balance Sheet as at the date to which such Profit and Loss Account is made up. Such documents shall be open to public inspection during office hours without payment of any fee.
- (c) If such accounts are not prepared by a Chartered Accountant the Trustees shall cause each set of accounts to be audited by a person or firm qualified to audit the accounts of a Maori Incorporation.

- 6 The Trustees may apply to the Court from time to time for such variation of the trusts and powers contained in this Order as may then seem appropriate to the Trustees and the Trustees shall so apply not later than the 31st day of December 2002 when if no other variation shall seem appropriate to the Trustees the Trustees shall apply for an order varying the present trust order by making a new trust order in substitution therefore with the like trusts and powers as are herein contained but with the substitution for the year set out in this Clause of the year 20 years after that date

AND IT IS HEREBY FURTHER ORDERED pursuant to the provisions of Section 34(10) of the Maori Affairs Act 1953 that this order do issue IMMEDIATELY from the office of the Court

AS WITNESS the hand of the Deputy Registrar and the Seal of the Court



[Signature]
DEPUTY REGISTRAR

SCHEDULE

Lot 1 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 2 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 3 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 4 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 5 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 6 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 7 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 8 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 9 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 10 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 11 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 12 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 13 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 14 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 15 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 16 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 17 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 18 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 19 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 20 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 21 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 22 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 23 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 24 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 25 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 26 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 27 on DP 30624, part of Maori Reserve 4074, Waipopo
Lot 28 on DP 30624, part of Maori Reserve 4074, Waipopo
Block VII Arowhenua Survey District being Lot 1 on DP 44224
Block VII Arowhenua Survey District being Lot 2 on DP 44224
Block VII Arowhenua Survey District being Lot 1 on DP 42581
Block VII Arowhenua Survey District being Lot 2 on DP 42581

**Appendix C – Figure 1 Waipopo Location Map including
Figure 2 Waipopo Hut Dwellings and Figure 3 Waipopo Hut
Settlement Map**



Figure 1. Waipopo Location Map

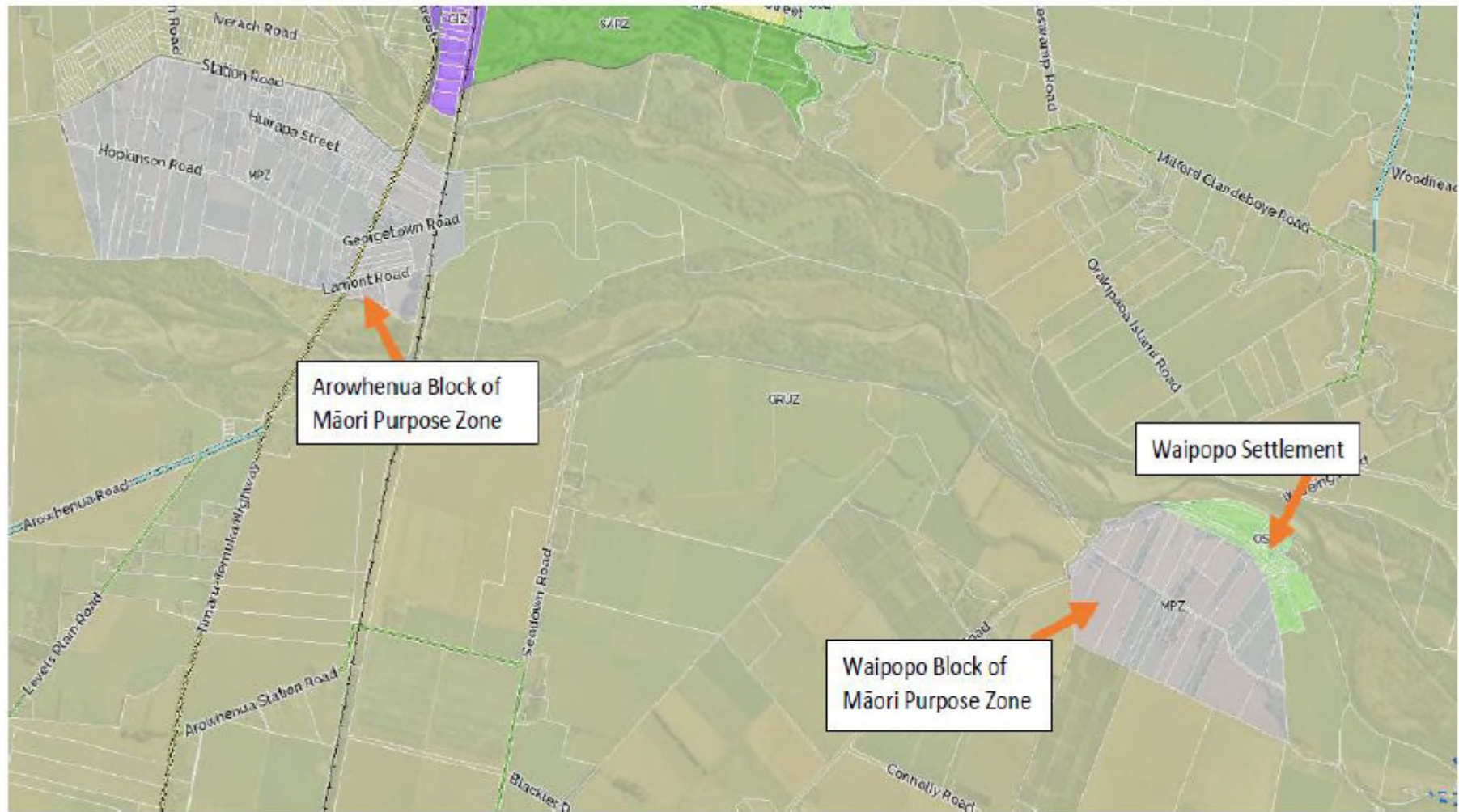


Figure 2. Waipopo Hut Settlement Map



Figure 3. Waipopo Hut dwellings

Appendix D - Te Kotare Location Map

APPENDIX 1 TE KOTARE TRUST



Figure 1: Te Kotare Trust land (in purple) – Location Map

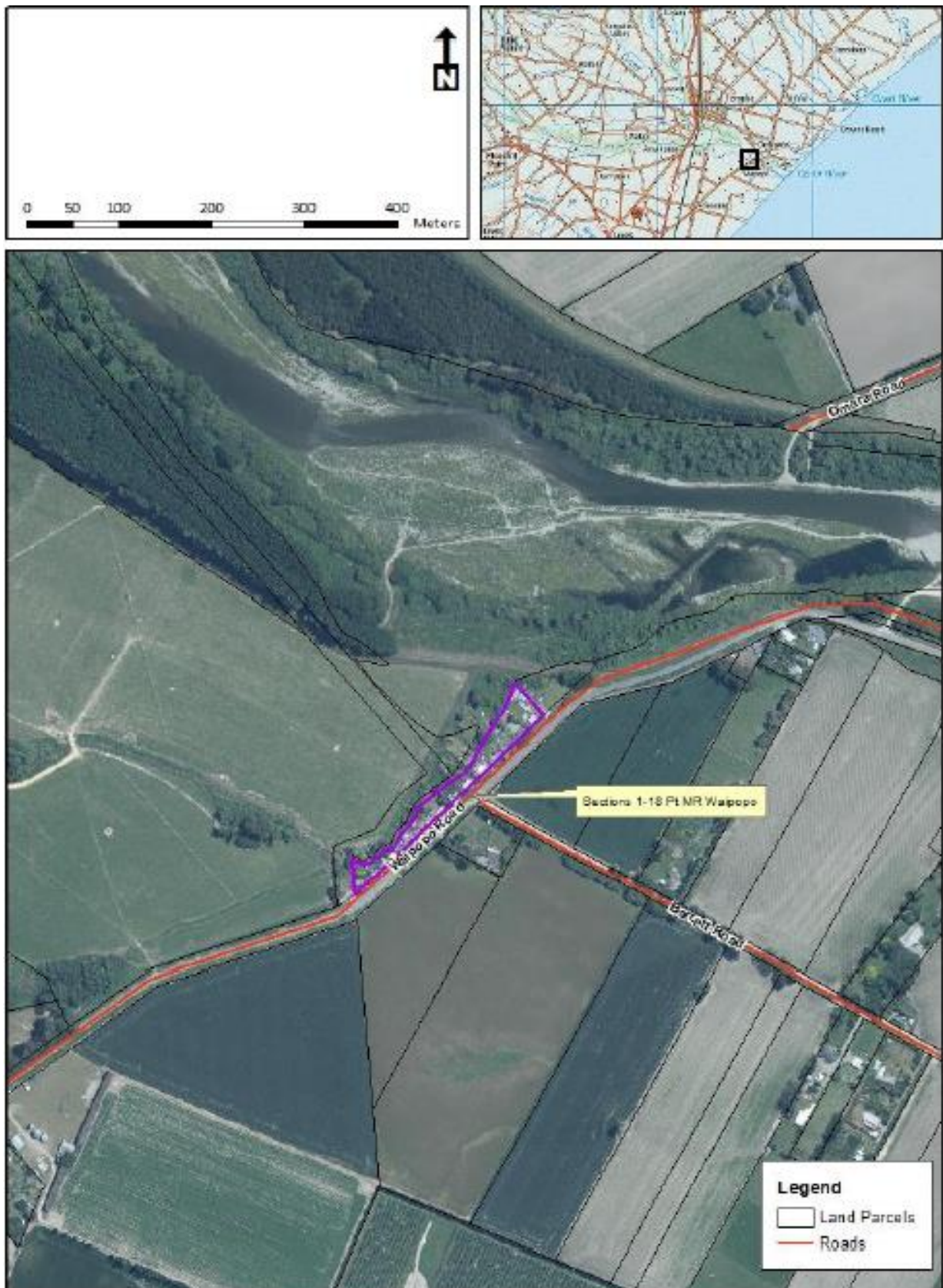


Figure 2: Te Kotare Trust land (in purple) -satellite image



Figure 3: Location and extent of Te Kotare Trust lands, with Te Kotare Stream in a blue line



Figure 4: Te Kotare Land Trust with Maori Purpose Zone Overlay



Figure 5: Te Kotare Land Trust with Flood Assessment Area Overlay

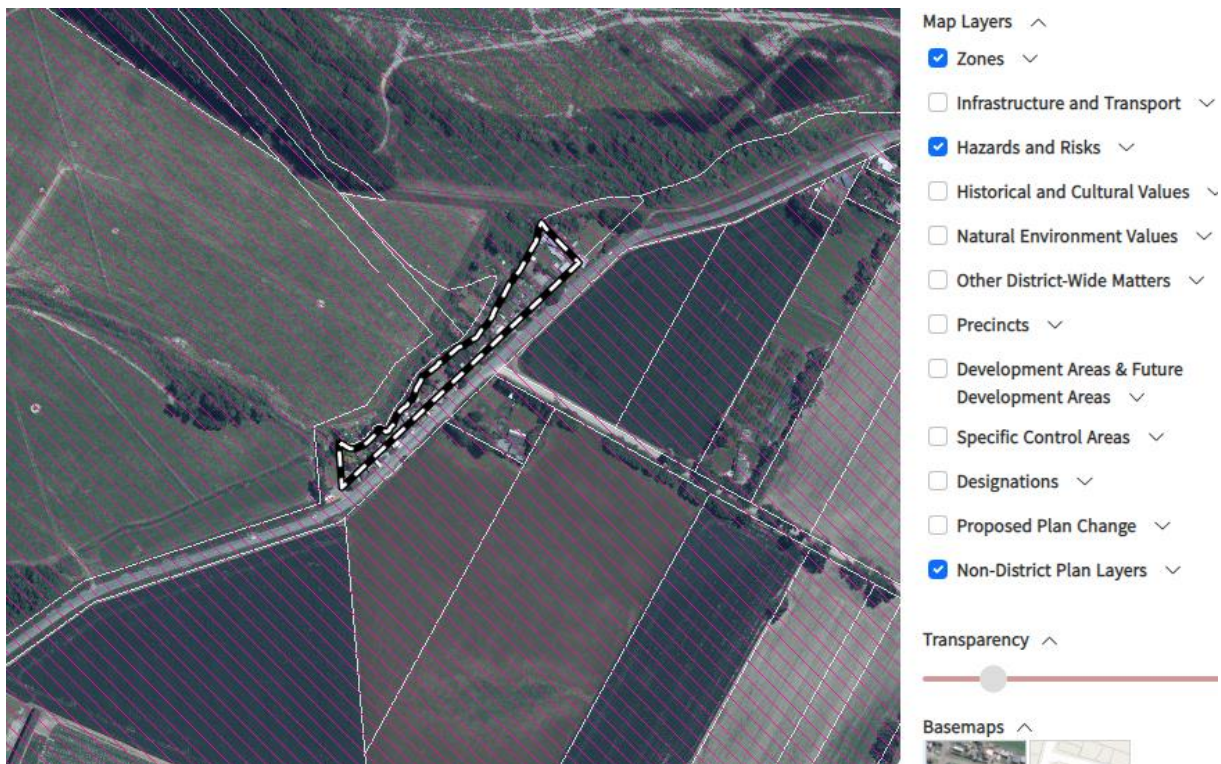


Figure 6: Te Kotare Land Trust with Liquefaction Areas Overlay

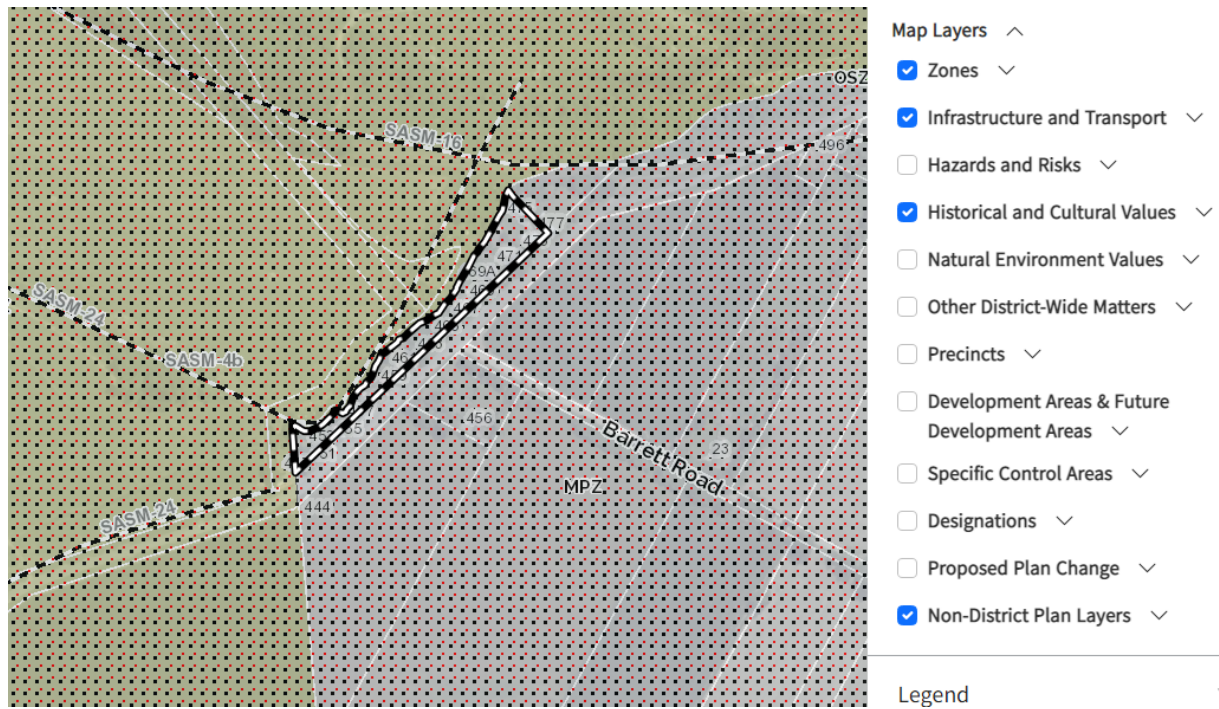
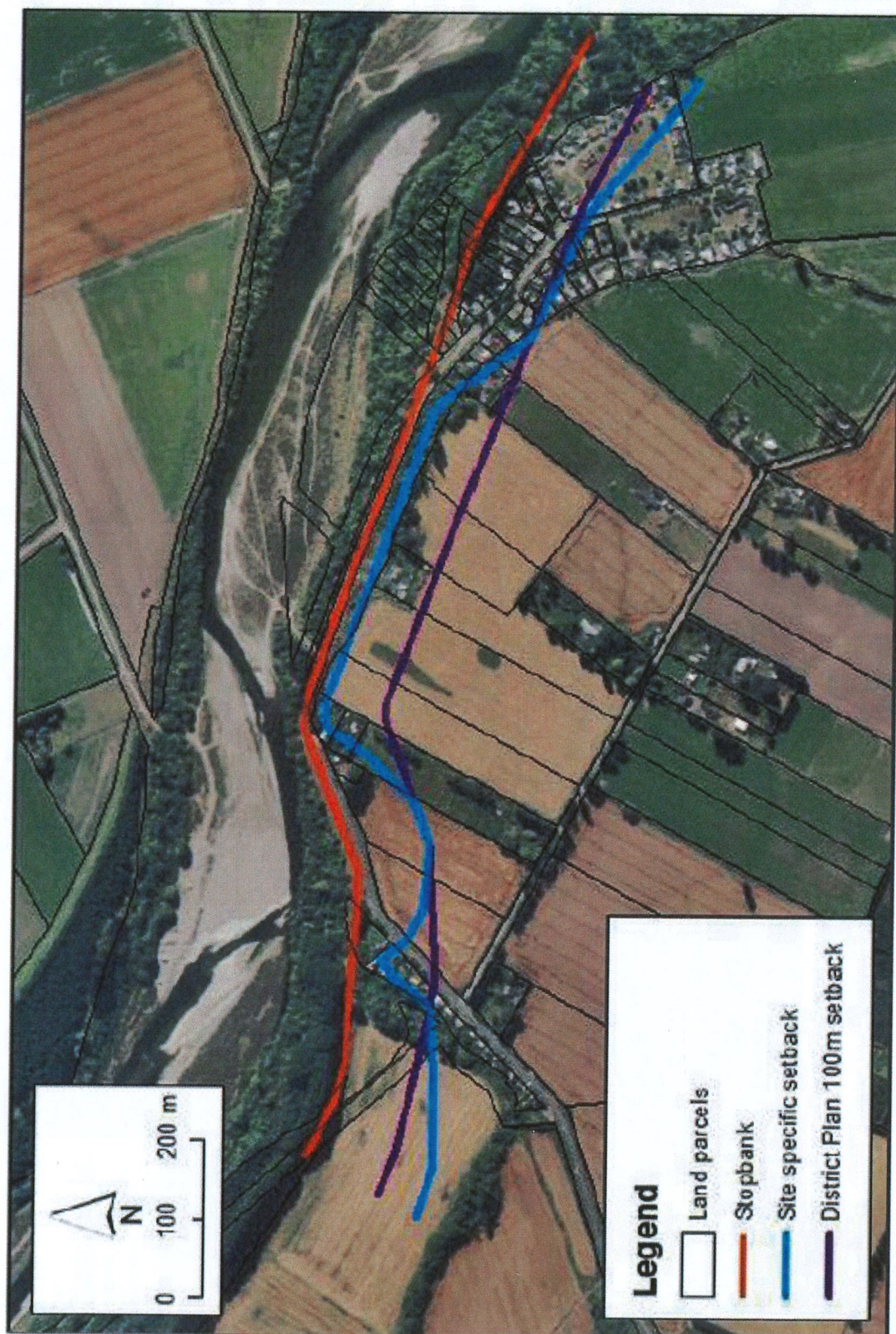
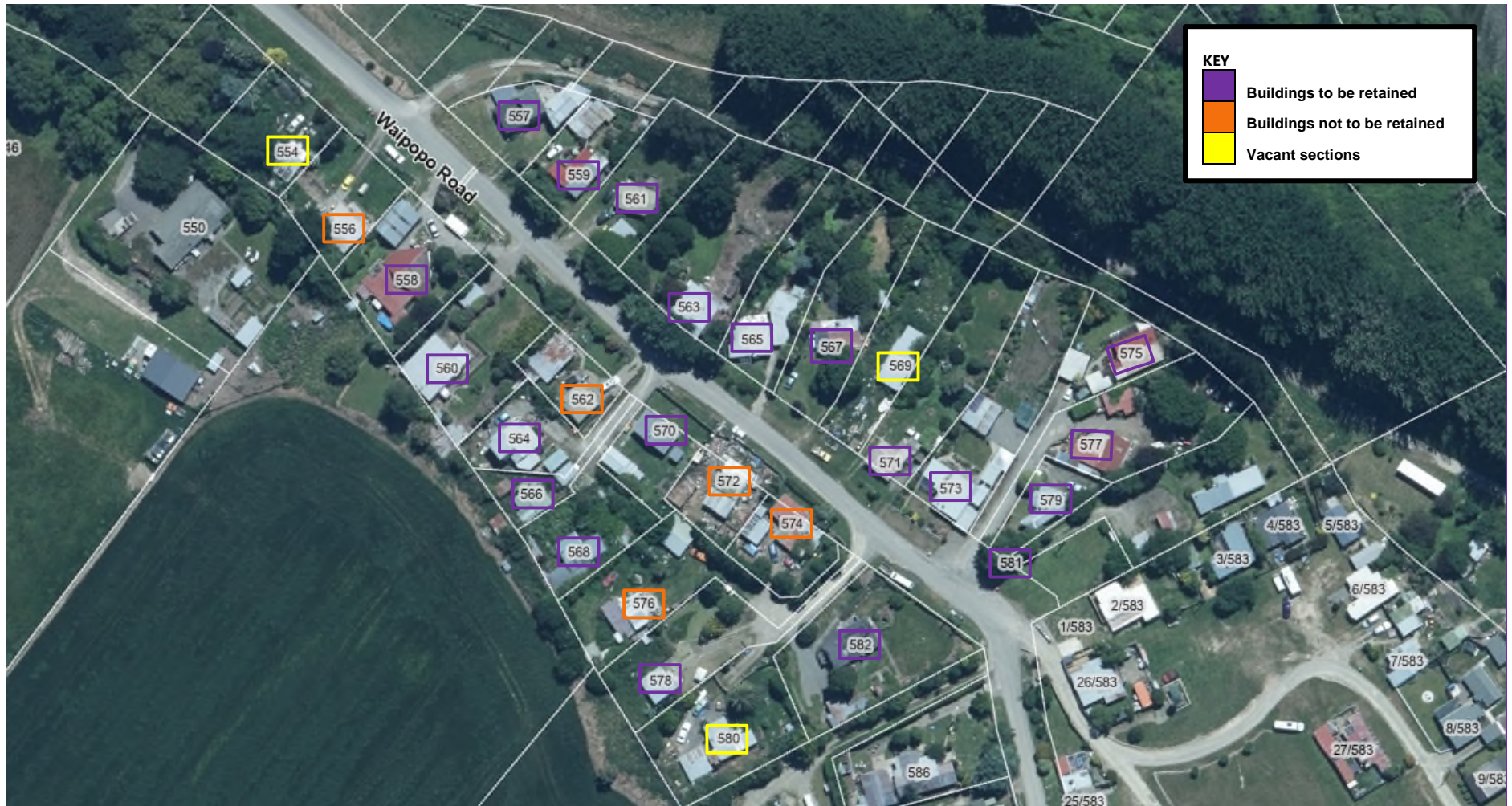


Figure 7: Te Kotare Trust land with SASM overlay

Appendix E - Map of ECan Stopbank in relation to Waipopo



Appendix F – Status of homes and lots on Waipopo Land



Appendix G – Photographs showing recent projects







Appendix H - Existing Use Certificate

29 June 2023

Te Kotare Trust
C/- Vicky King
475 Waipopo Road
RD 3
Timaru 7973

Dear Vicky,

**Application for Existing Use Right Certificate No. 107.2023.1.1
To Replace Demolished Small Home with Cottage
463 Waipopo Road, RD 3, Timaru**

I refer to the above mentioned application for an existing use right certificate lodged under section 139 of the Resource Management Act 1991.

The application is to establish a cottage within the building footprint of a demolished building on the site at 463 Waipopo Road, RD 3, Timaru.

I confirm that the use of the land described in the application is allowed and an existing use certificate has been issued and is attached to this decision.

If you have any queries on this matter, please do not hesitate to contact me at the details listed below.

Yours faithfully



Alex Wakefield
Consents and Compliance Team Leader



Existing Use Certificate

Section 139A Resource Management Act 1991

On the date of issue of this certificate Timaru District Council is satisfied that the use of land at the site described below complies as an existing use pursuant to section 10 of the Resource Management Act 1991.

CERTIFICATE NO:	107.2023.1.1
APPLICANT:	Te Kotare Trust
LOCATION:	463 Waipopo Road, RD 3 Timaru
LEGAL DESCRIPTION:	Part Waipopo Maori Reserve 882 Block
ACTIVITY:	The lawful establishment and use of a residential dwelling, 10m by 6m, with 4.6m road boundary setback.
DATE OF ISSUE:	29 June 2023
LAPSE DATE:	29 June 2028 This certificate will lapse if not given effect to by this date

Alex Wakefield
Consents and Compliance Team Leader



REPORT IN RESPECT TO AN APPLICATION FOR AN EXISTING USE RIGHT CERTIFICATE

CERTIFICATE NO:	107.2023.1.1
APPLICANT:	Te Kotare Trust
ACTIVITY:	The lawful establishment and use of a residential dwelling, 10m by 6m, with 4.6m road boundary setback.
LOCATION:	463 Waipopo Road, RD 3 Timaru
ZONING:	Operative District Plan: Recreation 1 Zone Proposed District Plan: Māori Purpose Zone
LEGAL DESCRIPTION:	Part Waipopo Maori Reserve 882 Block

1.0 INTRODUCTION

1.1 GENERAL

This report has been prepared under section 139A of the Resource Management Act 1991 (the Act) to assess the application for an existing use right certificate by Te Kotare Trust, 463 Waipopo Road, RD 3 Timaru.

2.0 PROPOSAL, SITE & HISTORY DESCRIPTION

2.1 PROPOSAL

The proposal is to seek an existing use certificate to confirm that a residential dwelling located on Part Waipopo Maori Reserve 882 Block was lawfully established as an existing use.

2.2 SITE DESCRIPTION AND SURROUNDING ENVIRONMENT

Part Waipopo Maori Reserve 882 Block is a 0.6247ha site that is currently used for holiday residential activities. The subject site, until July 2022, contained a residential dwelling, numbered 463 Waipopo Road, RD 3, Timaru, see image 1 for an aerial image of the site.



Image 1. The subject site, outlined in blue with the original dwelling clearly still in place.

The land is zoned Recreation 1 with the Opihi River to the north and surrounded to the east, south and west by Rural 2 land characterised by agricultural production, open space and interspersed rural lifestyle properties. The proximity to the Opihi River means the area is at risk of flooding, although a flood hazard assessment by Environment Canterbury dated 9 April 2022 states "...the property is situated on a narrow area of high ground between the road and a terrace located immediately west..." The property is considered 'low risk' of flooding in this report.

2.3 SITE HISTORY

The site is currently vacant as the dwelling was demolished as a hazard. Council records show a building consent was obtained in 1993 for bathroom plumbing. A Council issued Notice to Fix the building was sent in 2007, for unconsented and building and plumbing work. Site visit photographs taken in October 2006 show the dwelling. The most recent Council aerial photographs from 2017 show the building is intact.

This building was lawfully established and was removed in July 2022 as it was in disrepair and unsafe. The applicant seeks to replace the dwelling with a one or two bedroom cottage within the 60m² building footprint of the previous dwelling.

3.0 STATUTORY CONSIDERATION

Existing uses are provided for under section 10 of the Act, while Existing Use Certificates are provided for under section 139 of the Act. These provisions are outlined below:

Section 10 ***Certain existing uses in relation to land protected***

(1) *Land may be used in a manner that contravenes a rule in a district plan or proposed district plan if—*

(a) either—

- (i) the use was lawfully established before the rule became operative or the proposed plan was notified; and*
- (ii) the effects of the use are the same or similar in character, intensity, and scale to those which existed before the rule became operative or the proposed plan was notified:*

Comment: The applicant has provided sufficient information to show the history of the site including residential use. This is in the form of aerial photographs on Council records and previous correspondence with Council Senior Building Advisor and Team Leader of Consents and Compliance. I am satisfied that construction of the dwelling was lawfully established and the effects of the use remain similar in character intensity and scale.

(2) *Subject to sections 375 and 358, this section does not apply when a use of land that contravenes a rule in a district plan or a proposed district plan has been discontinued for a continuous period of more than 12 months after the rule in the plan became operative or the proposed plan was notified unless—*

- (a) an application has been made to the territorial authority within 2 years of the activity first being discontinued; and*
- (b) the territorial authority has granted an extension upon being satisfied that—*
 - (i) the effect of the extension will not be contrary to the objectives and policies of the district plan; and*
 - (ii) the applicant has obtained approval from every person who may be adversely affected by the granting of the extension, unless in the authority's opinion it is unreasonable in all the circumstances to require the obtaining of every such approval.*

Comment: This application has been made within two years of the demolition of the dwelling. An extension of time to replace the household unit since the original building was demolished is acceptable by Council as this is not contrary to the objectives and policies of the District Plan. The default Land Use Consent time period of five (5) years is applied to this certificate, if this certificate is not given effect to within this time, it will lapse.

For context the zone is Recreation 1 (holiday residential) which is low density residential in nature and character with limited infrastructure services. A flood hazard assessment from Environment Canterbury determines the property to be generally at 'low risk' of flooding.

In considering affected persons for this application, no persons outside of the property boundary are considered affected providing the replacement of the dwelling is within the footprint of the original building.

(3) *This section does not apply if reconstruction or alteration of, or extension to, any building to which this section applies increases the degree to which the building fails to comply with any rule in a district plan or proposed district plan.*

Comment: As the proposal specifies a one or two bedroom cottage will be located on the subject site, this is not considered to increase non-compliance with the District Plan.

- (4) *For the avoidance of doubt, this section does not apply to any use of land that is—*
(a) controlled under section 30(1)(c) (regional control of certain land uses); or
(b) restricted under section 12 (coastal marine area); or
(c) restricted under section 13 (certain river and lake bed controls).

Comment: The site is not affected by these specific sections of the RMA.

139A Consent authorities to issue existing use certificates

- (1) *A person may request the consent authority to issue a certificate that—*
(a) describes a use of land in a particular location; and
(b) states that the use of the land was a use of land allowed by section 10 on the date on which the authority issues the certificate; and
(c) specifies the character, intensity, and scale of the use on the date on which the authority issues the certificate.
- (2) *A person may request the consent authority to issue a certificate that—*
(a) describes an activity to which section 10A or section 20A applies; and
(b) states that the activity was an activity allowed by section 10A or section 20A on the date on which the authority issues the certificate; and
(c) specifies the character, intensity, and scale of the activity on the date on which the authority issues the certificate; and
(d) describes the period for which the activity is allowed under section 10A or section 20A.
- (3) *The consent authority may require the person to provide any further information that the authority considers it needs to determine whether it must issue the certificate.*
- (4) *The consent authority must issue a certificate under subsection (1) if it—*
(a) is satisfied that the use of the land is a use of land allowed by section 10 on the date on which the authority issues the certificate; and
(b) receives payment of the appropriate administrative charge.
- (5) *The consent authority must issue a certificate under subsection (2) if it—*
(a) is satisfied that the activity is an activity allowed by section 10A or section 20A on the date on which the authority issues the certificate; and
(b) receives payment of the appropriate administrative charge.
- (6) *A consent authority that must issue a certificate must do so within 20 working days after the latest of the following dates:*
(a) the date on which the authority receives the request; and
(b) the date on which the authority receives all the information required under subsection (3); and
(c) the date on which the authority receives the payment of the appropriate administrative charge.

(7) Subsection (8) applies if a consent authority that issued a certificate becomes aware that the information that a person provided in order to obtain the certificate contained inaccuracies.

(8) The authority must revoke the certificate, if it is satisfied that the inaccuracies were material in satisfying the authority that it must issue the certificate.

(9) An existing use certificate is treated as an appropriate resource consent. The provisions of this Act apply to the certificate, except for sections 87AA to 119, 120(1A) and (1B), and 123 to 150.

(10) Sections 357A, 357AB, and 357C to 358 apply in relation to the issue or revocation of an existing use certificate.

4.0 ASSESSMENT

The applicant has provided sufficient information to show the history of the site including residential use. This is in the form of aerial photographs on Council records and previous correspondence with Council Senior Building Advisor and Team Leader of Consents and Compliance.

I am satisfied that construction of the dwelling was lawfully established and that replacing the dwelling with a one or two bedroom cottage, within the established footprint, does not require resource consent. A time period of five (5) years is allowed for the applicant to exercise this existing use right or else this certificate will lapse. The use of the building as a household unit is not listed as a permitted activity in this zone, however with existing use rights, it is considered acceptable.

This activity does not contradict any objective or policy in the District Plan due to the flood hazard assessment from Environment Canterbury dated 9 April 2022 defining the property as 'low risk'. The applicant confirms that prior to the construction of the dwelling a specific flood assessment will be conducted to define an appropriate floor height for the subject site.

5.0 CONCLUSION & DECISION

Based on the above assessment it is concluded that the activity described in this report can continue to under section 10 of the Act and that an existing use certificate pursuant to section 139 of the Act be issued in respect of as described in the application.



Alex Wakefield
Consents and Compliance Team Leader

Date: 29 June 2023

Appendix I - Hui Minutes - 29 May 2021



District Plan Review: Meeting Notes

Māori Purpose Zone Hui

Topic: Māori Purpose Zone
Date: 29 May 2021
Venue: St Joseph's Hall, Temuka

Abbreviations Used:

MG = Mark Geddes – District Planning Manager
MQ = Mike Quinn – Facilitator, from Māori Land Court
MLC = Māori Land Court
MPZ = Māori Purpose Zone

Questions raised in blue, and the response in italics

Introduction

MG opened hui, introduced Council officers and the facilitator. Following the karakia, MQ provided an introduction to the meeting and his role as facilitator.

MG explained what was proposed in the draft Plan, noting that the draft Plan has no status, but allows people to provide their views on a 'first cut' of the Plan. Explained that there was a Steering Group for this topic, and a desire to have landowners involved.

The proposed timeline for the next steps of the District Plan review, including the steering group, was set out.

Background

MQ explained the background to Māori Reserves, and how regulation by government had clashed within the original intention for what these reserves were set aside for. Explained that the proposed MPZ incorporates original Māori Reserve land areas. Briefly outlined proposed permitted activities within zone.

Draft District Plan Provisions

Question: What about the impact on landowners who have bought in the area because of the lifestyle – is it just tough luck that they are now subject to potential development on surrounding sites?

MQ: Zoning and framework reflect that reserves have not been able to be used for their intended purpose.

Question: Will/how will activities be controlled within the MPZ to manage impacts on surrounding land? A concern about the quality of the buildings/future buildings in the area was raised.

MG: Building Act will still apply to any proposed buildings. MPZ also includes other standards intended to manage effects on neighbours, for example setbacks and recession planes.

Concern was raised about the quality of the environment, particularly at Waipopo where illegal campers had moved in. Buses, tents and a container. There is no sewage.

Question: What happens to land that is privately owned/freehold title with no whakapapa connection?

MG: More or less you'll have the same rights to continue to do what you have been doing. Existing use rights apply for any lawfully established existing activities.
A request for clarification on history of land was made, and replied to by MQ.

Question: How will development of Waipopo be serviced?

MG: Acknowledged that servicing was an issue and Council currently have no funding to provide services. Any development would need to organise its own servicing e.g. bore water/roof water and septic tank.

Concerns raised about the lack of servicing in Waipopo currently.

Attendee: The proposed zoning is a starting point to move towards original intention for reserve land. There is an opportunity to look at servicing via a co-governance agreement. Zoning is just the start of the journey.

Presentation

A presentation was provided from Erica Mark from the MLC. Emphasised that papakāinga is different for different people and is not about a type of house. Takes different shapes and forms depending on whanau needs, their whenua and their wider community. Provided some examples of papakāinga. Outlined importance of connection as a whanau.

Question: Was rezoning required? Did it impact on rates?

Erica Mark and Shalom: In that district, a separate zone does not apply, but papakāinga is enabled through the District Plan. It did increase the rates, but only after development completed, and the reason given was that the people living in the papakāinga development had access to various Council services.

Question: How much land did developments use?

Erica Mark and Shalom: Different for different papakāinga, one example was for 5 houses on one acre, others involved a bigger land parcel. Noted that the whenua was usually in one title.

Māori Land

Question: What is the process that can be used in this district to avoid land fragmentation because of multiple owners? How is it actually going to work in practice?

MQ: Opportunity to create a trust.

Concern was raised about lack of education for trustees, and that the Council does not have a record of Māori land.

MQ: accepts that MLC has a role in education surrounding trusts. Resourcing at MLC is better now. But education about trusts is basic and does not teach trustees about governance. Noted that Te Puna Kōkiri is looking to roll out governance training. Also noted that changes are coming to the Rating Act.

Attendee: Accepts complexity of land ownership in this area. Noted that there may need to be another korero between landowners about options, separate to this hui.

Concern expressed that land ownership information is not passed on to local government.

MG: Discussion is needed on this between Council and MLC.

Question: Given there is no benefit to general landowners in being in the MPZ, why can't they have another zoning such as rural lifestyle?

MG: We hear that feedback, but as a Council officer he can't just agree that here on the spot. All the District Plan changes need to be taken through Steering Group including Rūnanga and then through Council's Elected Members.

Question: What support is there from local government to assist with development?

MG: At the moment there is nothing, but it is part of the wider matters to be looked at. Such support is probably not a regulatory matter, and at the moment it is just the District Plan provisions being considered. The Council's Long Term Plan could be an

area people want to get involved in, can make submissions on how the Council does or does not provide services.

MQ: noted that Te Puna Kōkiri feeds into funding for land development.

Draft District Plan Provisions continued

MG then went on to provide an explanation of proposed rules for MPZ.

Question: Is zone needed? Or can papakāinga be facilitated through rules instead of through zoning.

Attendee: noted that the zone is not wanted by a lot of people and referred to a petition that has been submitted as part of the feedback process.

The permitted activity rules were outlined. Concern was expressed about permitting urupā.

Concern was expressed about lack of consultation of affected landowners in drafting of rules.

MG: outlined consultation that had been undertaken as part of review process, and that the AECL – Aoraki Environmental Consultancy had been instrumental in drafting up the Plan and had been consulted with along the way, as per RMA requirements. He also reiterated that the draft plan was a form of consultation and that there had been on-going consultation with Te Rūnanga o Arowhenua for a number of years on the District Plan Review.

Attendee: expressed desire for Steering Group members involved to be presented the reasoning for rules.

Question: What does intensive farming mean? Concern that it would require consent for break feeding of cattle, which is undertaken in that area.

MG: Referred to the definition of intensive farming in the Draft District Plan. He also explained that TDC got clear feedback from AECL that this type of activity was not desirable in the area. However, all feedback is encouraged and he noted the feedback.

Question: How were cultural consultants appointed to steering group?

MG: Explained legal requirement to consult with Ngāi Tahu, and they subsequently requested that Council consult with Te Rūnanga o Arowhenua. AECL is Rūnanga's environmental consultancy that deals with all their resource management planning matters.

Desire was expressed by participants for:

- Waipopo Huts to be included in the zone
- For services to be provided

- For the low cost of living to be maintained
- Support from Council to stop freedom camping in the area

Question: Why is permission from the Rūnanga needed?

MG: This was requested by AECL to implement kaitiakitanga (guardianship), which is a matter under the Resource Management Act 1991 that local authorities need to have particular regard to. It is only needed for activities that require resource consent, not for permitted activities.

Question: What about continuation of some activities?

MG: They have existing use rights and can continue on the same basis.

A comment was made about the need to understand the difference between the Rūnanga Act and the Treaty of Waitangi and that tangata whenua is different to Rūnanga. AECL do not have a legal say over landowners.

MG: This outlines the importance of having landowners on the Steering Group.

Feedback Form

MQ ran through some of the questions on the feedback form. Answers from the floor are summarised below.

MQ – What are the important things?

- *Whakapapa*
- *Mahinga kai*
- *Te wai*

MQ - What needs to change or improve?

Servicing needed to accommodate type of development that is desired.

The District Plan provisions are the first hurdle. Servicing can be looked at next.

MQ – Is there concern about use of MPZ?

- *Options for underlying zone to stay the same, with a rule to provide for papakāinga*
- *General dislike expressed for the name 'Maori Purpose Zone'.*
- *Concern about impact of zone name on property values?*

MG: Council got advice from a registered valuer. The valuer provided a report suggesting the rangatiratanga provisions will likely devalue properties but otherwise it should not negatively affect property values.

Concern expressed about lack of information being disseminated to landowners (such as valuation comment)

MG: No background information has been released for any parts of the district plan review, but will form part of information provided when formally notified. This will form part of the S.32 report which Council must provide when the Proposed District Plan is notified.

Concern expressed that information is not correct as real estate agents have said it will devalue land.

Concerns also expressed that banks will not loan for this type of development.

MQ: MLC is available to assist with this and is actively working with banks to provide different banking packages.

MQ provided a summary of major themes from the hui:

- Servicing
- Name/different type of approach needed

Steering Group membership

Four members appointed to steering group.

Allan Newton – Director Waipopo Farms
Lisa Stevenson – Trustee Waipopo Farms
Aroha Rickis
Cruize Erueti

Process Going Forward

- 1. Submit any additional feedback**
- 2. Steering Group meeting (June)**
- 3. Hui (July)**
- 4. Steering Group meeting (August)**
- 5. Environmental Services Committee Workshop**
- 6. Environmental Services Committee meeting**
- 7. Adopted Proposed District Plan**
- 8. FORMAL CONSULTATION PHASE BEGINS**

**Appendix J - Takata Whenua Steering Group Minutes
(including rezoning map) – September 2021**



District Plan Review

Takata Whenua Steering Group (TWSG) Meeting Report

Topic: Māori Purpose Zone
Date: September 2021

1. Summary of previous TWSG

At the last Steering Group meeting, it was decided to:

- Retain the Māori Purpose Zone, and continue to apply it to the current area, as well as the Waipopo Trust Land;
- But only apply the provisions within the chapter to Māori Land – not General Freehold title.
- Non-Māori land would instead be subject to the General Rural Zone provisions.
- Include a definition of, and explicitly provide for, papakāinga.
- Have a think about how to apply specific farming rules within the Zone to avoid Intensive Farming and practices such as break feeding and pig farming, but to still allow for the keeping of a few animals.
- Retain the name of the zone as Māori Purpose Zone.

2. Responding to the previous TWSG

2.1 What's in the Zone

The initial aim for the extent of the MPZ, like others around the Country, was that Māori Reserve Land intended for settlement, be included within the Zone. The maps have now been updated to accurately reflect what we believe were the Reserves known as 881 and 882. To do this, two properties to the north east of the Arowhenua block have been added, as shown below in Map 1, that were inadvertently left out of the Draft District Plan.

Block 4074 had proven a little more problematic and there are several differing maps of the Reserve dating back to the late 1800s, which show a differing extent of the reserve. However, we now we have been through some of the land titles and based on feedback received to determine whether the reserve included the Waipopo Trust land so as per the agreement at the end of the last TWSG.

A map of the area is shown below. After the TWSG, we will finalise the map of the Waipopo area.

Map 1. Arowhenua Area Block 881– Māori Purpose Zone (area highlighted should be added to the MPZ, this was not in the Draft District Plan but was part of the Māori Reserve)



Waipopo Area Block 882 and 4074 – Māori Purpose Zone (areas to be discussed at TWSG is highlighted in following map – it is recommended that this area is added to the MPZ)



From the perspective of former reserves, we have evidence that both the Kotare and the western extent of the Waipopo Huts areas are part of the former reserves and accordingly should be part of the MPZ, to follow TDC's original approach. Within the draft district plan, some of the huts were zoned MPZ and the Waipopo huts were zoned Open Space (Hut Precinct). By zoning both of these areas MPZ, we now have a consistent approach to 'what's in the zone'.

TDC did receive feedback about the logic of zoning land within the MPZ when it was subject to flooding. So while it is true, much of the Arowhenua and Waipopo areas are subject to some level of flood risk, the risk varies throughout the Zone and is not considered to be such, that no development could occur. There are controls and provisions within the Natural Hazard Chapter of the Plan which cover the approach to flood risk. Depending on where and what is being proposed, consent may be required for development and/or proposals may need to be supported by a flood risk assessment. This part of the plan is not overridden, so to speak by the MPZ.

However, there are parts of the former reserve 4074 are on the river side of the ECan stopbank. For obvious reasons, building on the river bed or the river side of the stopbank would be of concern. Therefore, although we have amended the boundary of the MPZ to incorporate the former reserve, a new rule has been added to make it clear habitable buildings are not appropriate in this particular location. Other uses (aside from habitable buildings) are enabled by the MPZ provisions including activities such as mahika kai and the likes of pou, so there does seem justification to zone the area, MPZ.

We did consider other options, such as zoning both of the huts area under the Open Space (Hut Precinct). The objectives of this zone are focused on maintaining and enhancing the character of the areas and to avoid putting people/buildings at risk from hazards. However, we feel that zoning the former reserves as MPZ does give some opportunity (subject to any consents and necessary flood risk assessments) for the objectives of the MPZ to be delivered, such as enabling appropriate development to create a place for whanau to return to.

2.2 How the Zone applies

Since the previous TWSG, we sought legal advice about several matters regarding – what is considered Māori Land.

The proposed definition of Māori Land being:

Māori Land means land within the Māori Purpose Zone that is:

- a) owned by the Rūnanga; or*
- b) Māori communal land gazetted as Māori reservation under s338 Te Ture Whenua Māori Act 1993; or*

- c) Māori customary land and Māori freehold land as defined in s4 and s129 Te Ture Whenua Māori Act 1993; or*
- d) Owned by a person or persons with evidence of whakapapa connection to the land (where documentary evidence of whakapapa connection is provided from either the Māori Land Court or the Te Rūnanga o Ngāi Tahu Whakapapa Unit), or*
- e) Is vested in a Trust of Māori incorporation under the Te Ture Whenua Māori Act 1993.*

Rūnanga role: A concern has been raised, regarding the inclusion of land that is a) (from the definition above) owned by the rūnanga, within the definition of Māori Land. With fear of oversimplifying, the concern was that rūnanga owned land would not necessarily be returned to those that whakapapa to the land. This concern is acknowledged.

However, this view needs to be balanced with the advice and request of Aoraki Environmental Consultancy Limited (AECL). AECL is the Rūnanga's environmental consultancy Ngai Tahu requested TDC consult with. The request to include 'land owned by Rūnanga' within the definition of Māori Land came from AECL.

We note Christchurch City Council also include a similar approach in Plan Change 8, with one of their categories of Māori Land being 'Any land owned by a rūnanga with authority/mana over the area in which the original Māori reserve is located'.

Christchurch City Council, amongst other matters addressed in plan change 8 and the development of the Zone, very purposefully planned for the rūnanga to exercise kaitiakitanga land in a way which was consistent with the original purpose of the reserve.

Other Council's have different approaches to what is defined as Māori Land, often it must be land that meets the criteria (c) as above being 'Māori customary land and Māori freehold land as defined in s4 and s129 Te Ture Whenua Māori Act 1993'. Such a definition is relatively narrow, and in areas where Māori land ownership is so fragmented by General Ownership (such as Waipopo and Arowhenua), not allowing rūnanga the opportunity to purchase property and benefit from the MPZ, could be seen as a lost opportunity to help achieve the objective of the zone.

In this circumstance, where two counterviews have been provided to Timaru District Council and we have tried to take a balanced view about how the objectives of the Zone can be achieved. If we do not include land owned by rūnanga within the definition of Māori Land and that land is just general freehold land, it could be owned by anyone, be in foreign ownership or perhaps a large corporate farming enterprise. Such scenarios would not achieve the purpose of the Zone and could even detract from it.

We do not propose deleting a) land owned by rūnanga from the definition of Māori Land.

The legal opinion sought, did not identify any legal issue with this approach.

Whakapapa connection: There had been discussion and feedback that d) (from the definition above) potentially allowed for some sort of bias against those who didn't affiliate with the rūnanga, or potentially a favouritism to those who did.

TDC sought a legal opinion on the issue of whether Te Rūnanga o Ngāi Tahu Whakapapa Unit, was the appropriate body to confirm or establish whakapapa connection. The opinion confirmed that under the TRoNT Act and the role of Ngāi Tahu, under that Act, it is entirely appropriate to rely on the Te Rūnanga o Ngāi Tahu Whakapapa Unit to establish whakapapa connection.

Additionally, as noted by the legal opinion also, d) does also allow Māori Land Court process to establish whakapapa, so effectively, there are two methods of establishing whakapapa. This is also an appropriate back up, if there are concerns about the outcome of the process through the rūnanga.

It would also be inappropriate for Council officers, who are not expert either professionally, or in the eyes of the law, to determine who does or does not have whakapapa connection.

To remove d) and not allow a person with a whakapapa connection to benefit from the MPZ provisions, would not achieve one of the objectives of the Zone, as provided for by the National Planning Standards, to create an appropriate District Plan setting to allow people to return to the area.

In this context, we do not propose amending or deleting clause d).

2.3 Papakāinga/Papakāika

At the previous TSWG, the approach to papkāinga was agreed so is no need to discuss this matter again. However, we would like to highlight that advice from AECL is the District Plan should be using the local dialect, including referring to papakāinga as papakāika.

Other words will also change to reflect the local dialect including:

Mahinga kai becomes mahika kai

Whānaungatanga becomes whānaukataka,

Mātauranga becomes mātauraka

Tikanga becomes tikaka

2.5 Intensive Farming

The rules around farming have been changed. The changes relate to aligning the

provisions of the MPZ with the General Rural Zone approach where necessary and trying to include a solution to amenity concerns raised by winter grazing.

Rule MPZ-R3 PER-2 has been added. A significant amount of work went into this change, which is outlined on in Appendix 2. Appendix 2 is a memo outlining the options we looked at for controlling winter feeding and includes additional information about roles and responsibilities relating to winter feeding.

In summary, the option we have chosen to control winter feeding is to control the ground cover and the feeding type. We believe this option, best manages the effects of winter feeding without creating difficult matters to monitor or enforce. The rules would apply to any feeding within 50m of a house in different ownership.

Discussion on the preferred option D is detailed in Appendix 1 and reflected in Appendix 2 the new provisions (MPZ-R3 PER-2).

Other changes, including those to mining, plantation forestry and intensive primary production made in advance of the previous TWSG remain unchanged.

3. Summary

In summary, the following decisions are sought at the TWSG:

1. Agree the zoning of the MPZ. The recommendation is that the Zone be extended to include the full extent of the Māori Reserve 4074, including the Waipopo huts area. However, any proposal to build a habitable building on the river side of the ECan stopbank is prohibited. See MPZ-R1 PER-2.
2. Note that papakāinga has been transferred to the name pakakāika as per local dialect. The same goes for other terms such as mahinga kai and other words.
3. Note the differing feedback on establishing whakapapa and agree the approach to allow Te Rūnanga o Ngāi Tahu Whakapapa Unit OR the Māori Land Court to establish whakapapa connection. Also agree that rūnanga owned land can benefit from the MPZ provisions.
4. Agree a rule for winter grazing/strip feeding. See rule MPZ R-3 PER-2 in **Appendix 1**.
5. Overall agree to the changes in **Appendix 2**.

Appendix 1. Winter Grazing



MEMORANDUM

To	Takata Whenua Steering Group (TWSG)
From	Loren Brown – Planner TDC
Date	Tuesday 31 August 2021
Subject	Māori Purpose Zone – possible farming controls

Issue for discussion

As raised at the previous TWSG, the issue of winter grazing and intensive animal grazing has negative effects on the **amenity** of the residents within the Māori Purpose Zone.

The amenity concerns created by farming practices appeared to be a combination of smell, visual, water quality concerns, long term damage to the whenua and possibly animal welfare type concerns. The use of strip feeding or break feeding, the animals standing in mud and the quite visible waste concentration negatively affects the value and enjoyment some people take from the whenua.

However, TDC has also received feedback that farming activities should be allowed to continue as per the Rural Zone rules.

So over the past few weeks, TDC have been investigating ways in which we can:

- balance the feedback that farming should not be adversely affected by the new zone, but while trying to ensure the amenity of current and future residents, is not impacted upon;
- balance the Draft District Plan's desire to give effect to the Waipopo and Arowhenua areas of places for settlement, where quasi-residential development could occur within a currently rural environment.

Approach for MPZ and General Rural Zone

The approach for the zoning we are favouring is:

- If the land is Māori Land (which we define) then the MPZ rules apply, including the ability to build papakāinga and other cultural, sporting and health uses. We would hope the area would become more 'residential' over time.

- However, if the land is not Māori Land, i.e. it is just General land, then the General Rural Zone rules apply. This was very important to the community who had provided feedback, they did not want the new Zone to put them at a disadvantage.
- TDC would like to address the amenity concern, without creating a situation where the existing landowners feel like new rules impact upon farming operations or property values.

Possible District Plan approach for concerns with animal grazing

Within the General Rural Zone, primary production is largely permitted although the plan has differing rules for intensive primary production, including indoor and outdoor primary production. For the most part, rules relating to setbacks control the buildings and possible effects. There are some rules relating to ground cover and animal feed type.

We investigated whether we needed a bespoke rule to cover all of the MPZ, including both Māori and non- Māori land alike. We looked into farming practice including industry information sheets, but also spent some time liaising with ECan about what they control and how the National Environmental Standards Freshwater Management apply. However, note we understand the amenity concerns raised about winter feeding/strip feeding were not solely based on water quality concerns.

APPROACH A: CONTROL THE GRAZING TYPE

Permitted activity for stock grazing subject to requirements that, within 50m of a household unit:

- ***Stock cannot graze on winter feed crops (except pasture); and***
- ***Stock cannot be fed a supplementary feed and must only graze on pasture.***

Comments on approach A:

- It is common farming practice in the winter and dry summers to feed pasture and some supplementary feed (e.g. hay, baleage, grain), so by restricting this, some land may have to be destocked at certain times. Destocking certain areas may not be an issue for some farms, but it may be more difficult for smaller land holders, who may not have room to move the stock too.
- Restricting feeding of these supplements may cause a greater area to be affected by pugging/soil compaction if farmers are moving stock off to another block for supplementary feeding.

APPROACH B: CONTROL THE GROUND COVER

Grazing animals within 50m of a residential unit on any other site is permitted, providing:

- ***The stock density is such that a permanent vegetation cover is maintained; and***
- ***Supplementary feedings using a food source from outside sources is limited to extreme weather events such as drought and snow.***

Comments on approach B:

- This approach would not prevent winter feed crops.
- This approach has potential but we would need to be mindful that in renewing pasture there will always be periods where pasture is un vegetated.
- Also maintaining full pasture can be difficult all year around so restricting supplementary feeds puts animal welfare at risk. Supplements are an essential part of the farming toolbox and are needed in our winters as a matter of course.
- If the property has scale, this rule could effective but if it was a lifestyle block or small holding, it is likely the owner may have to destock.

APPROACH C: CONTROL THE STOCKING RATE

Grazing animals within 50m of a residential unit on any other site is permitted, providing:

- ***The stock density is no more than 20 units per hectare at any time.***

Comments on approach C:

- This approach has the advantage that the use of 'artificial feed' is still allowed but the stocking rate should not generate the ground pugging/soil compaction, waste effects, smell etc.

- The 20 stock unit, at this stage, is a suggestion based on advice from ECan. If this approach is to be progressed through into a rule, this number would need to be further worked through.
- A disadvantage of this approach is the potential difficulty of monitoring and enforcement of this for Council staff, and even how the density is calculated.
- Often there are very large empty paddocks surrounding the intensively grazed paddock, which can be partitioned off from the animals. In this instance, the overall stocking rate of the farm per hectare could be acceptable, but the particular paddock the stock are housed in could be very high.
- We would also need to explore whether all stock would have the same rule.

APPROACH D: CONTROL THE FEEDING TYPE AND GROUND COVER RATE

Grazing animals within 50m of a residential unit on any other site is permitted, providing:

- ***the stock are not break feeding;***
- ***Permanent ground cover of no less than 90% is maintained, except during times of crop renewal or resowing.***

Comments on approach D:

- This approach does not allow for break feeding or complete reliance on 'artificial' winter feed.
- Monitoring (if required) should not be as difficult as measuring stocking rates and it does not explicitly make it not permitted to give stock some level of supplementary feed, providing there is still a decent ground cover.

Existing use rights

Regardless of the approach taken by the Proposed District Plan, it is important to note that existing use rights apply. Existing use rights are established by the RMA, and provide for uses which were lawfully established prior to the notification of a new District Plan. The existing use rights mean that essentially any property with winter grazing or break feeding, can continue as long as the effects of which are the same or similar in character, intensity and scale as they were before the plan was notified and the activity was not discontinued for a period of 12 months before the proposed rule was notified.

Therefore, it is important to note existing use rights would likely diminish the effectiveness of the District Plan options to address this matter. Any new farming operation or any new winter feeding, would however, be subject to the approach adopted in the PDP once notified.

Other methods for the control animal grazing

As the District Plan, may not help address the amenity issues raised by existing uses in the area, it's useful to consider whether there are other methods to control grazing.

National Environmental Standards/policy: Nationally, the NES on Freshwater is relevant. Although the NES does require resource consent for some Intensive Winter Grazing (IWG), its purpose is to protect and improve water quality *not* the amenity issue raised by the TWSG. The details of the NES are too numerous too adequately summarise in this paper, but Horizons Regional Council has prepared a useful guide which can be viewed [here](#).

Essentially, from May 2021, farms comprising 5ha or more of horticulture; 20ha or more of pasture or crops; or a mixture of 20 ha of pasture and crops, resource consent will be required for IWG, if IWG has not occurred on the farm at the same scale, in the past¹.

From May 2022, further conditions start to apply to those same size farms. For example, IWG will only be permitted (i.e. not need resource consent), if areas of IWG are not greater than 50 ha or 10% of the farm area; pugging depth is less than 20cm and must not cover more than 50% of the paddock; the land is not sloped more than 10 degrees. There are also requirements on water troughs and distances from streams/rivers.

The NES and any subsequent resource consent process will be administered by ECan.

Environment Canterbury: ECan also have range of rules and requirements relating to farming activities, which are also too numerous to summarise for the purpose of this report. However, through the Land and Water Management Plan, there are controls over winter grazing which generally apply to larger farms (over 100ha) and the focus of rules is very much related to water quality. There are requirements to exclude stock from water ways, manage the grazing of sloped land carefully and manage waste disposal. Intensive farming and winter grazing are defined.

The Canterbury Air Regional Plan also contains controls on the discharge of odour, dust and smoke. While the concerns raised by the TWSG, weren't solely related to odour, it is noted within this Plan, the focus is ensuring that any discharge 'is not likely to cause an adverse effect beyond the boundary of a property'. There are several clauses of this plan focused on containing any adverse effects within the property boundary.

¹ 1 July 2014 to 30 June 2019

It is fair to note, that within the current regional rules there is a gap on the management of winter grazing effects from smaller farms.

TDC Consolidated Bylaw: TDC has a Consolidated Bylaw (2018) which outlines a range of matters/uses that could happen within the District and that are controlled by a range of legislation, including for example the Health Act and Local Government Act.

The bylaw contains the following clauses:

1703. Stock in urban areas

1703.1. Any person keeping stock in an urban area of Timaru district shall ensure that premises where stock are kept meet the provisions of the First Schedule of this chapter of the bylaw.

Clause 1703.1 - Stock in urban areas

1. Fences must be adequate to prevent animals from wandering and all road gates to paddocks must be able to be securely fastened. In addition a restraining wire shall be placed 1 metre from any neighbouring residential property.
2. Animals shall not be kept in such number, manner, or of such size that would cause a nuisance.
3. Any electric fencing must be:
 - (a) At least 1 metre from any boundary line and 1 metre from any neighbouring residential property;
 - (b) Suitably labelled to indicate that the fence is electrified;
 - (c) Checked daily to ensure it is operating correctly.
4. An adequate water supply must be provided in an appropriate position on any area used to keep animals, poultry or bees.
5. Where natural feed on the section becomes insufficient, the stock (except horses) are to be removed. Feeding in for horses is permitted, provided no nuisance arises.
6. In the case of horses, manure is to be removed daily.
7. The minimum area for the keeping of horses shall be not less than 2023 square metres for each horse (1 / 2 acre).
8. The owner of any property, of area greater than 2000 square metres and which is rezoned residential, may seek exemption from the requirements of this schedule provided that non-compliance does not create a nuisance for any adjoining property owner.

The bylaw defines the urban area, which includes the Temuka, Arowhenua and Waipopo areas.

The bylaw does address the matter of artificially feeding stock and the nuisance it can cause. The bylaw uses the definition of nuisance from the Health Act, which is very broad and includes the words 'offensive' which could align with the amenity concerns raised.

The way the bylaw is written and the matters it covers, are not up for debate during this District Plan review. As the bylaw stands it could be useful for Māori Purpose

Zone residents, if the issue of over stocking and winter feeding is causing a nuisance or offense. The only issue with the use of Bylaws is that they are not particularly well known by the public and generally enforced on a complaints basis.

Summary

- We are very cognisant of the amenity concerns raised, particularly in areas so significant to Māori.
- We are also very keen that the MPZ is not perceived as a 'burden' for landowners, Māori and non-Māori alike. The zone is intended to deliver benefits for Māori landowners, rather than create feelings of uncertainty or create negative property value effects for landowners.
- We are also mindful that our possible approaches listed A-D above, are not perfect at dealing with farming practices and that existing use rights will 'protect' current uses and limit the effectiveness of any new rules to control only new activities.
- However, given approaches A-D only propose restricting intensive grazing within 50m of a house, it is possible that the farming community may not have much opposition to the proposals.
- Between the current ECan rules and existing and upcoming Central Government controls, there is potentially a bit of gap in the management of smaller farming lots such as those present at Waipopo and Arowhenua.
- The TDC Consolidated Bylaw (2018) does offer some level of recourse for those residents who are suffering nuisance from existing farming operations. Although, only once a complaint has been made to the Council, will this matter be followed up. This is not a wholesale solution to the issue and as, mentioned the bylaw was not set up to achieve the purposes of the Māori Purpose Zone.

Recommendation

It is recommended, Approach D with a rule to limit the grazing and control the ground cover near a house, is progressed. This is on the basis:

- The rule is not so strict that it will create perceptions that the residents/farmers within the MPZ are at a disadvantage to those in the General Rural Zone. The current focus of the MPZ should be about delivering benefits for the Māori Landowners and maintaining a level of 'normality' and comfort for all landowners.
- Over time, if papakāinga and development of the area progresses and the amenity issue created by winter grazing becomes untenable with residents, then the inclusion of more restrictive MPZ provisions for grazing control can be

reassessed. Potentially the 'exclusion zone' around houses could become greater.

- ECan rules would also apply to larger farms and potentially the TDC Consolidated Bylaw could be used to investigate any current complaints relating to nuisance or offense. NES requirements will continue to apply over time.

Objectives

MPZ-O1	<u>Enabling use and development of Māori land</u> <u>Exercise of rakatirataka</u>
The occupation of ancestral land by Kāti Huirapa is recognised and provided for within the Māori purpose zone, within which Kāti Huirapa are able to exercise rakatirataka.	
MPZ-O2	<u>Meeting Māori needs</u> <u>Purpose of the Zone</u>
The Māori purpose zone specifically provides for Māori <u>mana whenua</u> needs and activities, including <u>papakaiaka</u> , residential, social, cultural, environmental and economic use and development , through a kāika nohoaka approach which achieves a thriving, sustainable and self-sufficient Māori community.	
Policies	
MPZ-P1	<u>Whānaukataka</u>, <u>Mātauraka</u> and <u>Tikaka</u>
Enable the incorporation of <u>whānaukataka</u> , <u>mātauraka</u> and <u>tikaka</u> in relation to the use, design and layout of development within the Māori purpose zone.	
MPZ-P2	<u>Range of activities</u> <u>Papakāinga</u> <u>Papakāika</u>
<p>Enable the use and development of the Māori purpose zone for <u>papakāinga-papakāika</u>, a range of activities to support the Kāti Huirapa community, including:</p> <ol style="list-style-type: none"> 1. single dwellings, multiple dwellings, and papakāinga housing; and 2. marae complexes; and 3. customary uses including harvest of mahinga kai; and 4. social, recreational, educational and community facilities; and 5. farming activities; <p>while:</p> <ol style="list-style-type: none"> 1. ensuring any significant adverse effects from these activities on adjoining landowners beyond the zone and the wider environment are mitigated <u>minimised</u>; and 2. requiring that all the above activities are adequately serviced. 	
MPZ-P3	<u>Infrastructure provision</u>
Consider alternative approaches to infrastructure provision in areas of the Māori purpose zone where the development of a site is constrained by the availability of reticulated infrastructure.	
MPZ-P4	<u>Compatible activities</u>
<p>Enable the establishment of compatible activities within the Māori purpose zone, while ensuring that:</p> <ol style="list-style-type: none"> 1. use and development is <u>complementary and</u> consistent with the purpose of the zone; 2. the <u>well-being of the communities</u> are Kāti Huirapa community is sustained; 3. cultural values are maintained or enhanced; and 4. the quality of the environment is not adversely affected. 	
MPZ-P5	<u>Incompatible activities</u>
Avoid activities which are likely to be incompatible with the purpose of the Māori purpose zone, unless a cultural impact assessment demonstrates that the effects on the cultural values are acceptable or can be mitigated <u>minimised</u> .	
MPZ-P6	<u>Future zone locations</u>
Support the future application of the Māori purpose zone in other locations where it will enable the use and development of land in accordance with <u>tikaka</u> Māori and to achieve Kāti Huirapa community needs.	

MPZ-P7	Rural activities
<u>Enable rural activities on any land in a manner that is consistent with the purpose of the Zone.</u>	
Rules	

Note: For certain activities, consent may be required by rules in more than one chapter in the Plan. Unless expressly stated otherwise by a rule, consent is required under each of those rules. The steps plan users should take to determine what rules apply to any activity, and the status of that activity, are provided in Part 1, HPW – How the Plan Works.

The Māori Purpose Zone rules and standards only apply to Māori Land, for all other land in the Zone, the General Rural Zone rules apply.

MPZ-R1	<u>Papakāinga Papakāika (except where otherwise specified in MPZ-R3 to MRZ-R12)</u>	
Māori purpose zone	<p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 For any buildings, MPZ-S1, MPZ-S2, MPZ-S3 and MPZ-S4 are complied with.</p> <p>PER-2 <u>It does not involve any habitable buildings on the riverside of a regional council stop bank</u></p>	<p>Activity status when compliance not achieved with PER-1: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters of discretion of any infringed standard. <p>Activity status when compliance not achieved with PER-2: Prohibited</p> <p>-</p>
MPZ-R2	Visitor accommodation that is not within a marae complex	
Māori purpose zone	<p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 The maximum occupancy is six persons per night.</p> <p>PER-2 MPZ-S1, MPZ-S2, MPZ-S3 and MPZ-S4 are complied with.</p>	<p>Activity status when compliance not achieved with PER-2: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters of discretion of any infringed standard. <p>Activity status when compliance not achieved with PER-1: Discretionary</p>
MPZ-R3	<u>Ahuwhenua (farming) Primary Production, excluding mining and quarrying, Planation Forestry Intensively farmed stock Intensive indoor Primary Production, Outdoor farming of poultry and Outdoor farming of pigs</u>	

Māori purpose zone	<p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 For any buildings, MPZ-S1, MPZ-S2 and MPZ-S3 are complied with.</p> <p>PER-2 For any grazing of stock within 50m of a residential unit under different ownership:</p> <p>a) <u>The stock are not break feeding/ winter feeding; and</u></p> <p>b) <u>Permanent ground cover of no less than 90% is maintained, except during crop renewal or resowing.</u></p> <p>PER-2 The activity does not include any stock holding area/s.</p>	<p>Activity status when compliance not achieved with PER-1: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters of discretion of any infringed standard. <p>Activity status when compliance not achieved with PER-2: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the extent to which the proposed stock holding area/s will result in adverse effects on cultural or amenity values for those persons and activities on adjoining sites. <p>Activity status when compliance not achieved with PER-2: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the ability to manage grazing practices to ensure amenity effects on adjoining neighbours are minimised.
MPZ-R4	Public amenities	
Māori purpose zone	<p>Activity status: Permitted</p> <p>Where:</p> <p>PER-1 MPZ-S1, MPZ-S2, MPZ-S3 and MPZ-S4 are complied with.</p>	<p>Activity status when compliance not achieved with PER-1: Restricted Discretionary</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the matters of discretion of any infringed standard.
MPZ-R5	Commercial services, offices and retail activities	
Māori purpose zone	<p>Activity status: Restricted Discretionary</p> <p>Where:</p>	<p>Activity status when compliance not achieved with RDIS-1: Restricted Discretionary</p>

RDIS-1

MPZ-S1, MPZ-S2, MPZ-S3 and MPZ-S4 are complied with.

Matters of discretion are restricted to:

- ~~1. the extent to which Te Rūnanga o Arowhenua has been consulted, the outcome of that consultation, the values identified in any cultural impact assessment (if required), and the extent to which the proposal responds to, or incorporates the outcomes of that consultation; and~~
- ~~2. the potential adverse effects, including on sensitive tangible and/or intangible cultural values as identified by engagement with Te Rūnanga o Arowhenua; and~~
- ~~3. the extent to which the proposed activity will contribute directly to the wellbeing of the community in relation to economic support, employment, training, or services; and the extent to which the proposal observes tikanga and expresses Māori cultural values; and~~
4. any potential for reverse sensitivity effects or impacts on existing or potential permitted development in the zone and surrounding land; and
5. whether the scale, intensity and/or character of the activity is appropriate in the context of the site, zone and surrounding land.

Note:-

Limited notification of Te Rūnanga o Arowhenua is likely to be determined where this rule is not met.

Matters of discretion are restricted to:

1. the matters of discretion of any infringed standard.

**MPZ-
R6**

Industrial and Rural industrial activities

MPZ-R7	Urupā					
Māori purpose zone	Activity status: Discretionary					
MPZ-R8	Mining and Quarrying activities					
MPZ-R9	Plantation forestry					
MPZ-R10	Intensively farmed stock <u>Intensive indoor Primary Production, Outdoor farming of poultry and Outdoor farming of pigs</u>					
MPZ-R11	Wastewater and effluent ponds and effluent spraying					
MPZ-R12	Brothels and licensed premises					
Māori Purpose Zone	Activity status: Non-complying					
	Note: Limited notification of Te Rūnanga o Arowhenua is likely to be determined under this rule.					
Standards						
MPZ-S1	Building setbacks					
Māori purpose zone	<p>All new buildings or extensions to existing buildings for papakainga <u>papakāika development</u> must be setback a minimum of:</p> <ol style="list-style-type: none">1. 3m from any <u>road boundary, unless the road is a State Highway;</u>2. <u>20m from any boundary fronting the State Highway;</u>3. <u>2m from any other boundary, of land that is in different ownership and is not part of the development subject to the application; and</u>4. 10m from any zone boundary. <p><u>All new buildings or extensions to existing building associated with primary production must have a minimum setback of the following:</u></p> <table><tr><td><u>Any building or structure excluding irrigators, stock fences, fences less than 2m in height, water troughs, and flag poles</u></td><td><u>10m</u></td><td><u>20m</u></td><td></td></tr></table>	<u>Any building or structure excluding irrigators, stock fences, fences less than 2m in height, water troughs, and flag poles</u>	<u>10m</u>	<u>20m</u>		<p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none">1. dominance, shading and loss of privacy and sunlight in relation to adjoining properties; and2. any impacts of the proposed activity on the environmental outcomes of low noise and activity levels, and generally open character, anticipated for
<u>Any building or structure excluding irrigators, stock fences, fences less than 2m in height, water troughs, and flag poles</u>	<u>10m</u>	<u>20m</u>				

<u>Milking sheds and buildings used to house or feed stock</u>	<u>30m</u>	<u>30m</u>	<u>200m</u>
<u>Effluent holding tanks, effluent treatment ponds, effluent storage ponds, silage pits and carcass disposal areas</u>	<u>20m</u>	<u>20m</u>	<u>200m</u>

properties in the adjoining zone.

MPZ-S3

Building and structure height

Māori purpose zone

All new buildings or structures, or extensions to existing buildings or structures, must not exceed 40m 9m in height measured from ground level.

Matters of discretion are restricted to:

1. dominance, shading and loss of privacy and sunlight in relation to adjoining properties; and
2. incompatibility with the character and scale of buildings and structures within the surrounding area; and
3. any reduction in views from publicly accessible areas; and
4. screening or landscaping.

MPZ-S3

Outdoor storage

Māori purpose zone

Any outdoor storage located within a boundary setback required under MSZ-S1 must be fully screened by a continuous wall, fence or landscaping, or a combination of all three, to a minimum height of 2m.

Matters of discretion are restricted to:

1. visual impacts on neighbouring properties and roads; and
2. adequacy of fencing or landscaping.

MPZ-S4

Servicing

Māori purpose zone

All new buildings and activities shall ensure that:

1. All residential activities or habitable buildings are required to provide Council with evidence of access to potable (drinkable) water from a community water scheme or private water bore

Matters of discretion are restricted to:

1. the ability to ensure an adequate supply of potable water for the uses of the site or activity; and
2. the security of any proposed potable water supply from contamination; and

- | | |
|--|---|
| <p>or shall be able to store 45,000 litres of potable water from another source.</p> <p>2. Any site which is not connected to a reticulated sewerage system must obtain either a discharge consent, or a certificate of compliance, from the Regional Council that provides for on-site treatment and disposal of sewage.</p> <p>3. Any site which is not connected to a reticulated stormwater system must obtain either a discharge consent, or a certificate of compliance, from the Regional Council that provides for stormwater treatment and disposal.</p> | <p>3. The adequacy of storage volume of water for domestic and fire-fighting purposes; and</p> <p>4. the ability to ensure the avoidance of soil contamination or any other adverse environmental effects from the discharge of any wastewater or stormwater.</p> |
|--|---|

Definitions

Māori Land

means land within the Māori Purpose Zone that is:

- a) owned by the Rūnanga; or
- b) Māori communal land gazetted as Māori reservation under s338 Te Ture Whenua Māori Act 1993; or
- c) Māori customary land and Māori freehold land as defined in s4 and s129 Te Ture Whenua Māori Act 1993; or
- d) Owned by a person or persons with evidence of whakapapa connection to the land (where documentary evidence of whakapapa connection is provided from either the Māori Land Court or the Te Rūnanga o Ngāi Tahu Whakapapa Unit), or
- e) Is vested in a Trust of Māori incorporation under the Te Ture Whenua Māori Act 1993.

Papakāinga- Papākaika

means any activity undertaken in the traditional rohe of ~~tangata~~ takata whenua to sustain themselves, and may include (but is not limited to) residential, social, cultural, economic, conservation and recreation activities, including:

- a. home businesses;
- b. marae complexes;
- c. manuhiri noho;
- d. whare ~~taonga~~ taoka ;
- e. urupā;

- f. pou;
- g. māhinga mahika kai;
- h. community facilities;
- i. kōhanga reo (preschool);
- j. kura kaupapa (education activity and facilities);
- k. whare hauora (health care facilities);
- l. Māori cultural activities, including art and wānanga wānaka.
- m. Hākinakina (recreation activities and facilities, excluding commercial recreation and motorised sports), and
- n. ahuwhehenua (primary production).

~~Intensively farmed stock~~

~~means:~~

- ~~a. cattle or deer grazed on irrigated land or contained for break-feeding of winter feed crops; and~~
- ~~b. dairy cattle, including cows, whether dry or milking, and whether on irrigated land or not; and~~
- ~~c. farmed pigs (where not covered by intensive indoor primary production / factory farming definition).~~

Winter feeding OR Break feeding

means the grazing of cattle within the period of 1 May to 30 September where the cattle are contained for break-feeding of in-situ brassica and root vegetable forage crops

Appendix K - Council Letter – 16 November 2022

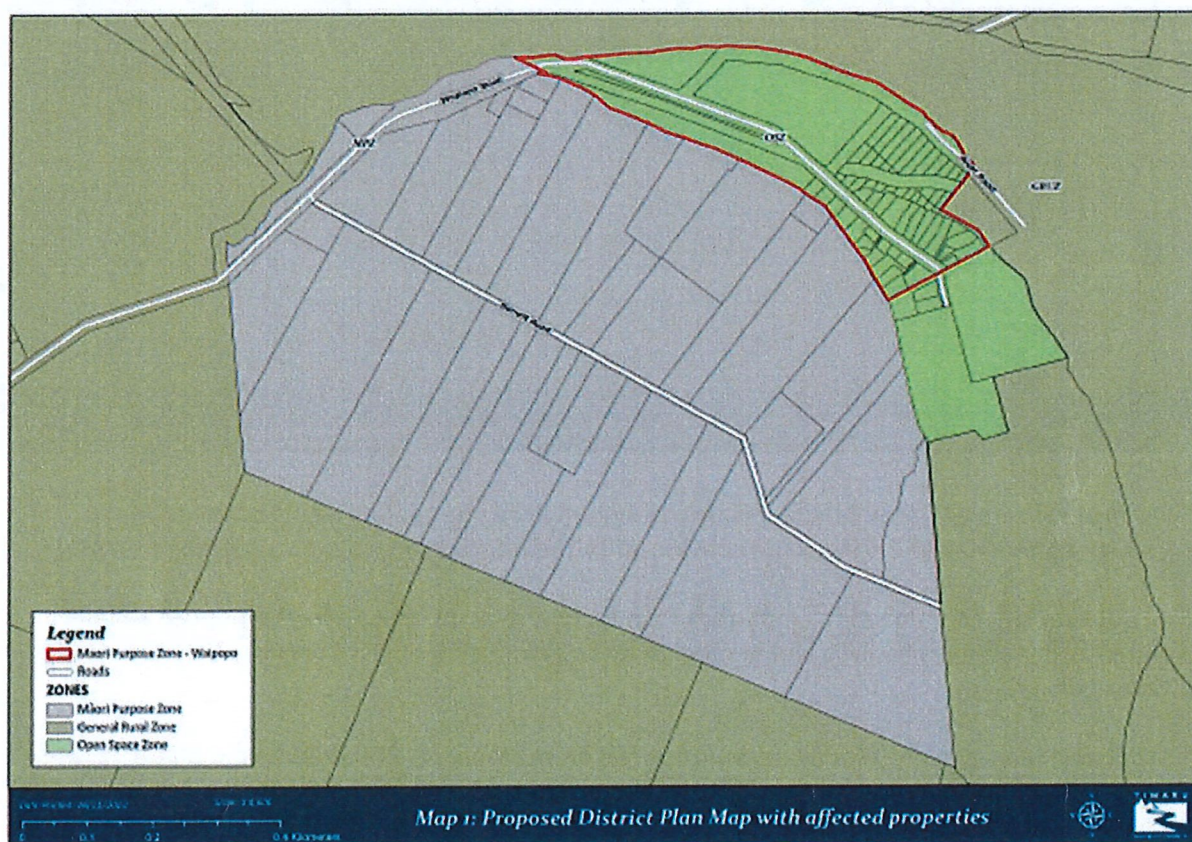
16 November 2022

KM Anglem and CJ Walker
The Trustees of the
Waipopo MR 4074 Trust
C/- Peter Dalziel Lawyer
PO Box 40
Temuka 7948

Dear KM Anglem & CJ Walker

RE: Proposed Māori Purpose Zone, mapping in the Waipopo Area

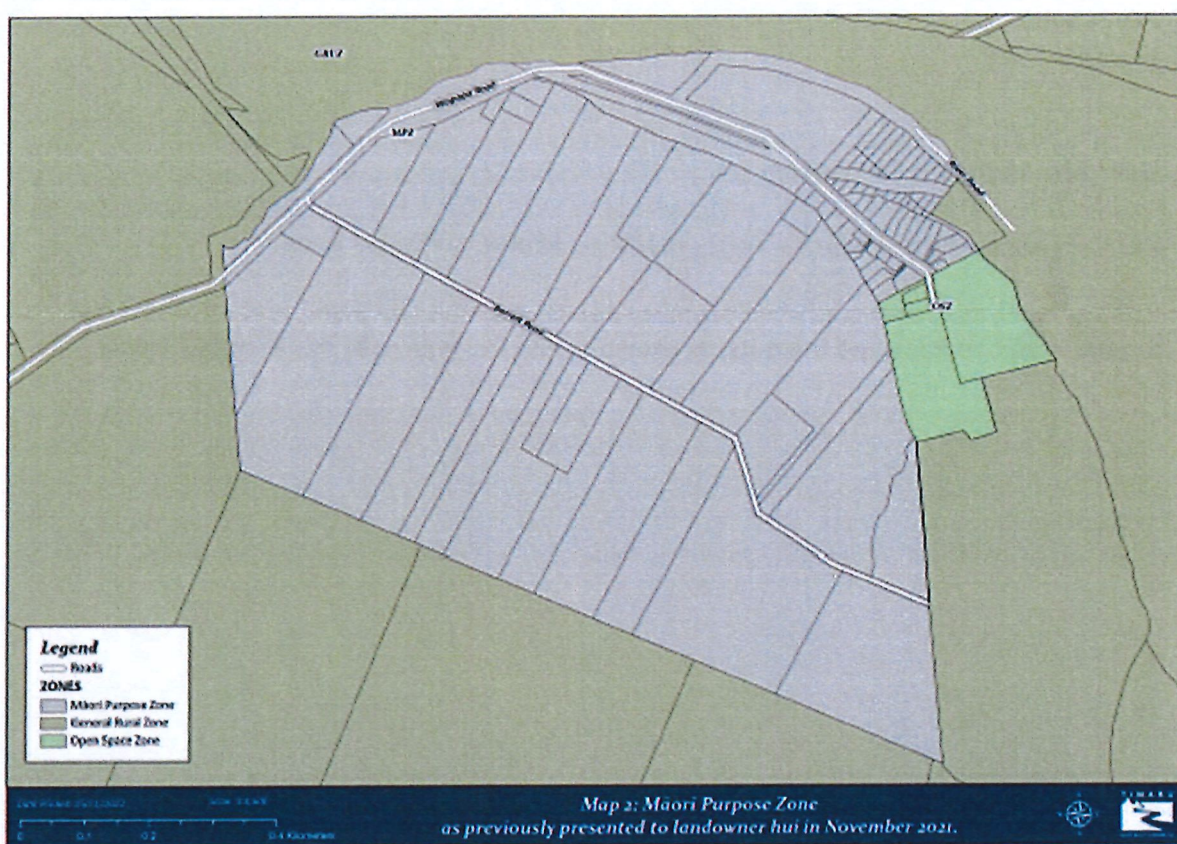
You are receiving this letter as our property database shows you own property in the area around Waipopo Road and the huts, as shown within the redline of this in map 1 below.



Recently the Timaru District Council notified its Proposed District Plan (PDP) including the maps for the new Māori Purpose Zone Chapter, map 1 illustrates the zoning as included in the PDP as notified.

To view the notified district plan visit <https://www.timaru.govt.nz/services/planning/district-plan/proposed-district-plan>

Within the PDP, it was intended to show the extent of the Māori Purpose Zone as presented by staff at the last hui held in November 2021, which was also agreed by Elected Members at Timaru District Council. Unfortunately, the land within the redline area of the map 1 above, has been inadvertently left out of the Māori Purpose Zone and, instead is shown with an Open Space Zoning. Map 2 shown below is the how the Zone was supposed to be depicted, this issue is the result of a data error.



Council officers will seek to address this issue but given the requirements of the law any change to the map will need to be confirmed by the Hearings Panel later on in the process.

We appreciate the time many landowners in the wider Arowhenua and Waipopo area have put into this process to date and apologise for the confusion and uncertainty that this data error has caused.

We also encourage any landowners with views on the way the PDP depicts the Māori Purpose Zone and, indeed, any other parts of the PDP to also make a submission on the Plan, submissions must be received by the Council by the 15 December 2022.

Details of how to make a submission can be found at:

<https://www.timaru.govt.nz/services/planning/district-plan/proposed-district-plan/district-plan-review-process> or please do not hesitate to call Loren Brown, Senior Planner on 027 2672764 or 03 687 7200 to discuss. We can also provide paper copies of the necessary forms for submissions if required.

Yours faithfully



Hamish Barrell

District Planning Manager

e. Hamish.barrell@timdc.govt.nz

p. 03 687 7223

Appendix L -Map in Timaru District Council's Submission to rezone Waipopo Land



Proposed District Plan - Māori Purpose Zone - Waipopo

Appendix M - Davis Ogilvie Report – July 2022

3-WATERS SERVICING OPTIONS AND NATURAL HAZARDS REPORT

42478 / TE KOTARE AND WAIPOPO TRUSTS
/ PERSPECTIVE CONSULTING

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Davis Ogilvie & Partners Ltd

QUALITY ASSURANCE

Title: Te Kotare and Waipopo Trusts – 3-Waters Servicing Options and Natural Hazards Report

Client: Perspective Consulting

Filename: T:\projects\42s\42478 - Kotare Waipopo Trust Settlements\Civil\Design\Servicing Report\220413.cm.42478.Preliminary Servicing Report.docx

Version: Final

Date: July 2022

Project Number: 42478

Prepared By: **Clement Maloney**
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MEngNZ

Signature:

Authorised By: **Gary Stevenson**
Principal Civil Engineer
BE Nat. Res. (Hons),
CPEng, MEngNZ

Signature:

DISCLAIMER

This engineering report has been prepared at the specific instruction of Perspective Consulting. It outlines the 3-Waters servicing options and natural hazards for the existing residential lots located on the Te Kotare Trust and Waipopo Trust lands located along the southern bank of the lower Ōpihi River south of Temuka.

Davis Ogilvie did not perform a complete assessment of all possible conditions or circumstances that may exist at the site. Conditions may exist which were undetectable given the limited investigation of the site and have not been taken into account in the report.

Davis Ogilvie's opinions are based upon information that existed at the time of the production of this document. Assessments made in this report are based on the conditions found onsite and published sources detailing the recommended investigation methodologies described. No warranty is included—either expressed or implied—that the actual conditions will conform to the assessments contained in this report.

Davis Ogilvie has provided an opinion based on observations, site investigations, and analysis methodologies current at the time of reporting. The report cannot be used by any third party without the written approval of Davis Ogilvie. The report cannot be used if there are changes in the referenced guidelines, analysis methodologies, laws or regulations.

Only Perspective Consulting, Te Kotare Trust, Waipopo Trust, Te Puni Kōkiri and the Local and Regional Territorial Authorities are entitled to rely upon this engineering report. Davis Ogilvie & Partners Ltd accepts no liability to anyone else in any way in relation to this report and the content of it and any direct or indirect effect this engineering report may have. Davis Ogilvie & Partners Ltd does not contemplate anyone else relying on this report or that it will be used for any other purpose.

Should anyone wish to discuss the content of this report with Davis Ogilvie & Partners Ltd, they are welcome to contact us on (03) 366 1653 or at Level 1, 24 Moorhouse Avenue, Addington, Christchurch.

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1.0 INTRODUCTION

1.1 Background

Te Kotare and Waipopo trusts (the Trusts) own approximate 2.5 ha off Waipopo Road on the southern side (true right bank) of the lower Ōpihi River, Figure 1. The land is separated into two blocks approximately 0.6 ha owned by Te Kotare Trust to the west and approximately 1.9 ha owned by Waipopo Trust to the east.

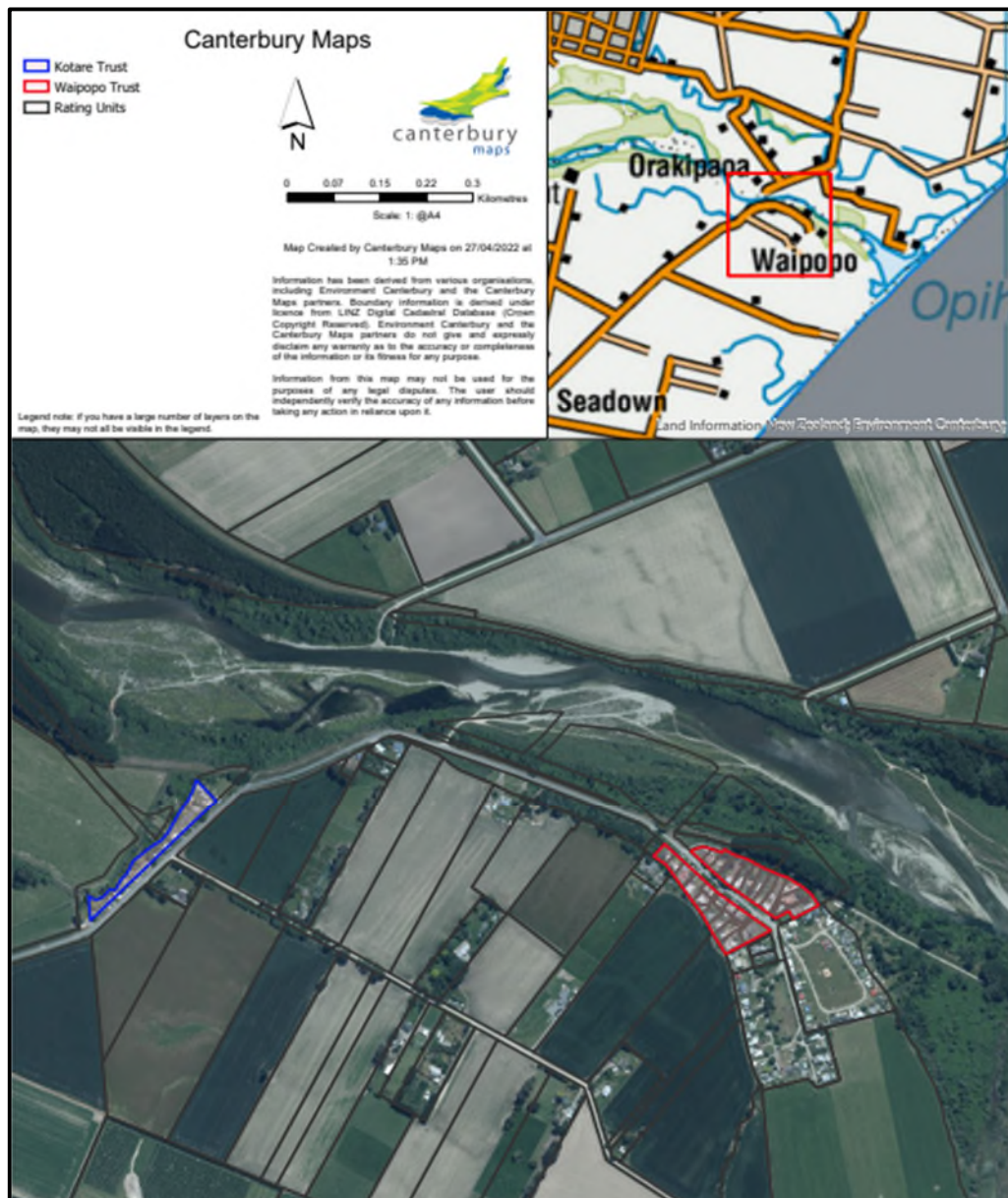


Figure 1: Te Kotare and Waipopo Trust land - Location Map

There are a number of existing dwellings on both areas. Under the current Timaru District Plan both areas are zoned as Open Space Zone REC 1. Under the current District Plan Review it is proposed that the Waipopo Trust land will be rezoned to a Māori Purpose Zone which will allow development of communal papakāinga housing.

Currently neither the area owned by the Trusts nor the wider Waipopo area has any reticulated water, wastewater or stormwater systems with individual properties having their own private water supply and onsite wastewater and stormwater systems. To support potential future development of the land the Trusts are seeking advice on potential 3-Waters (water supply, wastewater and stormwater) servicing options and natural hazards. The Trusts through Perspective Consulting Limited have commissioned Davis Ogilvie and Partners Limited (Davis Ogilvie) to provide the advice.

1.2 Report Purpose and Structure

This report provides Davis Ogilvie's 3-Waters servicing and natural hazards advice for the land owned by Te Kotare and Waipopo Trusts on the southern side of the lower Ōpihi River. This report is provided in accordance with our contract dated 2 March 2022 reference 42278.

Following this introductory section this report consists of the following six sections:

- 2.0 Water Supply** – Outlines the three water supply options that were considered, namely: status quo with individual onsite supply and treatment, a private reticulated system servicing the Trusts land, a community system that connects into Timaru District Council's (TDC) Seadown Water Supply scheme.
- 3.0 Wastewater** – Outlines the three wastewater options that were considered, namely: status quo with continued use of holding tanks, a Septic Tank Effluent Pumping (STEP) system which discharges via a communal low pressure main to the TDC Inland Towns pipeline, and a community system consisting of a reticulated gravity system discharging to a communally treatment system and pumpstation discharging to the TDC Inland Towns.
- 4.0 Stormwater** – Outlines the principal stormwater option that was considered namely continuation of the status quo i.e. discharge to ground on individual sites.
- 5.0 Natural Hazards** – Briefly outlines the key natural hazards that could potentially affect 3-Water infrastructure on the Trust's land.
- 6.0 Conclusions and Recommendations** – Provides a brief summary of the key findings. Recommendations for future work and next steps to confirm preferred options are also provided.
- 7.0 References** – provides a brief list of key reference documents.

A draft of this report was provided to Perspective Consulting Limited on 19 May 2022 with comments received on 14 and 16 June 2022. In preparing this final report we have addressed the comments received on the draft report.

1.3 Development Scenarios

In assessing the 3-Waters servicing options the following three future development scenarios were considered:

- **Status Quo** – Waipopo Trust land 29 lots, Te Kotare Trust land 16 lots - assume approximately one dwelling per lot with an assumed total of 50 dwellings.
- **Local Development** – Focuses on development of the Trusts land only. Assumes the number of dwellings will double to approximately 100. Is expected to cater for future development of both areas including communal papakāinga housing on the Waipopo Trust's land.
- **Community Development** – Focuses on the wider Waipopo Community with expected maximum development. Assumes approximately 200 dwellings which allows for development of the Trusts land plus caters for the existing dwellings in the local Waipopo area.

For each scenario we have assumed a permanent occupancy of 3 people per dwelling, which is considered conservative. The 2018 census indicated a permanent occupancy of 2.4 people per dwelling for the Temuka East area.

1.4 Assessment Methodology

This assessment has been completed as an initial high level, desk exercise aimed at identifying key issues and potential options. The assessment process has included telephone discussions with TDC staff, a resident of Waipopo, a local well driller and a waste disposal company which empties septic tanks and is familiar with the area. The assessment is based predominately on publicly available information and neither a site-visit nor detailed local investigations have been undertaken.

To undertake this high level assessment we have used a ranking and comparative approach based on the criteria outline in Table 1 below. Explanatory comments are included where appropriate.

Table 1: Assessment Criteria				
Variable	Assessment Scale			
	Positive	Neutral	Negative	Strongly Negative
Cost	Low or neutral relative to status quo	Moderate	High	Extremely high
Regulatory	Relatively simple and little change to current	Known process and outcome and meets requirements	Difficult process and uncertain outcome may not meet requirements	Extremely difficult and/or unlikely to meet future regulatory requirements
Implementation	Relatively simple and limited duration i.e. little change to current	Known process and duration requires some outside input	Complex and relies on significant outside input	Extremely difficult and relies totally on other parties.
Operation	Relatively simple and little change to current with limited outside input required	Moderate and outside input required	Complex and relies on significant outside input	Extremely difficult and relies totally on other parties.

When assessing infrastructure requirements we have considered the guidance provided in the following documents:

- TDC's Infrastructure Design Standard (IDS) particularly Part 5 Stormwater, Part 6 Wastewater and Part 7 Water Supply.
- TDC's Draft Stormwater Management Guidelines.
- The current Drinking-Water Standards for New Zealand 2005 Revised 2018.
- The following documents from Taumata Arowai - New Zealand's new water services regulator:
 - Drinking Water Standards for New Zealand, June 2022 which come into effect on 14 November 2022,
 - Aesthetic Values for Drinking Water Notice 2022, June 2022 which come into effect on 14 November 2022,
 - Draft Drinking Water Quality Assurance Rules, 20 December 2021.
 - Drinking Water Acceptable Solution for Roof Water Supplies
 - Drinking Water Acceptable Solution for Spring and Bore Drinking Water Supplies and
 - Drinking Water Acceptable Solution for Rural Agricultural Water Supplies

1.5 General Site Description

The Trust's land lies immediately south of the lower Ōpihi River, refer Figure 1. The lower Ōpihi River has extensive flood protection works with stop-banks on both sides of the river extending almost continuously from the river mouth to inland of Pleasant Point. Both the Te Kotare Trust land and the Waipopo Trust land borders the stop-banks. Both areas are low lying and are less than 10 m above mean sea level. The Waipopo Trust land is approximately 1.7 km from the coast whereas the Te Kotare Trust land is approximately 2.5 km from the coast.

Kotare Stream runs along the western boundary of the Te Kotare Trust land before being piped through the stop-bank and discharging to the lower Ōpihi River. A number of springs have been mapped in the area. There are numerous bores on the Trusts land and most properties have their own bores for domestic water supply. The bores are typically shallow (<10 m deep) and groundwater levels are expected to be within a couple of meters of the ground surface. According to Canterbury Maps there are no active water permits in the vicinity of the Trust's land which indicates that the various abstractions of shallow groundwater for domestic supply operate as permitted activities.

Soils in the area are recent sandy and silty loams which are underlain by gravel units which make up the Canterbury Plains.

While the two Trusts own the respective land, ownership of infrastructure on the land varies. Residents on the Te Kotare Trust land own their dwellings and associated infrastructure (i.e. bores, waste storage tanks etc.) while the Waipopo Trust owns all the infrastructure on its land.

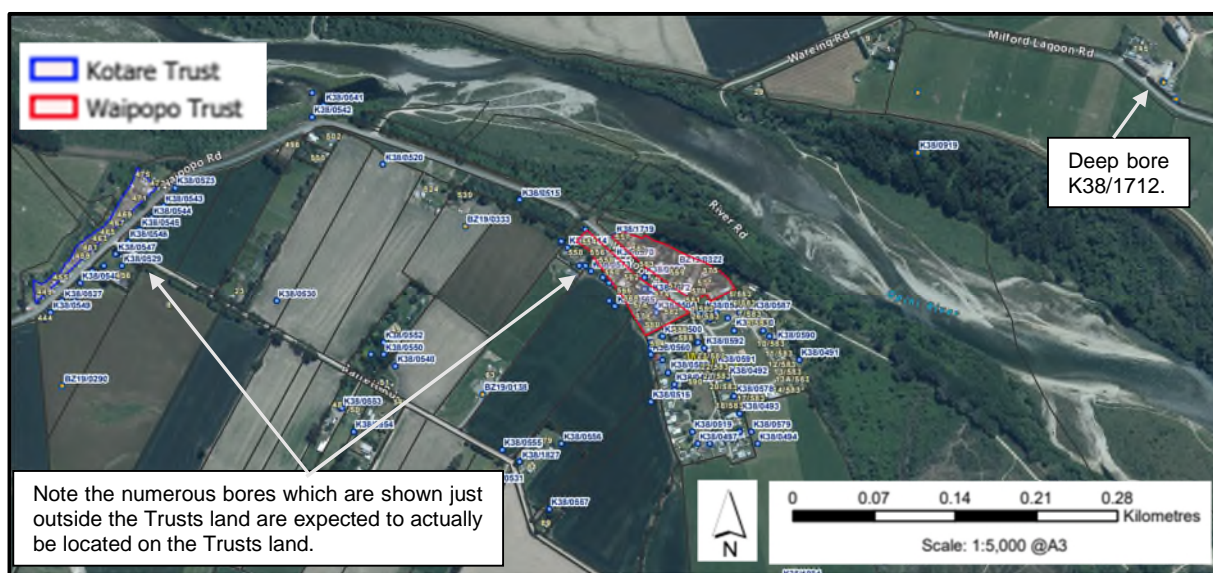
In terms of wastewater it is understood that most of the properties have wastewater holding tanks which are regularly emptied via sucker truck at the resident's expense with the extracted wastewater discharged into TDC's wastewater system (presumably at one of the existing pump stations or the Wastewater Treatment Plant at Washdyke). It is understood that many of the wastewater holding tanks have been in place since the 1980's. According to Canterbury Maps there are 2 active discharge permits authorising the discharge of human effluent (i.e. septic tank type discharges) in the vicinity of Waipopo, both of which are off Barrett Road. The closest of which is approximately 300 m southwest of the Waipopo Trust land and approximately 600 m southeast of the Te Kotare Trust land. The lack of authorised septic tank type discharges confirms that most of the area's dwellings have wastewater holding tanks.

1.6 3-Waters Reform

The Government is reforming New Zealand 3-Waters sector. In November 2021 Taumata Arowai became the drinking water regulator and in 2024 it will assume responsibility for wastewater and stormwater compliance, becoming the 3-Waters regulator for the country. For the Waipopo area this will represent a shift from TDC and Environment Canterbury who currently provide and regulate local 3-Waters services. Taumata Arowai are currently revising the Drinking Water Standards for New Zealand (DWSNZ). While there is still much uncertainty about how the reforms will be implemented at a local level it is generally expected that the 3-Waters requirements will become more stringent. For this assessment the 3-Waters reforms are unlikely to affect the status quo (namely individual properties providing their own 3-Water infrastructure) option in the short to medium term. However, for options that involved reticulated networks that service multiple properties the 3-Water reforms are expected to have significant implications. When assessing the various options where appropriate we have provided comments on the potential implications of the 3-Waters reforms.

2.0 WATER SUPPLY

Currently each of the individual dwellings on the Trusts land has their own private water supply system. The vast majority of properties have their own shallow bore with a few also having rainwater tanks. Figure 2 below is from Canterbury Maps and shows the numerous bores in the area.



Canterbury Maps indicates there are 16 bores on the Te Kotare Trust land and 23 bores on the Waipopo Trust Land. Environment Canterbury's wells database contains water quality data for 18 of the bores (9 bores on Te Kotare Trust land and 9 bores on Waipopo Trust land). This data is all from May and June 1995. As part of this assessment we were supplied with water quality data from 27 June 2021 for three bores on Waipopo Trust land, two bores on Te Kotare Trust land and from Kotare Stream. All the water quality data is summarised in Table 2 on the following page. The water quality data indicates some of the samples have not met the current drinking water standards with concerns over microbial determinands (while the recent E coli results indicate compliance, previous elevated readings for both total coliforms and faecal coliforms are a concern), and aesthetic determinands (elevated manganese in one bore is likely to affect taste).

Table 2 Water Supply Requirements

Location	Sampling Date	Bores Tested	Parameters					Comments
			Conductivity mS/m	Hardness Total g/m ³ as CaCO ₃	Nitrate-Nitrogen mg/L	Total Coliforms or <i>E coli</i> Number/100 mL	Manganese Total mg/L	
Kotare	May June 1995	9 bores K38/0522–0529 and K38/0538	8.5-9.5 8.6 n=14	27-29 27.7 n=3	0.5-0.7 0.53 n=9	<1-570 3 samples ≥1 n=14	0.03-0.04 0.033 n=3	One bore showed very elevated total coliforms and another bore showed slightly elevated total coliforms.
	June 2021	2 bores	10.4-11.6 11 n=2	36-41 38.5 n=2	0.5-0.6 0.55 n=2	<i>E coli</i> <1 <1 n=1	0.0017-0.0038 0.0028 n=2	Meet drinking water standards
		Stream	10.4	36	0.57	<i>E coli</i> 50	<0.00053	Elevated <i>E coli</i> and high nitrate-Nitrogen
Waipopo	May June 1995	9 bores K38/0504, K38/0506, and K38/0508-0514	8.5-63 15.3 n=17	29 29 n=1	0.7-4.5 1.4 n=9	<1-11 5 samples ≥1 n=17	1 0.04 n=1	One bore showed elevated conductivity, one sample showed elevated nitrate-Nitrogen, four bores had elevated total coliforms one of which also had elevated faecal coliforms.
	June 2021	3 bores	10.8 - 34.8 18.9 n=3	37 - 100 58.3 n=3	0.06-9.0 3.23 n=3	<i>E coli</i> <1 <1 n=3	<0.00053-0.23 0.078 n=3	One bore had elevated hardness and another had elevated manganese and its water is likely to have issues with taste.
Notes: Values presented as range (top line), average (middle line) and number of samples (lower line).								

2.1 Water Requirements

To assess water supply options we have assumed a daily water requirement of 1,000 L/dwelling/day which is consistent with the closest TDC's water supply scheme (the Seadown Water Supply Scheme) which supplies 1 unit or 1,000 L/day per dwelling. We have also assumed a storage requirement which is consistent with the Seadown Water Supply Scheme namely 10,000 L or 3 days' supply whichever is greater. The water supply and storage requirements for the three development options being considered are summarised in Table 3 below.

Table 3: Water Supply Requirements				
Development option	Number of Dwellings	Water Requirements		Storage Requirements m ³
		L/s ⁽¹⁾	m ³ /day	
1	50	0.01 per dwelling	1.0 per dwelling	10 per dwelling
2	100	1.2	100	300
3	200	2.3	200	600
Notes: ⁽¹⁾ Assumes daily water requirements are evenly supplied over the full 24 hours.				

2.2 Water Supply Options

The following three water supply options were considered:

- (i) Individual supply per dwelling – represents the Status Quo with suggested minor improvements.
- (ii) A private reticulated system servicing the Trusts land,
- (iii) A community system that services the wider Waipopo community and connects into TDC's Seadown Water Supply Scheme.

Each of the options are discussed below.

2.2.1 Individual supply per dwelling

This option essentially represents a slight enhancement of the status quo. Currently each of the individual dwellings on the Trusts land has their own private water supply system. The vast majority of properties have their own shallow bore with a few also having rainwater tanks. It is understood that the majority of the existing systems do not include any treatment.

The draft *Drinking Water Acceptable Solution for Spring and Bore Drinking Water Supplies* recently produced by Taumata Arowai requires cartridge filtration, UV disinfection, chlorination and considerable monitoring. Similarly, the draft *Drinking Water Acceptable Solution for Roof Water Supplies* recently produced by Taumata Arowai requires the system shown in Figure 3 below and includes leaf and first flush screening on the tank, cartridge filtration, UV disinfection and monitoring. Both solutions represent a significant upgrade from the current situation on the Trusts land, particularly in relation to treatment and monitoring of bore supplies.

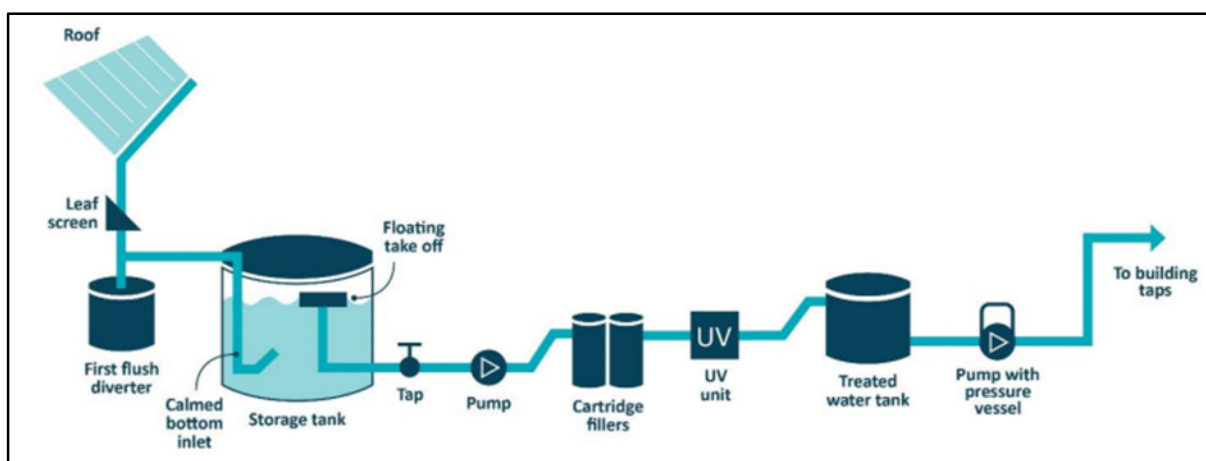


Figure 3: Roof Water acceptable solution configuration with pressure pump providing pressure to building taps. (From Figure 1 in the acceptable solution document.)

Given the numerous bores on the Trusts land it is considered onerous to apply the acceptable solution to each of the bore supplies. The following compromise solutions are suggested:

Dwellings who wish to continue to use existing bores:

- Rainwater tanks (capacity $\geq 10,000$ L) and systems consistent with the Roof Water Acceptable Solution (Figure 3) are installed on each property and are used to supply a dedicated drinking water tap/s within the dwelling. Untreated bore water is used for the remainder of the household supply. Such a system will provide some duplication in that the property will still have access to water if the bore pump fails. Having rainwater tanks also helps address stormwater from roofs. Such a system is unlikely to fully meet Taumata Arowai's current guidelines.
- For properties who do not wish to adopt the above solution we would recommend as a minimum that they test their bore water and install filtration and UV treatment into their bore water supply. This option is unlikely to fully meet Taumata Arowai's current guidelines.

New dwellings or dwellings which either do not have bores or do not wish to continue to use existing bores:

- Rainwater tanks (capacity $\geq 10,000$ L) and systems consistent with the Roof Water Acceptable Solution (Figure 3) are installed for each dwelling and are used to supply the dwellings water requirements. The rainwater tanks will help address stormwater from roofs and will limit water use on the property (due to limiting the water source to rainwater) and therefore wastewater generation. To ensure sufficient water supply reliability it is likely more storage (i.e. at least 30,000 L) will be required. Such a system will be prone to water shortages during periods of low rainfall.

Indicative costs for the above individual supplies would be in the order of \$ 5,000-10,000 per property dependant on existing infrastructure currently utilised.

A key advantage of maintaining individual supplies per dwelling is that it maintains more freedom for dwelling owners in regard to timing and implementation and is likely to have less regulatory requirements in the short to medium term. Note if a large number of new dwellings are proposed a more communal solution is likely to be preferable. We advise against drilling any more shallow groundwater bores.

2.2.2 Private Reticulated System

A step up from individual supplies per dwelling would be to establish a private reticulated system that services the properties on the Trusts land. Deep groundwater is considered the most suitable water source for such a system as it is likely to have higher source water quality and therefore reduced treatment requirements. There are currently no deep bores in the vicinity of Waipopo. The closest deep bore is K38/1712 (113 m deep with screens set from 107-113 m) which is located off Milford Lagoon Road on the opposite side of the Lower Ōpihi River. Environment Canterbury's wells database indicates that the bore has been yield tested to 50 L/s. The bore log indicates that the bore draws water from gravels which are below a 15 m thick volcanic basalt layer. Water level in the bore is slightly above ground level which indicates that the aquifer from which the water is drawn is highly confined. The bore was drilled in 2004 and since 2007 water quality in the bore has been tested 20 times. The water quality data is summarised in Table 4 and indicates high water quality which meets the drinking water standard without treatment.

Table 4: Water Quality Data from bore K38/1712

Parameter	Number of Samples	Unit	Concentration			Comment ³
			Minimum	Maximum	Average	
Conductivity	19	mS/m	35	42	39.4	Slightly elevated
Hardness Total	9	g/m ³ as CaCO ₃	113	127	119.7	The water is slightly hard
Nitrate-Nitrogen	10	mg/L	0.23	0.30	0.26	Low
<i>E coli</i>	6	Number/100 mL	<1	<1	<1	Meets Drinking Water Standards without treatment
Manganese Total	10	mg/L	<0.0005	0.0023	0.00097	Low and no issue with taste or staining

When considering water treatment the security of the water source is considered. The highly confined nature of the bore, the presence of the basalt layer (which will act as an impermeable confining layer) and the good water quality all indicate a secure water source. Basalt rock outcrops near both Geraldine and Timaru and if the basalt also underlies the Trusts land, then it is likely that similar, good quality water could be sourced from a deep bore on the Trust land that draws water from below the basalt.

A private reticulated system that services the properties on the Trusts land would typically consist of the following infrastructure:

- A deep bore located on Trust land which targets groundwater at a depth of about 120 m. We would recommend locating the bore on Te Kotare Trust land as it is further inland so there is less potential for saltwater intrusion and has lower risk from coastal erosion or tsunamis. We suggest locating the bore on raised ground possibly near the stopbank to reduce the risk of local flooding. A submersible pump would be installed into the bore which would feed a buffer storage tank/s near the bore which has capacity for three days water supply namely 300 m³. Indicative capital costs for a deep bore and buffer storage are likely to be in the order of \$600,000 excluding GST.
- A pump station and treatment plant near the bore which would typically include at least filtration and UV disinfection but potentially chlorination. The pump station would draw water from the storage tank/s feed the treatment plant and pressurise a reticulated network supplying the dwellings. Water treatment plants and pump stations can be very expensive, with treatment plant costs very dependent on the quality of the source water. Indicative capital costs for a pump station and treatment plant could vary from approximately \$200,000 assuming minimal treatment is required to over \$1M excluding GST if significant treatment (i.e. filtration, UV and chlorine dosing etc.) is required.

- A reticulated pipe network running along Waipopo Road with essentially two branches one feeding Te Kotare Trust land and the other Waipopo Trust land. Approximately 1,500 m of pipe would be required. The network would include connection points for each of the dwellings which would include a gate valve and water meter. Indicative capital costs for the suggested reticulated pipe network are likely to be in the order of \$400,000 excluding GST which is based on a pipe cost of \$200/m (including laying) and approximately \$2,000 per outlet connection (assumed 50 outlets).

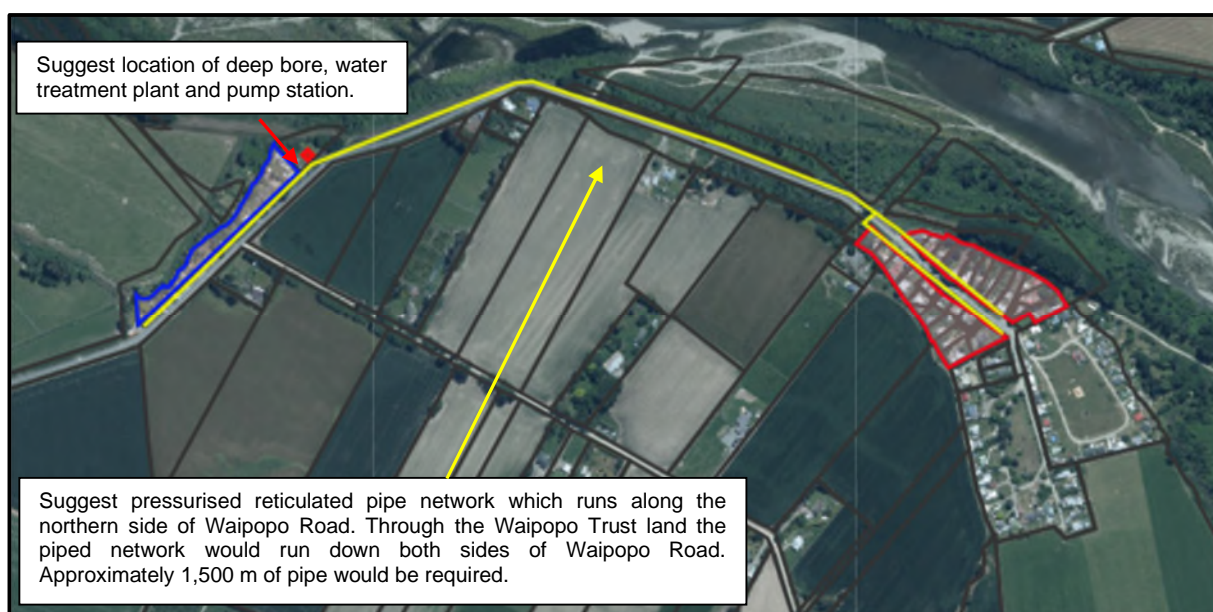


Figure 4: Suggested layout for a private reticulated water supply scheme

Indicative total capital costs of a private reticulated system that services the properties on the Trusts land are expected to be in the order of \$1,200,000 to \$2,000,000 depending on the treatment requirements. Assuming costs are split evenly over 100 dwellings this would equate to approximately 12,000 to 20,000 excluding GST per dwelling. Professional fees may be in the order of 15% for the resource planning, design, and construction monitoring of physical works. This equates to approximately \$180,000 to \$300,000 excluding GST for professional services. Note that resource consent fees and Council processing would be additional costs to be factored in.

A private reticulated system would require careful design and would require construction by external contractors. The Trust would need to become a water supplier and the consenting requirements for a new groundwater take for community water supply maybe difficult given the Levels Plains groundwater zone is currently 78% allocated⁽¹⁾ and there is some uncertainty about how private community water supplies will be authorised in future given the 3-Waters reforms. Locating the reticulated network within the Waipopo Road corridor would also require approval from TDC as a licence to occupy. Similarly deciding where to locate the bore and treatment plant would require careful consideration. For a private reticulated system it is likely to be beneficial for the bore and treatment plant to be located on Trust land however this could restrict potential future development of the immediately surrounding land. Operation and maintenance of the system is likely to require external contractors, with consideration by the Trusts as to ongoing funding of operation, maintenance and depreciation of assets for future renewal.

2.2.3 Community Reticulated System

TDC operate numerous water supply schemes. The Seadown Water Supply Scheme is the closest to Waipopo with the scheme pipes extending to Seadown (Figure 5).

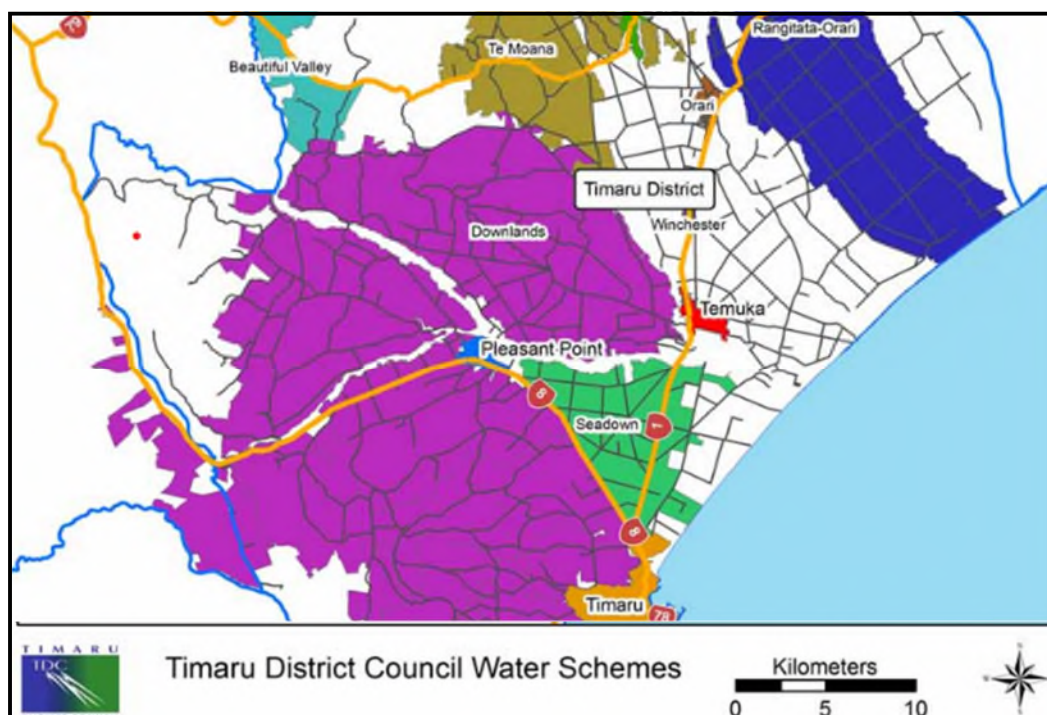


Figure 5: Timaru District Council Water Supply Schemes surrounding Waipopo

⁽¹⁾ As indicated in an email from Kirsten Wing of Environment Canterbury to Ian Lloyd of Davis Ogilvie dated 12 May 2022.

The Seadown Water Supply Scheme dates back to the 1970's and sources water from a shallow bore (J38/0190) off Mill Road approximately 3 km east of Pleasant Point on the south bank of the Ōpihi River. The largest pipe on the scheme has a 200 mm diameter and extends from bore J38/0190 to approximately Kerrytown. The closest 100 mm diameter pipe on the scheme, to Waipopo, is located where the scheme crosses State Highway 1.

TDC's website includes the following description of the Seadown Water Supply Scheme:

The Seadown water supply is predominantly a demand system although On-site storage is required for domestic use.

The Council supplies water into most troughs and every tank.

Since 1991 domestic tanks have a restricted connection into the tank with the water flowing in at a constant rate unless the tank is full, once that happens the ballcock shuts off the flow.

From <https://www.timaru.govt.nz/services/environment/water/water-supplies/seadown>

The on-demand nature of the scheme and the presence of numerous troughs means that the scheme is at risk of broken trough ballcocks causing a significant drain on the overall system and reducing reliability of supply to some users. TDC are currently upgrading the scheme and wish to convert it to a fully tanked supply system with restricted supply to the tanks. TDC's Long Term Plan 2021-31 allocates \$ 6.2 million for upgrades and renewals of the Seadown Water Supply Scheme. Currently TDC are not planning to extend or expand the scheme and are not accepting new connections to the scheme as it already suffers from reduced supply reliability. Once the scheme becomes a fully restricted tank supply it is expected that reduced wastage from reduced losses from troughs will result in some excess capacity which may allow the scheme to be extended.

The Seadown Water Supply Scheme supplies water at a cost of \$0.94 per cubic meter. Where new connections are made available there is an application fee of \$400, and a connection fee of \$1,500 in addition to the actual costs of the physical works.

Extending the Seadown Water Supply Scheme to include the Waipopo area will have significant implications for the scheme in that it would add considerable demand at the extreme end of the current scheme. It would require increasing the capacity of the existing pipe network plus new pipes from at least Seadown (approximately 6 km of new pipe would be required). Similarly, it is likely that the increased demand would require changes to the treatment plant, pump station and possibly even bore J38/0190. A resource consent to abstract additional water may also be required. It is difficult to estimate the capital costs associated with this option, but they are likely to be very substantial. Similarly implement of this option is fully reliant on TDC and Taumata Arowai. TDC have indicated that extending the Seadown Water Supply Scheme is not something they are currently considering.

In the medium term the option of establishing a new Water Supply Scheme that services the wider Waipopo community from a deep groundwater bore with a treatment plant and reticulated network is likely to be a more favourable option. The indicative capital costs to establish a new Water Supply Scheme that services the wider Waipopo community are likely to be similar to those outlined in the earlier section (Section 2.2.2) for a private reticulated system that services the properties on the Trusts land. The bore costs would be the same, buffer storage costs slightly increased due to increased storage requirements, pump station and treatment plant costs will be slightly increased to cater for the increased demand and increased pipe network costs due to the larger network. However, the increased costs would be spread over considerably more dwellings and are likely to result in lower per dwelling costs than those for a private reticulated system. We note that TDC as a Local Authority would likely be successful in obtaining a water supply abstraction consent as a community water supplier.

It is also understood that similar water supply issues exist at Milford Lagoon and a wider community scheme that services both areas and pipes water under the lower Ōpihi River is an option that is considered worth investigating.

The key advantages of a fully community system is that it utilises TDC's existing expertise, reduces responsibility on the Trusts (they will not need to become a Water Supplier) and it allows costs to be spread over a larger number of properties and potentially over a longer timeframe.

2.2.4 Summary – Water Supply Options

Table 5 below summaries the water supply options.

Table 5: Water Supply Options Assessment			
Variable	Water Supply Options		
	Enhanced Supply	Individual	Private Reticulated
Description	Rainwater tanks with UV treatment for drinking water and use of existing individual bores for other household water.		New deep bore with centralised treatment and reticulated pressurised network.
Cost	Relatively low as most of infrastructure in place.		High and potentially extremely high depending on treatment requirement. Limited properties to spread costs.
Regulatory	Consents not required but unlikely to meet future regulations in relation to water quality.		Significant consenting process with significant uncertainty given 3-Waters reform. Trusts would need to become a Water Supplier.
Implementation	Simple with each property able to choose when they implement. Requires a lot of infrastructure and considered less robust overall. Would benefit from standard design and infrastructure on each property.		Relatively simple and know infrastructure. Will require external contractors.
Operation	Little change to current but will require active maintenance on each property. Lots of parties involved. Would benefit from having one maintenance provider.		Operation will require specialist knowledge likely done by a contractor.
Overall Comments	Likely to be the cheapest and simplest option but issues regarding water quality likely to remain. Gives freedom to individual dwelling owners Also helps address stormwater.		Will provide a robust and convenient solution which addresses both quality and quantity. Will be expensive as less properties to share costs. Trusts would need to become a Water Supplier and some uncertainty over future regulatory requirements. Issues relating to where to locate communal infrastructures. Advantage is potentially could be implemented quickly and Trust controls most of the process.

2.3 Next Steps

The following next steps are recommended in order to identify and progress the preferred options:

- (i) Undertake a survey and site visit (potential via a standard form with an overall general site visit, although site visits to each property and interviews with residents are likely to better identify concerns and issues) to confirm current water supply on each property and owner's preferences.

- (ii) Obtain a formal response from TDC on their water supply plans for the Waipopo area particularly given the proposed rezoning as part of the current District Plan review.
- (iii) Research deep bore K38/1712 (on opposite side of lower Ōpihi River) and contact Taumata Arowai to determine treatment requirements if a similar deep bore with similar water quality was used as the water source for the Trusts land. Also confirm with Taumata Arowai the implications of the Trusts becoming a Water Supplier.
- (iv) Develop conceptual design for preferred option/s and obtain costing.

3.0 WASTEWATER

As discussed above it is understood that since the 1980's most of the properties have wastewater holding tanks which are regularly emptied via sucker truck at the resident's expense with the extracted wastewater discharged into TDC wastewater system. Wastewater holding tanks are typically used as a temporary measure while a reticulated wastewater system is developed, so it is somewhat surprising that the holding tanks have been used for so long.

The lack of authorised septic tank type discharges confirms that most of the areas dwelling have wastewater holding tanks.

3.1 Wastewater Options

The following three options were considered:

- (i) Continued use of holding tanks and installation of similar systems for the development of any further residences – represents the Status Quo.
- (ii) Installation of private Septic Tank Effluent Pumping (STEP) systems before discharge via a communal low pressure main to the TDC Inland Towns pipeline,
- (iii) A new centralised community system consisting of a reticulated gravity system discharging to a communally treatment system and pumpstation discharging to the TDC Inland Towns Pipeline.

Note: any local wastewater discharge to ground options have not been explored in this report due to both the potential negative effects of discharge on the surrounding groundwater wells and the difficulty around achieving sufficient in-ground treatment with the sites relatively high groundwater level and the close proximity to both the Lower Ōpihi River and the coast.

Each of the options are discussed below.

3.1.1 Individual Holding Tanks

This option essentially represents a continuation of the status quo. Currently each of the individual dwellings on the Trusts land has their own private wastewater holding tanks which they must have periodically pumped out and disposed of to the TDC Wastewater Treatment Plant in Washdyke.

Any new private dwellings would be required to install new holding tanks to accommodate their own wastewater requirements. At an average of 220 l/person/day and with an average of 3 people per dwelling (as mentioned above) the tanks would require 660 l/day of storage. As such a 7,000-litre tank would require pumping out and disposal every 10 days with a 20,000-litre tank requiring servicing every 30 days.

The availability of local disposal services and their capacity needs to be considered. Typical sucker trucks will range from a capacity of 4,000-litres to 10,000-litres. While larger capacity wastewater holding tanks will require less frequent servicing, they will require either multiple trucks or multiple visits by the same truck when they are serviced.

It is recommended that all existing holding tanks be inspected for any potential leaks and repairs undertaken as required.

For the existing dwellings that currently utilise holding tanks the only new costs would be that of an inspection and any repairs required. New dwellings would require the purchase and installation of the holding tanks with works being undertaken at the same time as dwelling construction.

The costs for the supply and installation of the new tanks would range from \$6,000 to \$10,000 excluding GST. Note, new tanks will need to be serviced in the same way as the existing systems. Typical servicing costs for emptying a 10,000 L tank would be \$450-500 (includes cost of disposal into TDC's wastewater treatment plant at Washdyke plus the collection fee). Assuming a 20,000 L tank is used, and it is emptied every 30 days annual servicing costs are likely to be in the order of \$10,800–12,000 excluding GST per dwelling.

3.1.2 Private Septic Tank Effluent Pumping (STEP) System and Low-Pressure Main

STEP systems are based on single septic tank systems with electric pumps which pump the effluent to a community low pressure sewer system. Waste from the dwelling is discharged by gravity into a tank, most typically a concrete vault. The vault allows for the solids to settle out and accumulate on the bottom. The liquid portion of the waste stream is then pumped out into the collection system. Periodically, typically 2 to 3 years, the solids from the bottom of the tank will need to be removed and disposed of in the same fashion as the existing holding tanks are serviced.

The STEP systems will connect to a new low pressure pumping main that will transport the effluent to the existing TDC Inland Towns pipeline along the KiwiRail corridor between Temuka and Timaru. This pumping main would need to run from the eastern end of the Waipopo Trust lands, along Waipopo Road past the Te Kotare Trust site to Blackler Road, up Blackler Road, then north along Seadown Road before running along Arowhenua Station Road to connect into the existing TDC main within the KiwiRail corridor.

The length of the proposed main would be approximately 6.3 km. The size of main would not be determined until detailed design has been undertaken and the full system can be modelled. At this point we would estimate the main to be a DN63 PE pipe.

Estimated costs excluding GST would include:

- \$15,000 to \$20,000 per dwelling for the supply and installation of the individual STEP systems,
- \$6,000 per dwelling for connection to the Council main (Council fees)
- Upwards of \$400,000 for construction of raising main from Trust lands to connection point with TDC Inland Towns Pipeline.

Assuming connection of 100 residences the total connection and capital cost ranges from approximately \$2.5M to \$3M. Professional fees may be in the order of 15% for the resource planning, design, and construction monitoring of physical works. This equates to approximately \$375,000 to \$450,000 excluding GST for professional services.

3.1.3 Centralised Community System (CCS)

The Centralised Community System will consist of a new gravity reticulation network connected to a centralised treatment system before pumping to the TDC Inland Towns Pipeline.

For this option land would need to be found to house the community treatment and pumping systems. An area of between 500 m² to 750 m² would be required for the community system and would ideally be located centrally between the two Trusts areas.

A proprietary secondary treatment system would be constructed in the aforementioned central location. Typical systems are scalable allowing for a smaller system, sized to cater for the existing demand, to be constructed now while ensuring the system can be expanded for future growth as needed.

Following treatment via the community system, effluent will need to be pumped to the TDC Inland Towns Pipeline. A new sewer pump station and raising main will need to be constructed for this purpose.

Estimated costs would include:

- Upwards of \$400,000 for the community gravity network,
- Treatment costs are difficult to estimate but are likely to be in the order of \$0.5 M to \$1 M for the installation of a community treatment system.
- Upwards of \$1.1 M for construction of pump station and raising main from the Trust lands to the connection point with TDC Inland Towns Pipeline.
- \$6,000 per dwelling for connection to the Council main (Council fees)

Assuming connection of 100 residences the total connection and capital cost ranges from approximately \$2.6M to \$3.1M. Professional fees may be in the order of 15% for the resource planning, design, and construction monitoring of physical works. This equates to approximately \$390,000 to \$465,000 excluding GST for professional services.

3.1.4 Summary – Sewer Options

Table 6 below summaries the sewer treatment and disposal options.

Table 6: Sewer Treatment and Disposal Options Assessment

Variable	Sewer treatment and Disposal Options		
	Individual Holding Tanks	STEP Treatment and Disposal	Community Reticulated
Description	Individual holding tanks for each dwelling. Residents will need to periodically have their holding tanks pumped out and sewage disposed of – status quo scenario.	Individual septic tanks and pump chambers for discharge via a communal low-pressure pressure main to the TDC Inland Towns Pipeline.	Construction of a reticulated gravity network, centralised treatment system and pump station before discharge to the TDC Inland Towns Pipeline.
Cost	Relatively low as most dwellings have infrastructure in place and currently operate in this fashion. On-going servicing costs for emptying the holding tanks will be considerable.	Extremely High – high capital costs setting up the communal raising main and new systems for each dwelling. However on-going maintenance and operation costs are expected to be significantly less than the current situation of pumping out the holding tanks..	Extremely High – will require significant capital costs for the installation of all the required infrastructure. On-going running and maintenance costs expected to be higher than for the STEP option but lower than the current situation of pumping out the holding tanks
Regulatory	Simple as this matches the existing community approach and does not require discharge consents.	Relatively simple, should not require discharge consent, but may require other consents. Relies on TDC approval.	Common approach for community wide systems. Will require several resource consents. Relies on TDC approval.
Implementation	Simple with the majority of existing dwellings already using this option.	Relatively simple construction and installation. Will require proprietary devices but likely to be able to be installed by experienced local contractors. Relies on TDC approval.	Will require extensive physical works as well as dedicated land for the construction of treatment system and pump station. Relies on TDC approval.
Operation	No change to current situation where individuals need to have their holding tanks constantly “pumped-out” and effluent disposed of.	Some specialist knowledge required for maintenance on pumps but similar to neighbouring communities. Ultimately expected to be cost less than the current “pump-out” and disposal situation.	Will require specialist knowledge and equipment as well as on-going maintenance and monitoring. Operationally costs will be higher than the STEP option. Usually run by territorial authorities.
Overall Comments	Likely to be the cheapest and simplest option in regard to capital cost and implementation. On-going operational costs may be considerable for individuals compared to the other options.	Will provide a robust and convenient solution and excluding the initial capital costs is expect to cost residents less in on-going operation and maintenance costs. Relies on TDC approval.	This is the most extreme option and will take both considerable capital expenditure to implement as well as elevated operational and maintenance costs. Relies on TDC approval. Furthermore, some entity will need to take over the operations and maintenance of said system whether this be TDC, one of the Trusts or a separate entity set-up specifically to run said system.

3.2 Next Steps

The following next steps are recommended in order to identify and progress the preferred wastewater options:

- (i) Undertake a survey and site visit (potential via a standard form with an overall general site visit, although site visits to each property and interviews with residents are likely to better identify concerns and issues) to confirm current wastewater systems on each property, the true costs associated with servicing the current systems and the owner's opinion on their current system and any preferences for future changes.
- (ii) Inspect all existing wastewater holding tanks for any potential leaks and undertake repairs as required.
- (iii) Obtain a formal response from TDC on their wastewater plans for the Waipopo area particularly given the use of storage tanks and the proposed rezoning as part of the current District Plan review.
- (iv) Develop conceptual design for preferred option/s and obtain costing.

4.0 STORMWATER

There are no reticulated stormwater systems in the Waipopo area and currently each property deals with its own stormwater. Stormwater will be generated from both roofs and areas of hardstand. It is understood that there is some harvesting of roof runoff. However, it is expected that most stormwater (both roof runoff and any hardstand runoff) will be discharged to ground via general infiltration from the ground surface or via soak pits. According to Canterbury Maps there are no active discharge permits in the vicinity of the Trust's land which indicates that the current stormwater discharges from individual dwellings operate as permitted activities under rules 5.96 and/or 5.97 of the Canterbury Land and Water Regional Plan (LWRP).

Soils in the area are classified as either "*moderately well*" or "*well*" drained and the underling gravel units drain well. As such, discharge to ground is considered a good option for suitably disposing of any stormwater. Although given that the water table is expected to be within a couple of meters of the ground surface, care will be required.

All the existing lots and dwellings on the Trusts land have access to Waipopo Road and future development of the area is unlikely to require significant new roading. Environment Canterbury's Listed Land Use Register does not identify any potential contamination issues on the Trust Land. Provided future development does not involve commercial or industrial land uses and no contamination issues are identified it is expected that continued discharge of stormwater to land from either individual properties or collectively from up to 5 properties will meet the permitted activity requirements of rules 5.96 and/or 5.97 of the LWRP. Condition 6 of rule 5.95 requires that the stormwater is not discharged within a Community Drinking-water Protection Zone. If the Trusts proceed with a reticulated water supply scheme which provides drinking water to more than 25 people and which sources water from a local bore the potential implications on stormwater discharges near the bore will need to be assessed.

TDC through the current District Plan review are in the process of adopting a stormwater certification process. TDC's have prepared a draft Stormwater Management Guideline which explains the certification process and provides guidance. All Land Use, Building Permit and Subdivision consent applications will need to consider, and where appropriate address, stormwater. Stormwater certification is required when stormwater is to be discharged to a TDC reticulated network or will fall under a TDC stormwater consent. There is no reticulated stormwater network at Waipopo and TDC do not have a global discharge consent for stormwater from the Waipopo Area. As such, it is unlikely that any future development on the Trusts land will require stormwater certification. However, such developments will likely need to meet the requirements of the Stormwater Management Guidelines. The key measurable outcomes for stormwater management in the Timaru District are:

- Stormwater Quality – achieving a specific removal rate for particular contaminants
- Stormwater Quantity – achieving stormwater neutrality (post-development peak flows and/or volumes are restricted to predevelopment flows and/or volumes) for appropriate design events
- Secondary Flow paths – providing safe conveyance of flows in excess of the primary stormwater system.

Most of the stormwater discharging from any future development of the Trust land is expected to be from roofs, as limited new roading is likely to be required. Provided suitable building products are used (no copper, galvanised, unpainted zincalume or any other unpainted metal roof material, gutters, downpipes or external cladding) roof water is typically clean and does not require treatment prior to discharge to ground. The use of rainwater tanks and/or suitably sized soak pits should provide the necessary storage to achieve stormwater neutrality. For stormwater runoff from driveways and hardstand directing it onto grassed swales and infiltration areas/soak pits is likely to provide an appropriate stormwater solution.

5.0 NATURAL HAZARDS

Flooding from the nearby Opihi River, tsunami, drought and to a lesser extent earthquakes are considered the principal natural hazards that could affect the Waipopo area and 3-Waters infrastructure. Other natural hazards such as volcanic eruption, landslides, coastal erosion etc are not considered relevant to the area.

5.1 Flooding

In April and May 2022, in response to a request by Perspective Consulting, Environment Canterbury completed flood hazards assessments for the Te Kotare Trust land (ECan 2022a) and Waipopo Trust land (ECan 2022b). Both assessments summarise current understanding and consider flooding from the Ōpihi River (including breaching of the flood protection works) and coastal inundation. The assessments included the following summaries:

Te Kotare Trust land.

Overall, the property is prone to a significant flood risk from upstream overflows from the Opihi River and has a history of being flooded from that river.

While depths on the property are expected to be significant, they mostly do not trigger high hazard definitions and the property can therefore be defined as “low risk”.

In the design flood for floor level controls, it is likely a new dwelling over most of this property would need to have a floor level elevated in the vicinity of 600 - 800 mm above ground to meet District Councils standards. This would have to be confirmed on site should any new development be proposed.

A small area of the property near the river is within the high hazard area in relation to the risk of stopbank breach.:

Waipopo Trust land.

The property is prone to some risk of flooding from upstream breakouts from the Opihi River flowing into the area however apart from some isolated areas of deeper flooding this flooding tends to be moderate in depth and relatively manageable.

A large part of the property is within the area over which deep, high velocity and debris laden water (high hazard flooding) may extend should the stopbank immediately adjacent to the property be breached. The flood protection scheme is designed to contain a roughly 50-year ARI flow and in extreme (super-design) floods like the 200-year or 500-year ARI events (on which floor level controls and high hazard policy are based respectively) it is impossible to rule out the stopbank being overtopped and/or breached in this area. This is a low probability but high consequence outcome. For this property the most significant limiting factor on future development is likely the rules relating to stopbank setback and stopbank breach risk as opposed to the more manageable risk of flood overflows coming into the area from upstream.

During extreme flood events in the Opihi River a well-considered evacuation plan that the community accepts and buys into would go a long way to reduce risk to people (if such a plan does not already exist).

Coastal inundation is not expected to significantly effect the property even in the most extreme sea level rise scenarios modelled by NIWA (2020).

5.2 Tsunami

The Waipopo Trust land is approximately 1.7 km from the coast whereas the Te Kotare Trust land is approximately 2.5 km from the coast. Both areas are low lying and are less than 10 m above mean sea level. As such both areas are susceptible to large tsunamis. Neither area is located within Environment Canterbury's Tsunami Hazard Zones although the Waipopo Trust Land borders an Orange Zone (Figure 6).

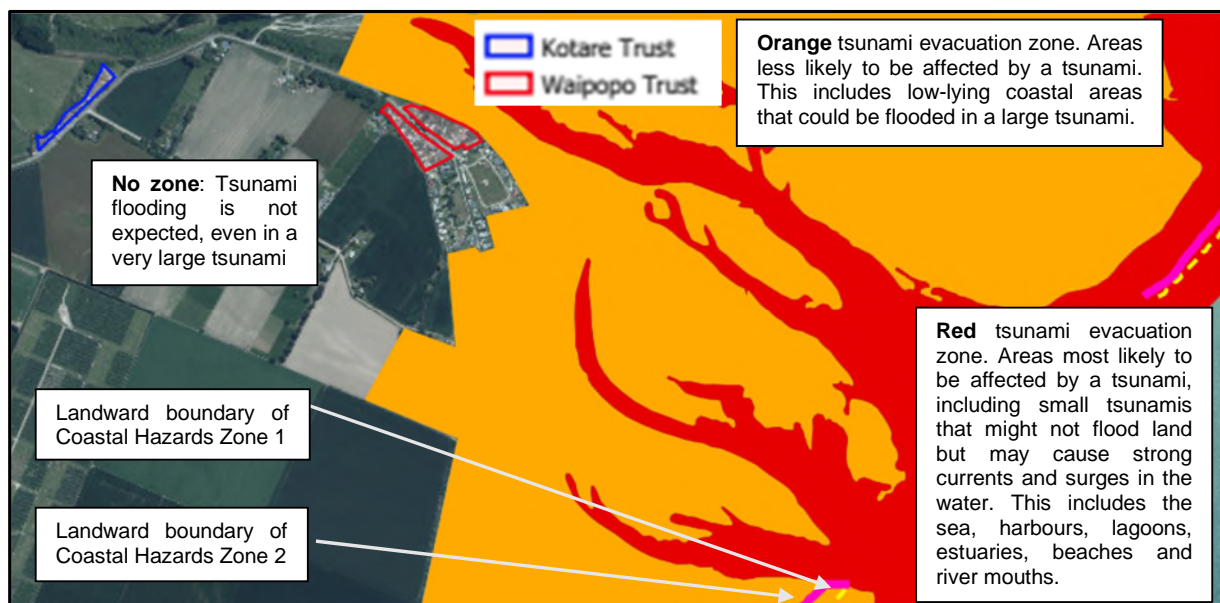


Figure 6: Tsunami Hazard Zones in the vicinity of the Te Kotare and Waipopo Trust land.

5.3 Drought

If rainwater harvesting is used for water supply, then droughts will affect water supply reliability and potentially lead to water shortages.

5.4 Earthquakes

There are no known faults in the vicinity of Waipopo with the closest (Geraldine-Mt Hutt Fault System and the Brothers Fault) at least 30 km away (based on the Earthquake Faults Map available on Canterbury Maps). Earthquakes have a potential to cause ground rupture, shaking and shaking induced liquefaction. While the risk of ground rupture in the Waipopo area is low the significant faults within both the Timaru District itself and the wider South Canterbury area are capable of producing significant ground movement and shaking at Waipopo.

The Waipopo settlement area is within a zone in which liquefaction damage is possible (Geotech 2013). The liquefaction susceptibility map (Figure 6) available on Canterbury Maps indicates that both the Te Kotare Trust land and the Waipopo Trust Land are within areas where liquefaction damage is possible.

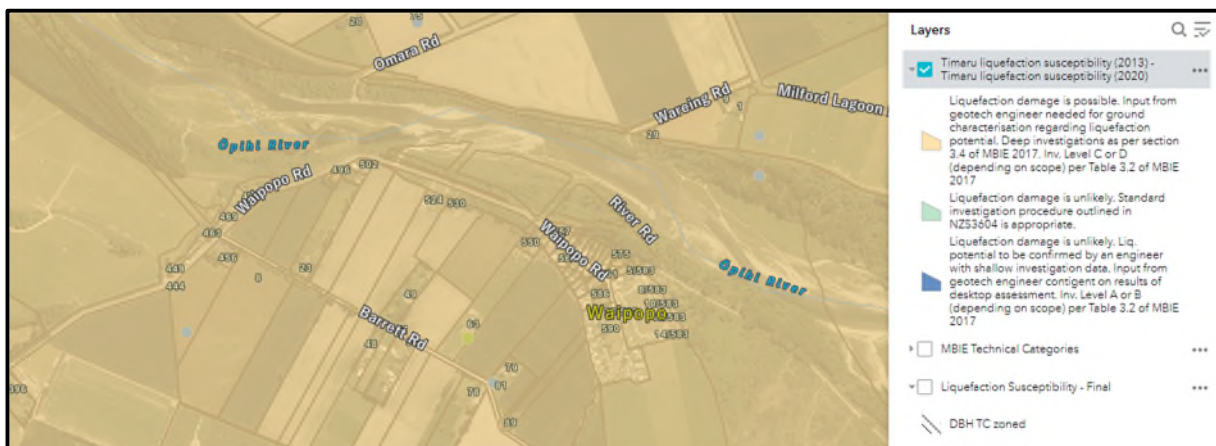


Figure 7: Timaru liquefaction susceptibility map for the Waipopo Area.

5.5 Natural Hazards Summary

Table 7 summarises the natural hazards and their 3-Waters implications for the Waipopo Area.

Table 7: Natural Hazards Waipopo Area – 3-Waters implications

Hazard	Implications for 3-Waters	Comment
<p>Flooding from lower Ōpihi River. The area is known to flood and the Te Kotare Trust land was fully inundated in the 13 March 1986 flood. The Ōpihi River flood protection works and stopbanks are designed for a 50 year ARI event.</p> <p>Environment Canterbury have recently completed Flood Hazard Assessments for the Trusts land (ECan 2022a and 2022b).</p>	<p>Inundation can damage 3-Water infrastructure through both direct inundation and erosion associated with the flooding. Specific concerns are:</p> <ul style="list-style-type: none"> • Buoyancy pressures on underground pipes and tanks. • Potential for flood waters to enter bores heads and contaminate groundwater. • Potential for flood waters to enter wastewater systems causing overflows etc and typically floodwaters are contaminated and leave behind contaminated deposits. • Inundation will damage electrical equipment etc. • Erosion associated with the flood waters and deposits of flood debris. • Excess rainfall runoff has the potential to damage stormwater systems. • Inundation from river floods etc is usually relatively short as flood waters drain away. However inundation due to high groundwater can be prolonged. 	<p>Sea level rise will cause the river to back up further inland which may result in increased sediment being deposited on the riverbed lowering the effective height of the stopbanks near the coast. Continued removal of gravel from the riverbed will be required. Groundwater levels close to the coast will also raise as sea level rises.</p> <p>Climate change is predicted to increase the frequency and severity of extreme events like floods.</p> <p>While engineering design can address some of the potential issues associated with floods, significant disruption to the community and 3-Water infrastructure is expected.</p>
<p>Tsunami. The trust land is not in a tsunami evacuation zone however the Waipopo Trust land borders an orange zone (refer Figure 6 below)</p>	<p>As well as physical damage from the force of a tsunami, inundation from saltwater has the same potential implications as outlined for flooding above with increased potential for contamination of soils, groundwater etc.</p>	<p>The Waipopo Trust land is approximately 1.7 km from the coast whereas the Te Kotare trust land is approximately 2.5 km from the coast. Both areas are low lying and are less than 10 m above mean sea level. The risk from tsunami is considered low.</p>
<p>Drought</p>	<p>The only effect on 3-Waters is if rainwater harvesting is used for water supply. With droughts potentially leading to water shortages. This assessment recommends rainwater harvesting with a tank capacity of ≥10,000 L tank for drinking water to complement bore water supplies for other household water use. The tank capacity provides significant storage of drinking water which should cater for most droughts provided water use is limited to potable uses and not full household use.</p>	<p>Climate change is predicted to increase the frequency and severity of droughts.</p>
<p>Earthquake there are no known faults in the vicinity of Waipopo. The Earthquake Faults Map available on Canterbury Maps indicates that the closest known faults (Geraldine-Mt Hutt Fault System and the Brothers Fault) are at least 30 km away</p>	<p>Earthquake shaking and particularly land rupture can significantly damage 3-Water infrastructure as was experienced during the Canterbury Earthquake Sequence.</p> <p>While the risk of direct land rupture at Waipopo is small there are significant faults within both the Timaru District itself and the wider south Canterbury area which are capable of producing significant ground movement at Waipopo. Specific concerns would be:</p> <ul style="list-style-type: none"> • Damage to vertical and horizontal infrastructure, particularly pipelines at joints. • Damage to water supply bores. • Damage to the power network which prevent operation of 3-Waters infrastructure. 	<p>While suitable engineering design can help limit the damage associated with smaller earthquakes and resultant liquefaction, any large earthquake that results in significant ground movement at Waipopo will cause significant disruption to the community and 3-Waters infrastructure.</p>

6.0 CONCLUSIONS AND RECOMMENDATIONS

This report provides Davis Ogilvie's 3-Waters servicing and natural hazards advice for the land owned by Te Kotare and Waipopo Trusts on the southern side of the lower Ōpihi River.

The report discusses three water supply options (status quo with individual onsite supply and treatment, a private reticulated system servicing the Trusts land, a community system that connects into TDC's Seadown Water Supply scheme). A private reticulated system that services the Trust land (and potentially the wider Waipopo community) is considered the most robust and convenient option but will require considerable capital investment.

Three wastewater options are considered (status quo with continued use of holding tanks, STEP system, and gravity reticulation, centralised treatment and pumping system). A STEP system is considered the most robust and convenient option but again will require considerable capital investment. While the continued use of holding tanks is a simple and low capital cost option the going maintenance costs of regularly emptying the tanks are considerable.

Continued discharge of stormwater to ground via soakpits and infiltration is considered appropriate provided suitable controls are placed on roofing, guttering and cladding materials

When considering 3-Waters options it is usually preferable if all three components (water supply, wastewater and stormwater) are considered collectively. Typically reticulated water supply systems go together with reticulated wastewater systems.

Flooding from the Ōpihi River is considered the most significant natural hazard for the area and has significant implications for 3-Waters infrastructure.

To progress the consideration of 3-Waters options the following next steps are recommended.

- (i) Undertake a survey and site visit (potential via a standard form with an overall general site visit, although site visits to each property and interviews with residents are likely to better identify concerns and issues) to confirm current 3-Waters infrastructure/systems on each property, the associated operating costs, any concerns regarding the current situation and the owner's preferences for future changes.
- (ii) Obtain a formal response from TDC on their water supply and wastewater plans for the Waipopo area particularly given the proposed rezoning as part of the current District Plan review.
- (iii) Inspect all existing wastewater holding tanks for any potential leaks and undertake repairs as required.

- (iv) Research deep bore K38/1712 (on the opposite side of lower Ōpihi River) and contact Taumata Arowai to determine treatment requirement if a similar deep bore with similar water quality was used as the water source for the Trusts land. Also confirm with Taumata Arowai the implications of the Trusts becoming a Water Supplier.
- (i) Develop conceptual design for preferred option/s and obtain costing.

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Appendix N - Perspective Report – August 2022

Development Feasibility Report

Waipopo Trust and Te Kotare Trust
Waipopo



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Development feasibility report prepared for:

Waipopo and Te Kotare Trusts

In relation to land at:

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Interim report issue date	17 June 2022
Draft issued date	4 August 2022
Final issued date	
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1.0 Executive Summary

1.1 Replacement Housing

This report has assessed the feasibility of establishing replacement housing on Waipopo and Te Kotare Trusts land. It finds that the replacement housing could be legalised through existing use rights, although there is uncertainty about this option. It is currently not possible to obtain resource consent for the replacement houses due to the ODP¹ classifying housing in this area as a prohibited activity. Although it could be possible to obtain resource consent for replacement housing once the rules in the PDP have legal effect, there are strong policy grounds to refuse consent.

If existing use rights certificates cannot be obtained under the ODP, a submission on the PDP² should be made to request suitable provisions that will enable housing on the Trusts land.

Regardless of whether existing use right certificates are obtained, the Trusts should consider approaching Environment Canterbury to provide additional flood protection at Waipopo. This will help protect current and future residents and provide for a more resilient settlement. Alternatively, the Trusts should consider approaching Environment Canterbury to provide alternative land for the Trusts housing that is located nearby and not subject to natural hazards.

1.2 Infrastructure

The report also assesses the feasibility of providing three water infrastructure for the Trusts land. It found that on-site infrastructure solutions are cheap and easy to deliver, but are not as robust, safe, or economical in the long-term as community scale infrastructure solutions. However, the latter has considerable establishment costs, may take years to implement and requires third party support. The best option for the Trusts depends on the timeframe they wish to develop replacement housing. If they desire to provide replacement housing in the short-term, then on-site solutions would be the quickest, easiest, and cheapest option. Whereas if there is no desire to progress housing in the short-term, community scale infrastructure is likely to be the best solution. However, even if there is a desire to progress housing immediately, it is worth pursuing a community wide solution to ensure the most robust, safe, and cost-effective solution for the community. To progress this, the Trusts should approach Timaru District Council immediately to get the project into their Long-Term Plan. This will increase the likelihood the project is adopted by Entity D³ and progressed.

1.3 Development of the wider area

Considering the Trusts development aspirations and the proposed Māori Purpose Zone, it is an ideal time to consider the development of the wider Waipopo area. It is not good practice putting new houses in a high hazard area, and it is unlikely the Trust will obtain consents for additional houses. A plan to comprehensively develop the area would be ideal and could be

¹ Operative Timaru District Plan

² Proposed Timaru District Plan

³ Entity D is the new three water organisation that is proposed to take over water and wastewater supply from Timaru District Council in 2024

enabled through a master plan approach that would identify suitable land for housing, and coordinate flood management measures and infrastructure services.

2.0 Introduction

2.1 Report Purpose

The purpose of this report is to document the feasibility study that has been carried out in respect of the development and servicing of papakāika on land at Waipopo owned by the Te Kotare Trust and the Waipopo Trust (hereafter '**the Trusts**'). The feasibility study has been carried out by Perspective Consulting Ltd (hereafter '**PCL**') and Davis Ogilvie (hereafter '**DO**') for the Trusts.

2.2 Client Brief

The Trusts have not provided a formal brief but have provided confirmation of PCL's scope of services by signing the contract dated 23 March 2022. The contract refers to the fee proposal which contains a scope of services. This is attached as **Appendix 1** of this report. In summary, the brief is to investigate the feasibility of providing papakāika on the Trusts land and servicing that with suitable three waters infrastructure.

2.3 Report Scope

This report is discursively set out to:

- describe the Trusts lands and their context;
- describe the Trusts development aspirations;
- assess the feasibility of replacing existing housing in the context of the relevant statutory planning documents and other matters;
- summarise the DO infrastructure report and potential consent requirements;
- briefly comment on the development of the wider area;
- provide conclusions and recommendations that assist the Trusts decision making.

In terms of infrastructure services, the report investigates the feasibility of providing appropriate water supply, effluent disposal, and stormwater services. It does not investigate providing any roading, electricity supply or telecommunication services.

2.4 Assumptions

In conducting this work, the following assumptions are made:

- the information provided by the Trusts is accurate;
- the copies of the planning documents referred to on Council's internet site are complete and up-to-date;
- any information provided by third parties is accurate.

3.0 Site Description

This section of the report provides a description of the Trusts lands and their wider context.

The Trusts have two separate parcels of land, with the Te Kotare Trust's land being located to the west of Waipopo Road and the Waipopo Trust lands being located at the eastern end of Waipopo Road, refer to **Figures 1-3**. Both properties are Māori Reserves and were set aside by the Crown for papakāika and were located beside the river to enable mahika kai.



Figure 1 – The location of the Trusts lands with Te Kotare Trust lands to the west (left) and Waipopo Trusts land to the east (right)

3.1 Waipopo Trust Lands

The Waipopo Trust lands are split by the Waipopo Road into two areas that have a combined area of 1.9ha. The lands contain 29 separate allotments that accommodate 29 existing houses. Three of these houses encroach over the road reserve. Most of the houses are permanently occupied.

The existing houses on the Waipopo Trust land are small and have floor areas between 50-110m². It is understood that the houses were constructed around the 1930s and were built as fishing huts. They have recently been returned to the Waipopo Trusts ownership after most of the occupiers decided to discontinue their lease after a Court decision that confirmed the Trust owned the buildings. Many of the tenants that left stripped the houses leaving them in a poor state of repair. The condition of the houses vary greatly from good to dilapidated. The Waipopo Trust has indicated that 14 houses need to be demolished. Several other houses need upgrading to modern standards. There are also some issues of squatting and illegal occupation.

A regional council stopbank runs in a west-east direction approximately 20m from the northern boundary of the Waipopo Trust lands. It effectively splits the Waipopo Trust land,

with other Māori land located on the northern side of the stop bank. The top of the stopbank is approximately 2m metres higher than the ground level of the huts. The remainder of the topography of the Waipopo Trusts lands is relatively flat.



Figure 2 – Location and extent of the Waipopo Trusts lands. The houses proposed to be demolished are indicated by a red star

3.2 Te Kotare Trusts Lands

The Te Kotare Trust land is located on top of a narrow (approx. 10m) terrace above Te Kotare Stream to the west and adjoining Waipopo Road to east. The topography is flat next to the road then drops by approximately 2m down to Te Kotare Stream. The land is contained in one title that has an area of 6,247m². There are 16 existing houses located on the Te Kotare Trust land, with all these houses (except 3) built partly over the Waipopo Road reserve boundary. This situation is addressed later in the report. The houses on the Te Kotare Trust land are all small with floor areas between 50-110m². A regional council stopbank is located 13m to the north of the Te Kotare Trust land.

The Te Kotare Trust does not own the houses on their land and as such they are only looking to replace the house that has been demolished at no. 463 Waipopo Road. Timaru District Council has not issued an existing use right certificate for this site but has indicated that it has existing use rights.

Only the bottom part of Te Kotare Trust land is subject to flooding. Generally, the Te Kotare Stream backs up when the water level rises in the Opihi River blocking the culvert under the stopbank. However, the houses do not flood as the stream overflows west onto the adjoining low-lying farmland.



Figure 3 – Location and extent of the Te Kotare Trusts lands with the house that has been demolished indicated by a red star

There is no reticulated water, sewer or stormwater infrastructure that serves the Trusts land. Most houses discharge effluent to holding tanks and discharge stormwater to ground. Drinking water is collected via shallow groundwater wells or rooftops. Many people do not drink the water year-round and collect drinking water from reticulated supplies elsewhere. All of the Trust's land has legal and physical access to Waipopo Road.

3.3 Historical context

The Draft Timaru District Plan makes the following statements about the historical context of the Trusts land:

"In 1848, the Crown purchased 20,000,000 acres of land within the South Island for £2,000 from Kāi Tahu through a series of deeds. As part of the Deed of Sale for the purchase of land in Canterbury, the Crown undertook to set aside adequate reserves for the "present and future wants" of Kāi Tahu whānui. The intention was to allow for Kāi Tahu to live on their ancestral lands and also to carry out activities in these settlements to sustain themselves and support community wellbeing. In the Timaru District, land was set aside for this purpose at Arowhenua and Waipopo. In addition to these areas, there are some further areas of Māori Reserve land in the district which, while not suitable for settlement, have wāhi tapu and mahika kai values.

Successive restrictions on use over time, including imposition of rural zoning and the effects of local government decisions about flood protection and management of flood hazard, have prevented Kāti Huirapa from fully implementing their aspirations to establish and sustain a settlement on their ancestral land. Practical provision to enable Kāti Huirapa to live and sustain themselves on their land is important to enable them to maintain their relationship with this land and to provide for rakatirataka.”

3.4 Wider Context

The Opihi River runs to the north of the Trusts land and is used for a range of recreational and mahika kai activities.

Between the Te Kotare Trust and the Waipopo Trust lands exists a large area of Māori Reserve land that is owned by various whakapapa groups and individuals. The PDP zones this land Māori Purpose Zone, which is a zone that facilitates papakāika and a range of related activities.

There are two privately owned areas that adjoin the Waipopo Trust land and are known as the Opihi Huts and Peterson’s Park Huts. While originally established as fishing huts that enjoyed access to fishing on the Opihi River, almost all the huts are now permanently occupied. Accordingly, the broader Waipopo settlement has evolved from a settlement of fishing huts that were seasonally occupied to a permanent settlement.

Opihi Huts Holders own 2.2 ha of land to the south-east of the Waipopo Trusts land that accommodates 28 huts centred around a large area of open space. The Opihi Huts have a communal water supply from a bore.

Similarly, Peterson Park Homeowners Society Incorporated own 2.1 ha of land to the south of the Waipopo Trusts land that accommodates 17 houses centred around an area of open space.

Temuka and the settlement of Arowhenua are situated approximately 4km to the north-west and west respectively of Waipopo, while Timaru is located approximately 10km to the south.

4.0 Development Aspirations

The Trusts aspire to develop their land for papakāika and to provide a sustainable financial return. The Trusts have immediate aspirations to replace 14 of the existing houses that are to be demolished on the Waipopo Trusts land and replace the existing house that has been demolished on the Te Kotare Trust land (see **Figures 2 and 3**). It is intended that the replacement housing will be small, being either of a similar footprint to the existing houses, or ‘tiny houses’. While not immediately required, they would like the option of providing additional housing on the Waipopo Trust land if possible. They would like a safe and secure drinking water supply system and an appropriate effluent and stormwater disposal system.

5.0 Housing Feasibility

This section of the report assesses the feasibility of replacing existing housing and providing additional housing in the context of the relevant statutory planning documents and other matters.

Replacing the existing housing can either be legally established through existing use rights or through Plan rules. These matters are considered in the following sections that address:

- national and regional statutory planning documents;
- the encroachment of existing houses over the road reserve;
- the rationale of replacing the houses;
- the contingency plan if resource consent or existing use rights cannot be obtained.

5.1 Existing Use Rights

5.1.1 General

Existing use rights are provided under section 10 of the RMA⁴ a copy of which is provided in **Appendix 2**. Key requirements of section 10 RMA in summary are:

- the use must be lawfully established; and
- the effects of the use must be the same or similar in character, intensity, and scale to the existing activity.

Existing use rights do not apply when:

- the use has been discontinued for 12 months, unless within 2 years the Council has granted an extension to that application; and
- reconstruction or alteration of, or extension to, any building increases the degree of non-compliance with any district plan rule.

These matters are considered in turn below. An existing use right certificate is not required to establish existing use rights but is advisable if relying on existing use rights to erect a replacement house.

In the interests of clarity, section 10B RMA is not relevant.

5.1.2 Lawful Establishment

Proving lawful establishment of the existing houses may be problematic. Often there are no records of older buildings being lawfully established and often fishing huts were not legally established. Some consent authorities take a relaxed approach to the establishment of existing use rights and so long as the building is existing, they assume it has been lawfully established. Other consent authorities take the opposite view. Accordingly, proving legal establishment may or may not be a barrier to obtaining existing use rights.

⁴ Resource Management Act, 1991

To try and resolve this matter, the writer lodged a LOGIMA⁵ request with Timaru District Council to provide all building records relating to the any of the huts on the Trusts land. This information was provided by Council and is attached as **Appendix 5**. It establishes that only four existing huts have been completely established by way of building consent. However, it is noted that the earliest record provided by Council is a building consent in 1955. This suggests the Council have not searched before that time and it is noted that many of the huts would have been established before this in the 1930s. It is suspected that Council has only conducted a search of their digitised property records, rather than some of the original minutes that recorded Council decisions that have not been digitised. This means that there could be official records of the legal establishment of the huts. As case law has established that the onus of proof in establishing existing use rights is on the person seeking to establish existing use rights⁶, additional research may need to be conducted to establish existing use rights for most of the huts. This would include researching what the planning laws were at the time and the local planning rules.

Notwithstanding, the data provided by Council also establishes that there has been building consents issued in relation to 33 properties, for various upgrades and installations. This means the local authority knew about the buildings and suggests there was no issue with their legal establishment. Caselaw⁷ has also established that in the absence of direct evidence of existing use rights, it may be possible to draw inferences which, on the balance of probabilities, establish that an existing use existed under previous legislation. Accordingly, it is this sort of information that may allow Council to take a more a flexible approach to existing use rights.

The writer discussed this matter with Alex Wakefield, Team Leader Resource Consents, Timaru District Council, on 12 May 2022. He suggested that Council would likely draw inferences from the established building consent history and approve an existing use right certificate for the existing huts. However, there is a need to be cautiously optimistic about Mr Wakefield's comments as he may not be the decision maker or may change his mind on receipt of further information or advice from reporting officers.

5.1.3 Character, Intensity and Scale

It is assumed that the existing houses will be replaced with buildings of a similar character, intensity, and scale. Section 10 RMA does not require the buildings to be the same. Rather it requires that the effects must be the same or similar in character, intensity, or scale at the time the new district plan rules were proposed. Caselaw⁸ has found that there can be a reasonable evolution in terms of character, intensity, and scale, which provides scope for some minor increases in floor area and changes in the design.

5.1.4 Discontinuance

⁵ Local Government Official Information and Meetings Act 1987

⁶ Waitakere CC v Gordon EnvC A011/98.

⁷ Re Omya NZ Ltd [2004] NZRMA 104 (EnvC)

⁸ Russell v Manukau CC [1996] NZRMA 35 (HC), and Kapiti DC v Otaki Cold Storage Ltd EnvC W019/02

Existing use rights do not apply if the activity has been discontinued for a period of 12 months or more unless Council grants an extension to this period. This is not an issue as the houses have not yet been demolished. The exception to this is the Te Kotare Trust house that has been demolished. However, Council has already indicated this house has existing use rights. However, the discontinuance clause is a reason why no houses should be demolished until a resource consent or an existing use right certificate is obtained to legalise their reconstruction.

5.1.5 Increasing the Degree of Non-Compliance

Existing use rights also do not apply if the reconstruction or alteration of, or extension to, any building increases the degree to which the building fails to comply with any rule in a district plan. This is something to be mindful of in the design of any replacement buildings.

5.1.6 Conclusion - Existing Use Rights

So long as all the criteria under section 10 RMA can be met (including lawful establishment), existing use rights will legalise the replacement houses.

5.2 National Policy Statement Urban Development 2020 (NPSUD)

The only pertinent nation policy statement is the National Policy Statement Urban Development.

The NPSUD is a national policy statement that provides national policy direction on urban development and is only generally relevant to this matter. Section 104(1) RMA requires consent authorities to have regard to any relevant provision of a national policy statement when considering a resource consent application. Section 75(3) RMA requires that a district plan give effect to a national policy statement.

Policy 1 of the NPSUD requires planning decisions that contribute to a well-functioning urban environment, which amongst other things:

- enables a variety of homes that... enable Māori to express their cultural traditions and norms; and
- are resilient to the likely current and future effects of climate change.

This policy does not in itself justify the replacement housing, and it is noteworthy for requiring resilience against the effects of climate change.

Policy 9 of the NPSUD is also relevant and requires local authorities to:

- undertake effective consultation with iwi and hapū;
- take into account their values and aspirations;
- provide opportunities for Māori involvement in decision making.

Timaru District Council has undertaken consultation with iwi and hapū in the preparation of the PDP. Aoraki Environmental Consultancy Limited (AECL) represented Te Runanga o

Arowhenua in the consultation on the PDP and clearly articulated their aspiration to build on the Trusts land.

While that aspiration was given effect to in rezoning the Trusts land from Open Space Zone in the Draft District Plan to Māori Purpose Zone in the PDP, what AECL may not have realised is that the classification of the Waipopo Trusts land as High Hazard Area introduces a significant barrier to consenting any new houses on their land. Accordingly, it could be suggested that Timaru District Council has not undertaken effective consultation. However, Policy 9 does not direct Council to act on the aspirations of iwi. What it states is that Councils must take into account their values and aspirations. Any decision as to what action to take will also be informed by all other relevant resource management matters. Accordingly, the NPSUD does not provide clear justification for replacement housing on the Trusts land.

5.3 Regional Policy Statement (RPS)

The Canterbury RPS is the only operative regional policy statement for the area. Section 104(1) RMA requires consent authorities to have regard to any relevant provision of a regional policy statement when considering a resource consent application. Section 75(3) RMA requires that a district plan give effect to a regional policy statement.

Policy 5.3.4 of the RPS is pertinent and states:

“To recognise that the following activities, when undertaken by tāngata whenua with mana whenua, are appropriate when they occur on their ancestral land in a manner that enhances their on-going relationship and culture and traditions with that land:

- 1. papakāinga housing;*
- 2. marae; and*
- 3. ancillary activities associated with the above;*

And provide for these activities if:

- 4. adverse effects on the health and safety of people are avoided or mitigated; and...* [Emphasis added]

Policy 5.3.4 makes it clear that papakāika is to be provided for on ancestral land if adverse effects on the safety of people can be avoided or mitigated. This suggest that mitigating the risk is acceptable and the risk does not have to be avoided altogether. However, this policy must also be read in conjunction with the Policy 11.3.1 of the RPS that relates to high hazard areas and states:

“Avoidance of inappropriate development in high hazard areas

To avoid new subdivision, use and development (except as provided for in Policy 11.3.4) of land in high hazard areas, unless the subdivision, use or development:

- 1. is not likely to result in loss of life or serious injuries in the event of a natural hazard occurrence; and*

2. *is not likely to suffer significant damage or loss in the event of a natural hazard occurrence; and*
3. *is not likely to require new or upgraded hazard mitigation works to mitigate or avoid the natural hazard; and*
4. *is not likely to exacerbate the effects of the natural hazard; or*
5. *Outside of greater Christchurch, is proposed to be located in an area zoned or identified in a district plan for urban residential, industrial or commercial use, at the date of notification of the CRPS, in which case the effects of the natural hazard must be mitigated; or” ...*

Note the exception provided for policy 11.3.4 relates to critical infrastructure and the exception provided under clause 5 does not apply to the Trusts land.

Policy 11.3.1 makes it clear that, if there is a natural hazard event and there is likely to be loss of life, serious injury or significant property damage, there is no exemption to the avoidance approach. As the flood hazard assessment from Environment Canterbury suggests there would be loss of life, serious injury or significant property damage in the event of the stopbank bursting, this policy would likely be used against any resource consent for the replacement housing on the Waipopo Trust lands.

5.4 Regional Plan

The Canterbury Land and Water Plan is the regional plan for the Canterbury Region and manages discharges to land/water and water takes, along with other regional council statutory functions. It is potentially relevant as the replacement houses may need to discharge wastewater and stormwater to ground. The relevant rules of the Land and Water Plan are set out in Table 1.

Activity	Consent Required	Activity Status	Rule	Comment
Discharge wastewater to ground	Yes	Restricted discretionary	5.9	The density of discharges and their proximity to existing wells is likely to be an issue. Note this rule applies to new, modified or upgraded wastewater treatment systems. However, note that this rule does not apply to holding tanks which are permitted
Discharge of greywater to ground	Possible	Permitted activity	5.12	Subject to several conditions. Possible for new houses to meet. Cannot discharge with 20m of a bore, which could be a constraint

Discharge stormwater to ground	No	Permitted	5.96	Subject to compliance with standards
Water takes	Yes But superseded by s.14(3)(b) RMA	Restricted discretionary activity	5.114A	Consent required due to non-compliance with the 20m boundary setback rule.

Table 1 – Relevant regional rules for onsite wastewater, stormwater discharges and water takes. The resource consent requirements for community scale infrastructure are not included in this table.

The resource consent requirement for a discharge of wastewater to ground can be avoided by using holding tanks. It is understood that most properties in Waipopo use holding tanks and therefore they will be able to continue to use those holdings tanks without the need to apply for resource consents. New holding tanks are also an acceptable solution.

Similarly, section 14(3)(b) RMA provides a right to take water for an individual's reasonable domestic needs and supersedes Rule 5.114A. Therefore, no consent should be required under that rule.

5.5 Operative Timaru District Plan (ODP)

The Trusts lands are zoned Recreation 1 by the ODP. Household units (including holiday huts) except where provided as a discretionary activity are listed a prohibited activity under rule Rule 5.3.1.5 of the ODP. Household units provided as discretionary activities include:

- accessory buildings to household units or holiday huts of a total area of up to 50 square metres per residence; and
- the modification of a household unit or holiday hut for the purpose of reducing likely flood damage.

As resource consent cannot be sought for a prohibited activity, Rule 5.3.1.5 means that any of the existing household units cannot be replaced under the ODP. Modifying the existing household units (not for the purpose of reducing flood damage) and repairing existing buildings are not listed specifically as a discretionary activity and therefore appear to be captured by the prohibited activity rule.

Objective 1 and Policy 1, Part B4 of the ODP are the most pertinent objectives and policies that relate to redevelopment in the most hazard prone areas of the district and state:

Objective 1

“Avoid further non-essential development or redevelopment in the most hazard prone locations in the District.”

Policy 1

“To prevent new residential and other intensive development including commercial and industrial development in the most hazard prone locations, while making some provision for the reconstruction of existing household units and holiday huts, and the modification of existing dwellings to decrease the level of flood risk or damage that may arise.”
[Emphasis added]

The explanation for this policy states:

“Those wishing to establish new dwellings or replace existing dwellings will have to find alternative sites in less hazard prone situations. Existing dwellings can be retained under existing use rights (see s10 of the Resource Management Act).”
[Emphasis added]

The implementation method for this policy states:

(1) Using rules to make provision for the reconstruction of existing household units (and holiday huts) where such reconstruction is not allowed under s10 of the Resource Management Act, while otherwise prohibiting new household units in the most flood prone locations, and limiting alterations to existing household units to modifications intended to reduce flood damage.
[Emphasis added]

The rules of the ODP that implement the above provisions specifically provide for the replacement of existing houses at Rangitata huts and reconstruction of the houses at Milford huts not allowed under s.10 RMA as discretionary activities. However, the ODP does not specifically enable them at Waipopo. It is unclear whether this was intended or not. In the absence of clarification, it appears the ODP approach is to, as per Objective 1 *‘avoid redevelopment in the most hazard prone areas locations of the district’*. Accordingly, it is considered that the replacement houses would be contrary to the objective of the ODP.

5.6 Proposed Timaru District Plan (PDP)

At the time of writing the PDP was scheduled for notification in mid-September 2022.

5.6.1 Zoning

The Trusts lands are located in the PDP’s Māori Purpose Zone. Objective MPZ-O2 states the purpose of Māori Purpose Zone zone is to specifically provide for mana whenua needs and activities, including papakāiaka. This partly implements strategic direction SD-O5 that states Māori reserve lands are able to be used by Kāti Huirapa for their intended purposes.

Papakāiaka is listed as a permitted activity in the Māori Purpose Zone and is subject to standards. The standards of the Māori Purpose Zone are set out in **Appendix 3**. In summary, the standards require:

- houses to be setback 3m from road boundaries and 2m from side boundaries;

- a 9m building height limit;
- all habitable buildings to have access to potable (drinkable) water from a community water scheme or private water bore or shall be able to store 45,000 litres of potable water from another source;
- any site which is not connected to a reticulated sewerage system must obtain either a discharge consent, or a certificate of compliance, from the Regional Council that provides for on-site treatment and disposal of sewage.

The requirement for connection to a reticulated sewerage system is problematic as it does not provide for holding tanks. It is recommended that once notified, a submission on this matter should be made on the PDP.

The relevant district wide chapters of the PDP are considered as follows:

5.6.2 Natural Hazards

The Trusts lands are located in the PDP's Flood Hazard Assessment Area. Rule NH-R4 classifies natural hazard sensitive activities (that includes residential activities) with a ground floor area of over 30m² located in a Flood Assessment Area as a permitted activity. However, a flood risk certificate is required to be issued for the activity that demonstrates the activity is:

- not located on land that is within an overland flow path; and
- not located on land that is identified as a high hazard area; and
- located on land that is not subject to flooding in a 0.5% AEP rainfall event;
- located on land that is subject to flooding in a 0.5% AEP rainfall event and complies with the minimum finished floor level requirement for the site.

Housing on the Te Kotare Trust lands (except one house) should be able to meet these requirements but will require a minimum floor level between 600-800mm above the existing ground level. A flood hazard assessment has been prepared by Environment Canterbury for the Te Kotare Trust lands and is attached as **Appendix 7**.

Housing on the Waipopo Trusts land will not meet this rule as most of that land is located in the PDP's High Hazard overlay. This land is also defined in Environment Canterbury's Flood Hazard Assessment('FHA') for Waipopo Trusts land as high hazard (refer to **Appendix 7**). Rule NH-R4 specifically classifies natural hazard sensitive activities with the ground floor area of over 30m² located in the high hazard overlay (see **Figure 4** below) as a non-complying activity.

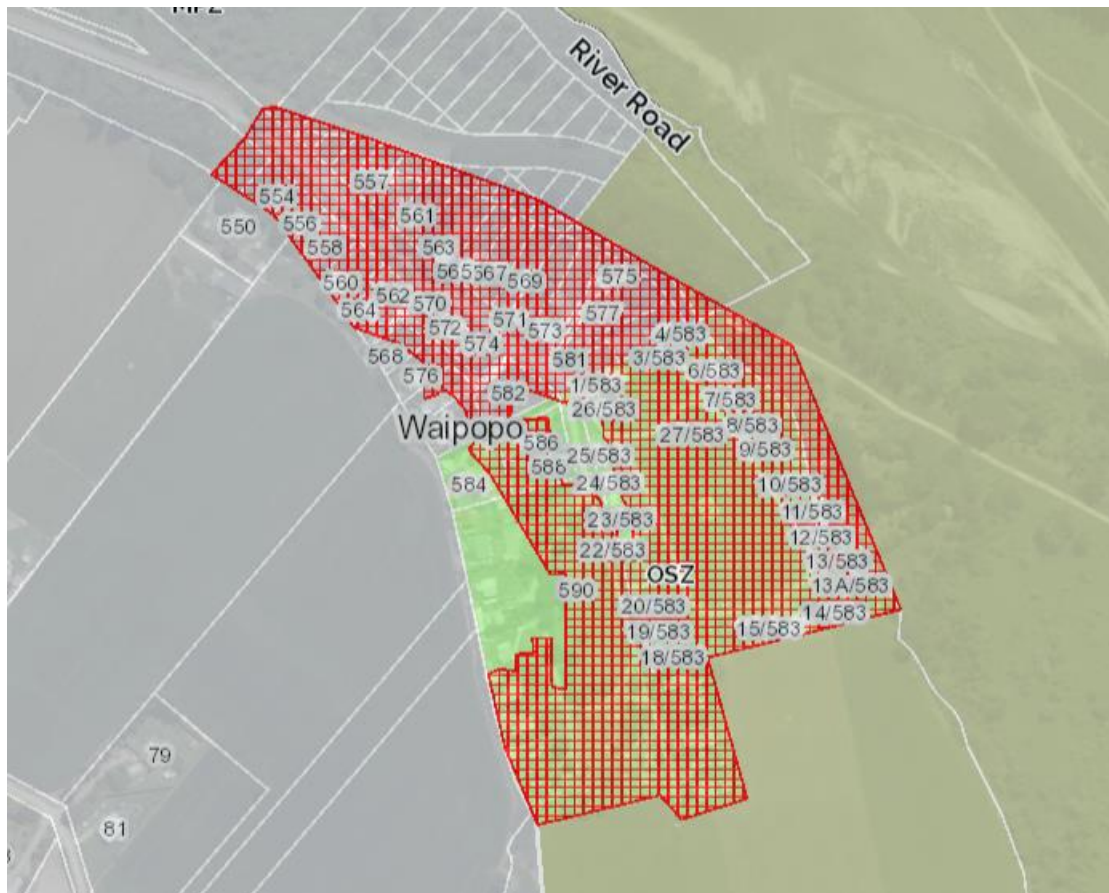


Figure 4 – Proposed Timaru District Plan high hazard overlay at Waipopo

Policy NH-10 of the PDP relates to high hazard areas and states:

“Avoid subdivision, use and development (excluding regionally significant infrastructure) in, mapped or identified high hazard areas, unless it is:

- a. a building that is not a natural hazard sensitive activity or is unlikely to suffer damage; or*
- b. it can be demonstrated that the risks of the natural hazards can be mitigated so that:*
 - i. in the event of a natural hazard, there is likely to be no loss of life or serious injury and any built development is not likely to suffer significant damage or loss; and*
 - ii. it will not require new or upgraded public natural hazard mitigation works to mitigate the natural hazard; and*
 - iii. it is not likely to exacerbate the potential effects of the natural hazard on adjoining or surrounding land; and*
 - iv. it does not increase reliance on emergency services in a hazard event.”*

A FHA was prepared by Environment Canterbury for the Trusts land. The assessment is attached as **Appendix 7**. In summary, it states:

Te Kotare Trust Land

- The flood depths across the property will vary depending on the location and size of breakouts upstream. However, the investigations into flooding in this area show that even in the worst-case scenarios, the depth of flooding on this property, while significant, does not quite reach high hazard criteria.
- As defined by the District Plan, the minimum floor height required for new dwellings by the Timaru District Council is at the 200-year ARI flood level.
- It is likely any new dwelling over most of this property would need to have a floor level elevated in the vicinity of 600 - 800 mm above ground to meet District Councils standards.
- As part of the 2020 investigation a site-specific stopbank setback distance was created to provide more certainty around where Environment Canterbury believes high hazard flooding might occur should the stopbank be breached. A map showing this potential high hazard setback area is attached (blue line) which effects a relatively small part of this property. This map only includes one house in the High Hazard Area.

Waipopo Trust Land

- Coastal inundation is not expected to significantly effect the property even in the most extreme sea level rise scenarios modelled by NIWA (2020).
- The Levels Plains Floodplain Study indicates all of the property could be flooded from upstream breakouts from the river in the 100-year ARI flood and larger. The flooding on this property is shown as 0 – 0.5 m deep in the 100- and 200-year ARI floods in that study and 0.5 – 1m deep in the 500-year ARI flood.
- A more recent modelling investigation was carried out for this area in 2020 (Environment Canterbury Report R20/57). The investigation confirms the property may be flooded from breakouts in the vicinity of State Highway One or from a range of breakout locations a few kilometres upstream of the property however in most scenarios the modelling shows that flooding originating from further upstream tends to affect areas more significantly to the south and, for this property, depths are generally moderate only.
- As part of the 2020 investigation a site-specific stopbank setback distance was created to provide more certainty around where Environment Canterbury believes high hazard flooding might occur should the stopbank be breached. A map is attached that shows most of the Waipopo Trust land as being high hazard setback area.
- During extreme flood events in the Opihi River a well-considered evacuation plan that the community accepts and buys into would go a long way to reduce risk to people (if such a plan does not already exist).

Accordingly, it is considered that:

- New housing on the Waipopo Trust land will be contrary to Policy NH-10;
- The replacement house on the Te Kotare Trust land will not be contrary to Policy NH-10.

There are no rules in the PDP regarding building new houses in the liquefaction area, only rules regarding subdivision, which is not proposed.

5.6.3 Sites and Areas of Significance to Māori (SASM)

Te Kotare Trust and Waipopo Trust lands are both located in SASM 4 and SASM 4-b, while the Waipopo Trust land is also located in SASM 16. These SASM are classified as:

- SASM16 Wai taoka areas
- SASM4-b Wahi taoka areas
- SASM4 Wahi tupuna areas

Earthworks outside of the footprint of an existing building requires resource consent under Rule SASM-R1 as a restricted discretionary activity. While the Trusts intend replacing the existing houses with houses of a similar footprint, it would be expected that earthworks will be required for the establishment of building platforms outside the footprint of the existing buildings.

Buildings are permitted in the wahi taoka overlay under rule SASM-R2 subject to standards (height 5m, footprint 300m²).

Despite these consent requirements, as the activity is located in the Māori Purpose Zone and as it is for papakāika, these consents be able to be obtained.

5.6.4 Natural Character

As the definition of riparian margin includes the area within 100m from the bank⁹ of the Opihi River, restricted discretionary activity resource consents will be required for the following activities:

- vegetation clearance¹⁰ under rule NATC-R1;
- earthworks under rule NATC-R2;
- buildings under rule NATC-R5.

Given the visual separation from the river of both hut settlements, resource consents under these rules are unlikely to be difficult to obtain. A landscape assessment is likely to be required and some mitigation measures proposed.

5.7 Prospects of Obtaining Consent

As the activity is classified as a prohibited activity under the ODP, resource consent cannot be applied for until the rules of the PDP have legal effect, upon decisions on submissions being made. This is likely within the next two years.

⁹ The definition of bank of a river is: “in relation to any river, lake and waterbody, means the outermost part of the bed of the river that comprises an acclivity or elevation of land above the level of the adjacent land or water and creates a boundary sufficient to prevent the water in the river from flowing into the neighbouring land at its fullest flow.” In this case, we interpret this to be the stopbank.

¹⁰ Note there are many exemptions from this rule, including the clearance of many river weed species

The replacement houses will be classified as a non-complying activity under the PDP. Section 104D RMA provides an initial gateway test for non-complying activities before they can be considered against the matters under Section 104 RMA. Section 104D RMA requires the consent authority must be satisfied that either the adverse effects on the environment are either minor or the application is not contrary to the objectives and policies of the Operative and Proposed District Plan.

The new houses would be considered contrary to the pertinent policy of the PDP and ODP in relation to high hazard areas. Assuming the consent authority comes to the same view, it means the only avenue to obtain consent is by demonstrating the effects on the environment are minor.

When considering effects on the 'environment' of an activity, they are considered against the existing environment. As the potential adverse effects from the flood risk on safety and property are already occurring, it could be possible to successfully argue that the effects on the environment are minor. However, caution is needed here as it could also be argued that the effects on property will increase. For instance, the effects on property may be considered greater if the houses are new due to their greater value. The effects could also be considered greater if the size of the house increases (more people/property to lose/damage). This will ultimately be down to the discretion of the consent authority.

Although a consent could theoretically pass the section 104D RMA gateway test, it then must be considered against s104 RMA. This brings into the play the directive policy of the RPS that seeks to avoid new development in high hazard areas. It is likely that the consent authority will put significant weight on that policy. It is also likely the consent authority considers the precedent that allowing the activity would establish and the effect on the integrity of the District Plan.

In conclusion, while it is possible that consent could be granted for the replacement houses, there are strong policy grounds to refuse the consent. Ultimately it will be at the discretion of the consent authority as to whether it is granted or not and what conditions may be imposed.

5.8 Road Reserve Encroachment

As stated above, several of the existing houses on the Trusts land are built over the existing road reserve. For the Waipopo Trusts land this should not be a particular issue as there is sufficient land available to position the replacement houses back from the road reserve.

However, it is more of an issue for the replacement house proposed at 463 Waipopo Road on the Te Kotare Trust land. As stated above, the houses on the Te Kotare Trust land are located on a relatively thin piece of land that is elevated above the stream that adjoins the road. All the houses have been located within the road reserve to avoid the lower terrace of this land that is flood prone. The options for the proposed new house is to:

- be designed in such a way as to avoid flood risks e.g., pile foundations; or
- be limited in size so that it does not encroach into the road reserve or into the river terrace; or
- seek a licence to occupy the road reserve.

Whether the latter is granted or not is at the discretion of the Timaru District Council. Given that most of the other houses in the Te Kotare Trust are located within the road reserve it effectively limits any road widening at this point and therefore it would be likely that a licence to occupy would be granted.

5.9 Rational to Replace Houses at Waipopo

As stated above, resource consent or existing use rights may be able to be obtained for the replacement houses. However, as the Waipopo Trusts land is classified as a high flood hazard area, it raises the question as to whether replacing the houses is the right thing to do or not.

From a risk to life perspective, there will be a similar amount of people accommodated in the houses, but replacing the houses is enabling that risk to continue in the future and as a result it is possible that one day there could be a flood that results in fatalities or serious injuries to residents. The risk to life therefore increases with the replacement houses. However, as per the FHA from ECan, the probability of the stopbank collapsing at this site is relatively low, which reduces the risk significantly. The risk to life is also significantly mitigated by the potential to evacuate people during a flood event. Nevertheless, the potential risk to life is something the Trusts should consider closely.

From a risk to investment perspective, the risk would increase from the replacement of the houses. A significant investment will be made in the replacement houses, which would potentially be lost or reduced by damage through a flood. However, the risk to investment is almost completely remedied through insurance that would pay for the replacement of the houses in the event of their loss or damage through a flood. The Trusts should confirm with their insurer as to whether they can receive replacement insurance in the event of a flood before deciding whether to proceed with any housing. Obviously, if the Trusts cannot get insurance there would be no mitigation to risk to property and it would not be advisable to proceed with the replacement houses.

5.10 Contingency Plan

It is worth considering what the Trusts can do if the replacement houses do not have an existing use right or do not obtain resource consent. If this eventuality occurs, the Trusts would likely be limited to using their land for activities that are not defined by the PDP as sensitive to flooding. The following is a list of activities that are permitted under the PDP Māori Purpose Zone and are not defined as flood sensitive activities¹¹:

- primary production;

¹¹ NATURAL HAZARD SENSITIVE ACTIVITIES

means:

Buildings which:

- contain one or more habitable rooms; and / or
- contain two or more employees on a full-time basis; and / or
- are a place of assembly;

but excludes regionally significant infrastructure and garages that are either detached or attached that do not meet the building code requirements for a habitable space.

- conservation activities;
- rural produce stalls;
- pig farming for self-sufficient home use.

As per the definition of a flood sensitive activity¹, these uses are dependent on not containing two or more employees on a full-time basis or any habitable rooms. These restrictions may limit the ability to earn any significant financial return from the land, particularly given the limited size of the Waipopo Trusts land. Accordingly, it is appropriate to consider contingency options to deal with this risk of not obtaining legal rights to rebuild the huts. Three contingency options are considered, which are:

- applying section 85 RMA; or
- request Environment Canterbury purchase land elsewhere for the Trust;
- request Environment Canterbury strengthen the stopbank.

The only other alternative would be to lodge a treaty claim with the Treaty of Waitangi Tribunal. If that option was to be considered, legal advice would be recommended.

The contingency options are considered in turn below.

5.10.1 Applying Section 85 RMA

Section 85 RMA (**Appendix 4**) provides opportunities to challenge the provisions of a Proposed District Plan by making a submission on the basis that the rule in the plan renders the land incapable of reasonable use. There is a subsequent right of appeal to the Environment Court and the ability to make a private plan change to ensure the land is capable or reasonable use. The grounds to any appeal are required to demonstrate that the provision, or the proposed provision of a plan:

- makes any land incapable of reasonable use; and
- places an unfair and unreasonable burden on any person who has an interest in the land.

If the Environment Court are satisfied these grounds are met, they may direct the local authority to:

- modify, delete, or replace the provision in the plan or proposed plan; or
- acquire all or part of the estate or interest in the land under the Public Works Act 1981 if all the affected owners agree.

The latter effectively means the Council would have to purchase the land. This would provide compensation to the Waipopo Trust that could subsequently be used to purchase appropriate land elsewhere. The PDP has a policy providing for the extension of the Māori Purpose Zone.

Making a submission on the PDP would be the most cost-effective way to pursue this option. However, as there is uncertainty as to how the PDP would place an unfair or unreasonable burden on the Trust, this options ultimately may not be successful.

5.10.2 Request Compensation from Environment Canterbury

Rather than seeking compensation through the RMA, an alternative option would be to lobby Environment Canterbury to purchase lands for the Trusts elsewhere to utilise for papakāika. This would be on the basis that the predecessor of Environment Canterbury constructed the stopbank adjoining the Trusts land without adequate consultation with Māori landowners and through its classification of the area as a high hazard area, rendered it incapable of the use for which it was intended. The Waipopo Trust land is only approximately 1.9ha. This relatively small area of land could potentially be provided at an alternative location at relatively low cost.

To investigate whether Māori landowners were consulted regarding the construction of the stopbank, a LOGIMA request was made to Environment Canterbury on 6 April 2022 and revised on 9 May 2022. The information request was made on the basis that if the Trusts could prove there was no consultation or consideration of the effects of the stopbank on landowners and the future development of their sites, then it would provide a case for Environment Canterbury to readdress the matter by providing alternative land. The following information was requested from Environment Canterbury:

1. The date(s) the existing stop banks were established
2. The specific record of any decision that enabled the legal establishment of the stop banks and any associated reports that informed that decision
3. Any records of any consultation with Māori reserve owners or mana whenua regarding the establishment of the stop banks on or near their land

A map indicating the relevant stop banks was provided with the request. Unfortunately, Environment Canterbury's response to the request was not helpful. While it commented on the approximately dates of the establishment of the stop banks, which is uncertain, it refused the majority of the LOGIMA request under section 17(f) of LOGIMA that provides that requests can be refused on the basis that the information requested cannot be made available without substantial collation or research. Instead, they provided a table referencing over 600 documents, including records all over the catchment (Dobson ski field) and beyond the catchment (Mackenzie basin) and suggested we could make a further refined request. There is the ability to refer this matter to the Office of the Ombudsman under s27(3) of the LOGIMA.

Despite, this unhelpful response from Environment Canterbury, it seems reasonable to assume that consultation with mana whenua and landowners was limited, if it occurred at all. If a request for compensation was put to Environment Canterbury, they would likely have to research the matter more comprehensively.

Environment Canterbury are known to presently place a lot of importance on their relationship with Ngai Tahu and its associated Runanga. This improves the chance of this request being successful. However, despite this and the effectiveness of any lobbying, there are potentially technical issues with this approach.

First, the RMA has a procedure under section 85 for dealing with this type of matter and therefore Environment Canterbury may prefer to deal with it through a statutory process. Second, Environment Canterbury may be reluctant to providing compensation for the Trusts as it would potentially establish a precedent for dealing with similar situations. Third, the Government are intending to pass legislation to deal with this type of issue under the Climate Change and Managed Retreat Bill and therefore Environment Canterbury may not consider it desirable to act before that legislation passes. Fourth, Environment Canterbury may be unable to negotiate the purchase of the land at a nearby location. Accordingly, this option is considered problematic. Notwithstanding, it still may be worth pursuing as there is little constraints to elected member decision making, particularly when it comes to satisfying important stakeholders.

5.10.3 Request Environment Canterbury Provide Additional Flood Protection

If resource consent cannot be granted due to the potential risk to life and property, then the risk could be further mitigated by providing additional flood protection. This would likely be in the form of an engineering solution that would strengthen the stopbank to reduce the risk of it collapsing in the event of a flood. Environment Canterbury could be requested to carry out and finance this work on the basis that:

- they established the stopbank that created this risk;
- they classified the risk as high hazard;
- they requested high hazard rules in the Timaru District Council;
- the Trust did not request the stopbank and there is no evidence they were ever consulted about it;
- the stopbank, high hazard classification and District Plan rules now renders the land incapable of the use it was intended for;
- it is an existing situation (the houses are there), rather than a proposed situation;
- protecting the stopbank would allow papakāika to establish on the land and therefore:
 - implement the Crown's intention of setting aside this land for Māori settlement;
 - give effect to the Māori Purpose Zone objectives of the PDP that seek to establish papakāika on this land;
 - give effect to the Regional Policy Statement Rule 5.3.4 that seeks to establish papakāika on Māori land;
 - give effect to section 6 RMA that requires the recognition of the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga as a matter of national importance that has to be recognised and provided for.

If Environment Canterbury are sufficiently concerned about the risk, then this option would allow them to significantly reduce the risk without rendering the land incapable of reasonable use.

This is worth discussing with Environment Canterbury even if existing use rights or resource consents are obtained. Strengthening the stopbank would help reduce the risk to life and property significantly and therefore give effect to section 6(h) RMA that requires all persons exercising powers and functions under the RMA to recognise and provide for the management of significant risks of natural hazards as a matter of national importance.

It is acknowledged that the strengthening of the stopbank at Waipopo may require the strengthening of the stopbank on the opposite side of the river. That would also have benefits but would create additional costs.

6.0 Infrastructure Servicing

6.1 Infrastructure Report Summary

This section of the report summarises the infrastructure report prepared by DO dated July 2022 provided separately (not in the appendices).

The three water options should not be considered independently of each other. For instance, the ability to use shallow wells for water supply will be partly dependent on whether wastewater is disposed to ground or not as this creates the potential to contaminate ground water supplies.

6.1.1 Water Supply

The DO report considers the following water supply options:

1. enhanced individual supply per dwelling including:
 - a. rainwater tanks for drinking water with ultraviolet light treatment;
 - b. use of existing individual bores for other household water.
2. a private reticulated system servicing the Trusts land;
3. a community system servicing the wider Waipopo area and connects to the Seadown water supply network.

The DO report recommends a private reticulated system using a deep bore servicing the Trusts land (Option 2) and the wider Waipopo community (part Option 3) on the basis that it will provide a robust and convenient solution which addresses both water quality and quantity requirements. It also spreads the costs over a wider number of properties. The operation of the water supply could potentially be taken over by the new three waters entity.

We agree with DO's recommendation that a private reticulated system using a deep bore servicing the Trusts land and the wider Waipopo community area is the most robust long-term solution. However, it is also an expensive option, would be a significant project for the Trusts to undertake, and comes with significant on-going operational responsibilities. Accordingly, the right option for the Trusts does depend on a range of matters including their ability to access funding and the period in which they want to develop replacement housing. For instance, enhanced individual onsite supplies would be a cheap and simple interim solution should the Trust wish to develop replacement housing immediately. The best option

for the Trusts is likely to be a combination of a short-term solution (enhanced on-site supply) for any replacement housing, whilst also pursuing a long-term solution (community water supply).

The DO report recommends the following next steps to identify and progress the preferred options:

1. Undertake a survey and site visit to confirm current water supply on each property and owner's preferences.
2. Obtain a formal response from TDC on their water supply plans for the Waipopo area particularly given the proposed rezoning as part of the current District Plan Review.
3. Research deep bore K38/1712 (on opposite side of lower Ōpihi River) and contact Taumata Arowai to determine treatment requirements if a similar deep bore with similar water quality was used as the water source for the Trusts land. Also confirm with Taumata Arowai the implications of the Trusts becoming a Water Supplier.
4. Develop conceptual design for preferred option/s and obtain costing.

6.1.2 Wastewater Disposal

The DO report considers the following wastewater disposal options:

1. continued use of holding tanks and installation of similar systems for the development of any further residences (status quo);
2. installation of private Septic Tank Effluent Pumping (STEP) systems before discharge via a communal low pressure main to Council's Inland Towns pipeline;
3. a new centralised community system consisting of a reticulated gravity system discharging to a communally treatment system and pumpstation discharging to the Council's Inland Towns Pipeline.

The DO report considers the STEP system (Option 2) provides the most robust and convenient option, while Option 1 (holding tanks) is the cheapest and simplest option in terms of capital costs. However, there are significant on-going costs associated with the emptying of holding tanks, which make this option a less attractive long-term solution.

While Option 2 will have high capital costs to establish, it is expected it will cost residents less in the long term, when compared to the costs of emptying holding tanks. Option 2 does rely on Timaru District Council's approval and is expected to take time to implement. Again, therefore the right option depends on the Trusts time horizon. If they want to establish new huts straight away, holding tanks would be the quickest and cheapest solution. However, it is expected that the Trusts will be mindful of minimising costs in the long-term and therefore the STEP system would be an ideal option to pursue in the long-term.

The DO report recommends the following next steps to identify and progress the preferred option:

1. Undertake a survey and site visit to confirm current wastewater systems on each property, the true costs associated with servicing the current systems, and the owner's opinion on their current system and any preferences for future changes.
2. Inspect all existing wastewater holding tanks for any potential leaks and undertake repairs as required.
3. Obtain a formal response from TDC on their wastewater plans for the Waipopo area particularly given the use of storage tanks and the proposed rezoning as part of the current District Plan review.
4. Develop conceptual design for preferred option/s and obtain costings.

6.1.3 Stormwater Disposal

The DO report recommends the continued discharge of stormwater to ground via soak pits provided suitable controls are placed on roofing, guttering and cladding materials.

6.2 Three Waters Reform

The three waters reform will change the regulation, governance, and operational delivery of three waters infrastructure (water supply, sewer and stormwater disposal). A new water regulator, Taumata Arowai, is already in place and have published new drinking water standards. Timaru District Council has confirmed those standards will not apply to a drinking water supply for a single house but will apply to a drinking water supply for two or more houses.

In July 2024 a new entity (currently known as Entity D) will take over the delivery and operation of three water infrastructure. The entity will have large budgets for capital expenditure and will be required to comply with Taumata Arowai's new regulatory requirements, which while uncertain at this stage, will likely require infrastructure services to be delivered to small settlements like Waipopo.

The three waters reform therefore provides a significant opportunity to provide a comprehensive infrastructure servicing solution to the area. Any new services would meet the appropriate standards and likely be majority funded and managed by the new three water entity.

However, there is uncertainty about when Entity D will be able to deliver new infrastructure to settlements like Waipopo. Entity D has already been established and will take over responsibilities for water and sewerage in 2024. However, it is likely that there will be a considerable delay with the forward planning of infrastructure projects. After which there will likely be further delays with the prioritisation of projects and eventual delivery. Large urban water supplies will likely be prioritised first.

Accordingly, while the three water reforms provides a major opportunity to provide suitable infrastructure to Waipopo, it is unlikely to be an immediate solution. Again, the Trusts could continue with status quo of private water supplies and holding tanks if they want to establish

development immediately, while progressing a community scale system in the future, which is managed perhaps wholly or partly funded and managed by Entity D.

6.3 Timaru District Council

Timaru District Council is currently the local authority with the statutory remit to provide community infrastructure services. This will cease in July 2024 when Entity D takes over this role. However, in the meantime it could be possible to get community scale infrastructure for Waipopo into Councils Long Term Plan. While this will not be delivered by Council, Entity D may adopt this Long Term Plan, particularly the first few years' work programme. Therefore, there is an opportunity to approach Council now and get the project onto their Long Term Plan, which may get it onto Entity D's work programme. This approach has been discussed and agreed informally with Council's Drainage and Water Manager, Mr Grant Hall.

While there is currently no budget for infrastructure services to be provided to the Waipopo area, his worship Mayor Bowen did indicate in 2021 that, due to the lack of services at Waipopo, it is something that Council should consider investigating. As the PDP's Māori Purpose Zone provides for papakāika in large areas of the Waipopo area, it provides a significant additional reason to service the area. Council will be conscious of the need to maintain a strong relationship with mana whenua and to take an equitable approach to infrastructure provision. Council's next Long Term Plan will be adopted in July 2024, but the review will start in 2022/23 with the Activity Management Plan process.

If the Trusts desire to pursue community scale infrastructure for Waipopo, it is recommended to start discussions with Council at Senior Management and Governance level, then formally request the matter is considered in the LTP. A significant incentive for Council would be if the Trusts can obtain funding for at least part of the cost of the infrastructure.

There is an opportunity to collaborate with other Māori landowners, Te Runanga o Arowhenua, and the Waipopo and Petersons Parks residents' association. This could draw strength to any representations to Council and importantly spread costs. However, due the difficulties in liaising with multiple Māori landowners it may be easier to liaise with Te Runanga o Arowhenua, who, while not landowners, may still agree to help. It may also be worth consulting with Te Runanga o Ngai Tahu and other Māori organisations that represent Māori landowners. It would be advisable to at least consult the residents' associations as to whether they would support the provision of community wide infrastructure.

6.4 Resource Consent Requirements

There are potential resource consent requirements that relate to any of the community scale infrastructure servicing options described in the DO report. The consent requirements have been generally addressed by the following tables. Please note that more detail is required to provide an accurate assessment of the resource consents required.

Activity	Consent Required	Activity Status	Rule	Comment
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Discharge stormwater to ground	Possible	Permitted	5.96	Subject to compliance with standards
Bore	Possible	Permitted	5.103	Subject to compliance with standards
Small and Community Water Takes	Yes	Restricted discretionary activity	5.115	Subject to a water supply strategy prepared in accordance with Schedule 25
Community wastewater treatment system discharging to the sewer	No	Permitted	-	No discharge to land or water therefore Rules 5.84 to 5.88 and s.15 RMA do not apply

Table 2 – Potential resource consent requirements under the Canterbury Regional Land and Water Plan for community scale infrastructure services

Activity	Consent Required	Activity Status	Rule	Comment
Discharge of contaminants into the air from the treatment and disposal of human sewage effluent	Possible	Permitted to Restricted Discretionary	7.50 to 7.52	Small scale discharges up to 50m ³ are permitted as are discharges from reticulated networks subject to standards

Table 3 - Potential resource consent requirements under the Regional Air Plan for community scale infrastructure services

Activity	Consent Required	Activity Status	Rule	Comment
Public utilities	Yes	Discretionary	1.11.1.3.16 1.11.2.3.3	Consent required for all public qualities in the Rural zone 1 and 2 zone.
Earthworks and vegetation clearance	Yes	Discretionary	1.11.1.3.15	Consent required for likely non-compliance with performance standards re setback of earthworks from riparian areas and possibly wetlands

Table 4 - Potential resource consent requirements under the Timaru District Operative District Plan for community scale infrastructure services

Activity	Consent Required	Activity Status	Rule	Comment
Construction of underground water supply, wastewater systems and	No	Permitted	EI-R22	Subject to any pipe is not located on or within a waterbody, otherwise a restricted discretionary consent is required.

stormwater infrastructure				
New underground and above ground infrastructure including water supply, waste water system and stormwater infrastructure	No	Permitted	EI-R26	New buildings and structures to comply with the building height, setback, and height in relation to boundary for the zone and infrastructure height standard EI-S1.
New water, wastewater connections to existing reticulated networks	No	Permitted	EI-R23	

Table 5 - Potential resource consent requirements under the Timaru Proposed District Plan for community scale infrastructure services

In summary, there is potentially resource consent requirements to establish community scale infrastructure. This contrasts to onsite infrastructure, which is generally permitted.

7.0 Development of wider area

During this assessment, it has become apparent that there could be opportunities to provide a more comprehensive solution to the Trust's objectives to resolve some of the resource management issues within the wider Waipopo area.

The Trusts objectives are to provide replacement and additional housing on their land and provide appropriate infrastructure services to the area. However, while it is likely the Trusts will obtain the legal rights for replacement houses, it is unlikely they will obtain the rights for additional housing. This due to the high hazard classification of the area, which makes its unsuitable for further development. However, it is not unrealistic for the flooding issue to be resolved, either through additional flood protection works or by relocating the settlement to a less hazard prone area nearby. While it would take some collaboration with and assistance from Environment Canterbury to facility this, it is an ideal time now to consider this before any further investment decisions are made.

Likewise, it is an ideal time to investigate a comprehensive solution to providing infrastructure services to the entire area, not just the Trusts land. This can be started by liaising with Timaru District Council to get funding provided in their Long Term Plan and could then be implemented by the new three water entity (Entity D).

As the PDP Māori Purpose Zone will enable significant levels of new development in the area, it provides another major reason to provide comprehensive services and flood protection to the area.

Ideally a master plan approach should be taken to:

- identify suitable land for housing, including new land for the Trust; and
- coordinate flood management measures; and
- coordinate the delivery of infrastructure services.

It could also include several standard planning objectives such as:

- protecting and enhancing indigenous biodiversity;
- providing for enhanced public access to water ways;
- preserving natural character of rivers and wetlands;
- providing for the relationship of Māori culture and their traditions with their ancestral lands and sites of significance etc.

The plan would require resourcing and multidisciplinary input.

8.0 Conclusion

8.1 Replacement Housing

This report has assessed the feasibility of replacement houses in the context of the relevant statutory planning documents. It found that the replacement housing could be legalised through existing use rights. However, despite positive signals from Timaru District Council that they will issue existing use right certificates, there is doubt over whether the 'lawful establishment' under the existing use right criteria can be met and therefore ultimately, there is uncertainty about this option.

Notwithstanding, existing use rights provide the only real option to legalise the replacement houses in the short term. This is because it is currently not possible to obtain resource consent for the replacement house due to the ODP classifying the activity as a prohibited activity. Resource consent can only be sought once the rules of the PDP have legal effect, which will likely occur in the next 2 years.

Although it could be possible to obtain resource consent for the replacement houses once the rules in the PDP have legal effect, there are currently strong policy grounds to refuse consent. Ultimately, it will be at the discretion of the consent authority as to whether consent is granted or not and what conditions may be imposed.

If existing use rights certificates cannot be obtained, a submission on the PDP should be made to request suitable District Plan provisions that will provide for housing on the Trusts land. The submission should suggest that the PDP rules make the land incapable of reasonable use. This will ensure jurisdiction to lodge an appeal to the Environment Court. It would then be possible for the Environment Court to make a determination about whether the PDP rules make the land incapable of reasonable use. If the Court agrees that the land is incapable of reasonable use, they could either order the Council to change the PDP or order Council to acquire all or part of the estate or interest in the land under the Public Works Act 1981.

Even if existing use right certificates are obtained for replacement houses, the Trusts should consider approaching Environment Canterbury and requesting they provide additional protection to the stopbank at Waipopo. This will increase the resilience of the stop bank in the event of a flood and help protect residents. Alternatively, the Trusts could consider requesting Environment Canterbury provide them with alternative land suitable for residential development.

8.2 Infrastructure

There is a significant contrast between the capital costs, time and resource consent requirements associated with on-site infrastructure solutions compared with community scale solutions. For instance, the community scale solutions will potentially be multi-million-dollar projects, require resource consents and third-party support that will invariably take a long time. Depending on the arrangements, the community scale infrastructure, may also come with legal and operational responsibilities that could be a burden for the Trusts. This contrasts with the onsite solutions, that are comparatively cheap, quick to deliver, require no resource consents and do not rely on third-party support. Notwithstanding, the DO report confirms that community scale solutions will be the most robust, safe and cost effective over the long term.

Ultimately, what option the Trusts chooses will depend on the timeframe they wish to develop replacement housing. If there is a desire to provide replacement housing in the short term, then on-site solutions would be the quickest, easiest and cheapest option. However, if there is no desire to progress housing in the short term, a long term community scale solution is likely to be the best option. Even if there is a desire to progress housing immediately, it is worth pursuing a community wide solution to ensure a most robust, safe and cost-effective infrastructure solution for the community.

As there is currently an opportunity to get infrastructure projects into Timaru District Council's Long Term Plan, they should be approached now to progress a community scale infrastructure solution. This will increase the chances of the project being adopted by Entity D and progressed.

8.3 Development of the wider area

With the development aspirations of the Trust and the PDP's Māori Purpose Zone, it is an ideal time to consider the comprehensive development of the area. It is far from ideal putting new houses in a high hazard area, and it is unlikely the Trust will obtain rights for additional houses over and above replacement houses. A plan to comprehensively development the area would be ideal and could be enabled through a Master Plan approach that would:

- identify suitable land for housing, including new land for the Trust; and
- coordinate flood management/mitigation measures; and
- coordinate the delivery of infrastructure services.

The plan would require resourcing and multidisciplinary input.

9.0 Recommendations

9.1 Replacement houses

The following recommendations are made to progress the replacement housing:

1. The Trust's to consider the acceptability of the potential risks to life of people in the replacement houses and whether to proceed or not.
2. The Trusts to confirm whether the replacement houses can be insured before deciding whether to proceed with any housing. If no insurance can be obtained, do not proceed and proceed to Recommendation 5.
3. Apply for existing use rights certificates for replacement housing.
4. If the existing use rights certificates are not issued, make a submission on the PDP that:
 - a. suggests the rules make the land incapable of reasonable use; and
 - b. request suitable rules to enable housing on the land.
5. Request Environment Canterbury provide additional protection to the stopbank at Waipopo or provide alternative land for the Trusts (refer to Section 8.3 for further comment on this).
6. If existing use rights are not obtained, consider applying for resource consent once the rules of the PDP have legal effect (upon decisions on submissions being made) and after a review of any changes to the PDP.

9.2 Infrastructure

The following recommendations are made to progress the delivery of suitable three waters infrastructure to the Trusts land:

1. In the short term, any new replacement houses should be supplied with:
 - a. a wastewater holding tank; and
 - b. a drinking water supply from roofs that is treated to comply with Taumata Arowai's draft standard for *Drinking Water Acceptable Solution for Spring and Bore Drinking Water Supplies* or its successor;
 - c. any other household water supply can be provided via a bore;
 - d. stormwater and grey water to be discharged to ground in compliance with the Canterbury Land and Water Regional Plan and PDP.

2. In order to progress a long term solution, request a meeting with Timaru District Council as soon as possible to discuss the inclusion of community scale water and wastewater projects into Council's Long Term Plan.
3. Consult with Te Runanga o Arowhenua, Te Runanga o Ngai Tahu, Te Puni Kokiri and any other relevant Māori organisation that represents landowners and the Waipopo and Petersons Parks Residents' association as to whether they will support the proposal and/or willing to contribution funding.
4. Formally request Timaru District Council to provide community scale water and wastewater infrastructure for Waipopo in their Long Term Plan, noting any support or funding from other agencies and residents association.
5. Seek additional funding from Te Puni Kokiri to support further investigation and a conceptual design for community scale water and wastewater infrastructure including:
 - a. Undertaking a survey and site visit for each property to confirm:
 - i. current water supply and wastewater arrangements;
 - ii. whether the existing holding tank is leaking;
 - iii. the annual costs of maintaining the holding tanks;
 - iv. the owner's preferred water supply and wastewater system.
 - b. Research deep bore K38/1712 and contact Taumata Arowai to determine treatment requirements for a new water supply well.
 - c. Develop a conceptual design for the preferred options and obtain indicative costings.
6. Make a submission on the Timaru District Council Long Term Plan requesting a community wide water and wastewater infrastructure solution is provided in accordance with the conceptual design and indicative costs.

9.3 Development of the wider area

The following recommendations are made to provide for the comprehensive development of the area:

1. Seek funding to provide a master plan approach for the entire area that:
 - a. would principally aim to:
 - identity suitable land for housing, including new land for the Trust; and
 - coordinate flood management/mitigation measures; and
 - coordinate the delivery of infrastructure services.
 - b. would also aim to address the following planning objectives:
 - protecting and enhancing indigenous biodiversity;

- providing for enhanced public access to water ways;
- preserving natural character of rivers and wetlands;
- providing for the relationship of Māori culture and their traditions with their ancestral lands and sites of significance etc.

10.0 Next Steps

The following are the next steps to progress this matter:

1. PCL and DO to discuss the draft report with the Trusts;
2. PCL and DO to finalise reports and provide to client;
3. Client/PCL to complete the Te Puni Kokiri final report;
4. Seek and obtain further funding, if necessary;
5. Implement the recommendations in Section 9 of this report.

11.0 Further Assistance

PCL is happy to assist the Trust's in any ongoing work related to this matter. Specifically, PCL can assist the Trust's in the future by:

1. applying for existing use rights certificates;
2. making submissions on the PDP and Long Term Plan;
3. obtaining resource consents;
4. liaison with local authorities;
5. project management the conceptual infrastructure design stage;
6. preparation of a master plan for the area.

Appendix 1 – Fee Proposal

4 August 2022

Lisa Stevenson
Te Kotare Trust and Waipopo Trust
By email: rehu@xtra.co.nz

Kia ora Lisa,

TE KOTARE TRUST AND WAIPOPO TRUST FEE PROPOSAL FOR FEASIBILITY STUDY

Thank you for the instructions to prepare a feasibility study in respect of the development and servicing of papakāika on land at Waipopo owned by the Te Kotare Trust and Waipopo Trust (hereafter the Trusts).

We are pleased to be able to confirm that we can act for both trusts having no conflicts of interests. As you know we have engaged Davis Ogilvie engineers and surveyors to prepare a fee estimate to investigate the feasibility of servicing the site, which has been previously supplied to you. Our fee estimate is set out below and is submitted in tandem with their fee estimate.

1.0 SCOPE OF SERVICES

Our services will consist of the following three aspects:

1. provide planning advice;
2. provide project management and coordination services; and
3. liaise with local authorities.

1.1 Planning advice

Planning advice will be provided in relation to the:

- establishment of infrastructure services under the Resource Management Act 1991;
- re-establish of the houses that have been demolished;
- establishment of additional papakāinka at the Trusts land.

In preparing that advice, we will examine the:

- Resource Management Act 1991 and any relevant regulations
- Any relevant National Policy Statement
- Any relevant National Environmental Standard
- The Canterbury Regional Policy Statement
- The Land and Water Regional Plan
- The Operative Timaru District Plan and the Proposed Timaru District Plan
- The natural hazard assessment prepared by Environment Canterbury for the Waipopo area.

In relation to the establishment of additional papakāika on the Trusts land, we intend on lodging a request for information under the Local Government Official Information and Meetings Act 1987 with Environment Canterbury regarding the construction of the stopbank over or near the Trusts land. Following the receipt of this information we will advise on how that may be used to further the Trusts land development aspirations.

The planning advice will be set out in a detailed report and will provide recommendations. Upon completion of the draft reports from Perspective and Davis Oligvie respectively, we will meet with the Trusts to discuss the reports.

1.2 Project management

Project management services include:

- project coordination;
- client meetings and liaison;
- liaison with Te puni Koriki;
- liaison and contract management of Davis Ogilvie.

1.3 Liaison with Local Authorities

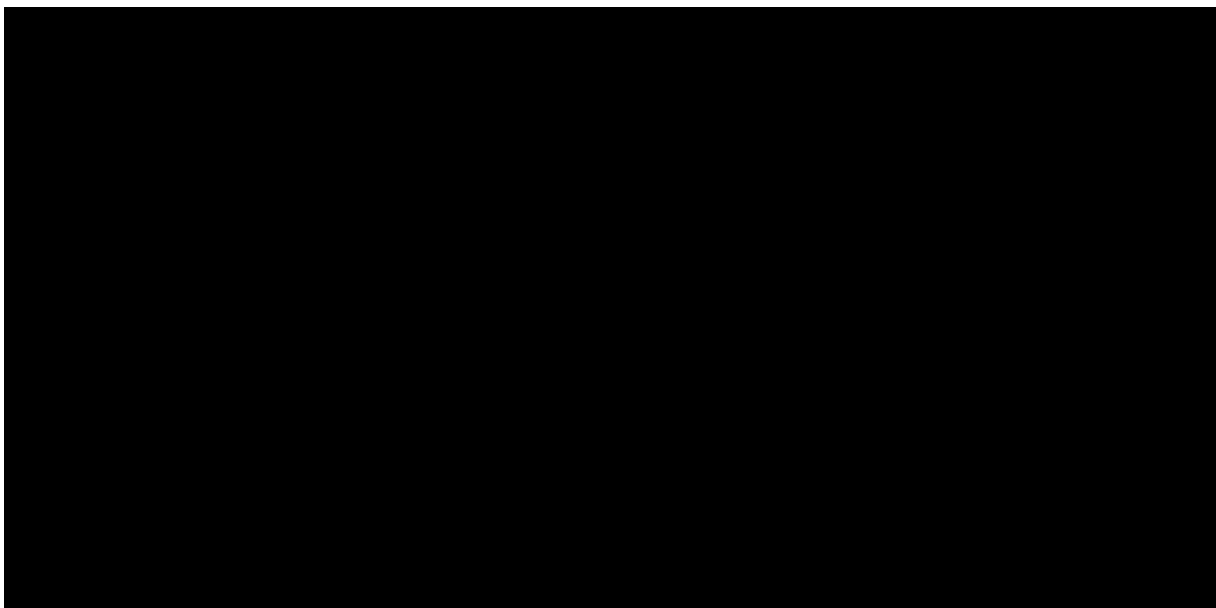
We will consult Environment Canterbury and Timaru District Council as required to:

- confirm our interpretation of any of their statutory planning documents;
- confirm any future consent/approval requirements;
- options to fund the delivery of infrastructure for the Trusts land;
- the Trusts future development aspirations.

2.0 FEES AND DELIVERY OF PROJECT

2.1 Fees

We propose two options in relation to the fees, which are set out below.



2.2 Project delivery

The project will be delivered by the end of the financial year 30 June 2022 and likely sooner assuming we receive a signed contract by the end of the month.

The project will be led by Mark Geddes, Director with assistance provided by Gemma Conlon, Director, as required.

3.0 TERMS OF ENGAGEMENT

Please find attached a copy of the Engineering New Zealand/ACENZ standard Short Form Conditions of Engagement setting out the terms on which we undertake to complete this work for you.

4.0 DISCLAIMER

All reports, advice, drawings and other deliverables of any kind provided by Perspective Consulting Ltd (“advice”) are, unless agreed otherwise in writing by Perspective Consulting Ltd, prepared exclusively for the client’s use for the purposes stated in the scope of services in relation to the project. Unless Perspective Consulting Ltd prior written consent has been obtained, the client shall not use or rely on the advice (in whole or part) for any other purpose or disclose any of the advice to a third party. Perspective Consulting Ltd shall have no liability if any of the advice is used or relied on by the client for any unauthorised purpose or by any unauthorised third party.

5.0 FURTHER WORK

Once Te Kotare Trust and Waipopo Trust have decided on an appropriate course of action to advance the development and servicing of their land, we are happy to discuss how we can help you implement that action, particularly in relation to obtaining any necessary resource consent or approvals.

Kā mihi,
Perspective Consulting

Mark Geddes

Director

mobile:

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email: mark@perspective.net.nz | web: perspective.net.nz

Appendix 2 – Section 10 Resource Management Act 1991

10 Certain existing uses in relation to land protected

- [(1)]** Land may be used in a manner that contravenes a rule in a district plan or proposed district plan if—
- (a) Either—
 - (i) The use was lawfully established before the rule became operative or the proposed plan was notified; and
 - (ii) The effects of the use are the same or similar in character, intensity, and scale to those which existed before the rule became operative or the proposed plan was notified:
 - (b) Or—
 - (i) The use was lawfully established by way of a designation; and
 - (ii) The effects of the use are the same or similar in character, intensity, and scale to those which existed before the designation was removed.】
- (2)** Subject to sections 357 [to] 358, this section does not apply when a use of land that contravenes a rule in a district plan or a proposed district plan has been discontinued for a continuous period of more than 12 months after the rule in the plan became operative or the proposed plan was notified unless—
- (a) An application has been made to the territorial authority within 2 years of the activity first being discontinued; and
 - (b) The territorial authority has granted an extension upon being satisfied that—
 - (i) The effect of the extension 【will not be contrary to the objectives and policies of the district plan】; and
 - (ii) The applicant has obtained approval from every person who may be adversely affected by the granting of the extension, unless in the authority's opinion it is unreasonable in all the circumstances to require the obtaining of every such approval.
- (3)** This section does not apply if reconstruction or alteration of, or extension to, any building to which this section applies increases the degree to which the building fails to comply with any rule in a district plan 【or proposed district plan】.
- (4)** For the avoidance of doubt, this section does not apply to any use of land that is—
- (a) Controlled under section 30(1)(c) (regional control of certain land uses); or
 - (b) Restricted under section 12 (coastal marine area); or

(c) Restricted under section 13 (certain river and lake bed controls).

(5) Nothing in this section limits section [20A] (certain existing lawful activities allowed).

Appendix 3 – Proposed District Plan’s Māori Purpose Zone Standards

MPZ-S1	Building setbacks	
<p>Māori purpose zone</p>	<p>All new buildings and structures (excluding fences no more than 2m high, irrigators, water troughs and flag poles) must be setback a minimum distance as follows:</p> <p>For pakakāika development</p> <ol style="list-style-type: none"> 1. 3m from any road boundary, unless the road is a State Highway; 2. 5m from any boundary fronting the State Highway; 3. 2m from any other boundary. <p>For milking sheds and buildings used to house or feed stock:</p> <ol style="list-style-type: none"> 1. 30m from any road boundary; 2. 200m from any or land in different ownership; <p>For all other buildings or structures:</p> <ol style="list-style-type: none"> 1. 10m from a road boundary (excluding a state highway); 2. 20m from a state highway; 3. 10m from land in a different ownership. 	<p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. dominance, shading and loss of privacy and sunlight in relation to adjoining properties; and 2. any impacts on adjoining properties of the proposed activity on amenity and character.
MPZ-S2	Building and structure height	
<p>Māori purpose zone</p>	<p>All new buildings or structures, or extensions to existing buildings or structures, must not exceed 9m in height measured from ground level.</p>	<p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. dominance, shading and loss of privacy and sunlight in relation to adjoining properties; and 2. incompatibility with the character and

		<p>scale of buildings and structures within the surrounding area; and</p> <p>3. any reduction in views from publicly accessible areas; and</p> <p>4. screening or landscaping.</p>
MPZ-S3	Outdoor storage	
Māori purpose zone	<p>Any outdoor storage located within a boundary setback required under MSZ-S1 must be fully screened by a continuous wall, fence or landscaping, or a combination of all three, to a minimum height of 2m.</p>	<p>Matters of discretion are restricted to:</p> <p>1. visual impacts on neighbouring properties and roads; and</p> <p>2. adequacy of fencing or landscaping.</p>
	MPZ-S4	Servicing
Māori purpose zone	<p>All new buildings and activities shall ensure that:</p> <ol style="list-style-type: none"> 1. All residential activities or habitable buildings are required to provide Council with evidence of access to potable (drinkable) water from a community water scheme or private water bore or shall be able to store 45,000 litres of potable water from another source. 2. Any site which is not connected to a reticulated sewerage system must obtain either a discharge consent, or a certificate of compliance, from the Regional Council that provides for on- 	<p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. the ability to ensure an adequate supply of potable water for the uses of the site or activity; and 2. the security of any proposed potable water supply from contamination; and 3. The adequacy of storage volume of water for domestic and fire-fighting purposes; and 4. the ability to ensure the avoidance of soil contamination or any other adverse environmental effects from the discharge of any wastewater or stormwater.

	site treatment and disposal of sewage.	
MPZ-S5	Shelterbelts	
Māori Purpose zone	<ol style="list-style-type: none"> 1. The height of any trees located within 100m of a residential unit on an adjoining site are contained within an envelope defined by a recession plane of 1m vertical for every 3.5m horizontal that originates from the closest point of the residential unit; and 2. Trees are not in such a position that they cause icing of a road as a result of shading the road between 10 am and 2 pm on the shortest day. 	<p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. height and setback of trees from property boundaries and roads; and 2. shading of houses; and 3. shading of roads; and 4. traffic safety; and 5. tree species.

Appendix 4 – Section 85 Resource Management Act 1991

85 [Environment Court may give directions in respect of land subject to controls]

- (1)** An interest in land shall be deemed not to be taken or injuriously affected by reason of any provision in a plan unless otherwise provided for in this Act.
- (2)** Notwithstanding subsection (1), any person having an interest in land to which any provision or proposed provision of a plan or proposed plan applies, and who considers that the provision or proposed provision would render that interest in land incapable of reasonable use, may challenge that provision or proposed provision on those grounds—
- (a) In a submission made under the First Schedule in respect of a proposed plan or change to a plan; or
 - (b) In an application to change a plan made under [clause 21] of Schedule 1.
- [(3)]** Subsection (3A) applies in the following cases:
- (a) on an application to the Environment Court to change a plan under clause 21 of Schedule 1:
 - (b) on an appeal to the Environment Court in relation to a provision of a proposed plan or change to a plan.]
- [(3A)]** The Environment Court, if it is satisfied that the grounds set out in subsection (3B) are met, may,—
- (a) in the case of a plan or proposed plan (other than a regional coastal plan or proposed regional coastal plan), direct the local authority to do whichever of the following the local authority considers appropriate:
 - (i) modify, delete, or replace the provision in the plan or proposed plan in the manner directed by the court:
 - (ii) acquire all or part of the estate or interest in the land under the Public Works Act 1981, as long as—
 - (A) the person with an estate or interest in the land or part of it agrees; and
 - (B) the requirements of subsection (3D) are met; and
 - (b) in the case of a regional coastal plan or proposed regional coastal plan,—
 - (i) report its findings to the applicant, the regional council concerned, and the Minister of Conservation; and
 - (ii) include a direction to the regional council to modify, delete, or replace the provision in the manner directed by the court.]

- [(3B)]** The grounds are that the provision or proposed provision of a plan or proposed plan—
- (a) makes any land incapable of reasonable use; and
 - (b) places an unfair and unreasonable burden on any person who has an interest in the land.]
- [(3C)]** Before exercising its jurisdiction under subsection (3A), the Environment Court must have regard to—
- (a) Part 3 (including the effect of section 9(3); and
 - (b) the effect of subsection (1) of this section.]
- [(3D)]** The Environment Court must not give a direction under subsection (3A)(a)(ii) unless—
- (a) the person with the estate or interest in the land or part of the land concerned (or the spouse, civil union partner, or de facto partner of that person)—
 - (i) had acquired the estate or interest in the land or part of it before the date on which the provision or proposed provision was first notified or otherwise included in the relevant plan or proposed plan; and
 - (ii) the provision or proposed provision remained in substantially the same form; and
 - (b) the person with the estate or interest in the land or part of the land consents to the giving of the direction.]
- [(4)]** Any direction given or report made under subsection (3A) has effect under this Act as if it were made or given under clause 15 of Schedule 1.]
- [(5)]** Nothing in subsections (3) to (3D) limits the powers of the Environment Court under clause 15 of Schedule 1 on an appeal under clause 14 of that schedule.]
- [(6)]** In this section,—**CONTENTS**
- provision of a plan or proposed plan
 - reasonable use

Appendix 5 –Building Consent Records for Huts on Waipopo and Te Kotare Trust land

Parcel Number	Records Held Y/N	Building Permit Number	Building Consent Number	Precis/Proposal	Date Building Permit/Building Consent Issued	Building Permit/Building Consent Implemented (Date of first Inspection)	Code Compliance Certificate Issued	Name of BCA Authority Issued By
40352	Y	BP 854		Erect Bach	11/10/1955		N/A	Levels County Council
		BP E033240		Bach Alterations	24/10/1986		N/A	County of Strathallan
			2.1996.10574.1	Install Water Closet & Holding Tank	30/01/1996	30/01/1996	30/01/1966	Timaru District Council
			2.1997.15684.1	Install Milano Freestanding Woodburner	5/05/1997	5/05/1997 Withdrawn 14/03/2014	5/05/1997	Timaru District Council
			2.2002.35130.1	Bathroom Alterations Install Woodsman ECR MKIII Freestanding Woodburner				
			2.2015.504.1		20/05/2015	27/05/2015	12/06/2015	Timaru District Council
40353	Y	BP 2269		Install Solid Fuel Heater	11/09/1979		N/A	County of Strathallan
40354	Y		2.2007.57123	Install Kent Rad Solid Fuel Heater	14/06/2007		CCC Refused	Timaru District Council
40355	Y		2.1999.22988	Dwelling Additions (Retrospective)	1/11/1999	8/06/2018	4/09/2018	Timaru District Council
40356	Y	BP 6.1992.816.1		Alter Dwelling (Kitchen Area)	5/05/1992	5/05/1992	N/A	Timaru District Council
			2.1999.24287.1	Erect Deck	22/10/1999	4/11/1999	CCC Refused	Timaru District Council

40357	Y	2.2000.26236	Install Kent Forrester Freestanding Solid Fuel Heater (Retrospective)	30/05/2000		No CCC	Timaru District Council
		2.2004.44235.1	Install Bronte Freestanding Solid Fuel Heater	15/07/2004		15/07/2004	Timaru District Council
40358	N						
40359	N						
40360	N						
40361	Y	2.1993.3112.1	New Sewer Drain/Holding Tank/Plumbing Bathroom & Water Closet	10/12/1993		28/02/2001	Timaru District Council
40362	Y	BP 6.1992.1343.1	Erect Pump Shed Install Woodsman Tarras MK II Freestanding Woodburner	28/07/1992	28/07/1992	N/A	Timaru District Council
		2.2013.514.1		21/05/2013	12/06/2013	21/06/2013	Timaru District Council
40363	Y	BP B056890	Erect Garden Shed	5/09/1984		N/A	County of Strathallan
40364	Y	2.2009.64129	Install Masport Siena Freestanding Woodburner	3/04/2009		14/04/2009	Timaru District Council
40365	N						
40366	N						

40367	Y		2.1998.18181.1	Erect Garage (replace existing) & Rooms Above Install Little Dorrit Freestanding Solid Fuel Heater	24/02/1998	20/02/1998	3/11/1998	Timaru District Council
			2.2000.27249.1		4/09/2000	9/08/2006	17/07/2001	Timaru District Council
			2.2009.65441.1	Install Metrol Eco Wee Rad Freestanding Woodburner	24/08/2009	11/12/2009	14/12/2009	Timaru District Council
40368	Y		2.1994.3630.1	Install Woodsman Solid Fuel Heater	10/03/1994	9/03/1994	16/03/1994	Timaru District Council
			2.2014.1197.1	Dwelling Alterations (Install Water Closet)	9/01/2015	23/01/2015	CCC Refused	Timaru District Council
40441	N							
40440	N							
40410	Y	BP B056742		Erect Bach	19/06/1984	11/06/1984	N/A	County of Strathallan
		BP C014436		Bach Addition	8/12/1986		N/A	County of Strathallan
		BP E043439		Erect Garage	5/02/1988		N/A	County of Strathallan
40439	Y	BP 143		Dwelling Additions	3/03/1975		N/A	County of Strathallan
		BP 2062		Erect Garage	28/03/1979		N/A	County of Strahallan
		BP 29070		Install Yunca Inbuilt Solid Fuel Heater	30/07/1990	3/08/1990	N/A	County of Strahallan
40411	Y	BP A55211		Siting/Services/Foundations for Relocated Dwelling	24/11/1982		N/A	County of Strahallan
		BP B056754		Erect Garage	28/05/1984		N/A	County of Strahallan
40438	Y	BP 2015		Dwelling Alterations (Verandah)	5/02/1979		N/A	County of Strathallan

		BP 5254		Install Stach Ferra Solid Fuel Heater	18/08/186		N/A	County of Strathallan
		BP 31789		Install Masport Belvedere Solid Fuel Heater	18/05/1992		N/A	County of Strathallan
		2.2003.41933.1		Install Masport Belvedere Solid Fuel Heater(Retrospective)	24/12/2003	30/05/2007	CCC Refused	Timaru District Council
40416	Y	BP B056939		Erect Bach	18/10/1984		N/A	County of Strathallan
				Erect Garage	6/12/1986		N/A	County of Strathallan
40437	Y	BP C0140429		Erect Garage	28/11/1984		N/A	County of Strathallan
40415	N							
40436	Y		2.1993.1059.1	Install Masport Pittsburgh Solid Fuel Heater	24/05/1993	20/05/1993	20/07/1993	Timaru District Council
40417	Y		2.2007.58178.1	Install Metro Wee Rad Solid Fuel Heater	3/09/2007	8/04/2008	9/04/2008	Timaru District Council
40435	N							
40418	N							
40434	Y	BP 1613		Erect Garage	7/04/1978		N/A	County of Strathallan
40419	N							
40431	Y	BP C014019		Bach Additions	19/11/1984		N/A	County of Strathallan

		BP E043185	Erect Garage	15/04/1987		N/A	County of Strathallan
		2.2015.592.1	Install Woodsman NoVo Freestanding Woodburner	11/06/2015	3/07/2015	14/07/2015	Timaru District Council
40420	Y	2.1994.6617.1	Dwelling Addition (Bathroom/Toilet)	11/01/1995	23/11/2000	CCC Refused	Timaru District Council
40430	Y	1193/18	Install Flush Toilet & Holding Tank	17/11/1993		Not signed off	Timaru District Council
40409	Y	BP 1195	Erect Sleep out	22/12/1966		N/A	Levels County Council
		2.2010.68313.1	Install Metro Eco Smart Inbuilt Woodburner	12/07/2010	15/07/2010	16/07/2010	Timaru District Council
40429	Y	BP 1652	Erect Carport	8/04/1978		N/A	County of Strathallan
		2.1995.9724.1	Install Solid Fuel Heater	15/04/1996	15/04/1996	24/04/1996	Timaru District Council
40421	Y	BP 2287	Dwelling Alterations Letter - Unrecorded Building Work (Solid Fuel Heating Unit/Room Addition)	12/09/1979		N/A	County of Strathallan
		2.2018.183.1	Install Metro Wee Rad Freestanding Woodburner	6/04/2018	16/04/2018	7/01/2020	Timaru District Council
40433	Y	BP 1914	Erect Garage	28/11/1978		N/A	County of Strathallan
		BP G047059	Erect Carport	4/09/1989		N/A	County of Strathallan
		2.2000.25345.1	Install Second Hand Kent Fiorenzi Solid Fuel Heater	10/03/2000	15/03/2000	15/03/2000	Timaru District Council

40422	Y	BP 2231	Bach Addition	31/05/1979		N/A	County of Strathallan
40432	Y	BP 191	Erect Carport	24/03/1975		N/A	County of Strathallan
		6.1993.2137.1	Dwelling Addition (Bedroom)	Lodged Status Only 08/07/1993	Status Unknown		Timaru District Council
40423	Y	BP 611	Bach Addition	27/01/1976		N/A	County of Strathallan
40428	N						
40424	Y	2.2001.28707.1	Install Stack 830 Inbuilt Solid Fuel Heater	3/04/2001	23/03/2001	3/04/2001	Timaru District Council
		2.2019.784.1	Install Metro Wee Rad Freestanding Woodburner	7/11/2019	14/03/2022	17/03/2022	Timaru District Council
40427	Y	2.1995.527.1	Install Masport Solid Fuel Heater	12/04/1995		12/04/1995	Timaru District Council

Appendix 6 – Environment Canterbury Response to LOGIMA Request



25 May 2022

Mark Geddes
Perspective consulting Ltd
By email: mark@perspective.net.nz

Customer Services
P. 03 353 9007 or 0800 324 636
200 Tuam Street
PO Box 345
Christchurch 8140
E. ecinfo@ecan.govt.nz
www.ecan.govt.nz

Dear Mark

Local Government Official Information and Meetings Act 1987 (LGOIMA): Request for Information

I refer to your email 6 April 2022, and subsequent discussions requesting information in relation to two stop banks located at Waipopo. Your request has been referred to me to reply.

In respect of your question on the date(s) the existing stop banks were established

Figure 1 - The two stop banks are indicated by a solid blue line in the image below.



A number of plans showing these stopbanks have been found, however it is not always clear exactly when different parts of the bank were originally built.

A 1966 generalised plan (1284) shows a proposed stopbank in the area, (generally further back from the river than the current stopbank).

The most likely date of construction of various parts of the banks are estimated to be 1952/53 and 1971. Noting that some of the banks were raised in 1996.

The South Canterbury Catchment Board adopted a "preliminary control scheme" for the Opihi River around 1952, and subsequently proposed the Opihi River Major Control Scheme in 1967 (report **attached**).

Downstream section:

Plans in the 1940's and aerial photos from 1951 show the river bank (no stopbank is marked at that time) very close to the road and the downstream part of the bank. A series of plans in 1952/53 (Plans D2-2, H1-27s, H1-29s), show a proposed stopbank, very close to various huts. By 1971, an "existing stopbank" is shown at the

downstream end on plan 1625-106, when a new alignment was proposed near Waipopo Rd (1625 – 95), along with raising of the road (1625-124).

Upstream section:

Plan 1625-106 (1971) shows an approximate line of an "existing section of bank" but that doesn't appear to be on the current alignment. Hand drawn markings on Plan 1625-107 indicate both the upstream and downstream sections of bank were "completed" in 1970/71 (judging by the dates of other plans, generally 1971), including a new alignment immediately upstream of Waipopo Rd. A series of 1996 plans propose raising of the same bank.

With respect to the remainder of your request, as discussed with Lillian Sewell, the information is held in our archives. In running an online search of the archive files, over 600 files were returned. This would require substantial collation and research and therefore the remainder of your request is refused under section 17 (f) of the LGOIMA. However, we have attached a list of the files for your information should you wish to make a further, refined request.

You will be aware that if you are not satisfied with this response, you are able to refer this matter to the Office of the Ombudsman under s27(3) of the LGOIMA.

Please be advised that we now put LGOIMA responses that are in the public interest onto our website. No personal details of the requester are given, but we do summarise the essence of the request alongside the response.

Should you require any further information or clarification, please do not hesitate to contact Lillian Sewell in the first instance (lillian.sewell@ecan.govt.nz or 033677340).

Yours sincerely,



Katherine Harbrow
Director Operations

Appendix 7 – Floor Hazard Assessments

75 Church Street
PO Box 550
Timaru 7940

P. 03 687 7800
F. 03 687 7808
E. ecinfo@ecan.govt.nz

Customer Services
P. 0800 324 636

www.ecan.govt.nz

9 April 2022

Mark Geddes
Perspective Consulting
77 Orbell Street
Timaru 7910

Dear Mark

**Flood Hazard Assessment for Te Kotare Trust
447 – 475 Waipopo Road, Waipopo
Sections 1-18 Pt MR 882 Waipopo Blk, Valuation No: 24830 193 00**

This 0.58 ha property is located on the western side of Waipopo Road just south of where the road reaches the Opihi River Stopbank and turns toward the Waipopo Settlement. The property is situated on a narrow area of high ground between the road and a terrace located immediately west of the existing row of dwellings where ground levels drop away significantly. The closest dwelling on the property is about 20 m from the river stopbank with the furthest around 300 m away (refer attached maps).

This general area has been flooded on multiple occasions from the Opihi River including floods in 1945 and two large floods in the 1950s. I include copies of photographs taken in the April 1951 and May 1957 floods as examples. Those floods occurred when the flood protection scheme was at a much lower standard than today.

The 13 March 1986 flood is the most recent to cause significant flooding of this area and occur at a time when flood protection works were at a similar standard then today. I include three photographs taken during the 1986 event (peak flow 3600 cumecs and nominal Average Recurrence Interval (ARI) more than 100 years) that suggest there was flooding on the property in that flood. Another flood occurred on 19 March 1994 (peak flow approx. 2800 cumecs and nominal ARI of 60-70 years) which caused minor flooding upstream of the property (and a large breakout on the opposite side of the river) but did not significantly affect the property itself.

Note: Average Recurrence Interval (ARI) represents the average time period between floods of a certain size

In both the 1986 and 1994 flood events large breakouts occurred on the opposite side of the Opihi River just upstream of Waipopo causing severe flooding of the Orakipaoa Island Road area and the Milford Huts. These breakouts would have reduced the likelihood and severity of breakouts on the south side of the river near Waipopo. After the 1994 flood it was recognised by the Canterbury Regional Council that a section of the flood protection scheme on the north side of the river (where the 1986 & 1994 breakouts occurred) was not up to the scheme standard as laid out in the Opihi River Rating District Asset Management Plan. Works were undertaken to bring the flood protection works on the north side of the river up to the same standard as all other parts of the river. The flood protection scheme, in theory, is now equal for both sides of the Lower Opihi River and breakouts are no more or less likely to occur in any one place. Since those works there has not been a flood large enough to threaten major river breakouts.

Key Ref: 22093
Contact: Chris Fauth

There are two aspects to the flood risk to consider in this area. Flooding from upstream overflows from the river in floods larger than the design capacity of the flood protection scheme. And the potential for a breach of the river stopbank immediately upstream or adjacent to this property.

Flooding from Upstream Overflows of the Flood Protection Scheme

The flood protection scheme protecting this area is designed to carry flows of an approximately 50-year ARI. In floods larger than that breakouts on the Lower Opihi River can be expected although the location of breakouts may vary from flood to flood.

The Levels Plains Floodplain Study (Canterbury Regional Council report R92/7) indicates all of the property could be flooded from upstream breakouts from the river in the 100-year ARI flood and larger (see example map from the study attached).

A more recent modelling investigation was carried out for this area in 2020 (Environment Canterbury Report R20/57). The investigation confirms the property may be flooded from breakouts in the vicinity of State Highway One or from a range of breakout locations in the few kilometres upstream of the property, in floods larger than the river capacity.

The flood depths across the property will vary depending on the location and size of breakouts upstream. However, both investigations into flooding in this area show that even in the worst-case scenarios modelled, the depth of flooding on this property, while significant, does not quite reach high hazard criteria.

High hazard flood areas are defined as where the depth of flooding is expected to be greater than one metre or the depth times velocity of floodwaters is greater than one in a 500-year ARI flood event.

As defined by the District Plan, the minimum floor height required for new dwellings by the Timaru District Council is at the 200-year ARI flood level. As part of the 2020 flood investigation Environment Canterbury has “adopted” a set of modelling scenarios to represent the 200-year ARI flood event and use to inform floor level recommendations to meet the District Councils minimum floor level standard. In the adopted scenario depths across this property typically range from 600 – 800 mm but may be slightly higher for the southernmost huts (refer attached extract from the modelling). I also note there appear to be a small number of sheds/accessory buildings that may extend onto low ground to the west of the dwellings that will be prone to significantly deeper flooding.

Stopbank Breach Adjacent to the Property

The current and proposed Timaru District Plans contain rules related to not building in high hazard areas in relation to the potential for stopbank breach. The reason for this is to avoid the area over which high velocity, debris-laden water (flooding that meets the high hazard definition) will burst out should a river stopbank be breached during a major flood.

South Canterbury rivers are prone to stopbank breaches during major flood events due to the highly mobile gravel riverbeds, and braided nature of our rivers. Some of these breaches have had severe impact on adjacent development. The Opihi River is no exception to this and there are several examples of breaches occurring in past flood events.

The impacts on the adjacent land of a stopbank breach are influenced by several factors including the height of the river stopbank, the expected water level behind that stopbank at time of breach, and the ground levels on both the river and landward sides of the stopbank.

This property is in a highly unique situation with regard to stopbank breach risk. The land the property is situated on is relatively high meaning the stopbank immediately adjacent to it is not especially high in comparison to other nearby areas. The lower stopbank height (and relatively high land) will mean that a breach adjacent to the property releases less water and the high hazard setback area is significantly reduced. Furthermore, the terrace located immediately west of the dwellings provides a buffer from any breach of the stopbank that occurs just upstream of the property. Should the stopbank breach upstream there will be an outburst of severe flooding onto the adjacent land but the impacts of that breach on this property will be partially buffered by the natural terrace running roughly at right angles to the river to the west of the huts.

As part of the 2020 investigation a site-specific stopbank setback distance was created to provide more certainty around where Environment Canterbury believes high hazard flooding might occur should the stopbank be breached. I have attached a map showing this potential high hazard setback area (blue line) which effects a relatively small part of this property.

It is my understanding that under the current District Plan, a new dwelling within 100 m of the river stopbank (purple line on attached map) will require a resource consent because of the stopbank setback rule. However, the advice Environment Canterbury would input into that resource consent would be based on the blue line shown in the attached (we would likely describe anything beyond the blue line as not prone to high hazard flooding).

Under the proposed District Plan, I believe a dwelling beyond the blue line could be constructed as a permitted activity (no resource consent) as long as a flood certificate demonstrating the development was not at risk of high hazard flood risk could be produced (and other floor level rules were met).

Flood Summary

Overall, the property is prone to a significant flood risk from upstream overflows from the Opihi River and has a history of being flooded from that river.

While depths on the property are expected to be significant, they mostly do not trigger high hazard definitions and the property can therefore be defined as “low risk”.

In the design flood for floor level controls, it is likely a new dwelling over most of this property would need to have a floor level elevated in the vicinity of 600 - 800 mm above ground to meet District Councils standards. This would have to be confirmed on site should any new development be proposed.

A small area of the property near the river is within the high hazard area in relation to the risk of stopbank breach.

When using the flood information provided in this letter it is important the following points are understood:

- The information provided is the best information Environment Canterbury has at this time. The District Council or local residents may have further information about flooding at the property.
- Environment Canterbury’s understanding of flooding at the property may change in the future as further investigations are carried out and new information becomes available.
- It is assumed that flood protection works will be maintained to at least their current standard in the future.

- Flooding can occur in smaller floods if stopbanks are breached at lower than design flows. A breach can occur through lateral or internal erosion of the stopbank. The location of a stopbank breach or overtopping may affect flood depths at the property.
- Flood flow paths and depths can be affected by changes on the floodplain such as:
 - Altering swales, roads or irrigation features
 - Property development including buildings, fencing and hedges
 - Blockages in culverts, drains and bridges
 - Seasonal vegetation growth
 - Antecedent soil moisture conditions

The prediction of flood depths requires many assumptions and is not an exact science.

I hope this information is of assistance. Please do not hesitate to contact me if you require any clarification.

Yours sincerely



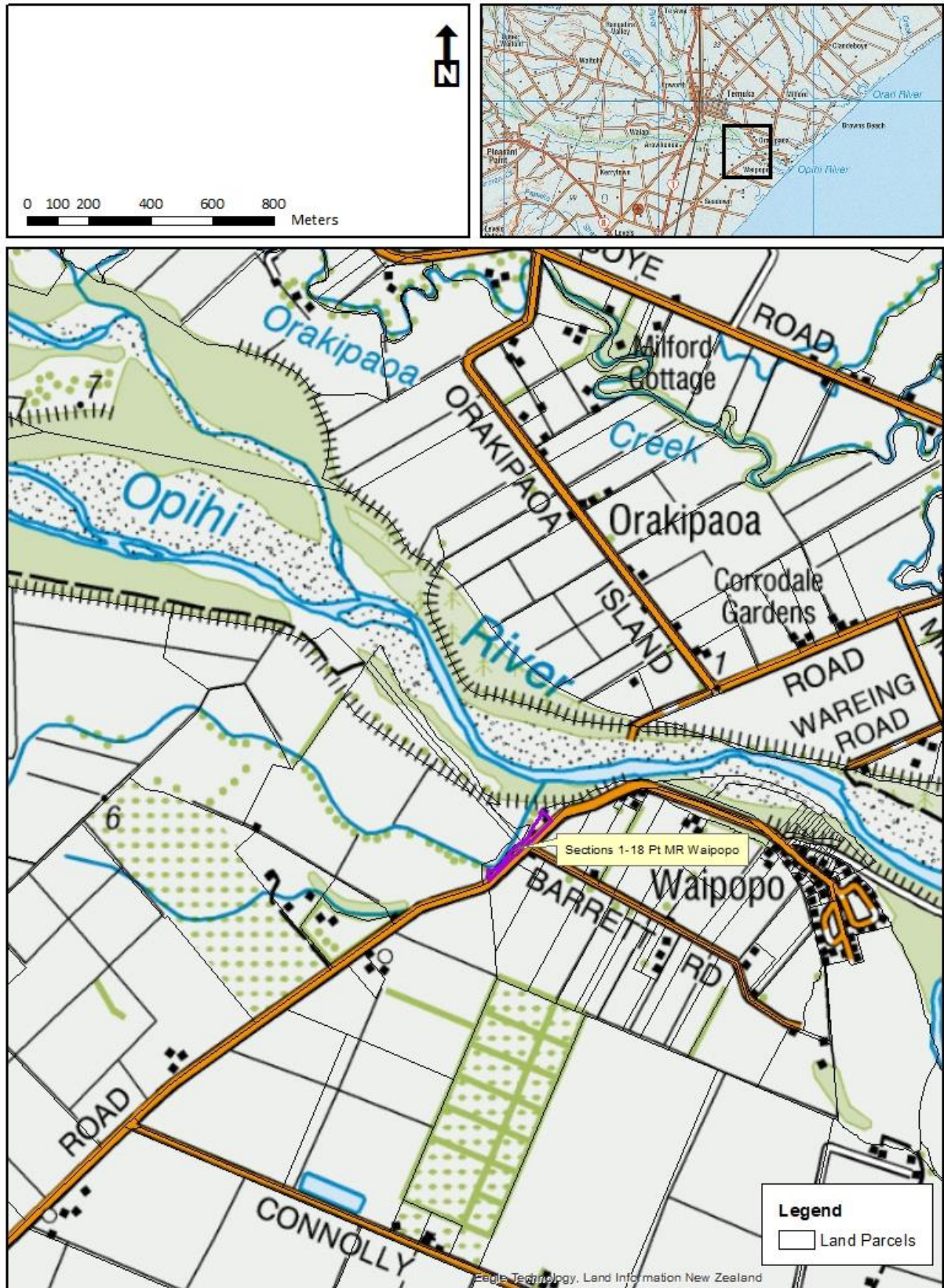
Chris Fauth
Senior Scientist (Natural Hazards)

cc: building@timdc.govt.nz
Timaru District Council

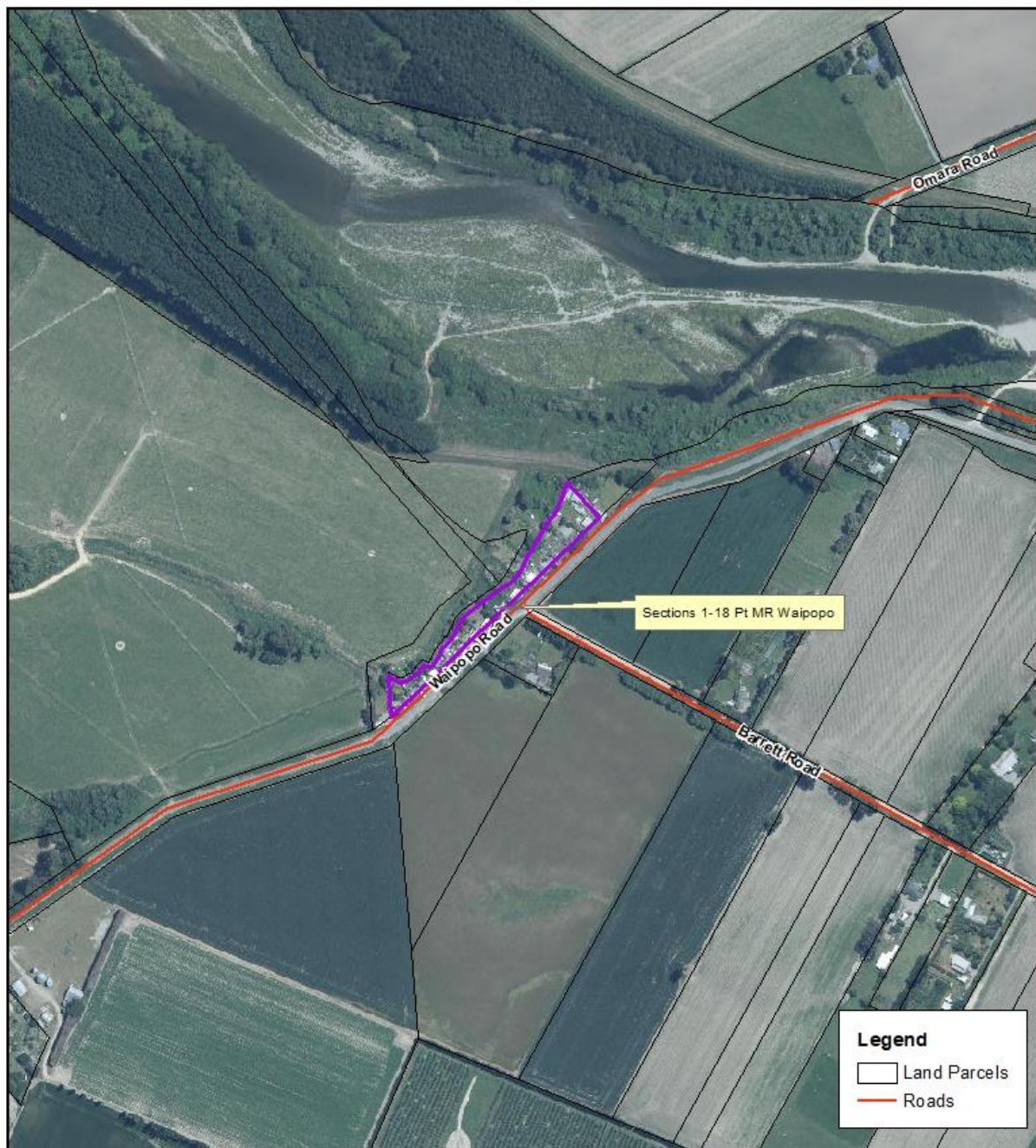
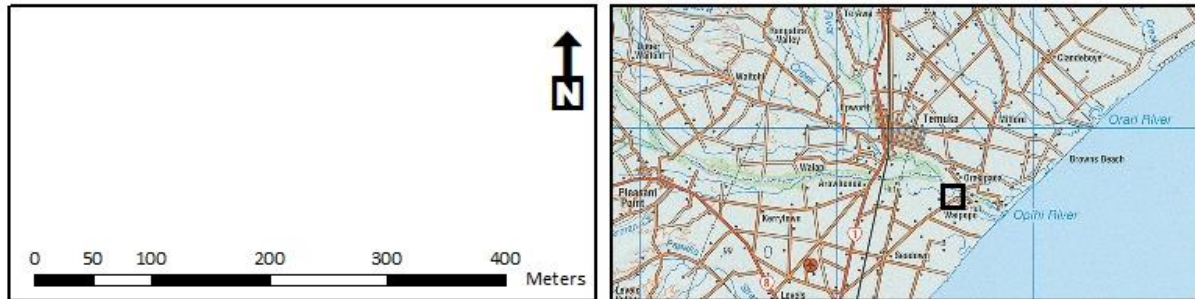
Attachments:

- Topographic map showing property location
- Aerial photograph of the property
- Photographs 11482 & 12703 taken during the 18 April 1951 flood
- Photograph 8.20.71 taken during the 19 May 1957 flood
- Photographs 1.10.21, 1.10.24 & 1.12.2 taken during the 13 March 1986 flood
- Plan 12,373 Plan 4 taken from the Levels Plains Floodplain Study
- Extract of adopted 200-year ARI flood scenario from the 2020 investigation
- Aerial photograph showing site-specific assessment of stopbank setback distance and 100 m setback distance used in current District Plan to trigger resource consent.

447 - 475 Waipopo Road, Waipopo



447 - 475 Waipopo Road, Waipopo





Opihi River
Think this is view W over Orakipaoa Island Road & upstream Opihi River
11482 April 1951 K38 755 592

© cc by Environment Canterbury



Opihi River
View NE over Arowhenua Hotel & Opihi Bridges at height of flood.
The Pleasant Point Bridge was the only one left in the Opihi River
12703 18/4/51 1000hrs K38 716 507

© cc by Environment Canterbury



8.20.71

View N over Waipapa Rd, Barrelets Rd
area ults Opiti Rv.

K38 757 580
1957

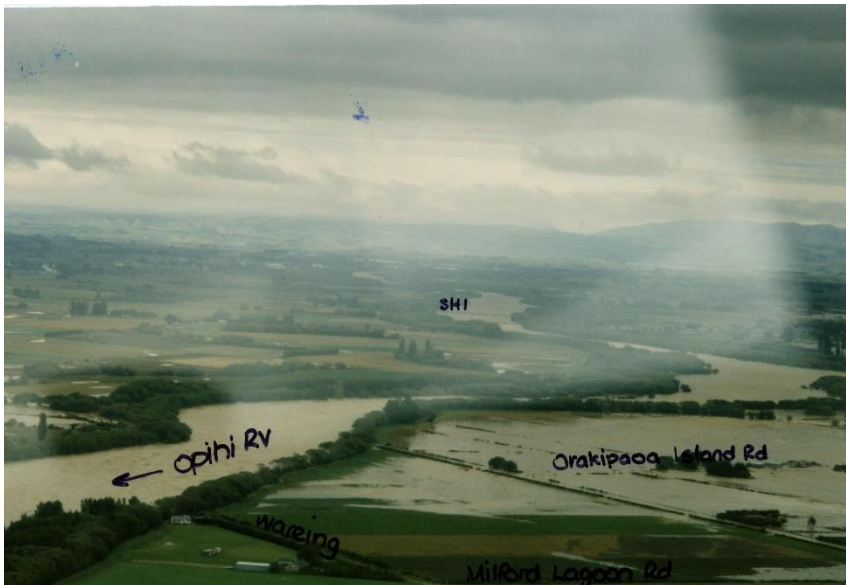


Ophi River
T.R.B. View N
over Waipapa Hills
& Orakipapa T.L.B.

13.3.86 1225hrs.
K38 765 578.

1-10-20

cc by Environment Canterbury



Ophi River
adjacent to
Orakipapa Island Rd
& Milford Lagoon
Road. View W Uls.

13.3.86 1225hrs
K38 765 587.

1-10-24.

cc by Environment Canterbury



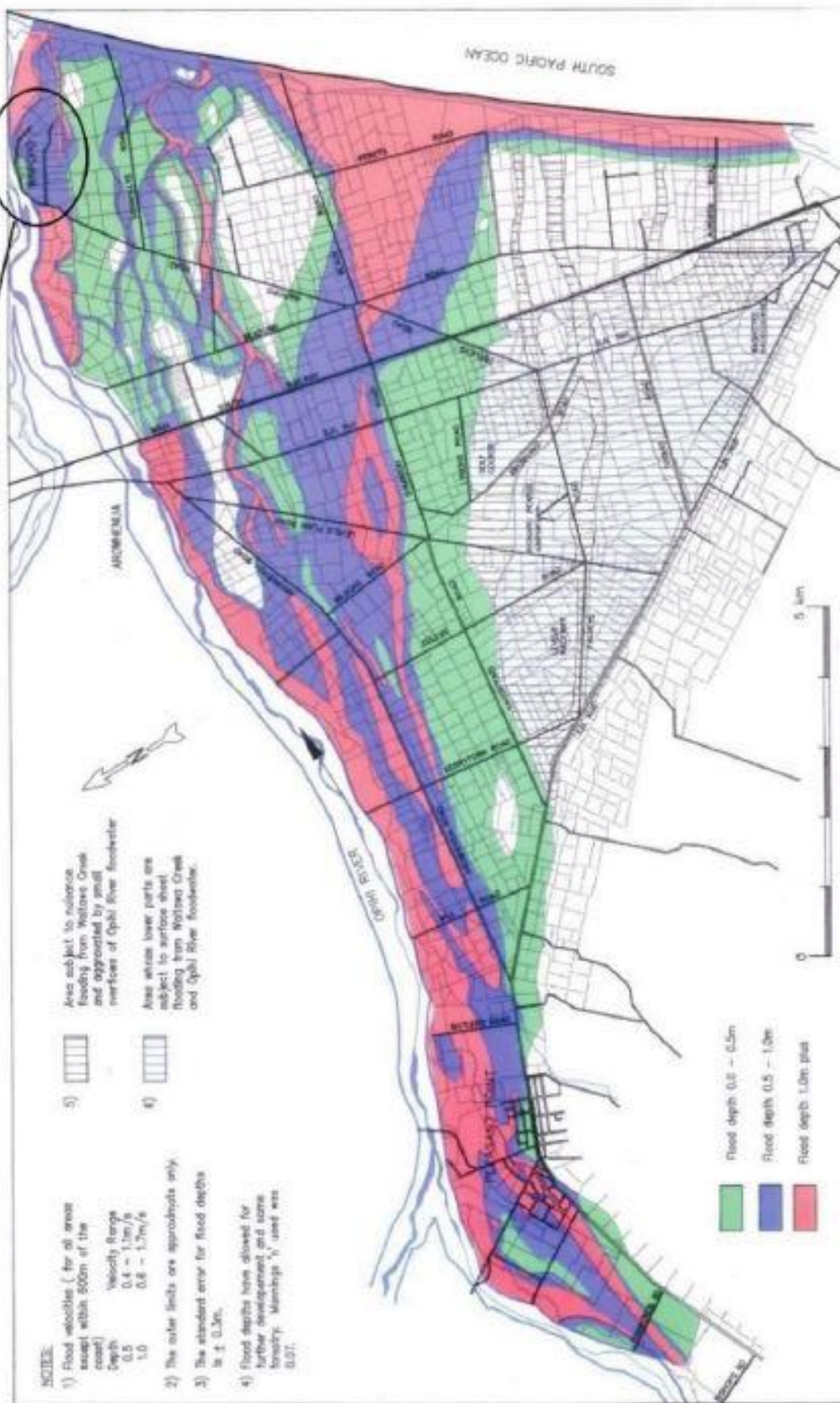
Ophi River
View S over
Orakipapa Island
to T.R.B, Barrets
Rd & Waipapa Rd.

13.3.86 1225hrs
K38 763 580.

1-12-2.

cc by Environment Canterbury

Waipopo study area



NOTES:

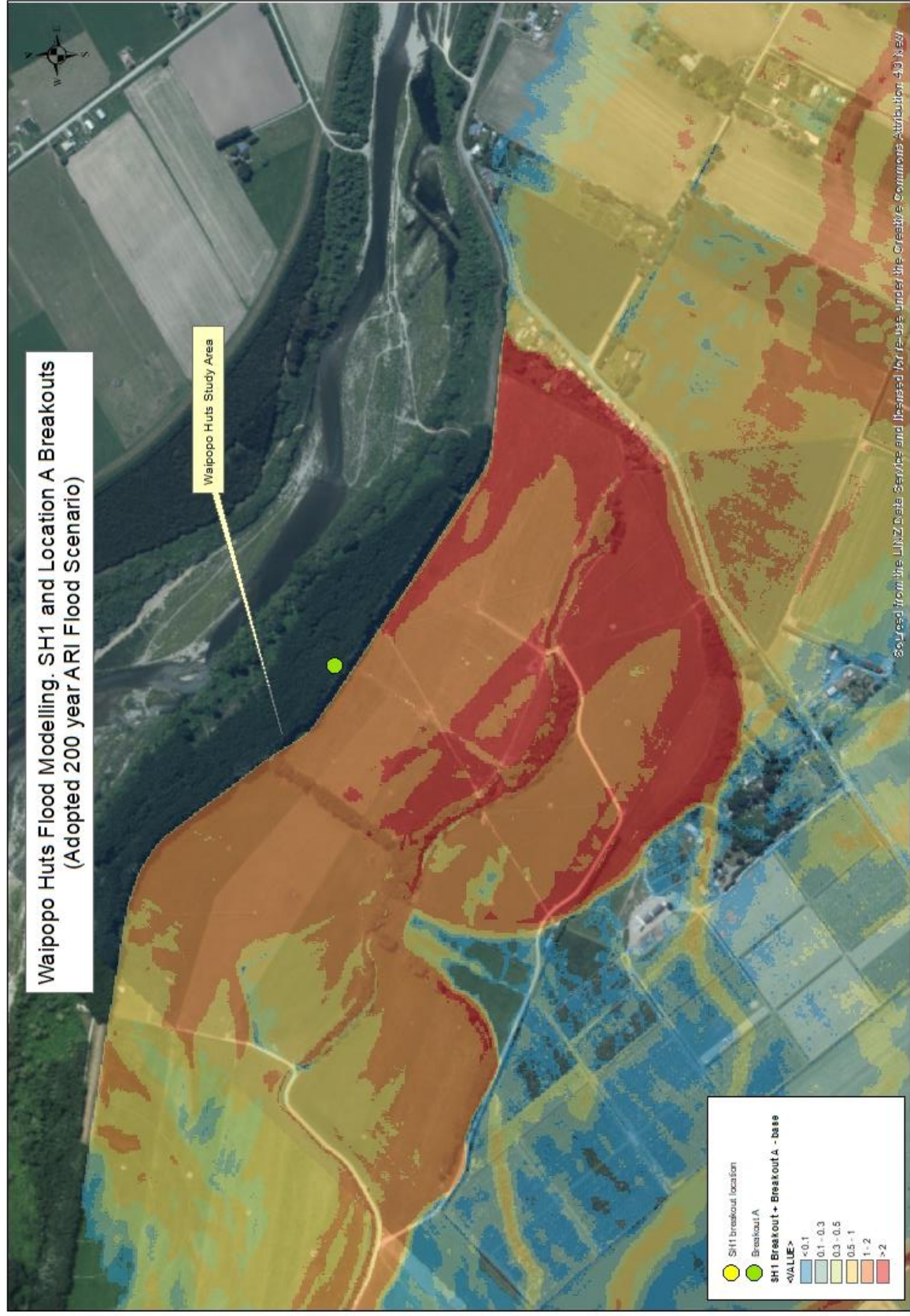
- 1) Flood velocities (for all areas except within 500m of the coast) depth: 0.4 - 1.7m/s, 0.5, 1.0, 0.8 - 1.7m/s
- 2) The water levels are approximate only.
- 3) The standard error for flood depths is $\pm 0.3m$.
- 4) Flood depths have allowed for further development and some forestry. Manning's 'n' used was 0.07.

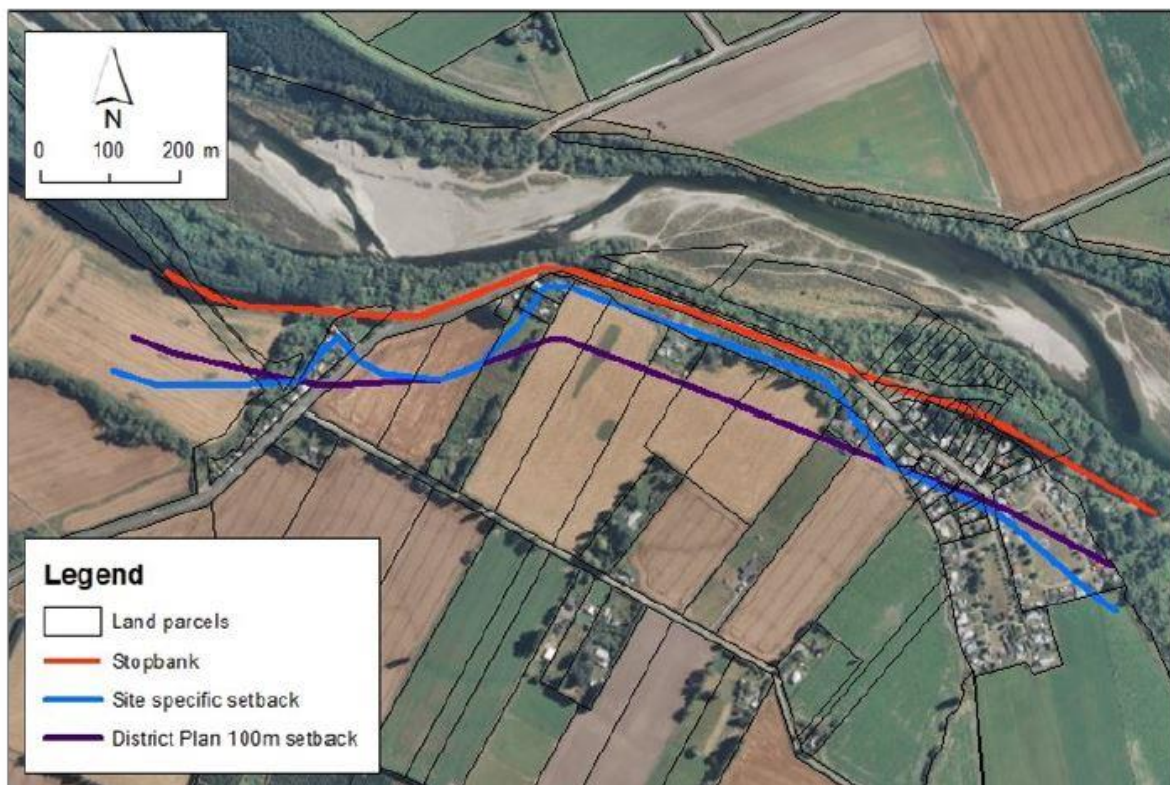
5) Areas subject to subsidence flooding from Waiwaka Creek and approximated by small rectangles of Opaki River floodwater.

6) Areas where lower parts are subject to surface sheet flooding from Waiwaka Creek and Opaki River floodwater.

Flood depth 0.0 - 0.5m
Flood depth 0.5 - 1.0m
Flood depth 1.0m plus

Amendment	Aerial Photo Base Sheet Surveyed Checked Combined Recommended	M. Fox R. Connell N. Marshall	5/91 12/91 12/91	Approved <i>[Signature]</i> Regional Engineer (Investigations)	Canterbury Regional Council	Ortho No. 6970000 File No. SDR.221 Surv Date	12,373m 4 of 5 Sheets
PLAN DESIGN CODES N							Level Datum MSL Original Scale 1:50,000





10 May 2022

Mark Geddes
Perspective Consulting
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Timaru 7910

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PO Box 550
Timaru 7940
P. 03 687 7800
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Dear Mark

Flood Hazard Assessment for Waipopo Trust
Waipopo Road, Waipopo
Lot 1-25 DP 30624 & Lot 2 DP 44224, Valuation No: numerous (see attached table)

This 1.82 ha property is located at the northwest end of the Waipopo community. It is traversed through the centre by Waipopo Road and is bounded to the north by the Opihi River stopbank and a roughly 1 – 1.5 m high natural terrace roughly follows the south boundary. The river stopbank is 2.5 – 3 m high adjacent to the property but runs into higher ground where it is built into the straight part of Waipopo Road just to the west of the property. Dwellings within the property range from around 20 m to around 170 m from the river stopbank (refer attached Maps).

This general area has been flooded on multiple occasions from the Opihi River including in 1945 and two large floods in the 1950s. It is unclear exactly how this property was affected in those events. I include photographs taken upstream of the property in the April 1951 and May 1957 floods as examples. Those floods occurred when the flood protection scheme was at a much lower standard than today.

The 13 March 1986 flood is the most recent to cause significant flooding of this area and occur at a time when flood protection works were at a similar standard then today. However, this property may not have been significantly affected by the 1986 event with most of the flooding that broke out of the river flowing past the property to the south. The river stopbank immediately adjacent to the property held up during the event. The 1986 flood had a peak flow in the Opihi River of around 3600 cumecs and nominal Average Recurrence Interval (ARI) of more than 100 years). Another flood occurred on 19 March 1994 (peak flow approx. 2800 cumecs and nominal ARI of 60-70 years) which caused minor flooding upstream of the Waipopo area but again appears to have not significantly affected this property. For your information I have included one photograph from 1986 and a map showing the approximate extent of the flooding.

Note: Average Recurrence Interval (ARI) represents the average time period between floods of a certain size.

In both the 1986 and 1994 flood events large breakouts occurred on the opposite side of the Opihi River just upstream of Waipopo causing severe flooding of the Orakipaoa Island Road area and the Milford Huts. These breakouts would have reduced the likelihood and severity of breakouts on the south side of the river near Waipopo. After the 1994 flood it was recognised by the Canterbury Regional Council that a section of the flood protection scheme on the north side of the river (where the 1986 & 1994 breakouts occurred) was not up to the scheme standard as laid out in the Opihi River Rating District Asset Management Plan. Works were undertaken to bring the flood protection works on the north side of the river up to the same standard as all other parts of the river. The flood protection scheme, in theory, is now equal for both sides of the Lower Opihi River and breakouts are no more or less likely to occur in any one place. Since these works there has not been a flood large enough to threaten major river breakouts.

Key Ref: 22091
Contact: Chris Fauth

There are three aspects to the flood risk to consider in this area. Flooding from upstream overflows from the river in floods larger than the design capacity of the flood protection scheme. The potential for breach of the river stopbank immediately upstream or adjacent to this property. And coastal inundation risk.

Flooding from Upstream Overflows of the Flood Protection Scheme

The flood protection scheme protecting this area is designed to carry flows in an approximately 50-year ARI. In floods larger than that breakouts on the Lower Opihi River can be expected although the location of breakouts may vary from flood to flood.

The Levels Plains Floodplain Study (Canterbury Regional Council report R92/7) indicates all of the property could be flooded from upstream breakouts from the river in the 100-year ARI flood and larger (see example map from the study attached). The flooding on this property is shown as 0 – 0.5 m deep in the 100- and 200-year ARI floods in that study and 0.5 – 1m deep in the 500-year ARI flood.

A more recent modelling investigation was carried out for this area in 2020 (Environment Canterbury Report R20/57). The investigation confirms the property may be flooded from breakouts in the vicinity of State Highway One or from a range of breakout locations in the few kilometres upstream of the property however in most scenarios the modelling shows that flooding originating from further upstream tends to affect areas more significantly to the south and, for this property, depths are generally moderate only. I include a map from that modelling as an example of upstream breakouts reaching the property.

Should the stopbank adjacent to this property be overtopped or breached the flooding on the property will be significantly increased from what would occur as a result of a range of more upstream breakouts. In this scenario deep flooding would occur across all of the property.

All the information suggests that in a situation where the river protection scheme is overtopped upstream (most likely outcome) this property is at a moderate risk of flooding with only a few small isolated deep areas of floodwaters. The exception is if the river stopbank overtops immediately adjacent to the property (lower probability but high consequence outcome). While overtopping has not occurred adjacent to the property with the current flood protection scheme in place it is impossible to completely rule out that occurring in future floods. It does however appear more likely that the river will overtop upstream of this property.

Stopbank Breach Adjacent to the Property

The current and proposed Timaru District Plans contain rules related to not building in high hazard areas in relation to the potential for stopbank breach. The reason for this is to avoid the area over which high velocity, debris-laden water (flooding that is high hazard) will burst out should a river stopbank be breached during a major flood.

Note: high hazard flooding is defined as where the depth of flooding is expected to be greater than one metre or the depth times velocity of floodwaters is greater than one in a 500-year ARI flood event.

South Canterbury Rivers are prone to stopbank breaches during major flood events due to the highly mobile gravel riverbeds, and braided nature of our rivers. Some of these breaches have had severe impact on adjacent development. The Opihi River is no exception to this and there are several examples of breaches occurring in past flood events.

The impacts on the adjacent land of a stopbank breach are influenced by several factors including the height of the river stopbank, the expected water level behind that stopbank at time of breach, and the ground levels on both the river and landward sides of the stopbank.

The stopbank adjacent to the property is high and the property is relatively low-lying for this area. These factors combine to mean that the distance over which high hazard flooding would be expected to extend should the adjacent stopbank breach is significant. Impacts within the high hazard breach area will include scouring of the ground, deposition of gravel and vegetation debris entrained in the flows and potentially damage to structures. There would be a risk to life of anyone present during a stopbank breach.

As part of the 2020 investigation a site-specific stopbank setback distance was created to provide more certainty around where Environment Canterbury believes high hazard flooding might occur should the stopbank be breached. I have attached a map showing this potential high hazard setback area (blue line) which effects most of the property.

Coastal Inundation Risk

NIWA (2020) on behalf of the Timaru District Council and Environment Canterbury carried out a Timaru District wide investigation into coastal inundation risk including modelling of a range of inundation scenarios based on various Sea Level rise scenarios.

That modelling shows that even in the most extreme scenario modelled (a 100-year ARI coastal storm and allowing for 1.2 metres of sea level rise) this property remains just clear of any coastal inundation. I have attached a map of the modelling.

Flood Summary

The property is prone to some risk of flooding from upstream breakouts from the Opihi River flowing into the area however apart from some isolated areas of deeper flooding this flooding tends to be moderate in depth and relatively manageable.

A large part of the property is within the area over which deep, high velocity and debris laden water (high hazard flooding) may extend should the stopbank immediately adjacent to the property be breached. The flood protection scheme is designed to contain a roughly 50-year ARI flow and in extreme (super-design) floods like the 200-year or 500-year ARI events (on which floor level controls and high hazard policy are based respectively) it is impossible to rule out the stopbank being overtopped and/or breached in this area. This is a low probability but high consequence outcome. **For this property the most significant limiting factor on future development is likely the rules relating to stopbank setback and stopbank breach risk as opposed to the more manageable risk of flood overflows coming into the area from upstream.**

During extreme flood events in the Opihi River a well-considered evacuation plan that the community accepts and buys into would go a long way to reduce risk to people (if such a plan does not already exist).

Coastal inundation is not expected to significantly effect the property even in the most extreme sea level rise scenarios modelled by NIWA (2020).

When using the flood information provided in this letter it is important the following points are understood:

- The information provided is the best information Environment Canterbury has at this time. The District Council or local residents may have further information about flooding at the property.

- Environment Canterbury's understanding of flooding at the property may change in the future as further investigations are carried out and new information becomes available.
- It is assumed that flood protection works will be maintained to at least their current standard in the future.
- Flooding can occur in smaller floods if stopbanks are breached at lower than design flows. A breach can occur through lateral or internal erosion of the stopbank. The location of a stopbank breach or overtopping may affect flood depths at the property.
- Flood flow paths and depths can be affected by changes on the floodplain such as:
 - Altering swales, roads or irrigation features
 - Property development including buildings, fencing and hedges
 - Blockages in culverts, drains and bridges
 - Seasonal vegetation growth
 - Antecedent soil moisture conditions

The prediction of flood depths requires many assumptions and is not an exact science.

I hope this information is of assistance. Please do not hesitate to contact me if you require any clarification.

Yours sincerely



Chris Fauth

Senior Scientist (Natural Hazards)

cc: building@timdc.govt.nz
Timaru District Council

Attachments:

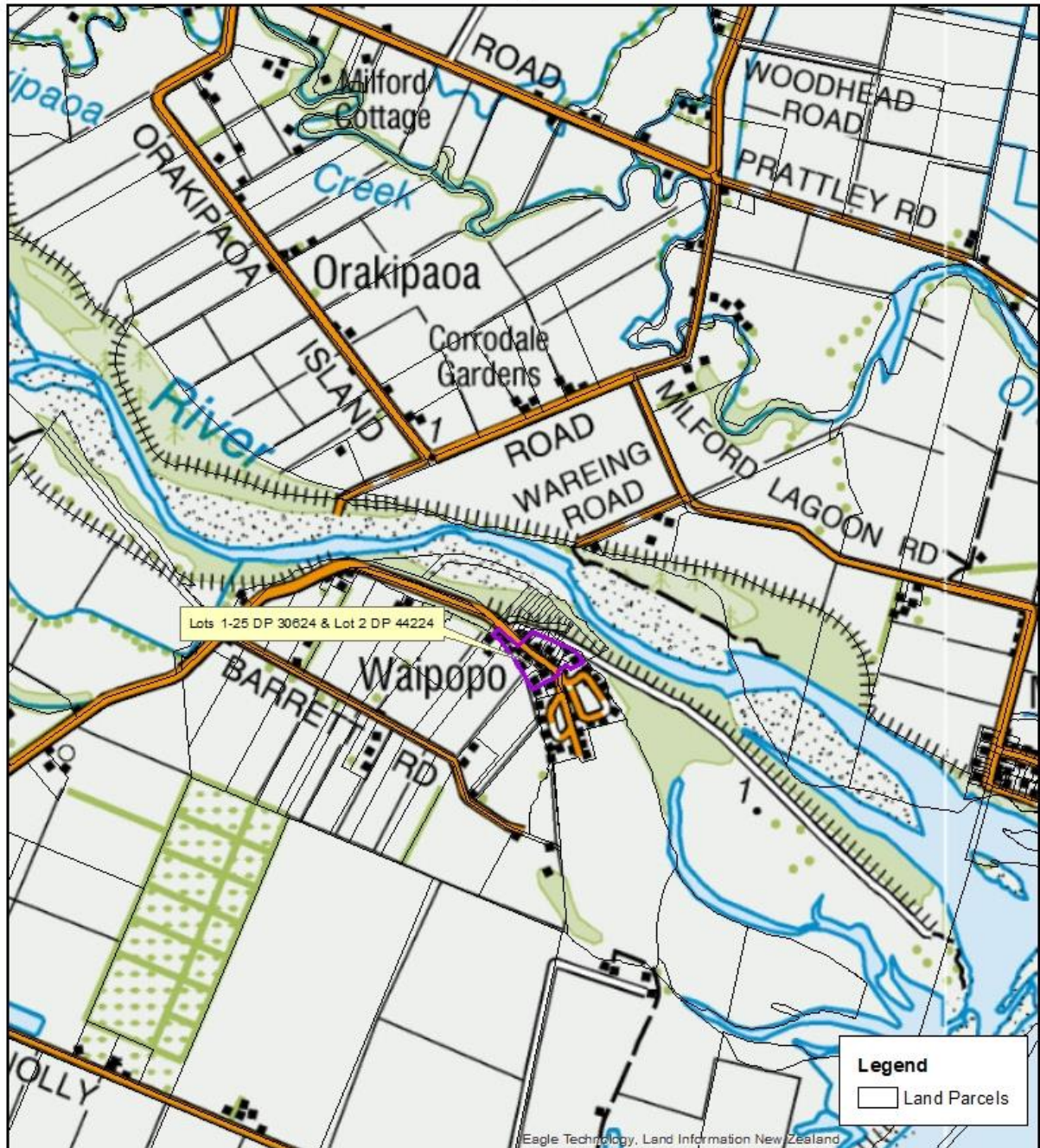
- Table showing land parcel information for the property
- Topographic map showing property location
- Aerial photograph of the property
- Photograph 8.20.71 taken during the 19 May 1957 flood
- Photographs 11482 & 12703 taken during the 18 April 1951 flood
- Photographs 1.10.21 taken during the 13 March 1986 flood
- Map showing the approximate extent of the March 1986 flood
- Plan 12,373m, Sheet 3 taken from the Levels Plains Flood Study
- Extract of adopted 200-year ARI flood scenario from the 2020 investigation
- Aerial photograph showing site-specific assessment of stopbank setback distance and 100 m setback distance used in current District Plan to trigger resource consent
- Coastal inundation mapping (NIWA, 2020) 100-year ARI coastal storm with 1.2 m Sea Level Rise allowance.

Address	Valuation No	Legal Description	Area (m²)
561 Waipopo Road	24830 235 01	Lot 1 DP 30624	684
563 Waipopo Road	24830 235 00	Lot 2 DP 30624	1200
565 Waipopo Road	24830 236 00	Lot 3 DP 30624	800
567 Waipopo Road	24830 237 00	Lot 4 DP 30624	800
569 Waipopo Road	24830 238 00	Lot 5 DP 30624	800
571 Waipopo Road	24830 239 00	Lot 6 DP 30624	900
573 Waipopo Road	24830 232 01	Lot 7 DP 30624	1010
575 Waipopo Road	24830 240 00	Lot 8 DP 30624	600
577 Waipopo Road	24830 240 01	Lot 9 DP 30624	1000
579 Waipopo Road	24830 241 00	Lot 10 DP 30624	300
581 Waipopo Road	24830 242 00	Lot 11 DP 30624	1000
582 Waipopo Road	24830 244 00	Lot 12 DP 30624	1100
580 Waipopo Road	24830 245 00	Lot 13 DP 30624	1000
578 Waipopo Road	24830 247 00	Lot 14 DP 30624	800
576 Waipopo Road	24830 248 00	Lot 15 DP 30624	900
574 Waipopo Road	24830 246 00	Lot 16 DP 30624	400
572 Waipopo Road	24830 246 01	Lot 17 DP 30624	300
570 Waipopo Road	24830 246 02	Lot 18 DP 30624	300
568 Waipopo Road	24830 249 00	Lot 19 DP 30624	600
566 Waipopo Road	24830 250 00	Lot 20 DP 30624	200
564 Waipopo Road	24830 250 01	Lot 21 DP 30624	500
562 Waipopo Road	24830 250 02	Lot 22 DP 30624	300
560 Waipopo Road	24830 251 00	Lot 23 DP 30624	800
558 Waipopo Road	24830 025 00	Lot 24 DP 30624	760
556 Waipopo Road	24830 253 00	Lot 25 DP 30624	500
554 Waipopo Road	24830 253 01	Lot 2 DP 44224	600
Area in hectares			1.82

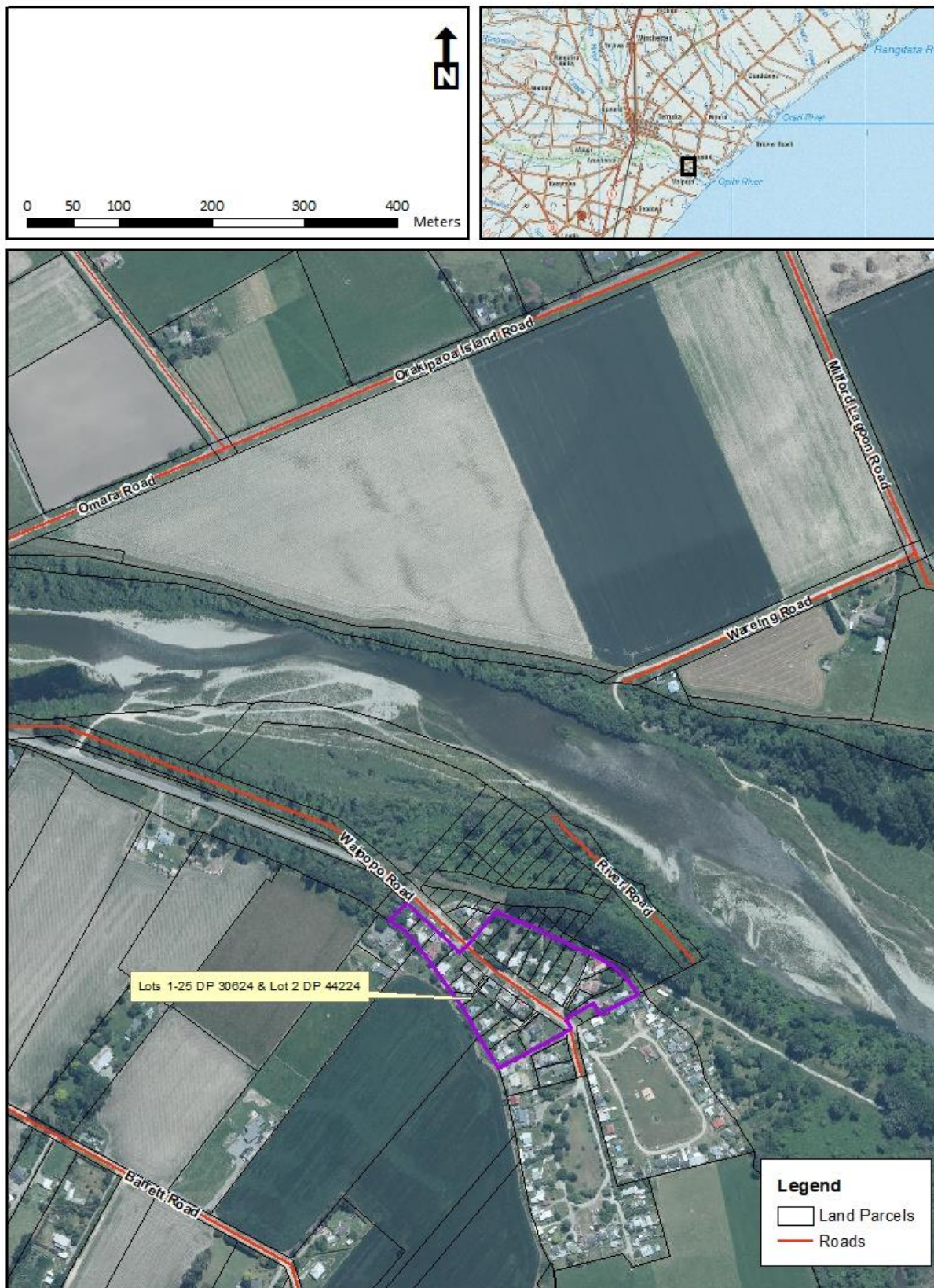
Waipopo Road, Waipopo



0 100 200 400 600 800
Meters



Waipopo Road, Waipopo





View N over Waipopo Rd, Barrels Rd
area up Opihi Rv.

K38 757 580
1957



Opihi River
Think this is view W over Orakipaoa Island Road & upstream Opihi River
11482 April 1951 K38 755 592

cc by Environment Canterbury



Opihi River
View NE over Arowhenua Hotel & Opihi Bridges at height of flood.
The Pleasant Point Bridge was the only one left in the Opihi River
12703 18/4/51 1000hrs K38 716 507

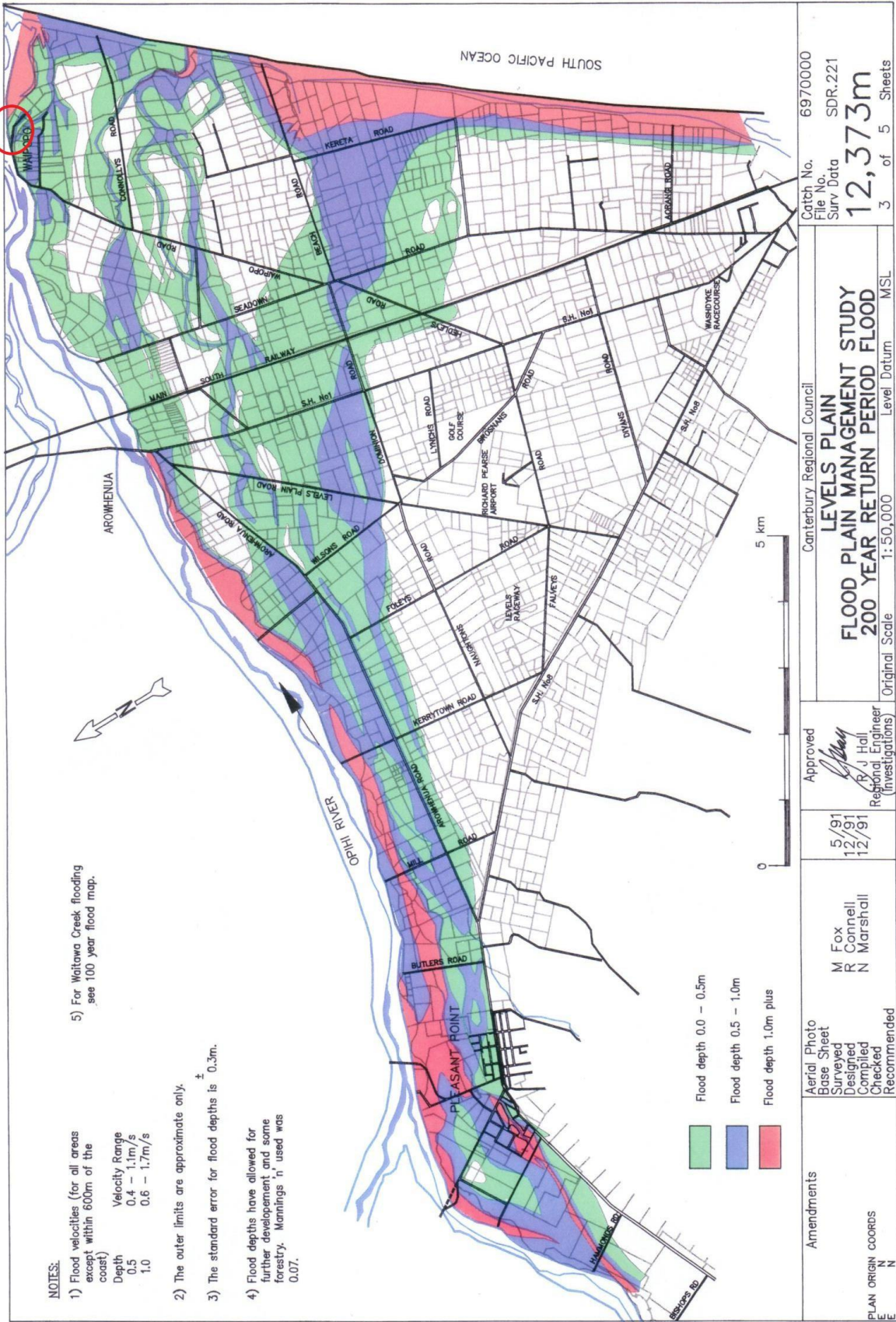
cc by Environment Canterbury



Opihi River
T.R.B. View N
over Waipapa Huts
& Orakipaoa T.L.B.

13.3.86 1225hrs.
K38 765 578.

1.10.20



Catch No. 6970000
 File No. SDR.221
 Surv Data
12,373m
 3 of 5 Sheets

Canterbury Regional Council
LEVELS PLAIN
FLOOD PLAIN MANAGEMENT STUDY
200 YEAR RETURN PERIOD FLOOD
 Level Datum MSL
 Original Scale 1:50,000

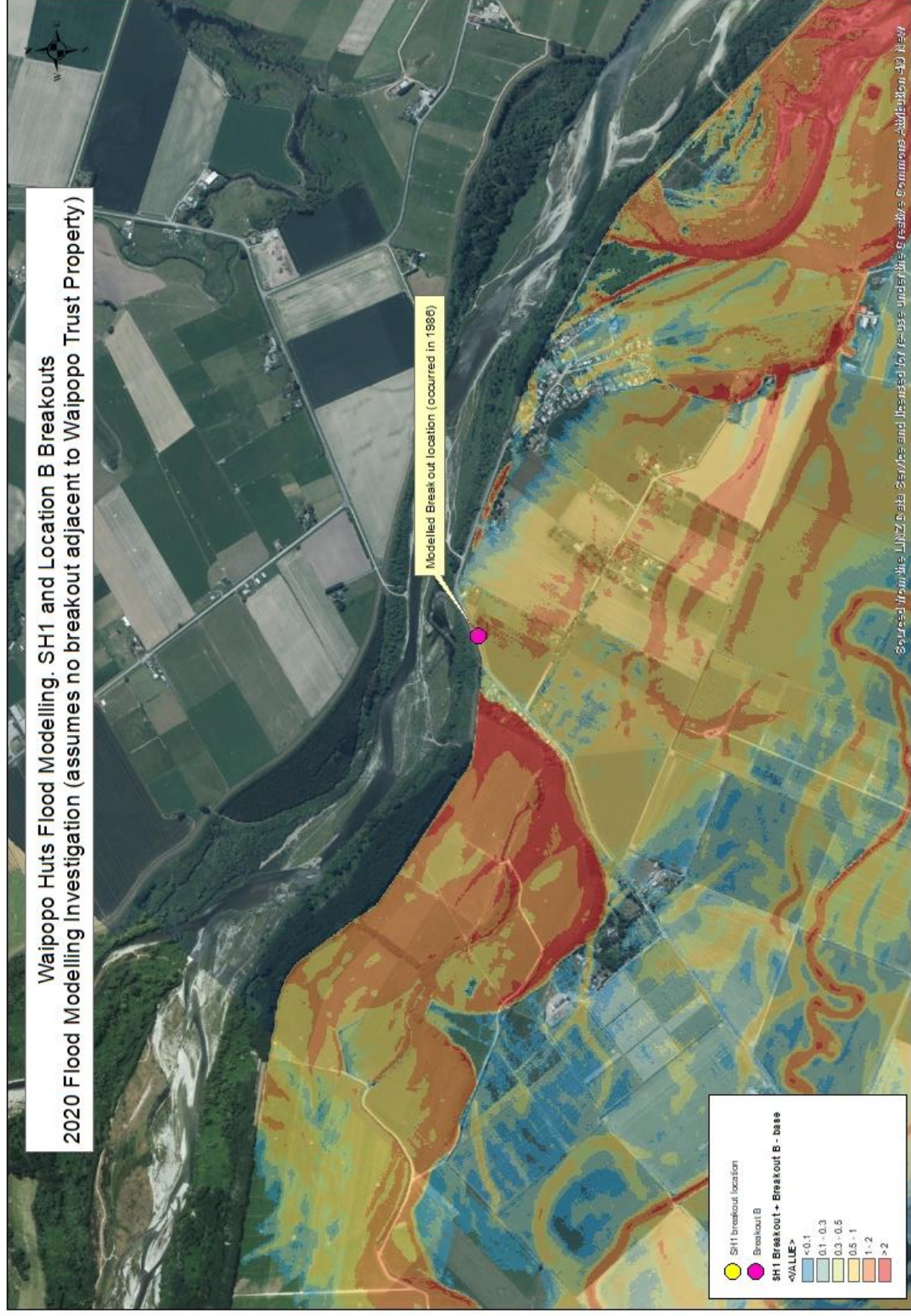
Approved
[Signature]
 R. J. Hall
 Regional Engineer
 (Investigations)

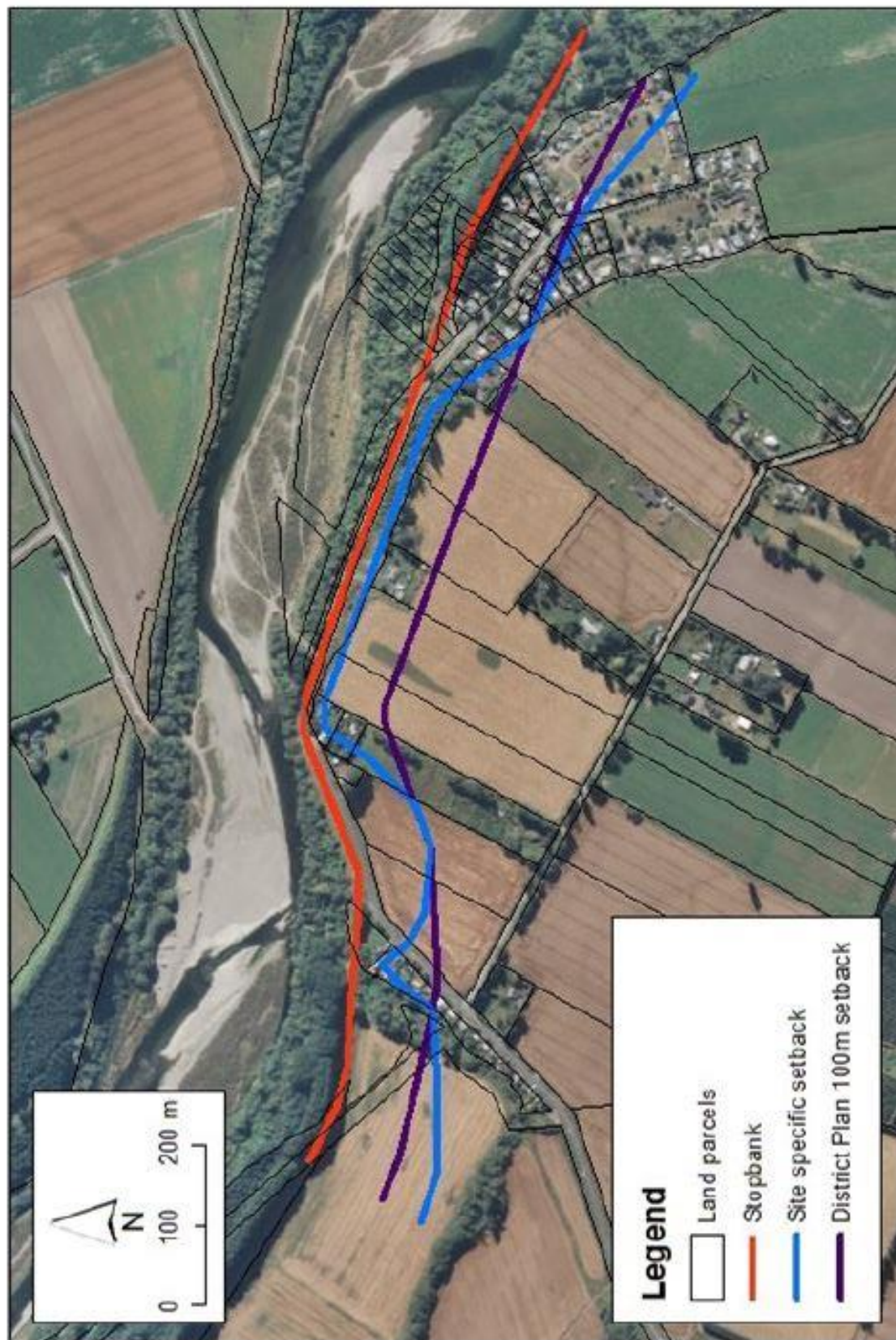
5/91
 12/91
 12/91

M Fox
 R Connell
 N Marshall
 Aerial Photo
 Base Sheet
 Surveyed
 Designed
 Compiled
 Checked
 Recommended

Amendments
 PLAN ORIGIN COORDS
 E N N
 E

Waipopo Huts Flood Modelling. SH1 and Location B Breakouts
2020 Flood Modelling Investigation (assumes no breakout adjacent to Waipopo Trust Property)





Modelled inundation depth at port **1.2 m SLR, 1-in-100 year storm (1% AEP)**

- > 1 m (Above hip)
- 0.81 - 1.0 m (Hip height)
- 0.61 - 0.8 m (Upper thigh)
- 0.41 - 0.6 m (Above knee)
- 0.21 - 0.4 m (Below knee)
- 0.01 - 0.2 m (Above ankle)

